

THE U.S. Energy DATABOOK

A summary of national and global energy indicators



JUNE 16, 2017

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT ENERGY CONDITIONS

The number of active drilling rigs in the United States increased 3.6 percent from last month, and was 120 percent higher than last year. Crude oil production rose 0.7 percent in March, and natural gas production increased 10.4 percent in March. West Texas Intermediate (WTI) crude oil averaged \$46.57 per barrel for the week ending June 9th, while North Sea Brent averaged \$47.28 per barrel for the same week. The Henry Hub natural gas spot price averaged \$2.98 per million Btu for the week ending June 9th. U.S. crude oil and petroleum products imports declined 2.9 percent and exports fell 3.3 percent for the week ending June 9th, compared to the prior month. Globally, oil production rose 0.8 percent in May, while global oil demand fell 1.1 percent in the first quarter of 2017.

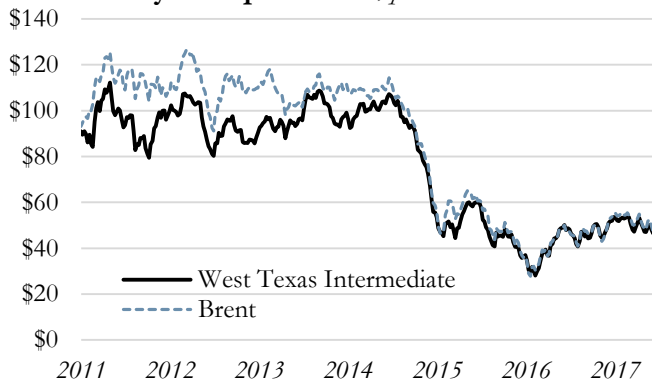
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S.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



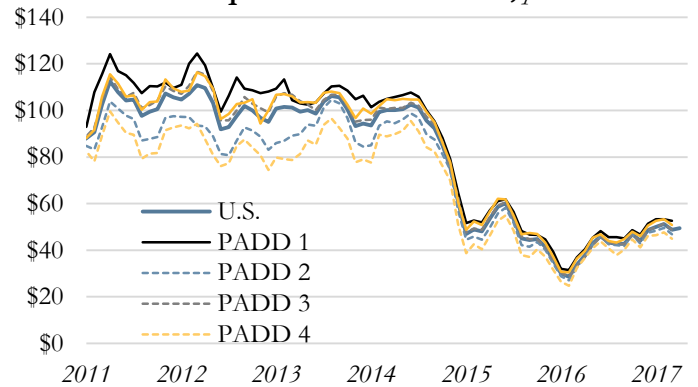
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

Weekly data through June 9, 2017

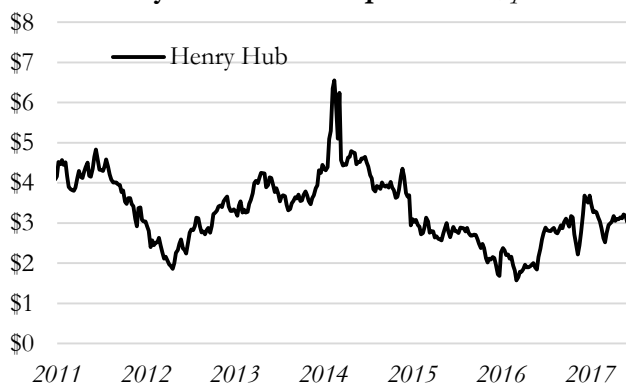
Weekly Oil Spot Prices, per barrel



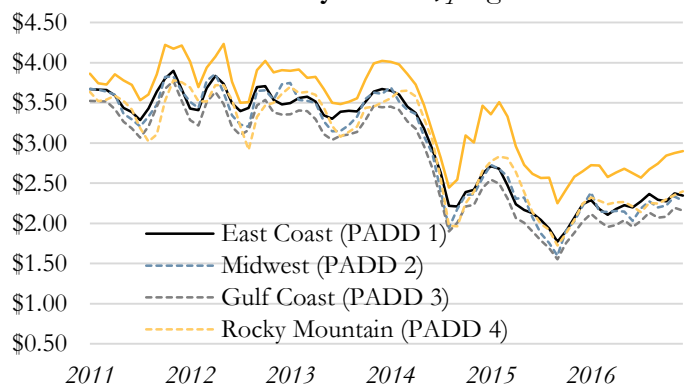
Refiner Acquisition Cost of Oil*, per barrel



Weekly Natural Gas Spot Prices, per mmbtu



Gasoline Prices by PADD, per gallon



Weekly Spot Prices, Change from

Weekly Spot Prices	Current 6/9/17	1 Week Ago	1 Month Ago	6 Months Ago	1 Year Ago	Peak (2011-17)
West Texas Intermediate	\$46.57	-\$1.91	-\$0.47	-\$4.40	-\$3.61	-\$62.20
Brent	\$47.28	-\$2.95	-\$0.72	-\$4.98	-\$2.66	-\$79.34
Henry Hub	\$2.98	-\$0.05	-\$0.14	-\$0.70	\$0.62	-\$3.57

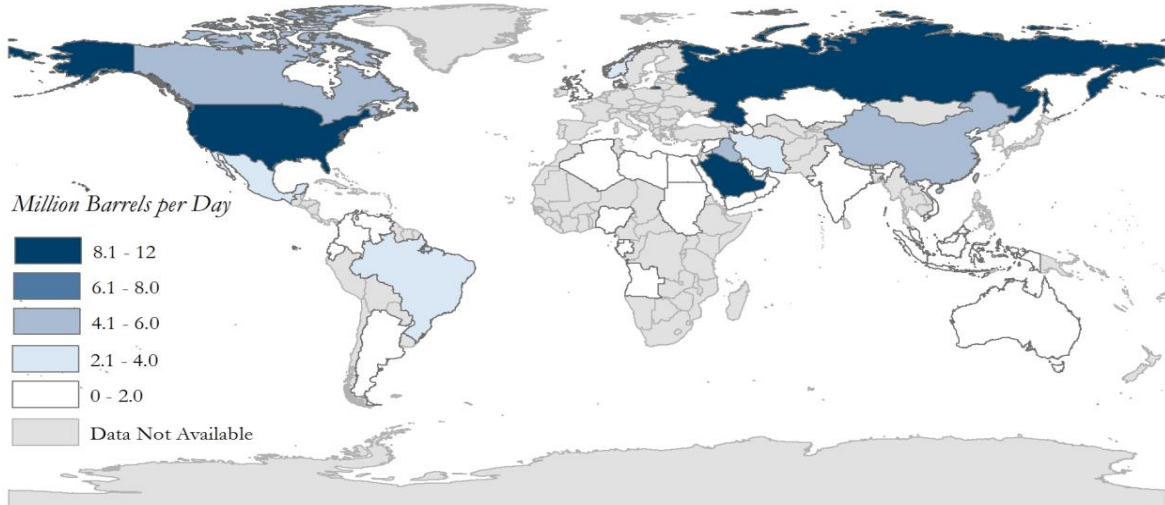
Gasoline Monthly Spot Prices, Change from

Geographic Area	Current May-17	1 Month Ago	6 Months Ago	1 Year Ago	Peak (2011-17)
East Coast (PADD 1)	\$2.34	-\$0.03	\$0.15	\$0.11	-\$1.56
Midwest (PADD 2)	\$2.28	-\$0.05	\$0.25	\$0.06	-\$1.58
Gulf Coast (PADD 3)	\$2.16	-\$0.04	\$0.21	\$0.13	-\$1.61
Rocky Mountain (PADD 4)	\$2.40	\$0.04	\$0.19	\$0.15	-\$1.39
West Coast (PADD 5)	\$2.90	\$0.03	\$0.28	\$0.25	-\$1.33

*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

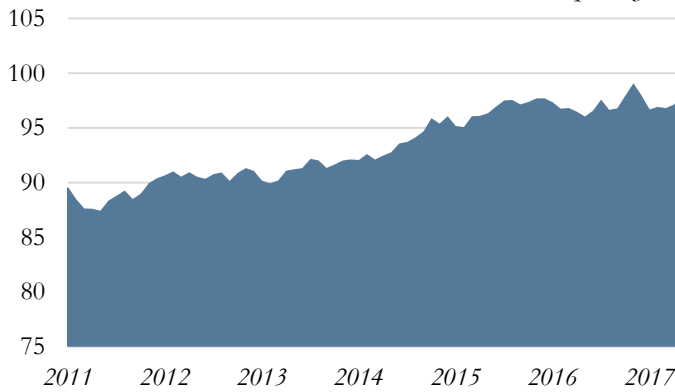
May 2017 Global Petroleum Production



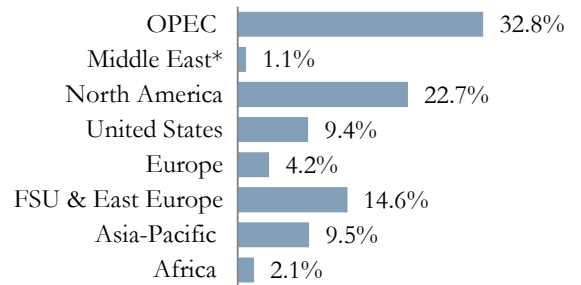
Source: Energy Information Administration/Haver Analytics

May 2017

Global Petroleum Production, million barrels per day

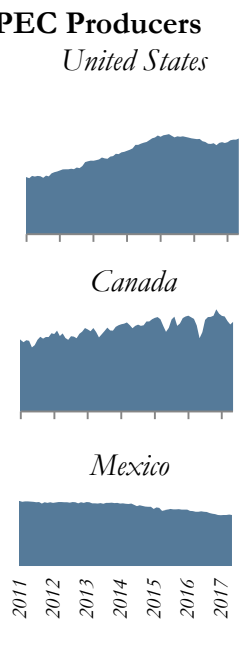
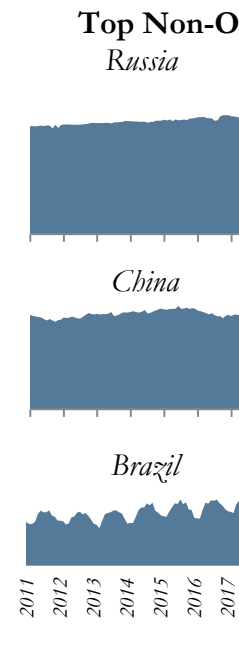
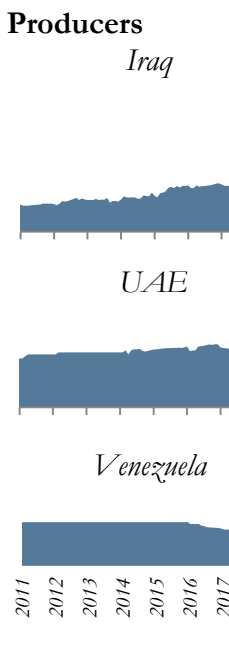
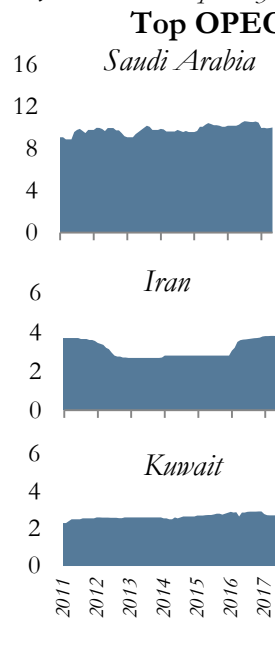
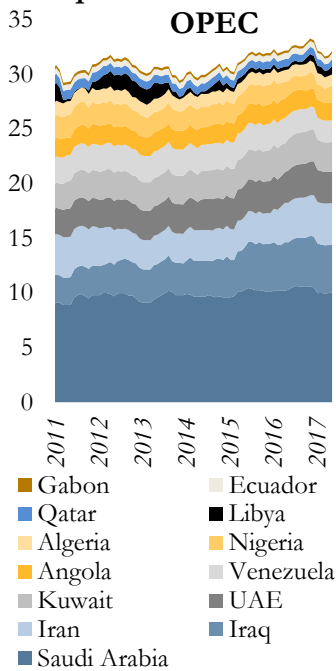


Regional Share of Production



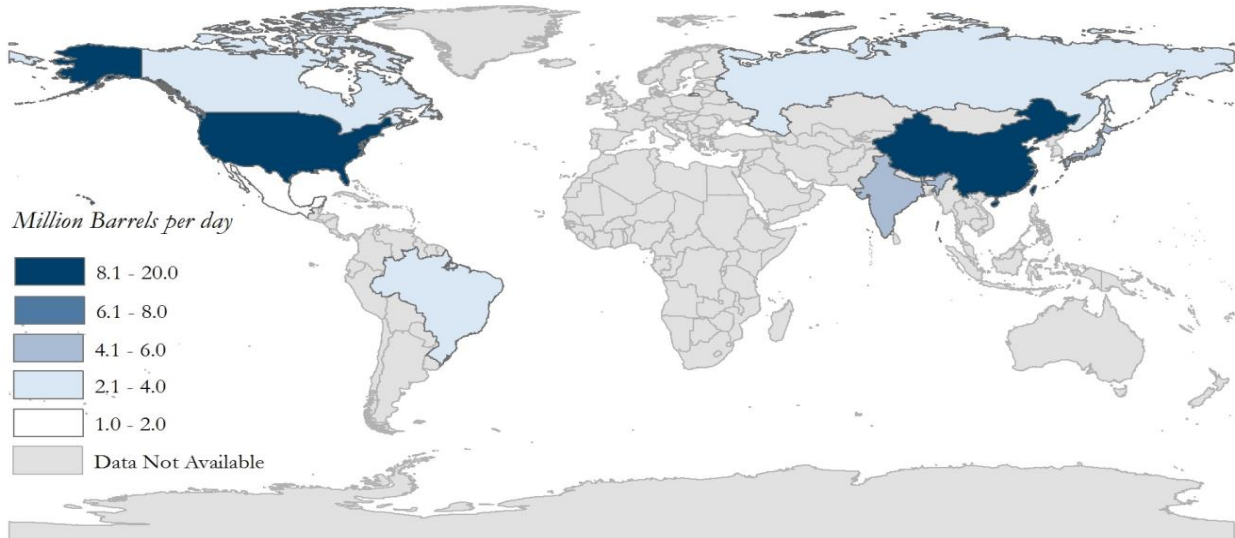
*Excludes OPEC

Top Crude Oil Producers, million barrels per day

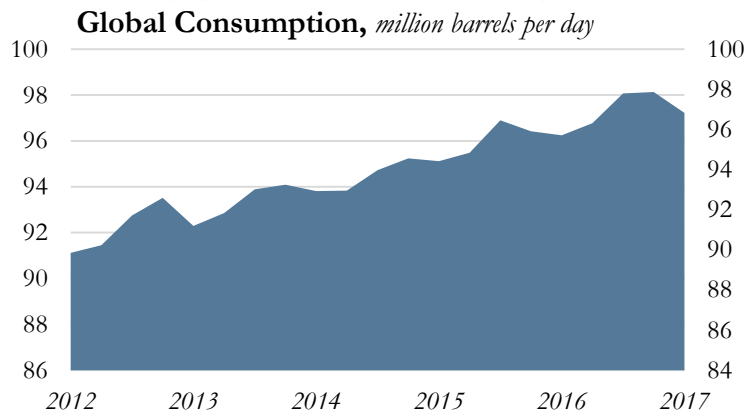


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

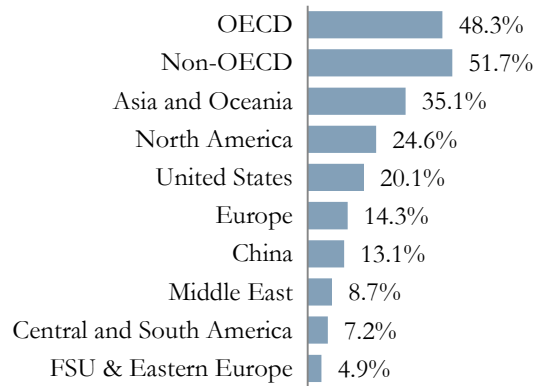
First Quarter 2017 Global Petroleum Consumption



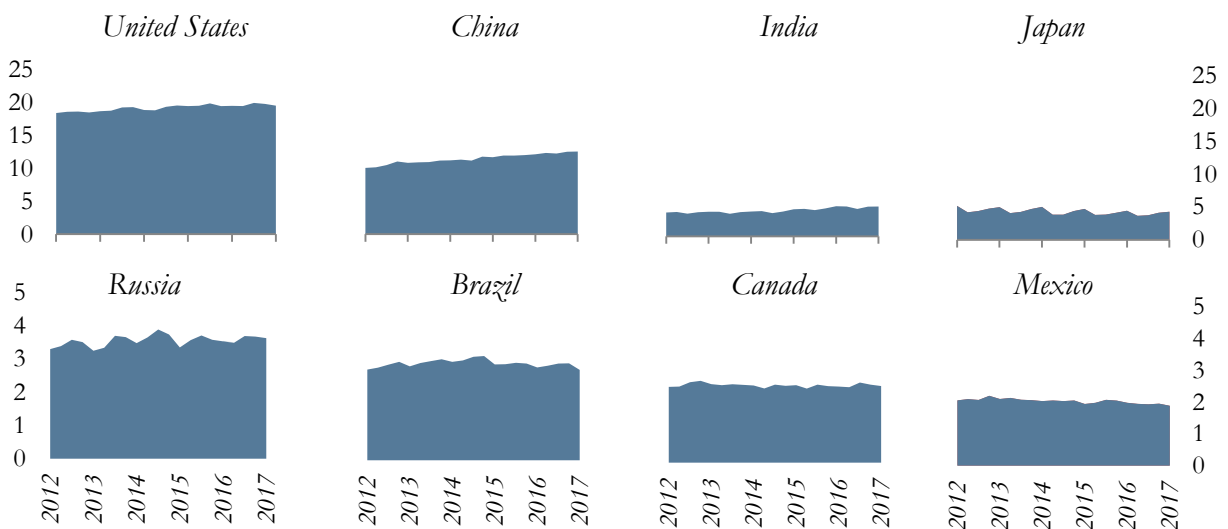
Source: Energy Information Administration/Haver Analytics



First Quarter 2017 Regional Share of Consumption

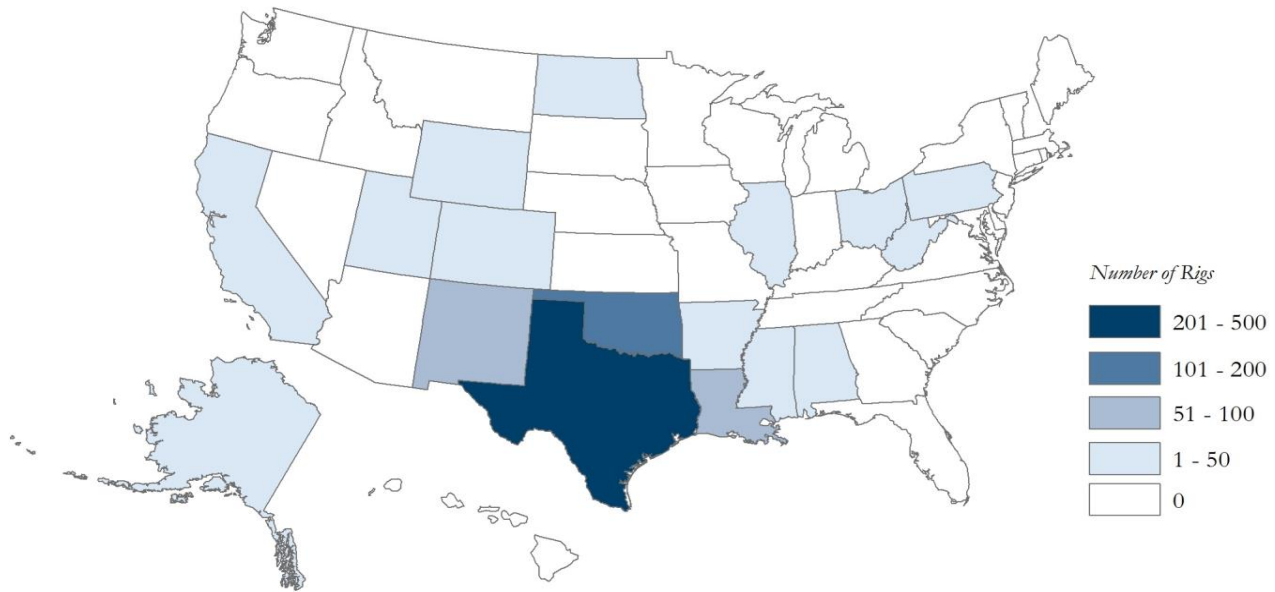


Top Petroleum Consumers, million barrels per day



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

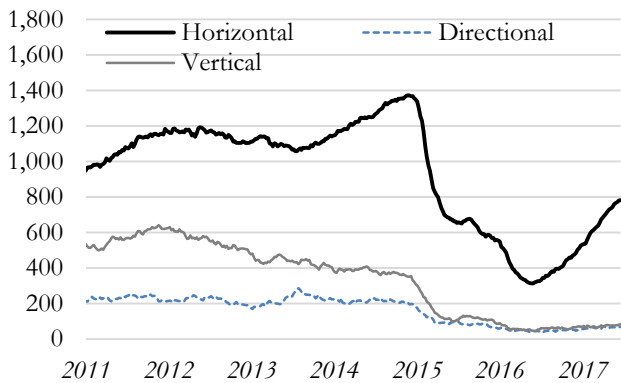
June 2017 Weekly Active Oil & Gas Drilling Rig Counts



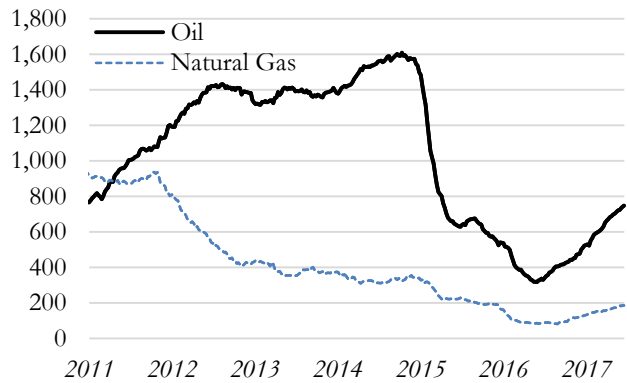
Source: Baker Hughes/Haver Analytics

June 16, 2017

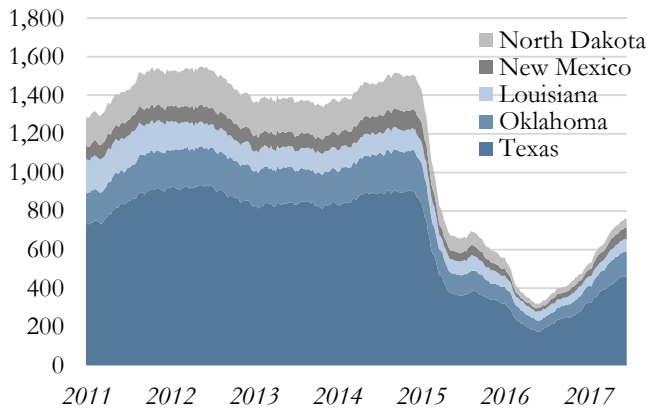
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

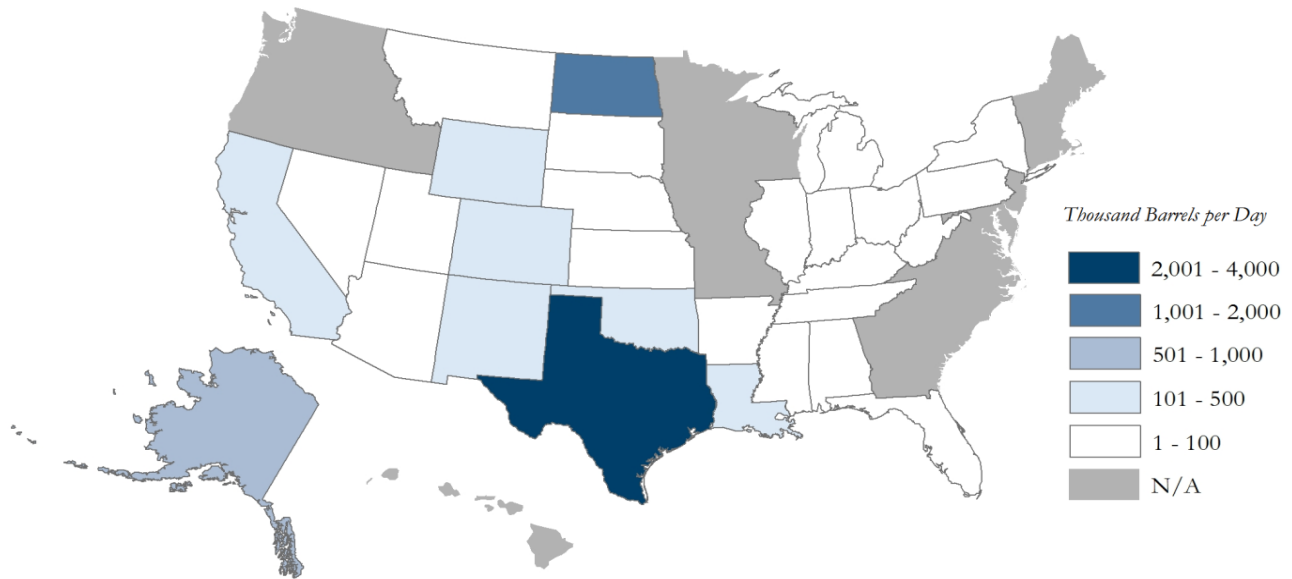
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	747	720	631	337
Gas	186	180	157	86
Misc	0	1	1	1
Total	933	901	789	424

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	3.8%	18.4%	121.7%
Gas	-	3.3%	18.5%	116.3%
Misc	-	-100.0%	-100.0%	-100.0%
Total	-	3.6%	18.3%	120.0%

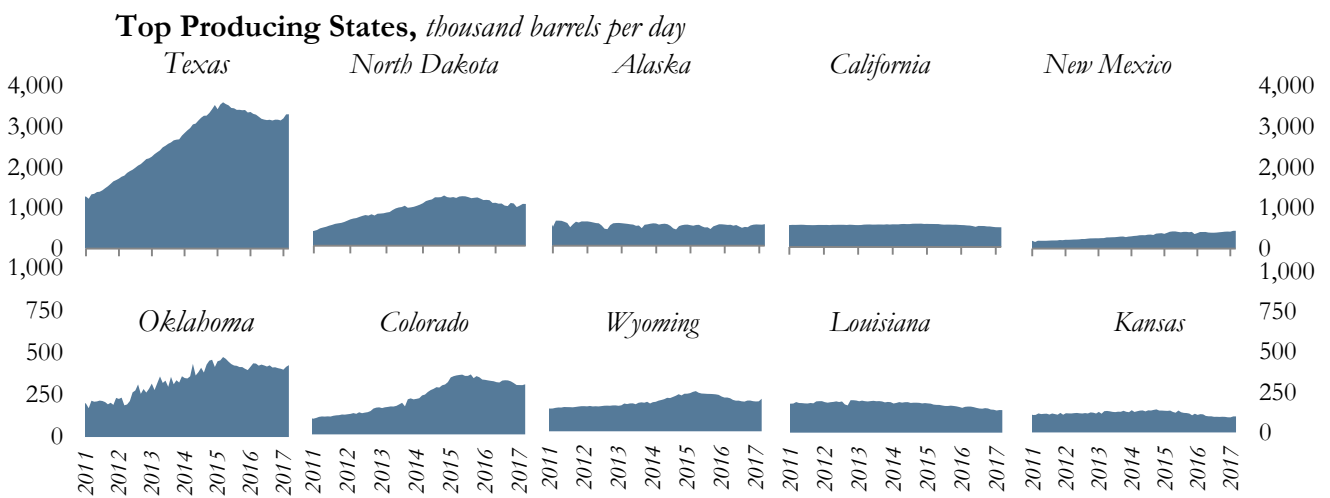
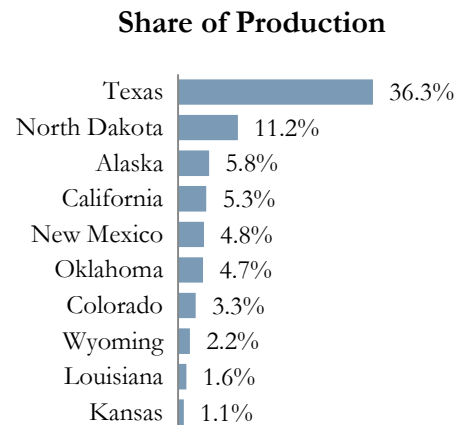
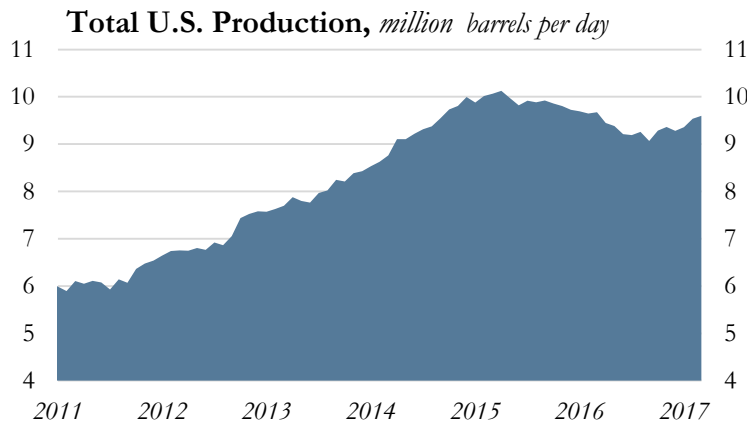
Source: Baker Hughes/Haver Analytics

March 2017 U.S. Crude Oil Production



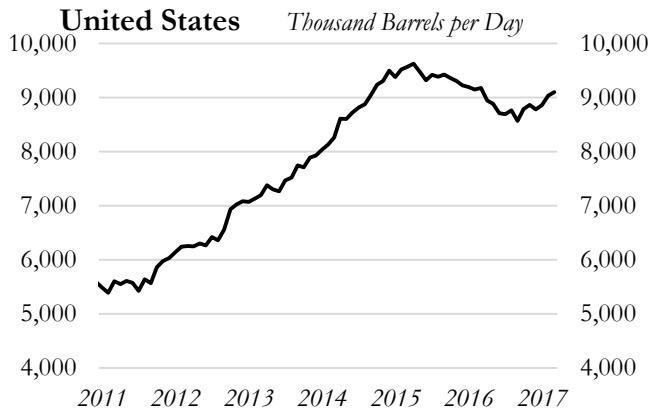
Source: Energy Information Administration/Haver Analytics

March 2017

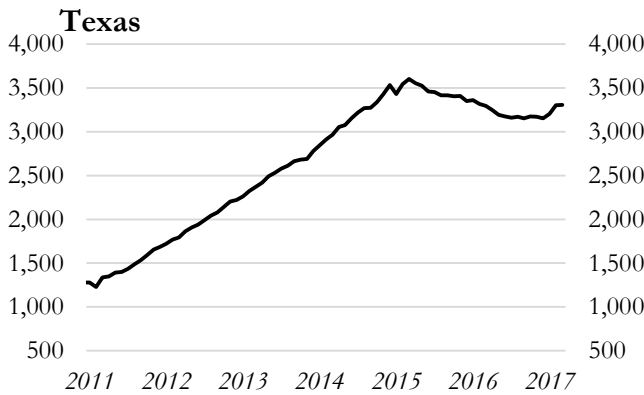


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

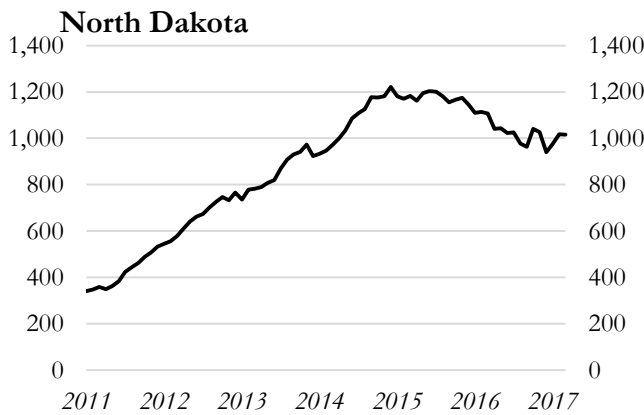
Data through March 2017



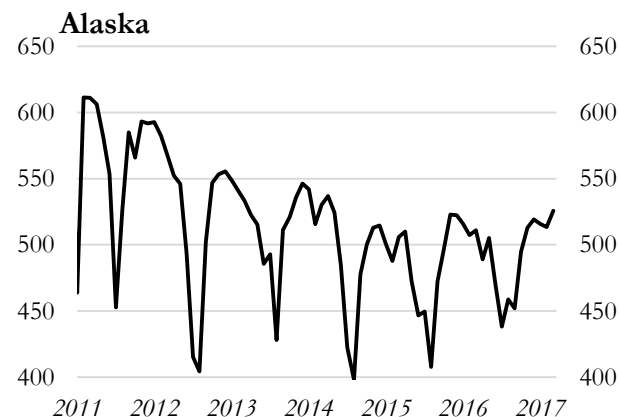
	United States <i>Thousand barrels per day</i>	<i>Change from</i>
Mar-17	9,098	
Month Ago	9,036	0.7%
3 Months Ago	8,780	3.6%
6 Months Ago	8,567	6.2%
1 Year Ago	9,174	-0.8%



	Texas <i>Thousand barrels per day</i>	<i>Change from</i>
Mar-17	3,305	
Month Ago	3,302	0.1%
3 Months Ago	3,153	4.8%
6 Months Ago	3,152	4.9%
1 Year Ago	3,295	0.3%
Share of U.S. Production		36.3%



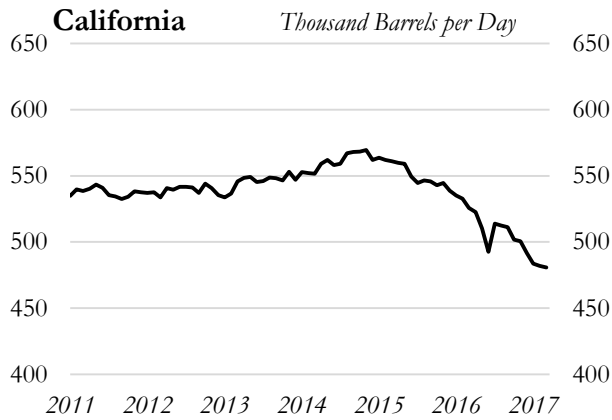
	North Dakota <i>Thousand barrels per day</i>	<i>Change from</i>
Mar-17	1,016	
Month Ago	1,018	-0.2%
3 Months Ago	940	8.0%
6 Months Ago	964	5.4%
1 Year Ago	1,107	-8.2%
Share of U.S. Production		11.2%



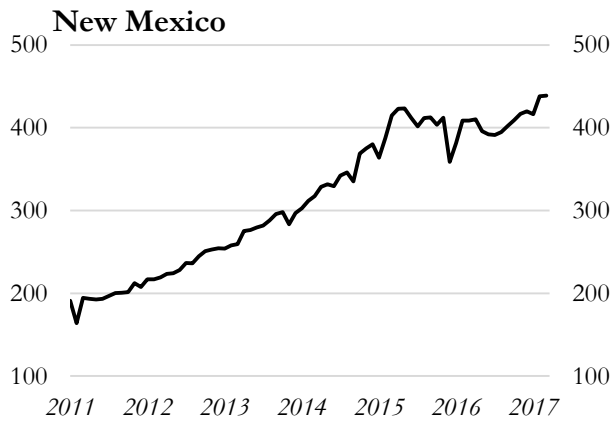
	Alaska <i>Thousand barrels per day</i>	<i>Change from</i>
Mar-17	526	
Month Ago	513	2.4%
3 Months Ago	519	1.3%
6 Months Ago	452	16.3%
1 Year Ago	511	2.9%
Share of U.S. Production		5.8%

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

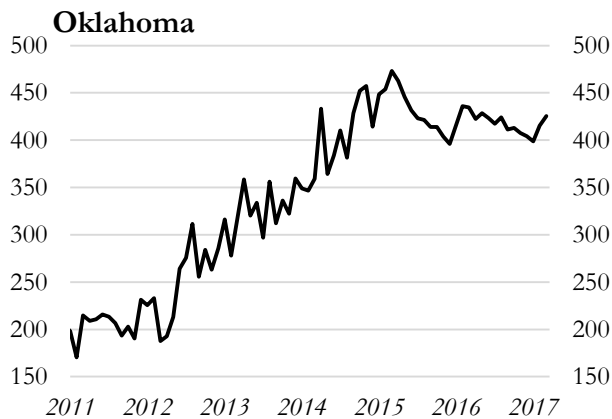
Data through March 2017



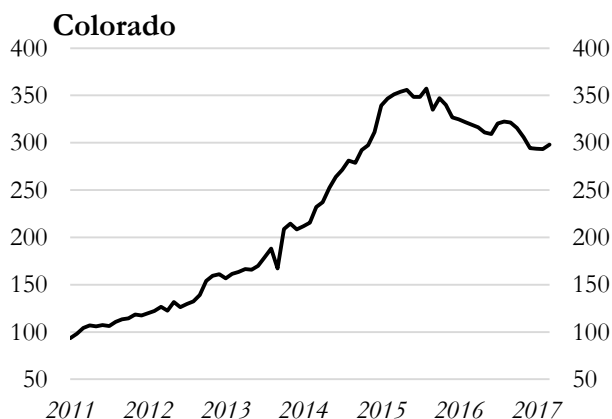
California		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	481	
Month Ago	482	-0.2%
3 Months Ago	492	-2.2%
6 Months Ago	511	-5.9%
1 Year Ago	526	-8.5%
Share of U.S. Production	5.3%	



New Mexico		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	439	
Month Ago	438	0.2%
3 Months Ago	420	4.5%
6 Months Ago	402	9.1%
1 Year Ago	409	7.4%
Share of U.S. Production	4.8%	



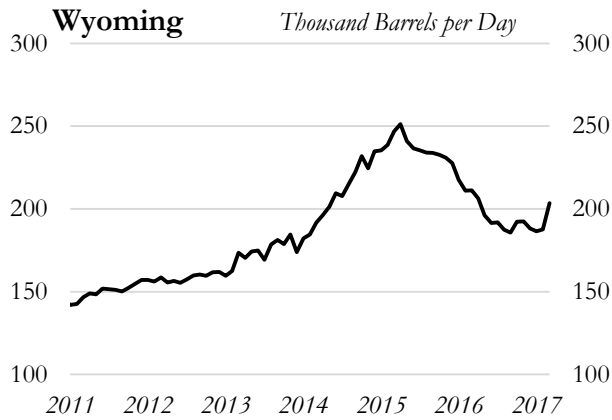
Oklahoma		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	425	
Month Ago	415	2.4%
3 Months Ago	404	5.2%
6 Months Ago	411	3.4%
1 Year Ago	435	-2.1%
Share of U.S. Production	4.7%	



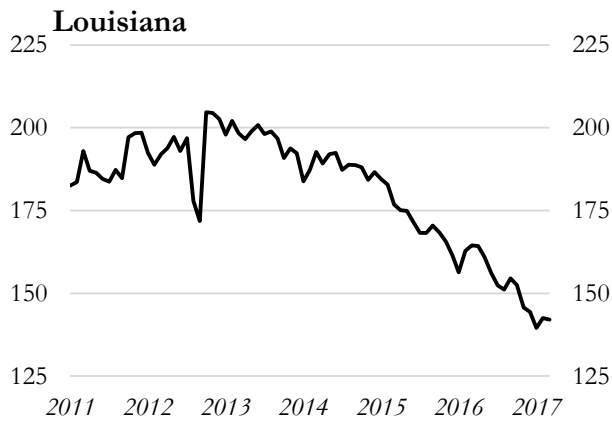
Colorado		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	298	
Month Ago	293	1.7%
3 Months Ago	294	1.3%
6 Months Ago	322	-7.3%
1 Year Ago	319	-6.5%
Share of U.S. Production	3.3%	

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

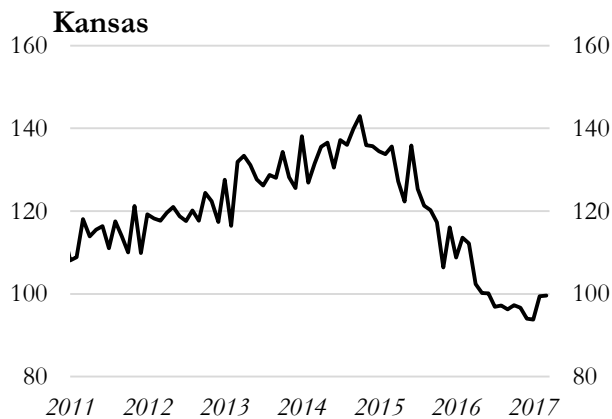
Data through March 2017



Wyoming		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	203	
Month Ago	188	8.5%
3 Months Ago	188	8.1%
6 Months Ago	186	9.6%
1 Year Ago	211	-3.6%
Share of U.S. Production		2.2%



Louisiana		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	142	
Month Ago	143	-0.3%
3 Months Ago	144	-1.6%
6 Months Ago	155	-8.0%
1 Year Ago	164	-13.6%
Share of U.S. Production		1.6%

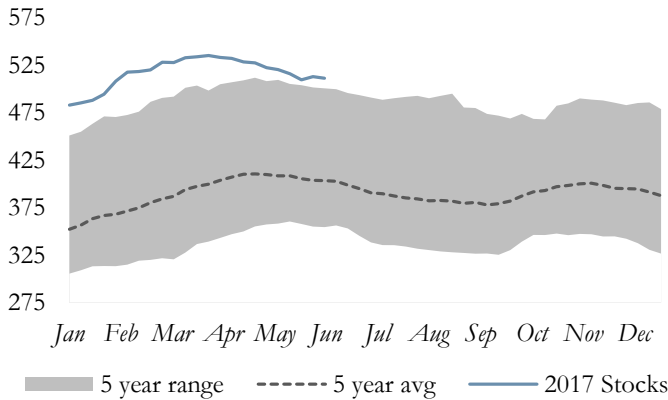


Kansas		<i>Change from</i>
<i>Thousand barrels per day</i>		
Mar-17	100	
Month Ago	99	0.1%
3 Months Ago	94	5.9%
6 Months Ago	96	3.4%
1 Year Ago	112	-11.3%
Share of U.S. Production		1.1%

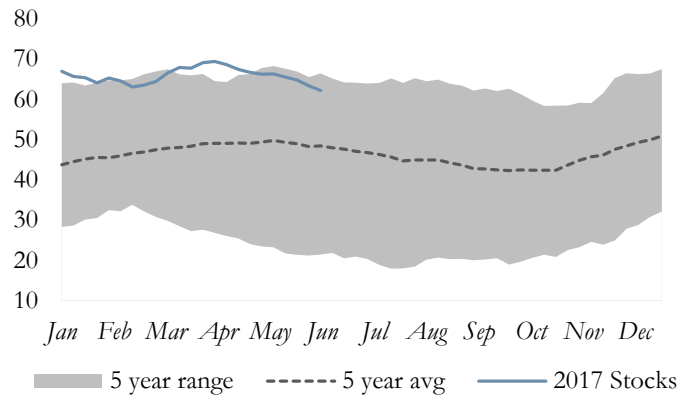
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

June 2017 U.S. Crude Oil Stocks

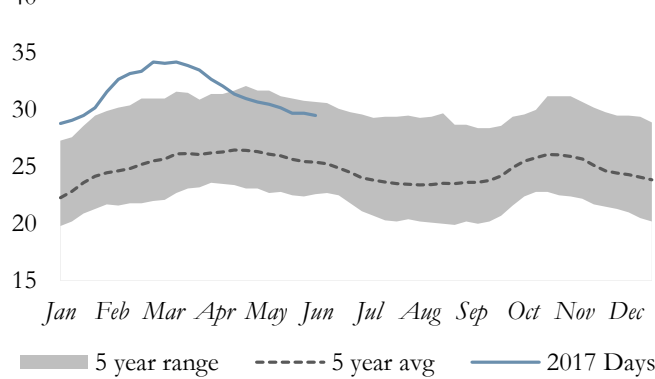
U.S. Oil Stocks, million barrels*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



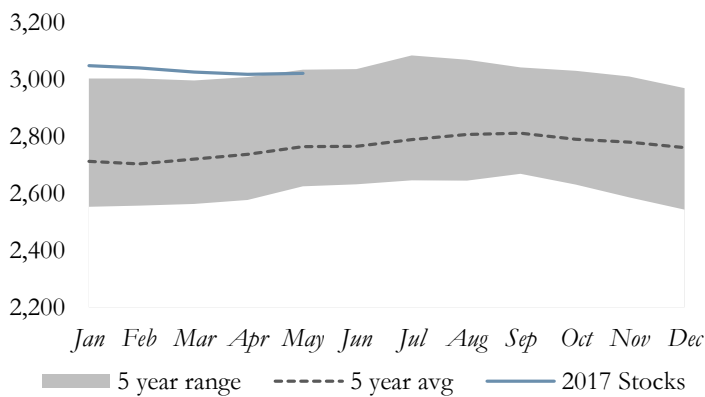
Crude Oil Stocks

	1 Week Change from Ago	1 Year Ago
U.S.	-0.3%	2.1%
Cushing, OK	-1.8%	-6.4%
Days of Supply	-0.7%	-3.9%
East Coast (PADD 1)	2.8%	3.5%
Midwest (PADD 2)	-0.9%	5.1%
Gulf Coast (PADD 3)	-0.5%	1.7%
Rocky Mountain (PADD 4)	0.1%	12.8%
West Coast (PADD 5)	1.0%	-7.5%

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

May 2017 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels



Petroleum Stocks

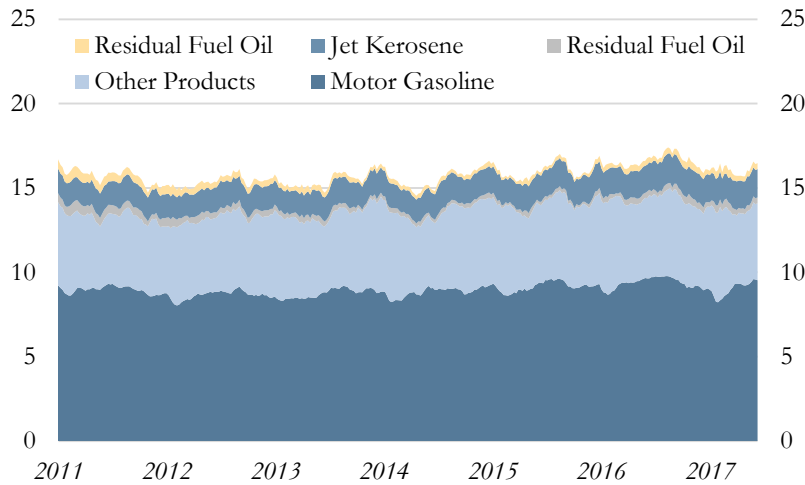
	Million Barrels	Change from
Current Month	3,022	
1 Month Ago	3,019	0.1%
3 Months Ago	3,041	-0.6%
6 Months Ago	3,011	0.4%
1 Year Ago	3,035	-0.4%

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

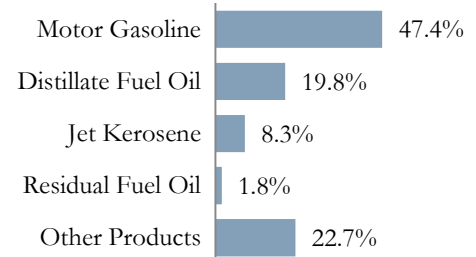
May 2017 Weekly U.S. Demand for Petroleum Products

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

	<i>Current Month</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
All Products	20,102	19,758	19,805	19,443	20,353
Motor Gasoline	9,528	9,306	8,968	8,934	9,641
Distillate Fuel Oil	3,984	4,069	4,151	3,924	3,827
Jet Kerosene	1,676	1,728	1,602	1,682	1,632
Residual Fuel Oil	354	288	456	368	313
Other Products	4,560	4,367	4,628	4,535	4,940

U.S. Consumption by Product, Change from

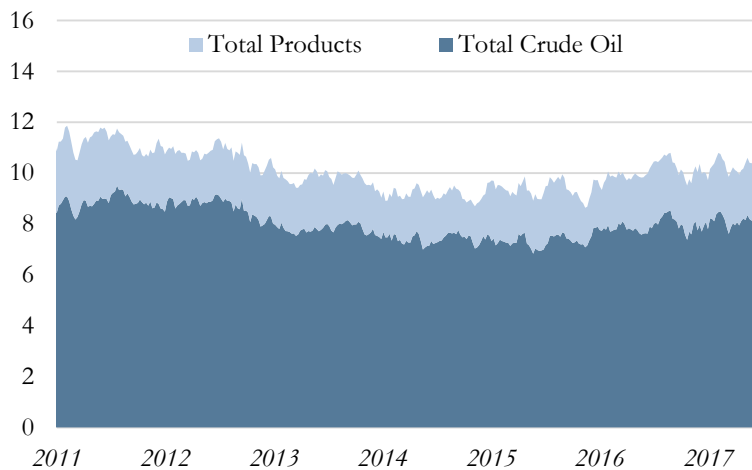
	<i>Current Month</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
All Products	-	1.7%	1.5%	3.4%	-1.2%
Motor Gasoline	-	2.4%	6.2%	6.6%	-1.2%
Distillate Fuel Oil	-	-2.1%	-4.0%	1.5%	4.1%
Jet Kerosene	-	-3.0%	4.6%	-0.4%	2.7%
Residual Fuel Oil	-	22.9%	-22.4%	-3.8%	13.1%
Other Products	-	4.4%	-1.5%	0.6%	-7.7%

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

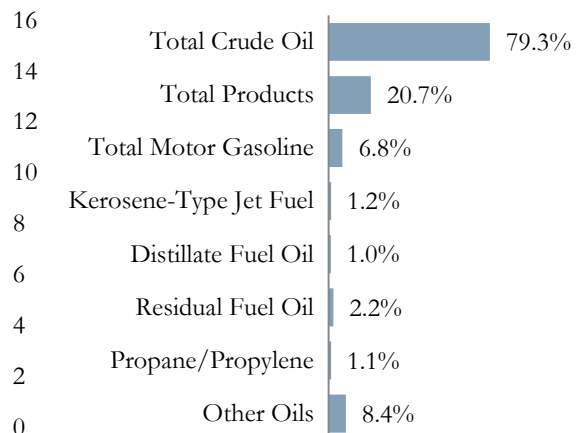
May 2017 U.S. Imports of Crude Oil & Petroleum Products

4-Week Averages

Imports, million barrels per day



Share of Total Imports



U.S. Imports by Product*

Thousand barrels per day

	Current Week	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	8,161	8,347	7,608	7,697	7,620
Total Products	2,130	2,252	2,243	2,271	2,360
Total Motor Gasoline	697	814	409	746	854
Kerosene-Type Jet Fuel	120	163	140	198	158
Distillate Fuel Oil	105	111	171	162	138
Residual Fuel Oil	231	219	299	205	204
Propane/Propylene	116	94	186	170	94
Other Oils	861	844	1,037	790	913
Total Imports	10,291	10,599	9,851	9,968	9,980

U.S. Imports by Product, Change from

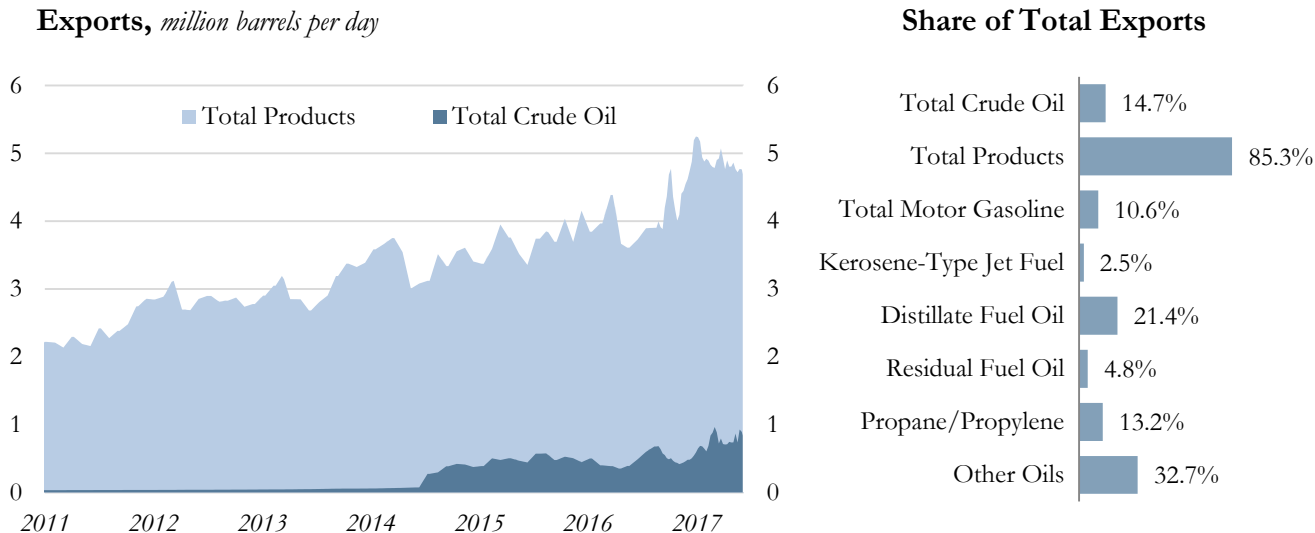
	Current Week	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	-2.2%	7.3%	6.0%	7.1%
Total Products	-	-5.4%	-5.0%	-6.2%	-9.7%
Total Motor Gasoline	-	-14.4%	70.4%	-6.6%	-18.4%
Kerosene-Type Jet Fuel	-	-26.4%	-14.3%	-39.4%	-24.1%
Distillate Fuel Oil	-	-5.4%	-38.6%	-35.2%	-23.9%
Residual Fuel Oil	-	5.5%	-22.7%	12.7%	13.2%
Propane/Propylene	-	23.4%	-37.6%	-31.8%	23.4%
Other Oils	-	2.0%	-17.0%	9.0%	-5.7%
Total Imports	-	-2.9%	4.5%	3.2%	3.1%

*Totals may not sum due to component rounding

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

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

4-Week Averages



U.S. Exports by Product*

Thousand barrels per day

	Current Week	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	802	867	887	482	464
Total Products	4,645	4,766	4,899	4,744	3,699
Total Motor Gasoline	578	646	754	969	384
Kerosene-Type Jet Fuel	138	168	152	190	157
Distillate Fuel Oil	1,168	1,133	1,146	1,085	1,121
Residual Fuel Oil	263	287	335	263	369
Propane/Propylene	719	955	984	866	662
Other Oils	1,780	1,578	1,528	1,372	1,008
Total Exports	5,447	5,634	5,786	5,226	4,163

U.S. Exports by Product, Change from

	Current Week	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	-7.5%	-9.6%	66.4%	72.8%
Total Products	-	-2.5%	-5.2%	-2.1%	25.6%
Total Motor Gasoline	-	-10.5%	-23.3%	-40.4%	50.5%
Kerosene-Type Jet Fuel	-	-17.9%	-9.2%	-27.4%	-12.1%
Distillate Fuel Oil	-	3.1%	1.9%	7.6%	4.2%
Residual Fuel Oil	-	-8.4%	-21.5%	0.0%	-28.7%
Propane/Propylene	-	-24.7%	-26.9%	-17.0%	8.6%
Other Oils	-	12.8%	16.5%	29.7%	76.6%
Total Exports	-	-3.3%	-5.9%	4.2%	30.8%

*Totals may not sum due to rounding

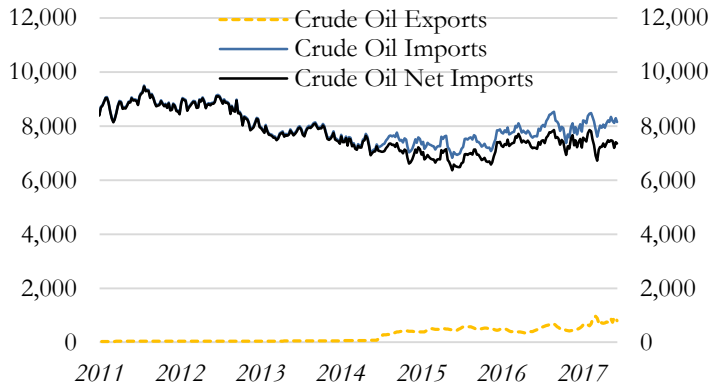
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Data through June 2017

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

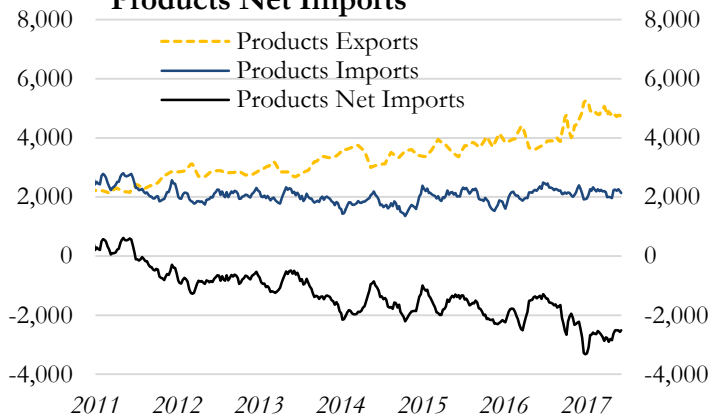
4-Week Averages, Thousand barrels per day

Crude Oil Net Imports



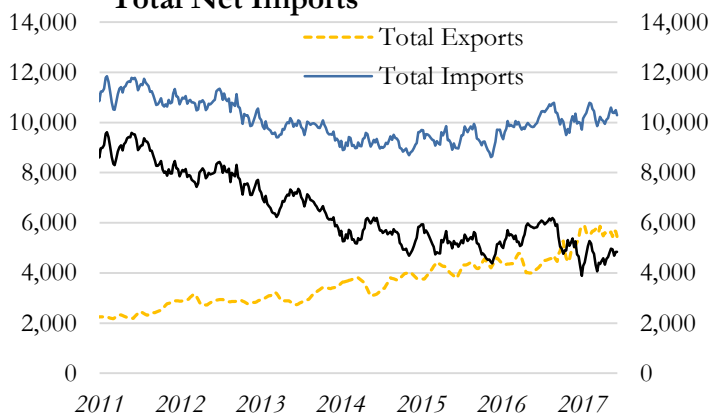
Crude Oil Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
6/9/17	7,360	
Month Ago	7,479	-1.6%
3 Months Ago	6,721	9.5%
6 Months Ago	7,216	2.0%
1 Year Ago	7,156	2.9%

Products Net Imports



Products Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
6/9/17	-2,515	
Month Ago	-2,515	-
3 Months Ago	-2,657	-
6 Months Ago	-2,474	-
1 Year Ago	-1,339	-

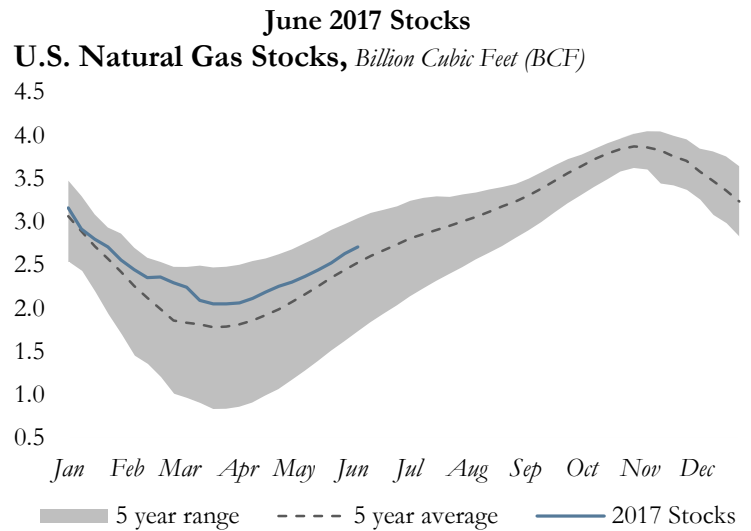
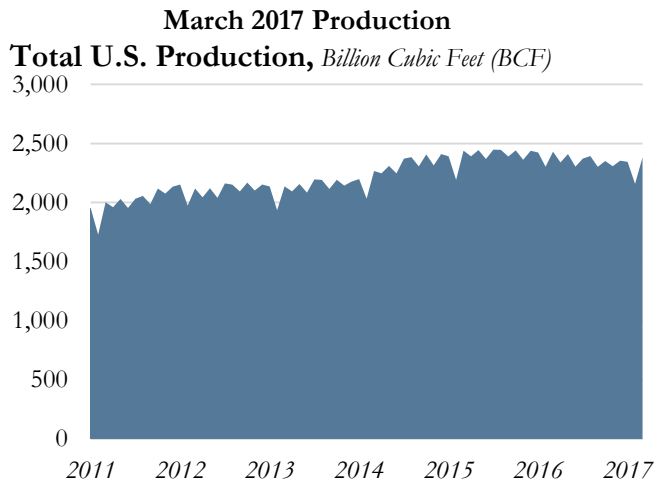
Total Net Imports



Total Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
6/9/17	4,845	
Month Ago	4,965	-2.4%
3 Months Ago	4,065	19.2%
6 Months Ago	4,742	2.2%
1 Year Ago	5,817	-16.7%

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

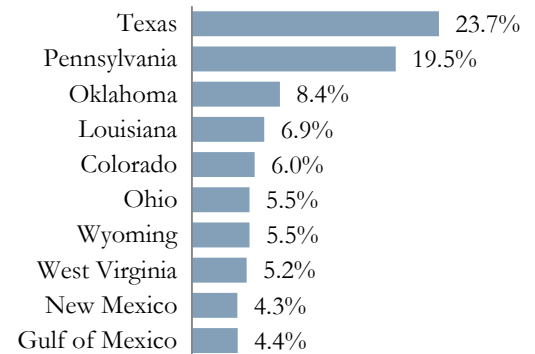
U.S. Natural Gas Production & Stocks



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	2,382	2,158	2,354	2,303	2,431
U.S. Stocks	2,709	2,369	2,242	3,806	3,041

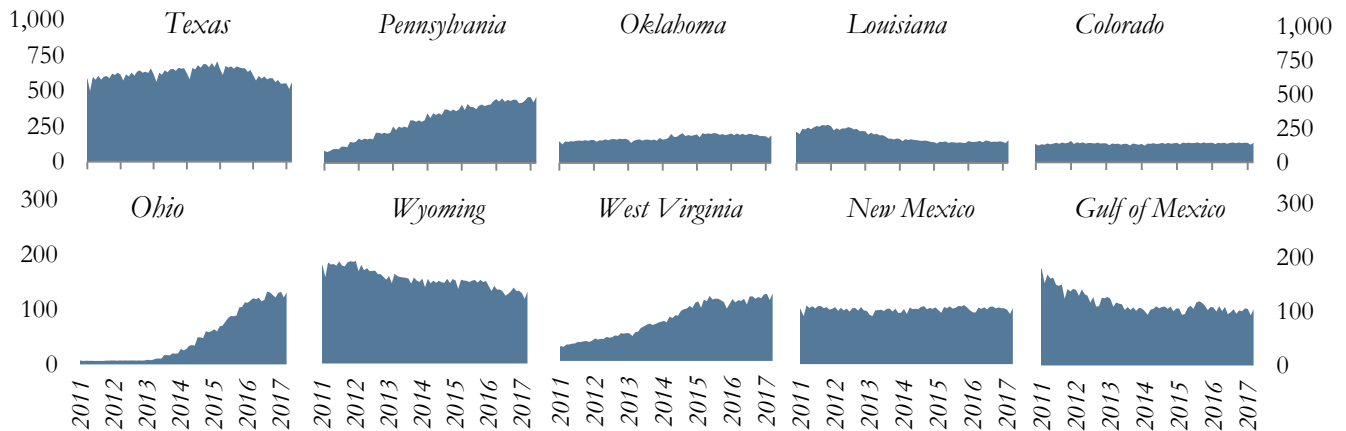
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	10.4%	1.2%	3.5%	-2.0%
U.S. Stocks	-	14.4%	20.8%	-28.8%	-10.9%

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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