

THE U.S. Energy DATABOOK

A summary of national and global energy indicators



APRIL 21, 2017

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT ENERGY CONDITIONS

The number of active drilling rigs in the United States increased 6 percent from last month, and was 99 percent above year-ago levels. Crude oil production rose 0.7 percent in January, while natural gas production declined 0.5 percent in January. West Texas Intermediate (WTI) crude oil averaged \$53.19 per barrel for the week ending April 14th, while North Sea Brent averaged \$54.76 per barrel for the same week. The Henry Hub natural gas spot price averaged \$3.05 per million Btu for the week ending April 14th. U.S. crude oil and petroleum products imports fell 1.1 percent and exports slipped 0.7 percent during the month of April. Globally, oil production edged down 0.4 percent in March, and global oil demand fell 1 percent in the first quarter of 2017.

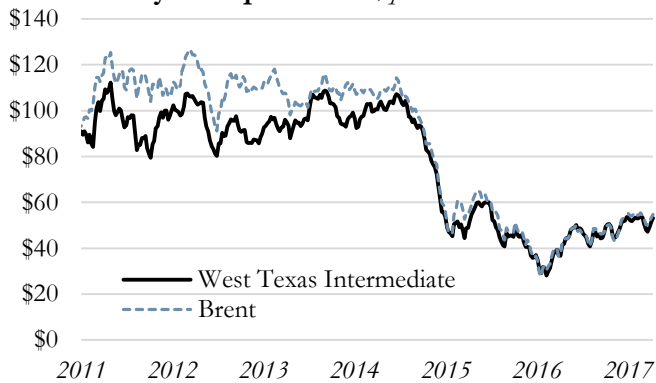
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S. 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.



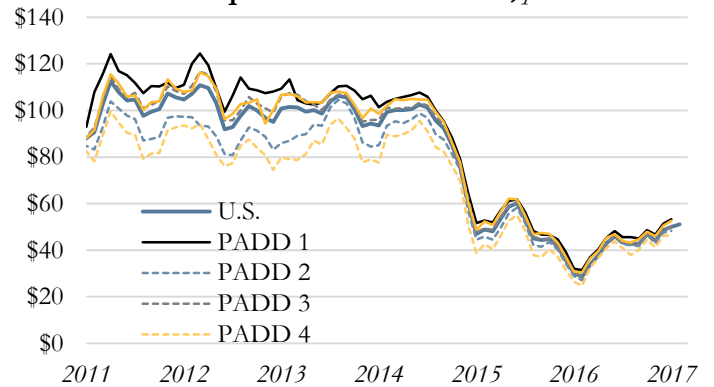
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

Weekly data through April 14, 2017

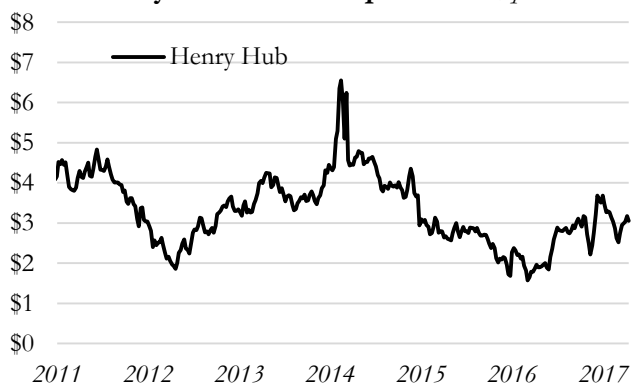
Weekly Oil Spot Prices, per barrel



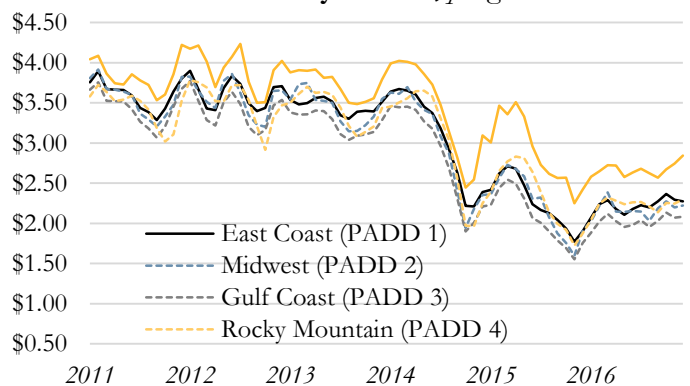
Refiner Acquisition Cost of Oil*, per barrel



Weekly Natural Gas Spot Prices, per mmbtu



Gasoline Prices by PADD, per gallon



Weekly Spot Prices, Change from

Weekly Spot Prices	Current 4/14/17	1 Week Ago	1 Month Ago	6 Months Ago	1 Year Ago	Peak (2011-17)
West Texas Intermediate	\$53.19	\$1.93	\$5.16	\$2.77	\$11.96	-\$59.11
Brent	\$54.76	\$1.48	\$4.47	\$4.82	\$12.41	-\$71.86
Henry Hub	\$3.05	-\$0.12	\$0.10	-\$0.12	\$1.15	-\$3.50

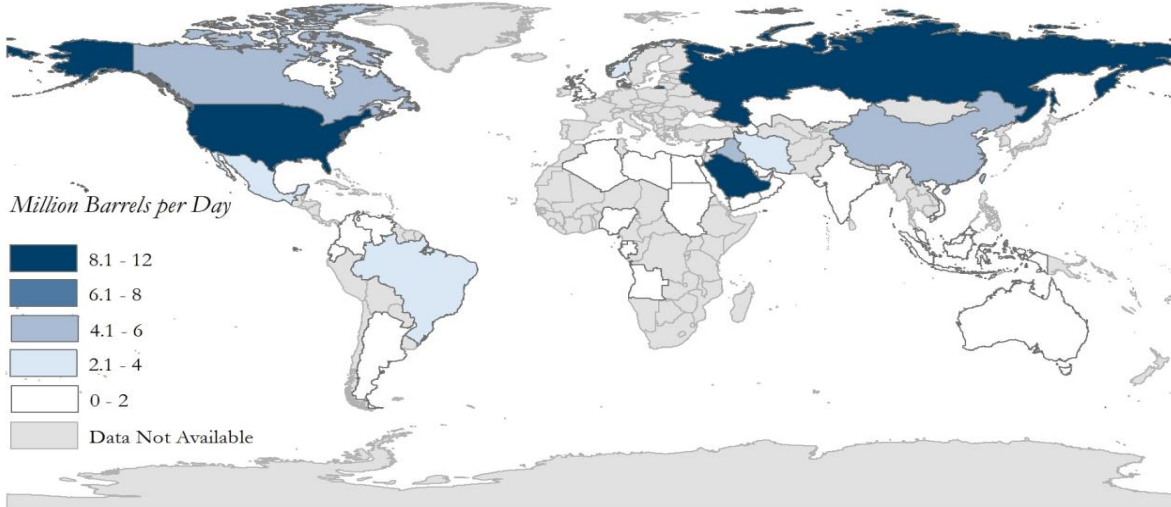
Gasoline Monthly Spot Prices, Change from

Geographic Area	Current Mar-17	1 Month Ago	6 Months Ago	1 Year Ago	Peak (2011-17)
East Coast (PADD 1)	\$2.28	-\$0.02	\$0.10	\$0.37	-\$1.63
Midwest (PADD 2)	\$2.22	\$0.02	\$0.07	\$0.31	-\$1.69
Gulf Coast (PADD 3)	\$2.08	\$0.01	\$0.10	\$0.33	-\$1.69
Rocky Mountain (PADD 4)	\$2.30	\$0.05	\$0.04	\$0.42	-\$1.48
West Coast (PADD 5)	\$2.85	\$0.10	\$0.21	\$0.42	-\$1.39

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

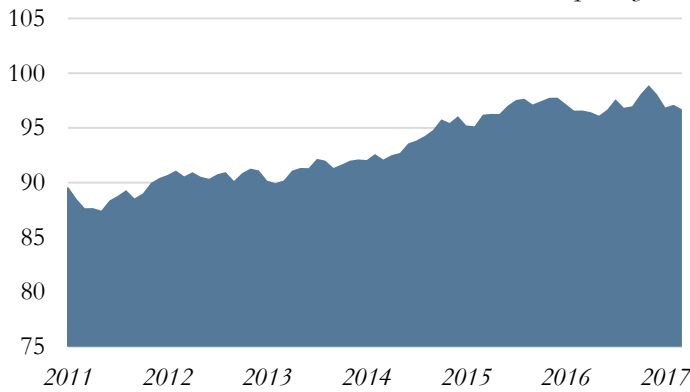
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

March 2017 Global Petroleum Production

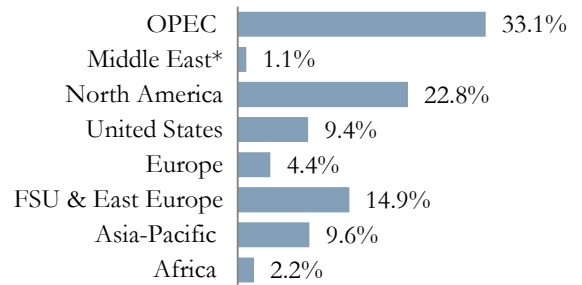


Source: Energy Information Administration/Haver Analytics

Global Petroleum Production, million barrels per day

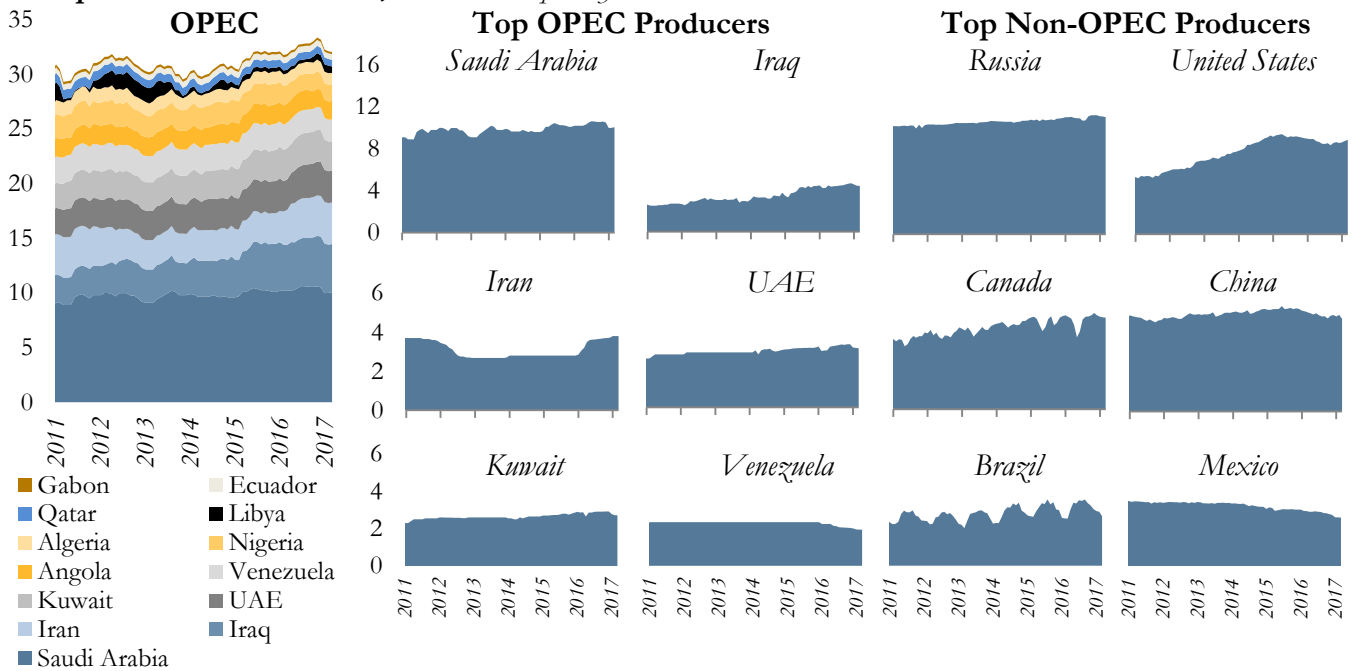


March 2017 Regional Share of Production



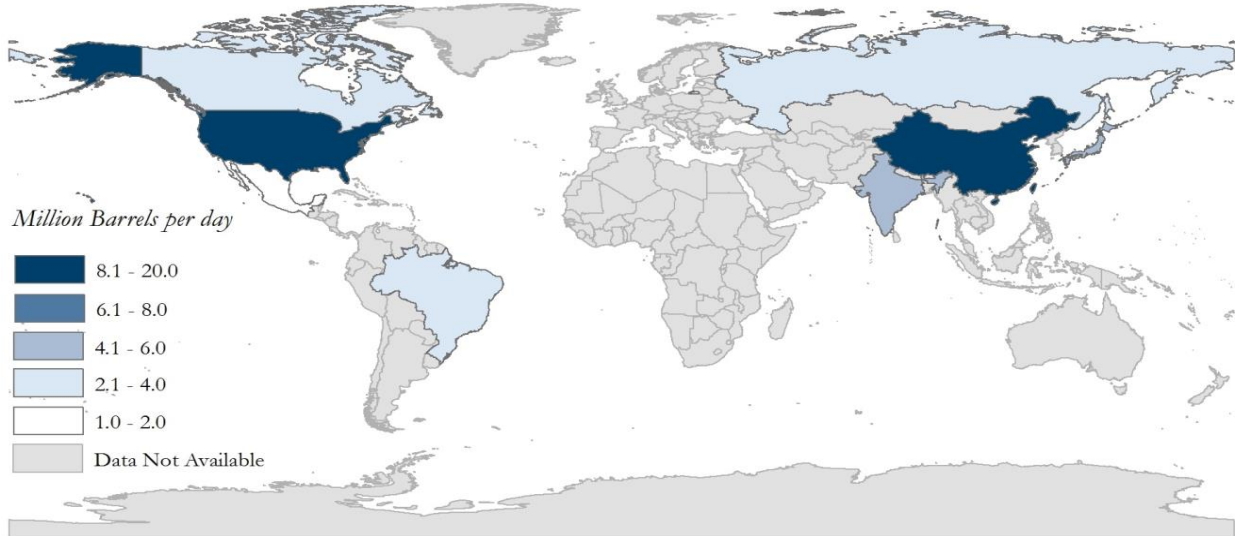
*Excludes OPEC

Top Crude Oil Producers, million barrels per day

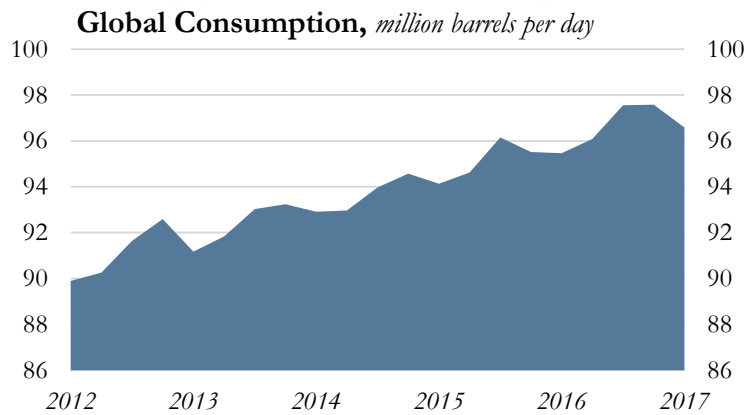


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

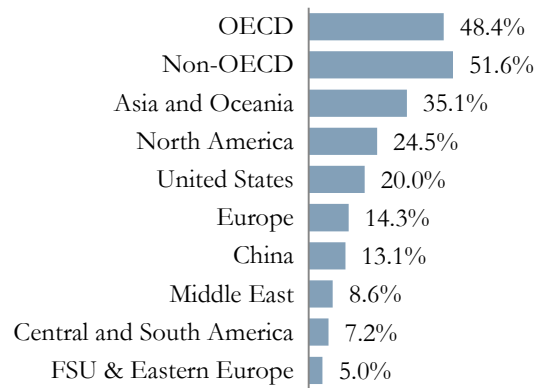
First Quarter 2017 Global Petroleum Consumption



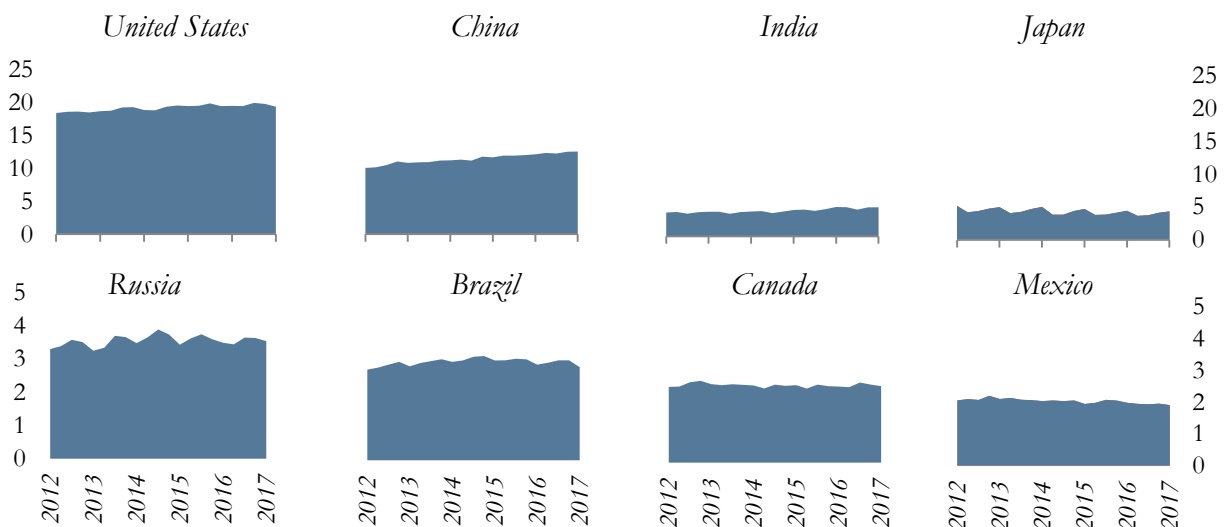
Source: Energy Information Administration/Haver Analytics



First Quarter 2017 Regional Share of Consumption

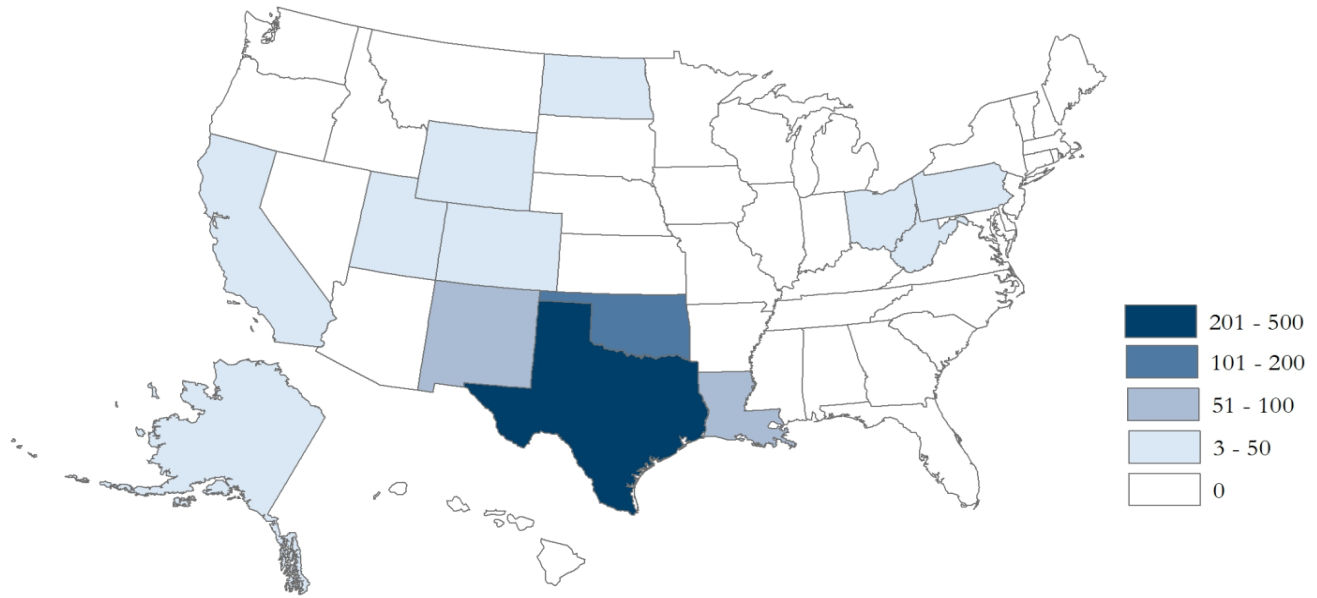


Top Petroleum Consumers, million barrels per day



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

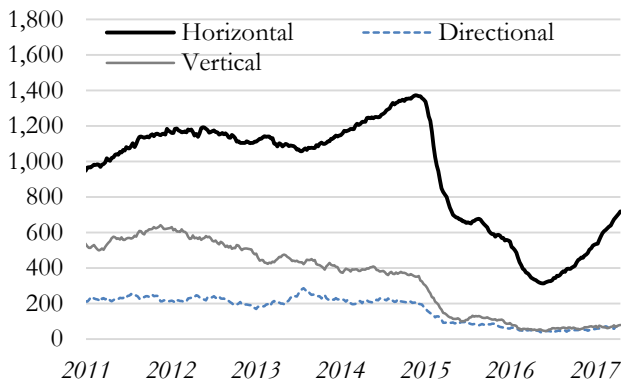
April 2017 Weekly Active Oil & Gas Drilling Rig Counts



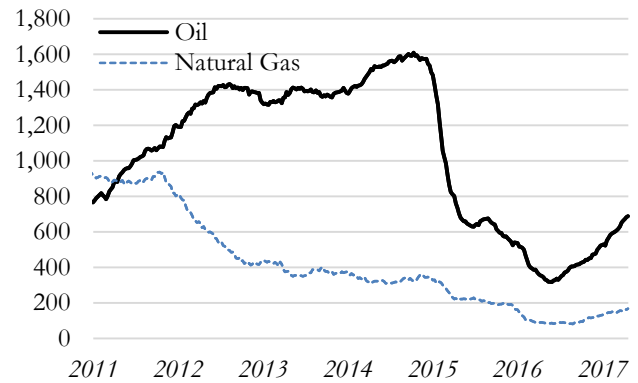
Source: Baker Hughes/Haver Analytics

April 21, 2017

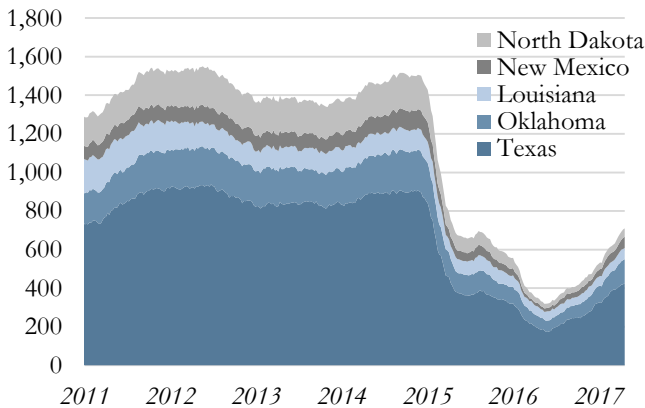
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

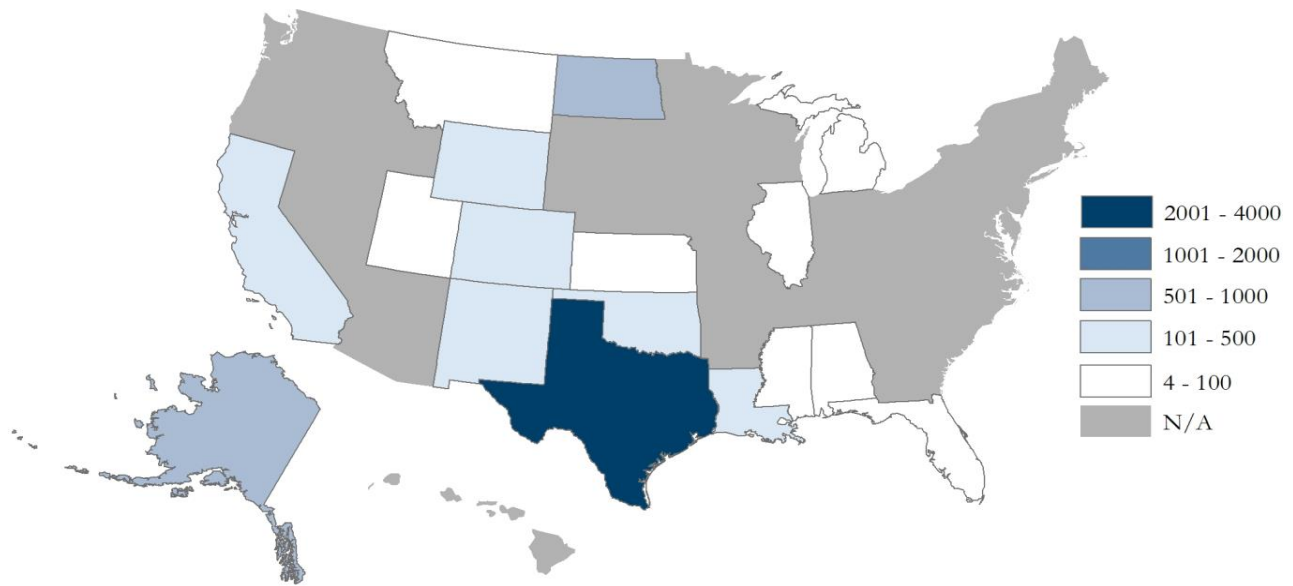
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	688	652	551	343
Gas	167	155	142	88
Misc	2	2	1	0
Total	857	809	694	431

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	5.5%	24.9%	100.6%
Gas	-	7.7%	17.6%	89.8%
Misc	-	0.0%	100.0%	-
Total	-	5.9%	23.5%	98.8%

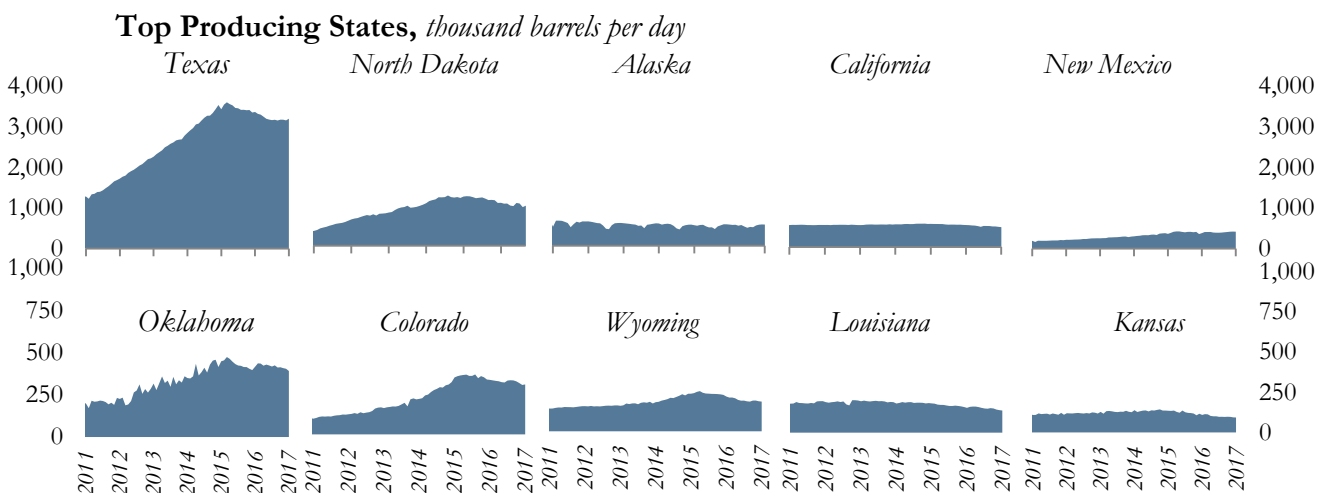
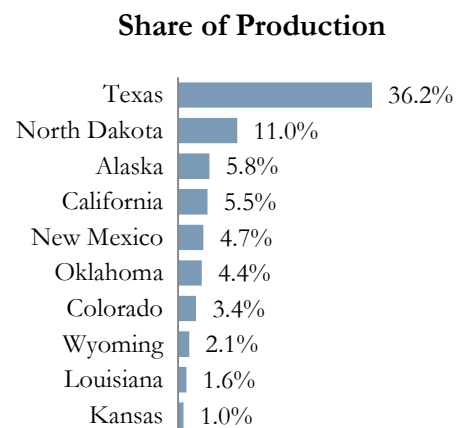
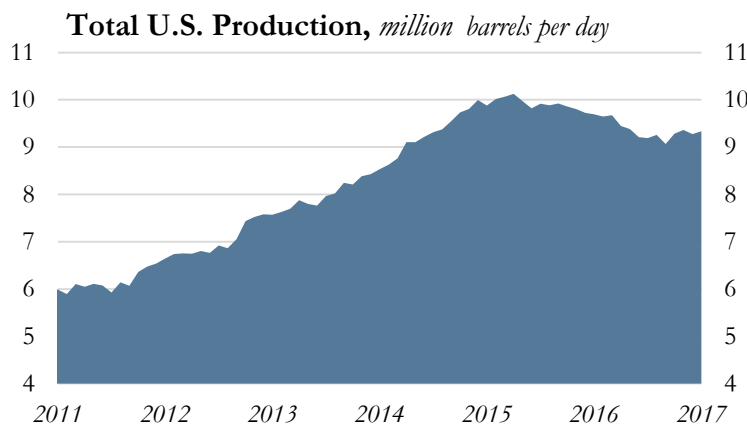
Source: Baker Hughes/Haver Analytics

January 2017 U.S. Crude Oil Production



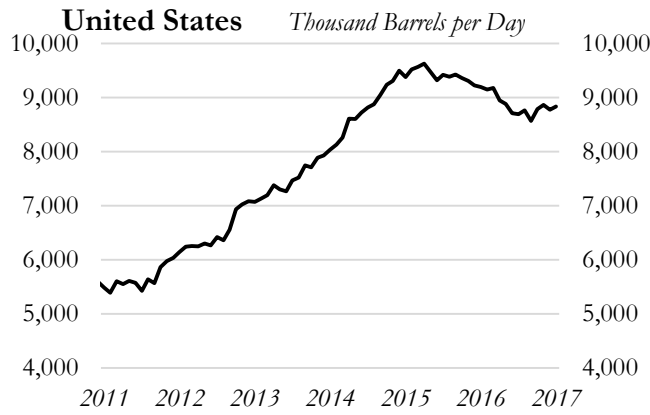
Source: Energy Information Administration/Haver Analytics

January 2017

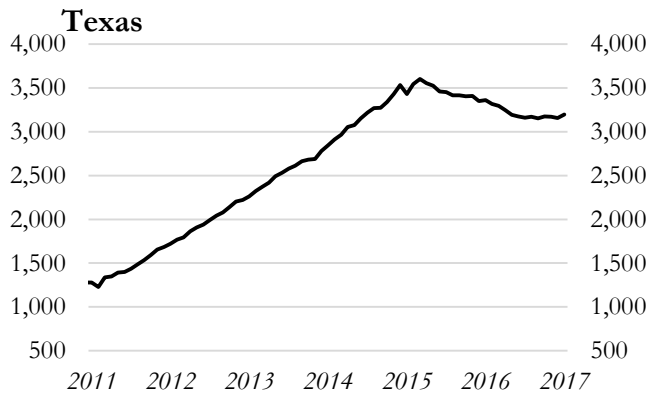


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

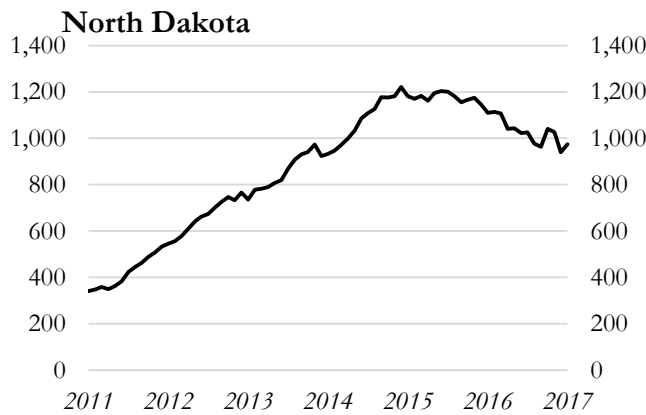
Data through January 2017



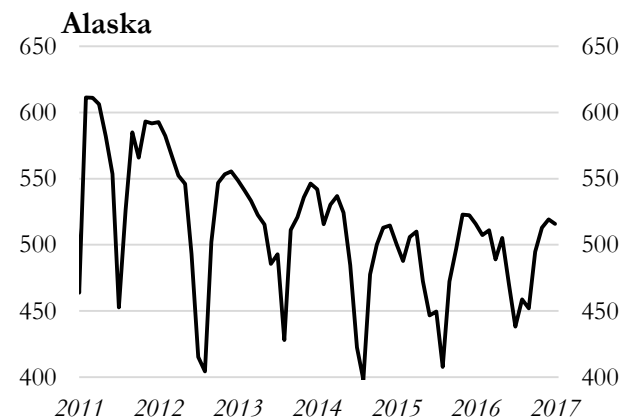
United States		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	8,835	
Month Ago	8,775	0.68%
3 Months Ago	8,785	0.6%
6 Months Ago	8,691	1.7%
1 Year Ago	9,194	-3.9%



Texas		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	3,195	
Month Ago	3,154	1.3%
3 Months Ago	3,172	0.7%
6 Months Ago	3,161	1.1%
1 Year Ago	3,361	-4.9%
Share of U.S. Production		36.2%



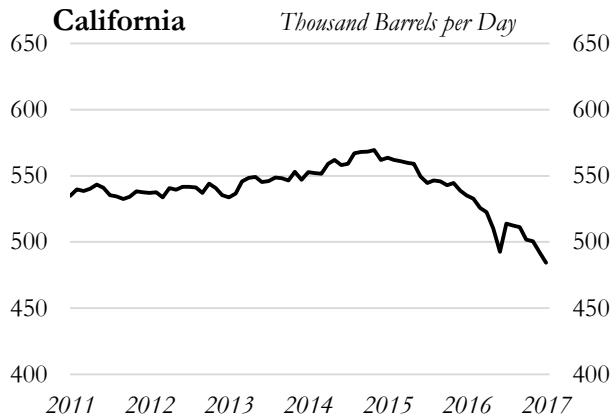
North Dakota		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	974	
Month Ago	940	3.7%
3 Months Ago	1,040	-6.4%
6 Months Ago	1,026	-5.1%
1 Year Ago	1,110	-12.2%
Share of U.S. Production		11.0%



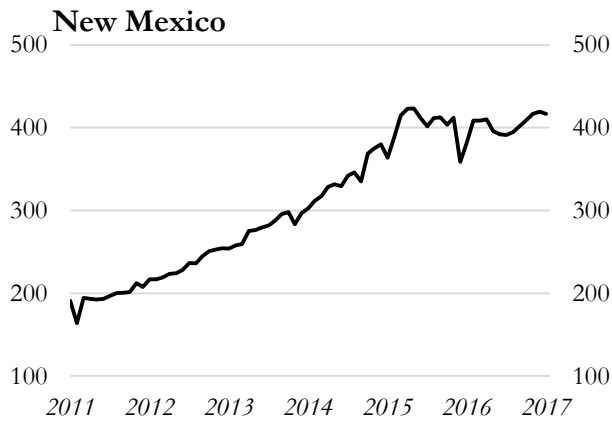
Alaska		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	516	
Month Ago	519	-0.6%
3 Months Ago	495	4.2%
6 Months Ago	438	17.7%
1 Year Ago	516	0.0%
Share of U.S. Production		5.8%

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

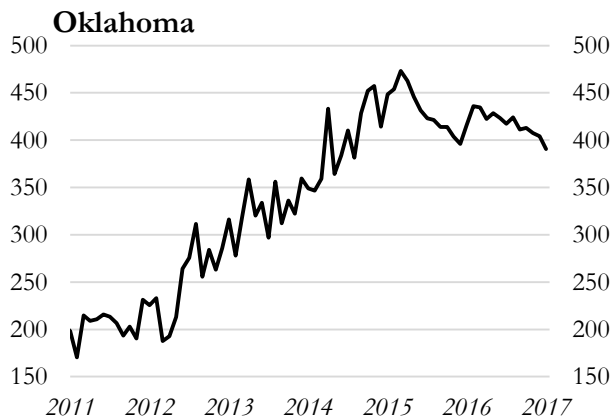
Data through January 2017



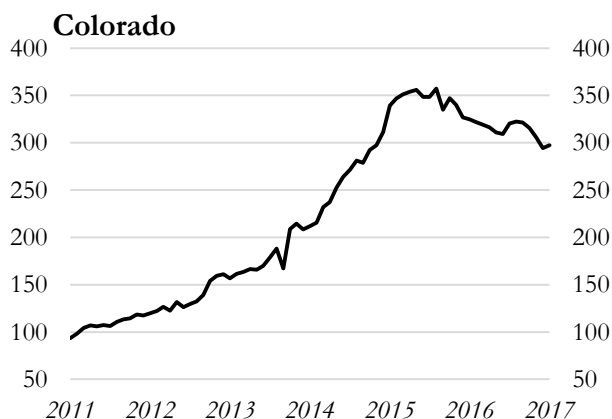
California		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	485	
Month Ago	492	-1.6%
3 Months Ago	502	-3.4%
6 Months Ago	514	-5.7%
1 Year Ago	535	-9.5%
Share of U.S. Production	5.5%	



New Mexico		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	417	
Month Ago	419	-0.6%
3 Months Ago	409	1.9%
6 Months Ago	391	6.6%
1 Year Ago	381	9.3%
Share of U.S. Production	4.7%	



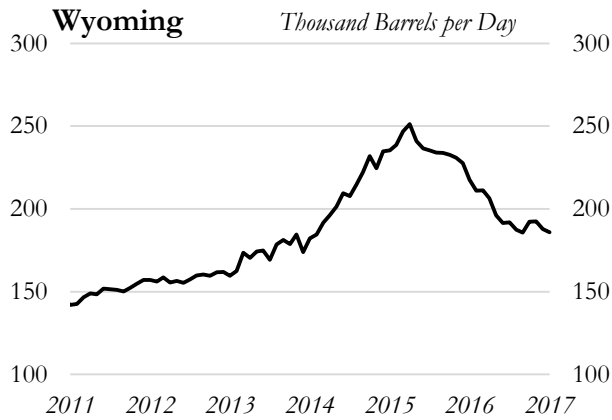
Oklahoma		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	391	
Month Ago	404	-3.3%
3 Months Ago	413	-5.4%
6 Months Ago	417	-6.4%
1 Year Ago	416	-6.1%
Share of U.S. Production	4.4%	



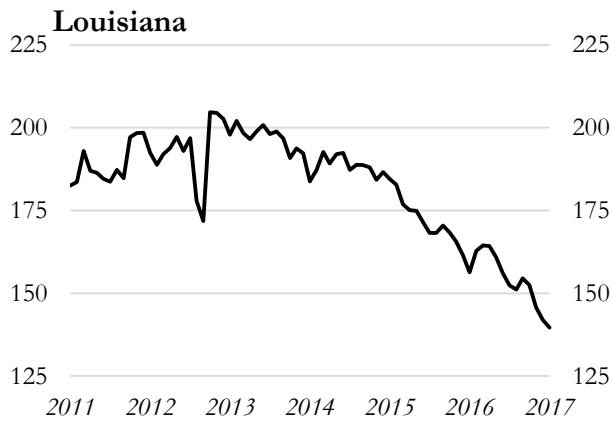
Colorado		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	298	
Month Ago	294	1.0%
3 Months Ago	316	-5.8%
6 Months Ago	321	-7.2%
1 Year Ago	325	-8.4%
Share of U.S. Production	3.4%	

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

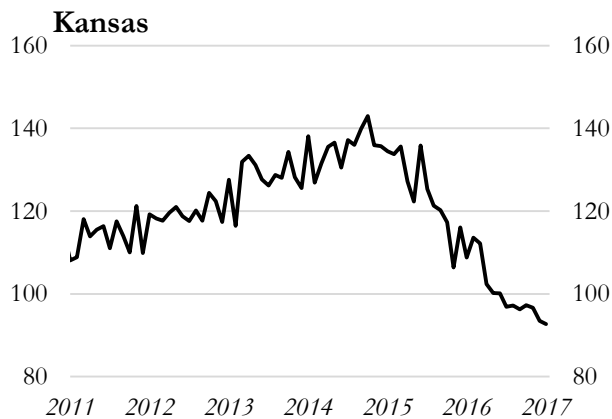
Data through January 2017



Wyoming		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	186	
Month Ago	188	-1.0%
3 Months Ago	192	-3.3%
6 Months Ago	192	-3.1%
1 Year Ago	218	-14.5%
Share of U.S. Production	2.1%	



Louisiana		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	140	
Month Ago	142	-1.6%
3 Months Ago	152	-8.4%
6 Months Ago	152	-8.4%
1 Year Ago	156	-10.7%
Share of U.S. Production	1.6%	

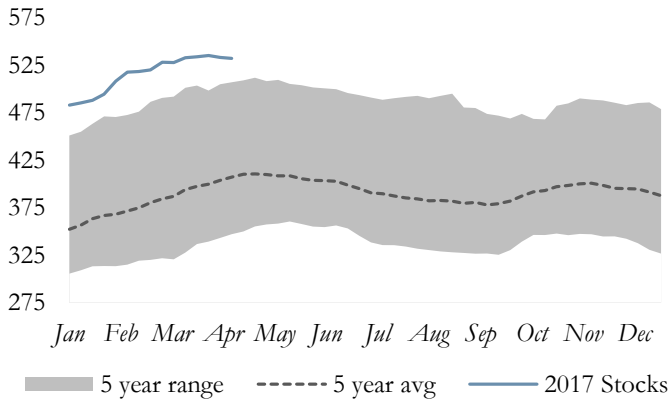


Kansas		<i>Change from</i>
<i>Thousand barrels per day</i>		
Jan-17	93	
Month Ago	94	-0.8%
3 Months Ago	97	-4.7%
6 Months Ago	97	-4.3%
1 Year Ago	109	-14.8%
Share of U.S. Production	1.0%	

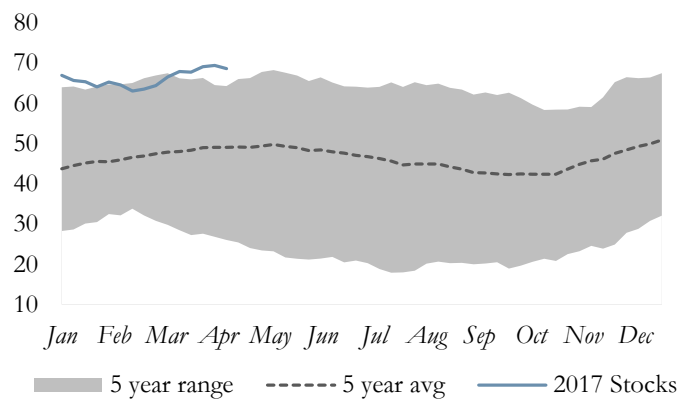
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

April 2017 U.S. Crude Oil Stocks

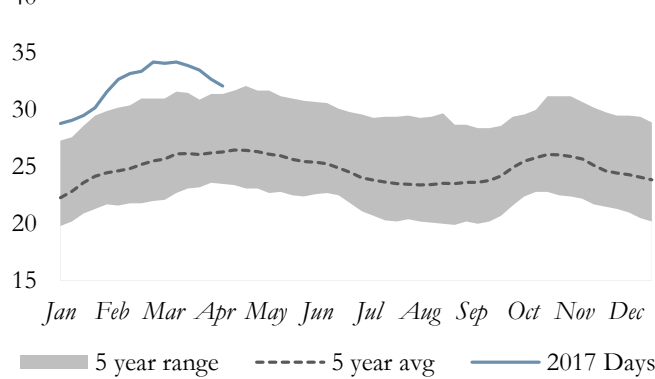
U.S. Oil Stocks, million barrels*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



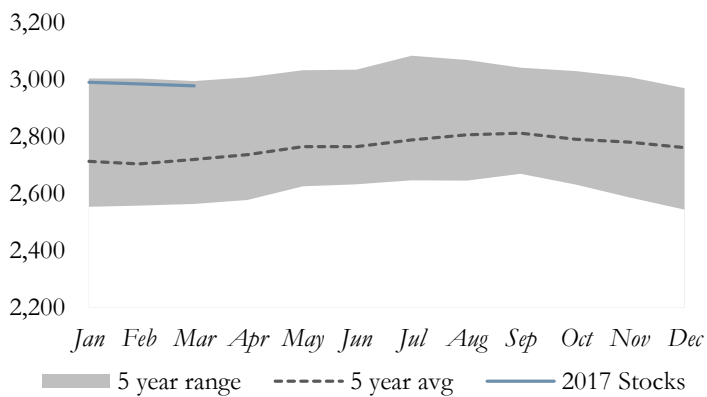
Crude Oil Stocks

	1 Week Ago	1 Year Ago
U.S.	-0.2%	4.9%
Cushing, OK	-1.1%	6.7%
Days of Supply	-1.8%	2.2%
East Coast (PADD 1)	3.8%	11.9%
Midwest (PADD 2)	1.2%	7.4%
Gulf Coast (PADD 3)	-1.1%	3.9%
Rocky Mountain (PADD 4)	-0.4%	12.1%
West Coast (PADD 5)	-0.9%	-1.6%

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

March 2017 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels



Petroleum Stocks

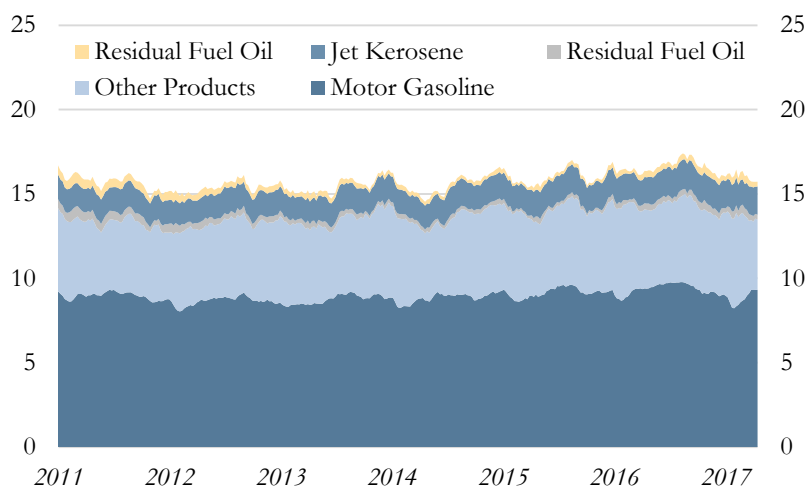
	Million Barrels	Change from
Current Month	2,978	
1 Month Ago	2,985	-0.2%
3 Months Ago	2,965	0.4%
6 Months Ago	3,042	-2.1%
1 Year Ago	2,995	-0.6%

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

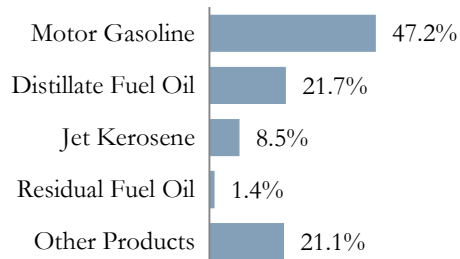
April 2017 Weekly U.S. Demand for Petroleum Products

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 Month	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	19,724	19,529	19,348	20,060	19,884
Motor Gasoline	9,317	9,102	8,571	9,083	9,386
Distillate Fuel Oil	4,283	4,081	3,513	3,975	3,897
Jet Kerosene	1,672	1,643	1,639	1,633	1,558
Residual Fuel Oil	284	399	385	427	370
Other Products	4,168	4,304	5,240	4,942	4,673

U.S. Consumption by Product, Change from

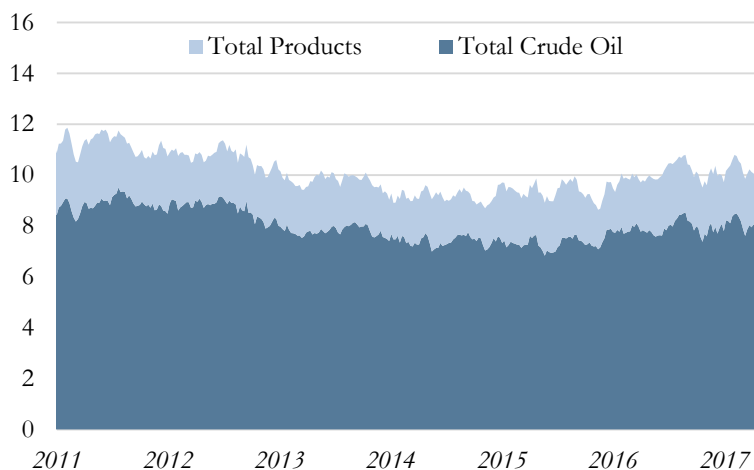
	Current Month	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	-	1.0%	1.9%	-1.7%	-0.8%
Motor Gasoline	-	2.4%	8.7%	2.6%	-0.7%
Distillate Fuel Oil	-	4.9%	21.9%	7.7%	9.9%
Jet Kerosene	-	1.8%	2.0%	2.4%	7.3%
Residual Fuel Oil	-	-28.8%	-26.2%	-33.5%	-23.2%
Other Products	-	-3.2%	-20.5%	-15.7%	-10.8%

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

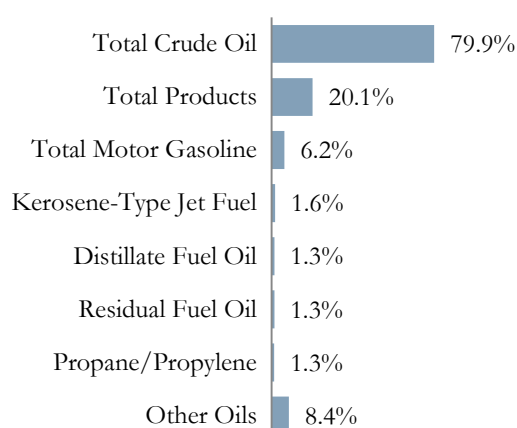
April 2017 U.S. Imports of Crude Oil & Petroleum Products

4-Week Averages

Imports, million barrels per day



Share of Total Imports



U.S. Imports by Product*

Thousand barrels per day

	<i>Current Week</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	7,941	7,863	8,195	7,578	7,782
Total Products	1,998	2,187	2,075	2,157	1,961
<i>Total Motor Gasoline</i>	615	399	607	854	637
<i>Kerosene-Type Jet Fuel</i>	163	131	134	142	122
<i>Distillate Fuel Oil</i>	133	171	128	93	106
<i>Residual Fuel Oil</i>	128	313	141	131	194
<i>Propane/Propylene</i>	125	178	202	122	83
<i>Other Oils</i>	834	995	863	814	818
Total Imports	9,939	10,050	10,270	9,735	9,743

U.S. Imports by Product, Change from

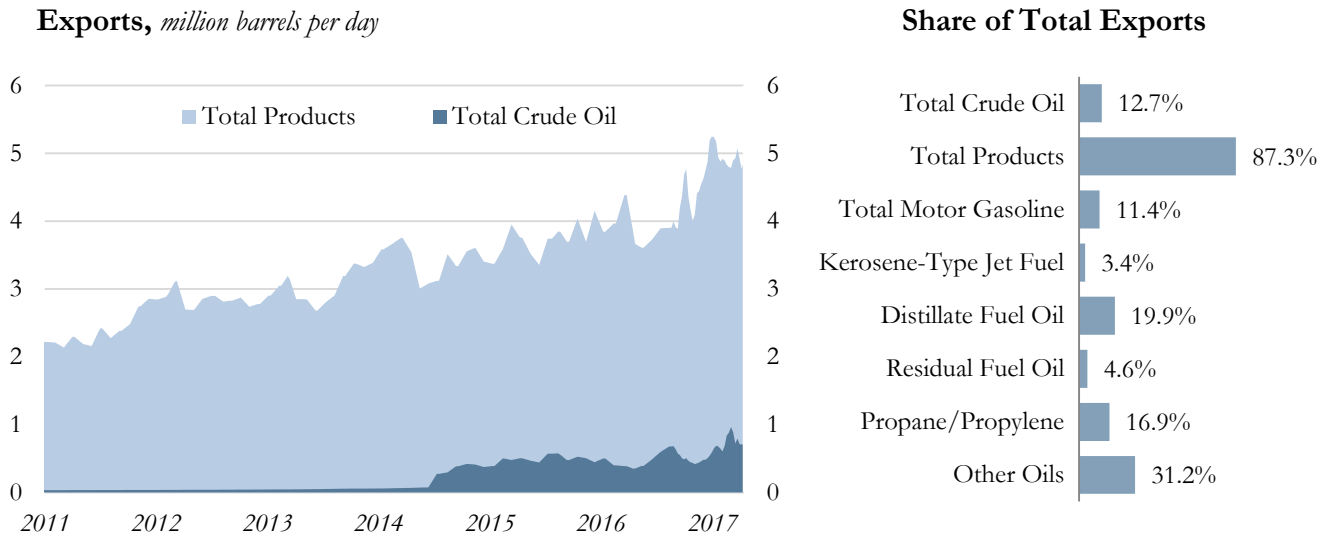
	<i>Current Week</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	-	1.0%	-3.1%	4.8%	2.0%
Total Products	-	-8.6%	-3.7%	-7.4%	1.9%
<i>Total Motor Gasoline</i>	-	54.1%	1.3%	-28.0%	-3.5%
<i>Kerosene-Type Jet Fuel</i>	-	24.4%	21.6%	14.8%	33.6%
<i>Distillate Fuel Oil</i>	-	-22.2%	3.9%	43.0%	25.5%
<i>Residual Fuel Oil</i>	-	-59.1%	-9.2%	-2.3%	-34.0%
<i>Propane/Propylene</i>	-	-29.8%	-38.1%	2.5%	50.6%
<i>Other Oils</i>	-	-16.2%	-3.4%	2.5%	2.0%
Total Imports	-	-1.1%	-3.2%	2.1%	2.0%

*Totals may not sum due to component rounding

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

April 2017 U.S. Exports of Crude Oil & Petroleum Products

4-Week Averages



U.S. Exports by Product*

Thousand barrels per day

	<i>Current Week</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	710	721	686	467	351
Total Products	4,895	4,923	5,171	4,361	3,859
<i>Total Motor Gasoline</i>	639	690	1,012	681	391
<i>Kerosene-Type Jet Fuel</i>	188	163	155	121	171
<i>Distillate Fuel Oil</i>	1,117	1,199	1,140	1,079	1,108
<i>Residual Fuel Oil</i>	258	311	243	189	313
<i>Propane/Propylene</i>	946	922	1,074	703	640
<i>Other Oils</i>	1,748	1,639	1,547	1,589	1,236
Total Exports	5,605	5,645	5,857	4,828	4,210

U.S. Exports by Product, Change from

	<i>Current Week</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	-	-1.5%	3.5%	52.0%	102.3%
Total Products	-	-0.6%	-5.3%	12.2%	26.8%
<i>Total Motor Gasoline</i>	-	-7.4%	-36.9%	-6.2%	63.4%
<i>Kerosene-Type Jet Fuel</i>	-	15.3%	21.3%	55.4%	9.9%
<i>Distillate Fuel Oil</i>	-	-6.8%	-2.0%	3.5%	0.8%
<i>Residual Fuel Oil</i>	-	-17.0%	6.2%	36.5%	-17.6%
<i>Propane/Propylene</i>	-	2.6%	-11.9%	34.6%	47.8%
<i>Other Oils</i>	-	6.7%	13.0%	10.0%	41.4%
Total Exports	-	-0.7%	-4.3%	16.1%	33.1%

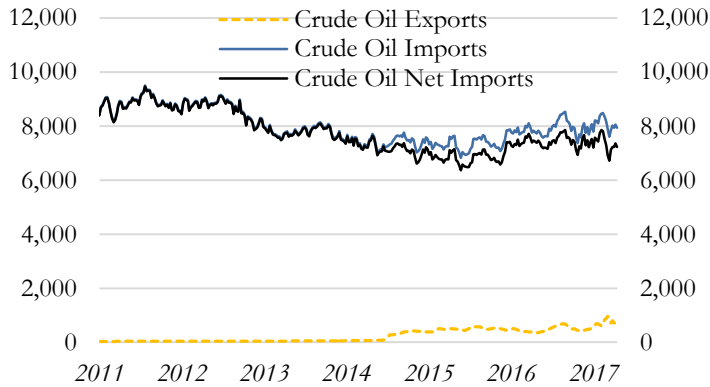
*Totals may not sum due to rounding

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

April 2017 U.S. Net Imports of Crude Oil & Petroleum Products

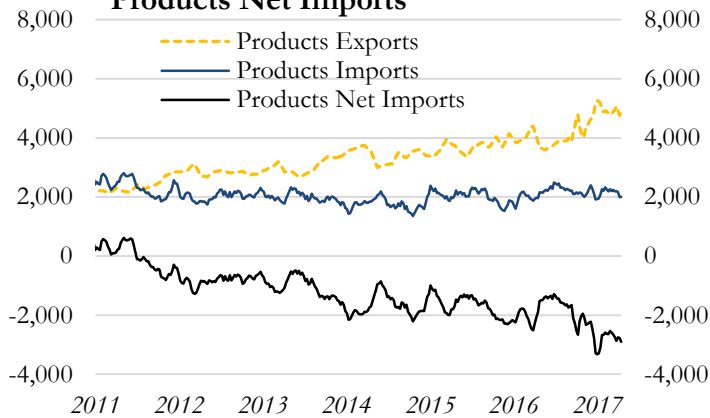
4-Week Averages, Thousand barrels per day

Crude Oil Net Imports



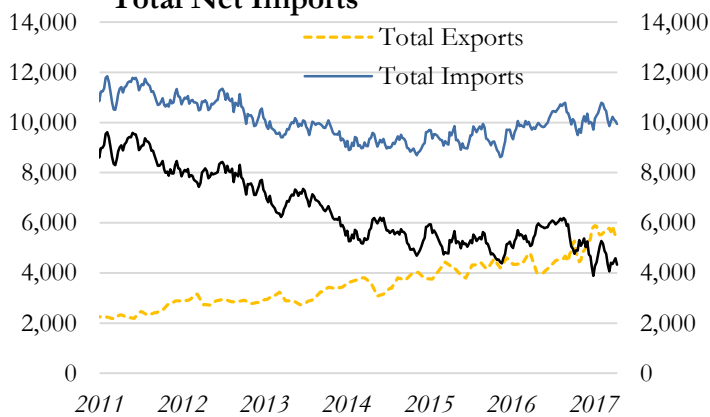
Crude Oil Net Imports		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
4/14/17	7,231	
Month Ago	7,142	1.2%
3 Months Ago	7,509	-3.7%
6 Months Ago	7,112	1.7%
1 Year Ago	7,431	-2.7%

Products Net Imports



Products Net Imports		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
4/14/17	-2,898	
Month Ago	-2,736	-
3 Months Ago	-3,096	-
6 Months Ago	-2,205	-
1 Year Ago	-1,898	-

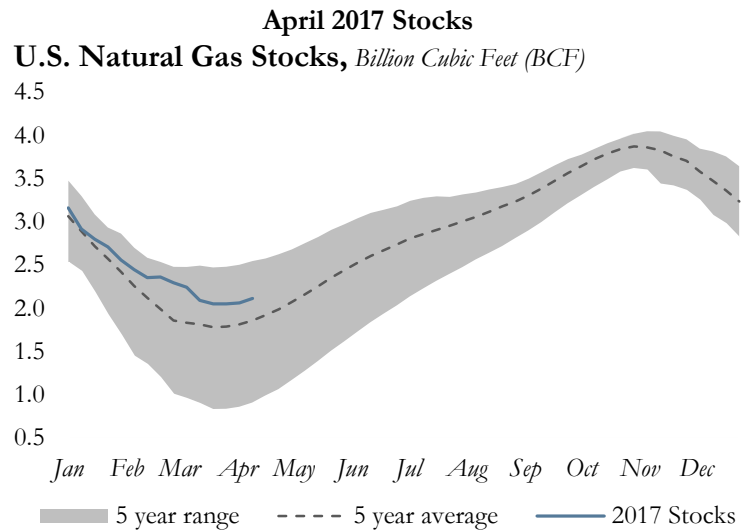
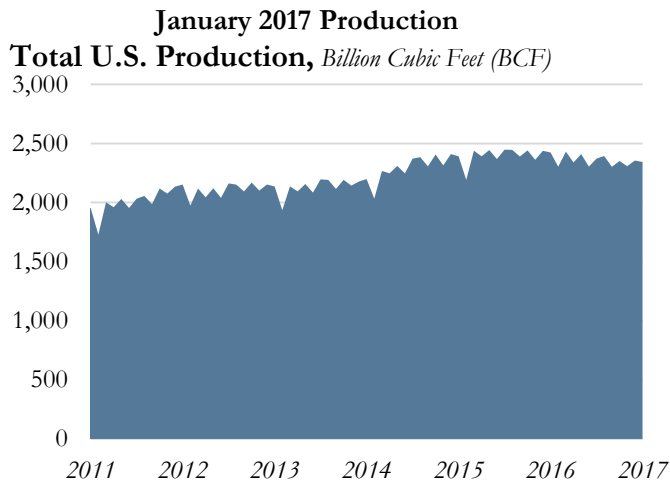
Total Net Imports



Total Net Imports		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
4/14/17	4,333	
Month Ago	4,405	-1.6%
3 Months Ago	4,414	-1.8%
6 Months Ago	4,907	-11.7%
1 Year Ago	5,533	-21.7%

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

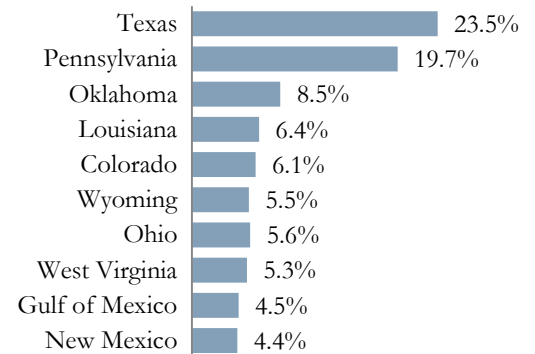
U.S. Natural Gas Production & Stocks



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	2,343	2,356	2,352	2,372	2,424
U.S. Stocks	2,115	2,092	2,917	3,836	2,484

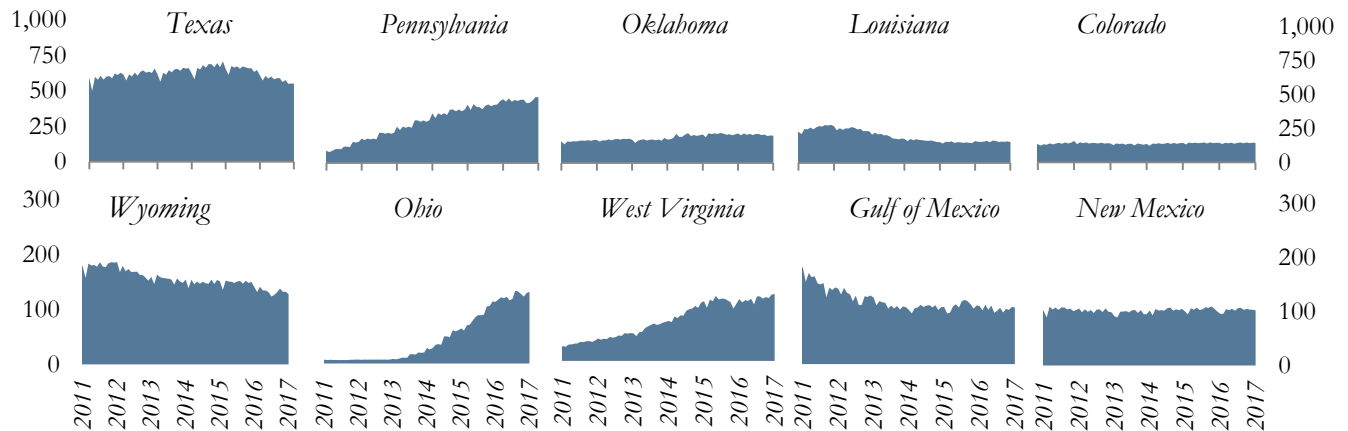
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	-0.5%	-0.4%	-1.2%	-3.3%
U.S. Stocks	-	1.1%	-27.5%	-44.9%	-14.9%

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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