

THE U.S. Energy

DATABOOK

A summary of national and global energy indicators



JULY 20, 2018

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT ENERGY CONDITIONS

The number of total active drilling rigs in the United States edged down 0.6 percent from a month ago, but increased 10.1 percent from a year ago. U.S. crude oil production was unchanged in April, while natural gas production dipped 3 percent. Crude oil prices continued to increase in July. For the week ending July 13th, West Texas Intermediate (WTI) crude oil averaged \$71.96 per barrel and North Sea Brent averaged \$75.29 per barrel, increasing nearly 8.7 percent and 1.4 percent respectively in the last month. The Henry Hub natural gas spot price averaged \$2.89 per million Btu for the week ending July 13th, a decline of 3.3 percent in the last month. U.S. crude oil and petroleum products imports grew 2.1 percent and exports were up 6.1 percent over the last month. Global petroleum production inched up 0.5 percent in June, and global petroleum demand for the second quarter of 2018 was relatively unchanged.

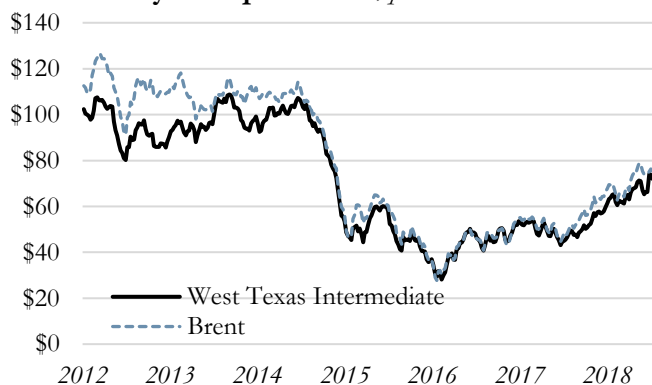
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S.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



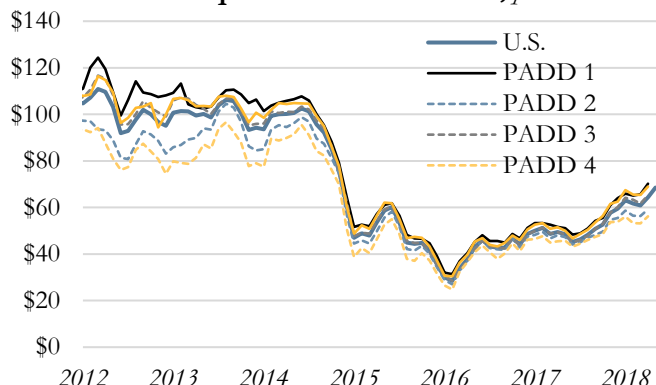
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

Weekly data through July 13, 2018

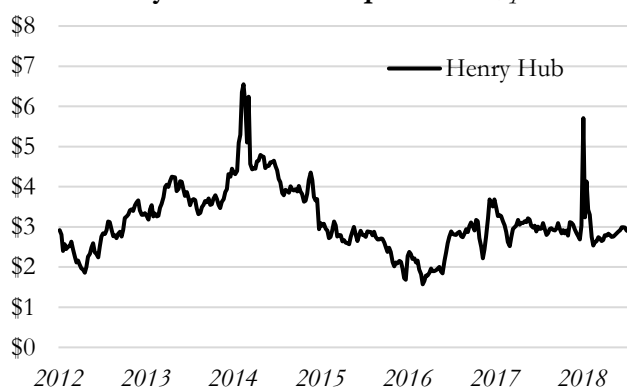
Weekly Oil Spot Prices, per barrel



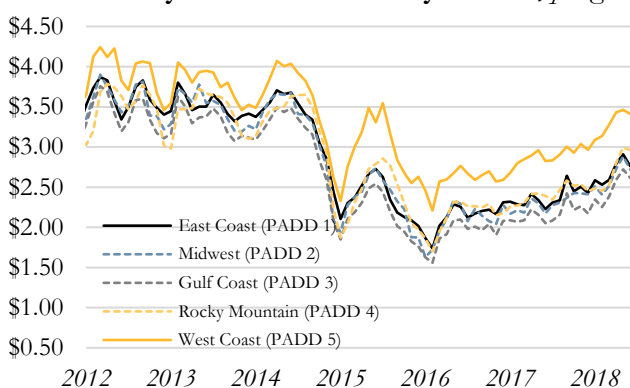
Refiner Acquisition Cost of Oil*, per barrel



Weekly Natural Gas Spot Prices, per mmbtu



Monthly Gasoline Prices by PADD, per gallon



Weekly Spot Prices, Change from

	Current	1 Week	1 Month	6 Months	1 Year	Peak (2012-17)
Weekly Spot Prices	7/13/18	Ago	Ago	Ago	Ago	
West Texas Intermediate	\$71.96	-\$1.77	\$5.75	\$8.70	\$26.45	-\$36.81
Brent	\$75.29	-\$1.04	\$1.03	\$5.82	\$28.19	-\$51.33
Henry Hub	\$2.89	-\$0.02	-\$0.10	-\$0.35	-\$0.07	-\$3.66

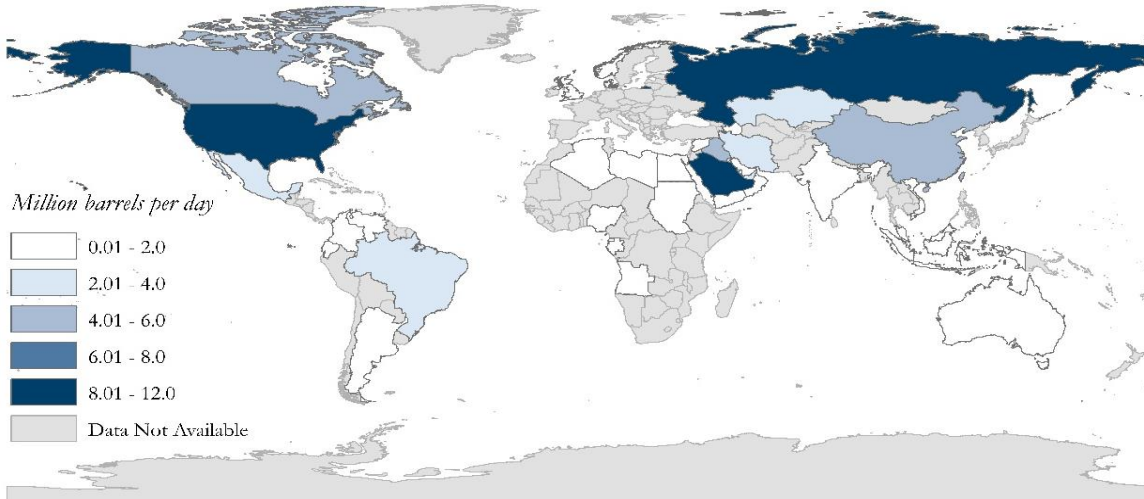
Monthly Gasoline Spot Prices, Change from

	Current	1 Month	6 Months	1 Year	Peak (2012-17)
Geographic Area	Jun-18	Ago	Ago	Ago	
East Coast (PADD 1)	\$2.76	-\$0.15	\$0.34	\$0.53	-\$1.11
Midwest (PADD 2)	\$2.72	-\$0.16	\$0.31	\$0.55	-\$1.18
Gulf Coast (PADD 3)	\$2.62	-\$0.11	\$0.45	\$0.56	-\$1.14
Rocky Mountain (PADD 4)	\$2.96	-\$0.03	\$0.51	\$0.57	-\$0.83
West Coast (PADD 5)	\$3.41	-\$0.05	\$0.44	\$0.58	-\$0.83

*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

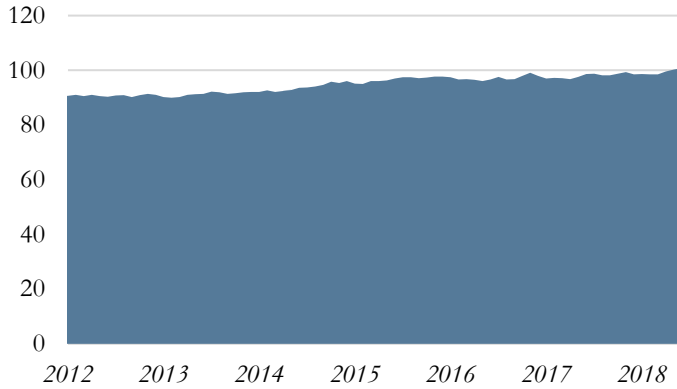
June 2018 Global Petroleum Production



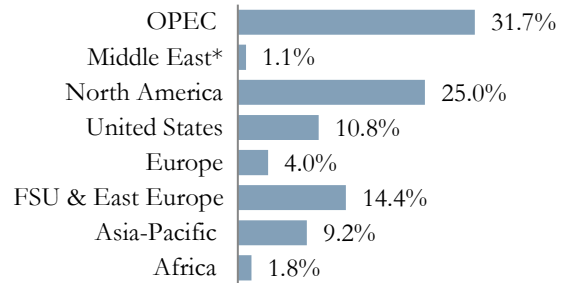
Source: Energy Information Administration/Haver Analytics

June 2018

Monthly Global Petroleum Production, million barrels per day

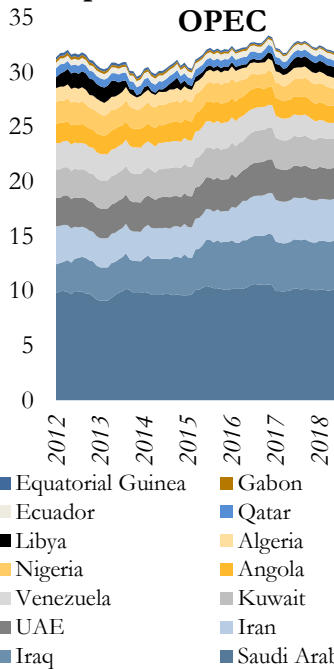


Regional Share of Production

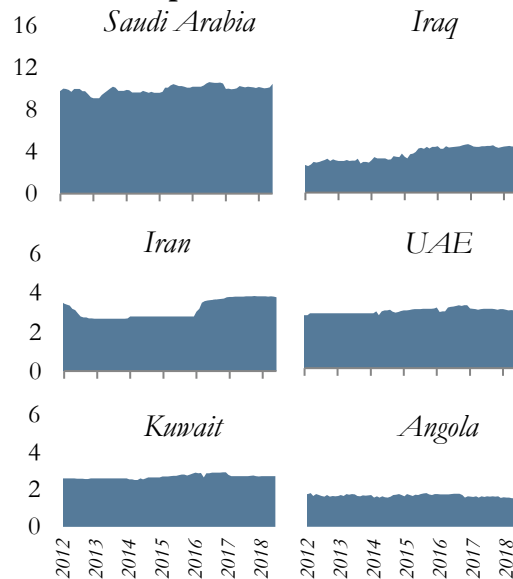


*Excludes OPEC

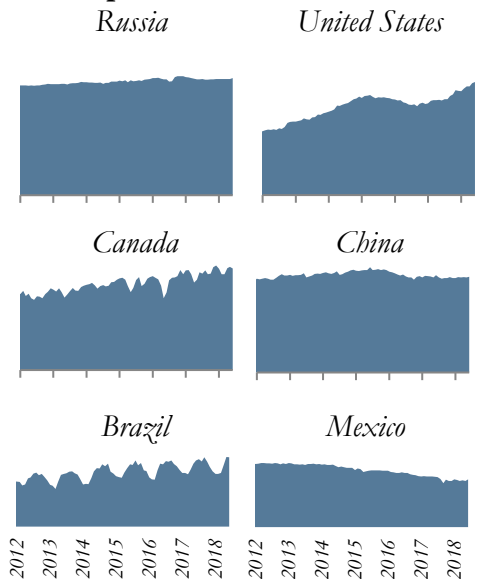
Top Crude Oil Producers, million barrels per day



Top OPEC Producers

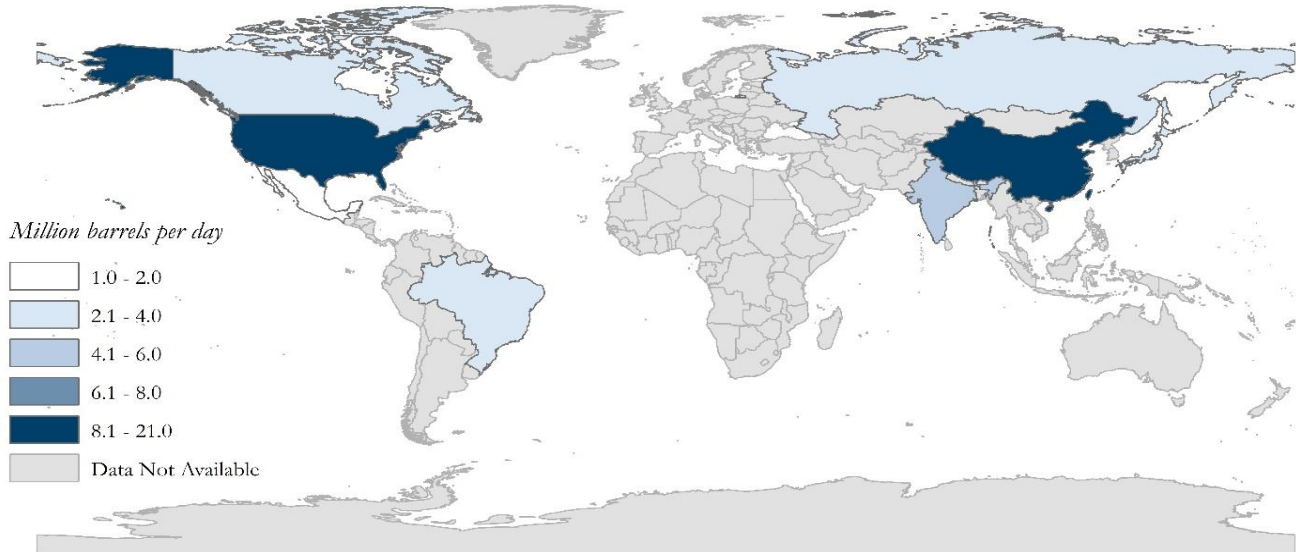


Top Non-OPEC Producers

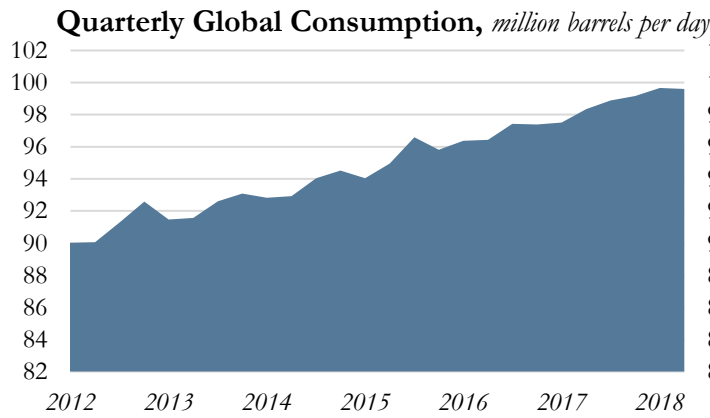


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Second Quarter 2018 Global Petroleum Consumption

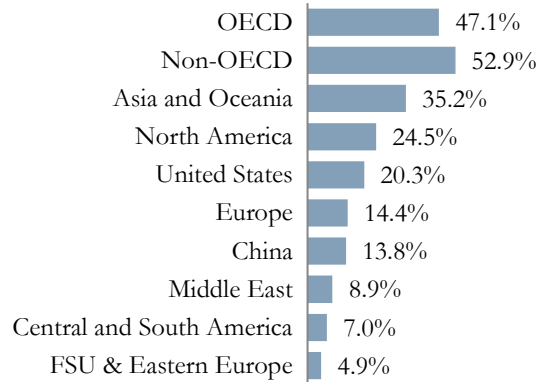


Source: Energy Information Administration/Haver Analytics

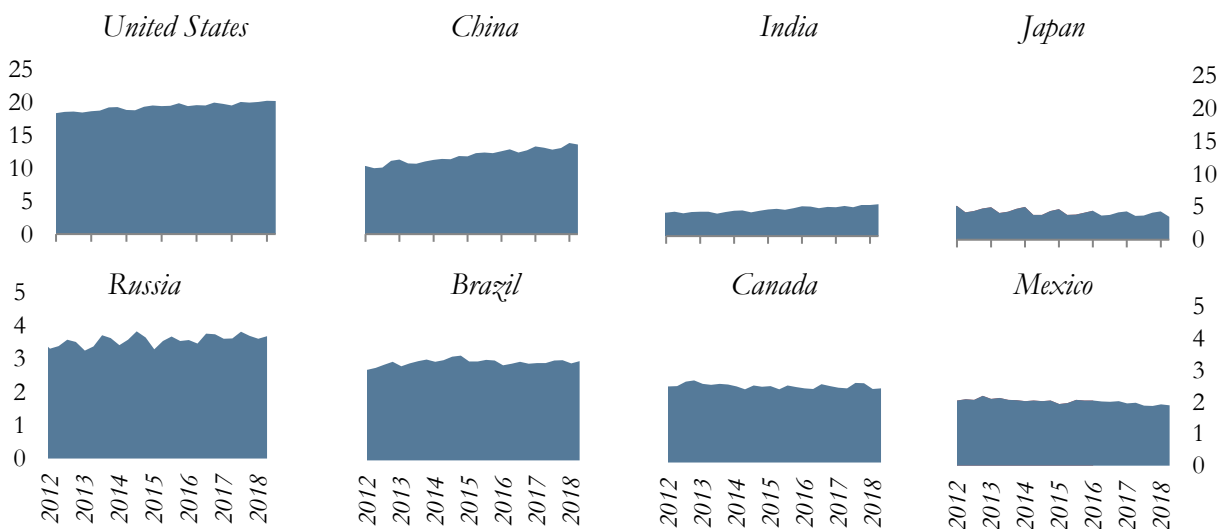


Second Quarter 2018

Regional Share of Consumption

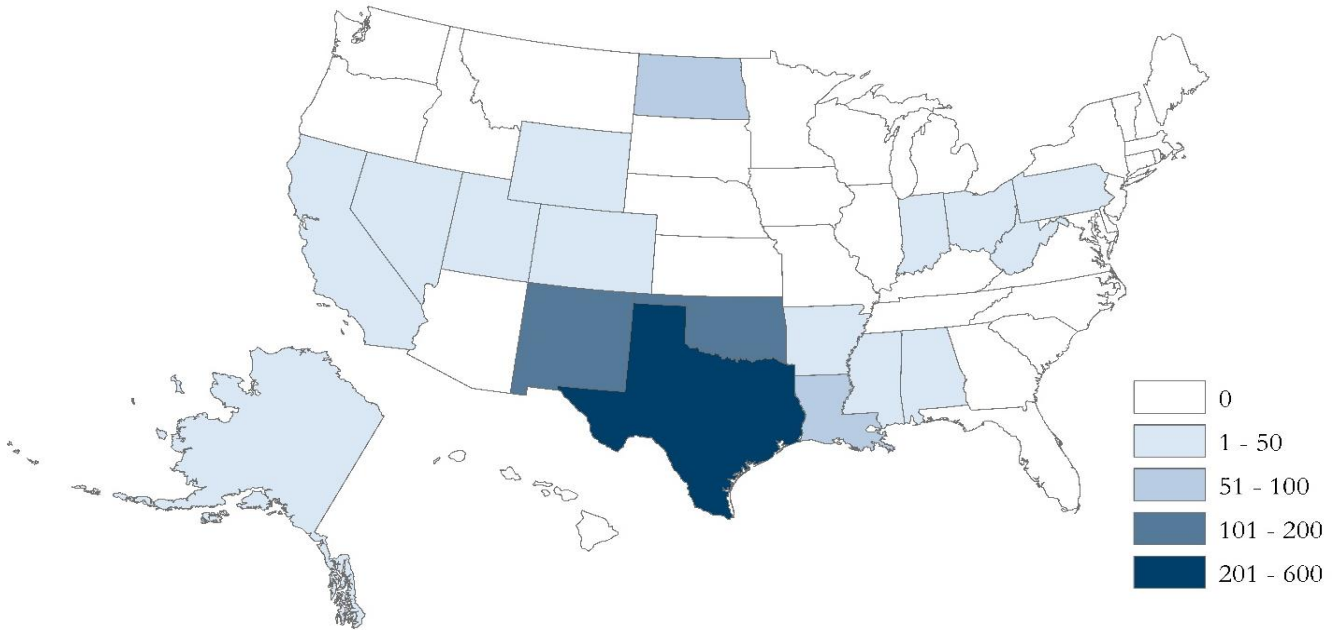


Top Petroleum Consumers, million barrels per day



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

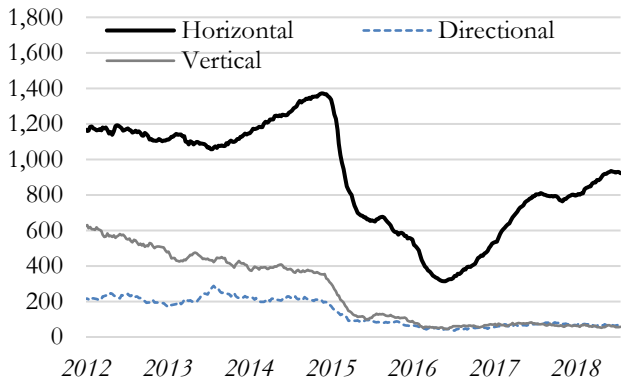
July 2018 Weekly Active Oil & Gas Drilling Rig Counts



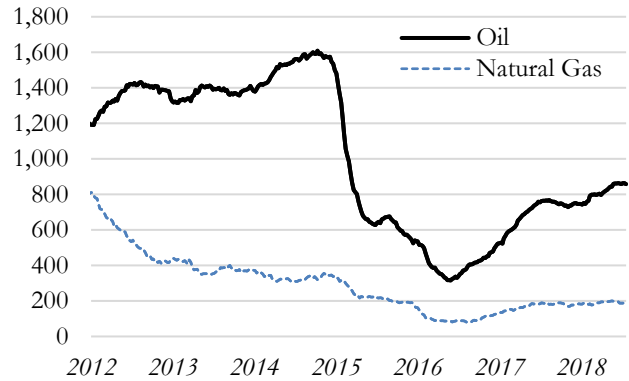
Source: Baker Hughes/Haver Analytics

July 20, 2018

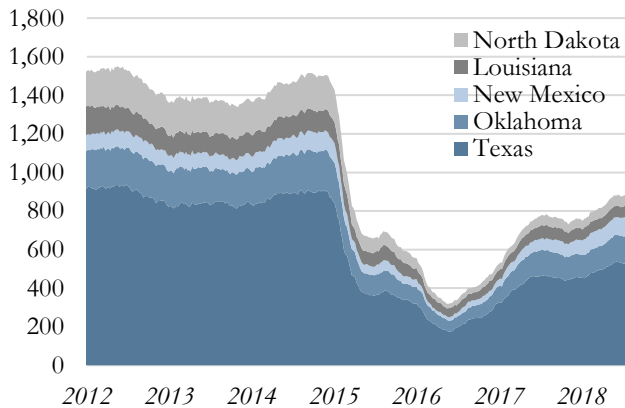
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

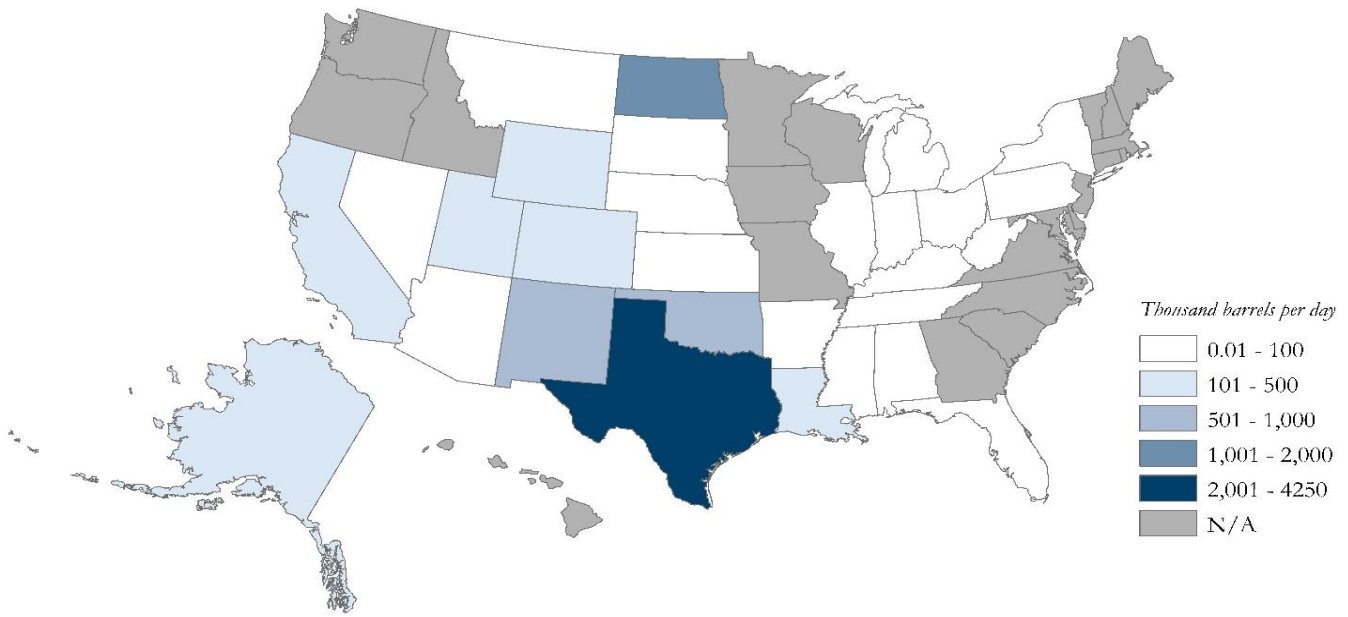
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	858	862	820	764
Gas	187	188	192	186
Misc	1	2	1	0
Total	1046	1052	1013	950

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	-0.5%	4.6%	12.3%
Gas	-	-0.5%	-2.6%	0.5%
Misc	-	-50.0%	0.0%	-
Total	-	-0.6%	3.3%	10.1%

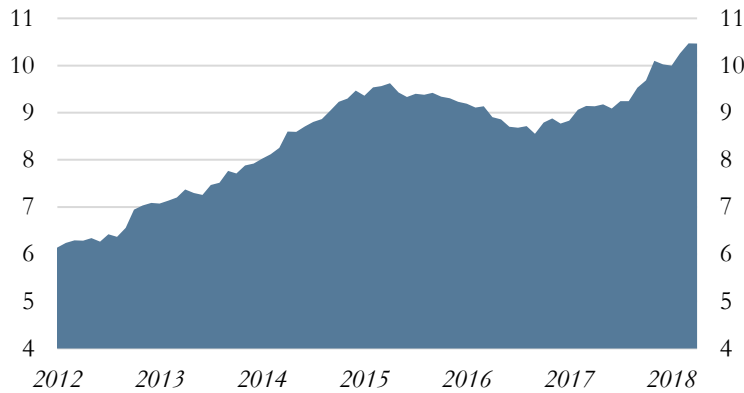
Source: Baker Hughes/Haver Analytics

April 2018 U.S. Crude Oil Production

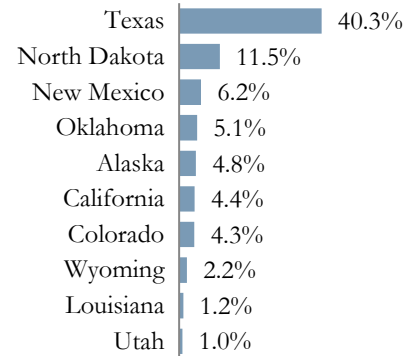


Source: Baker Hughes/Haver Analytics

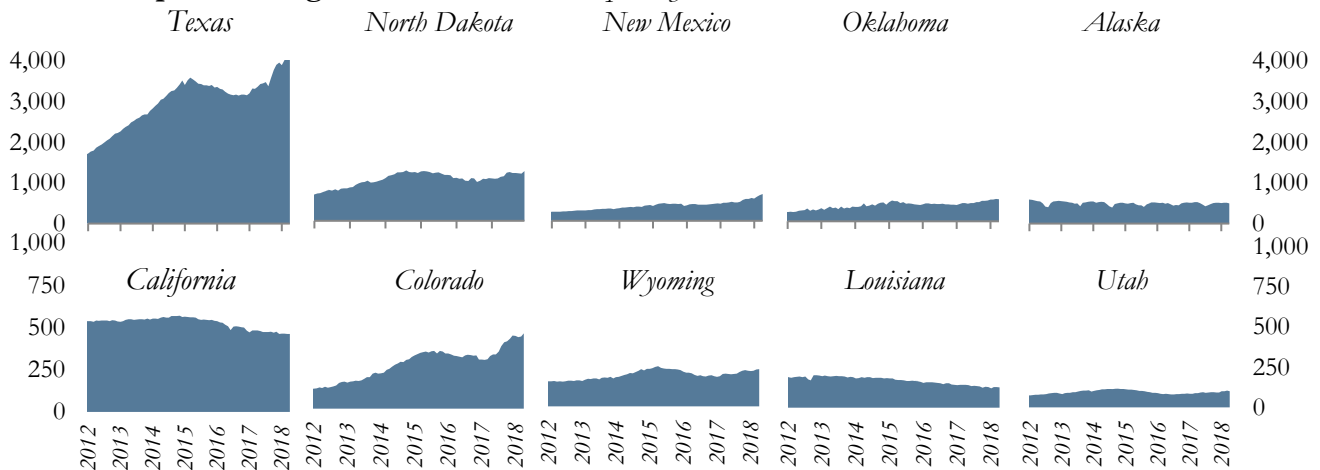
Monthly U.S. Production, million barrels per day



April, 2018
Share of Production

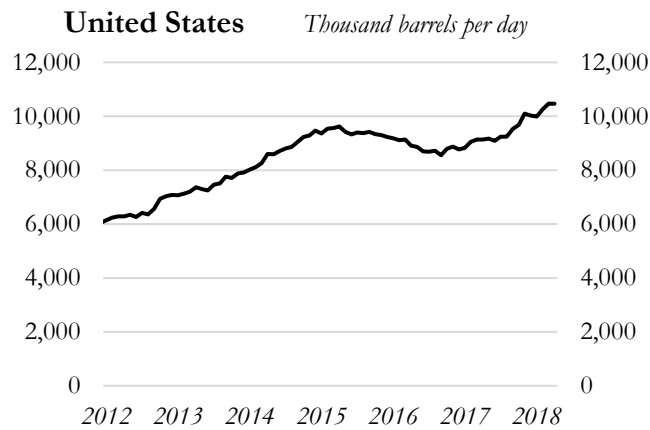


Top Producing States, thousand barrels per day

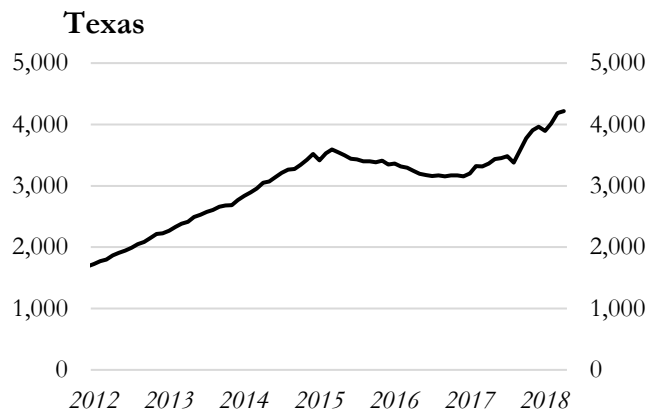


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

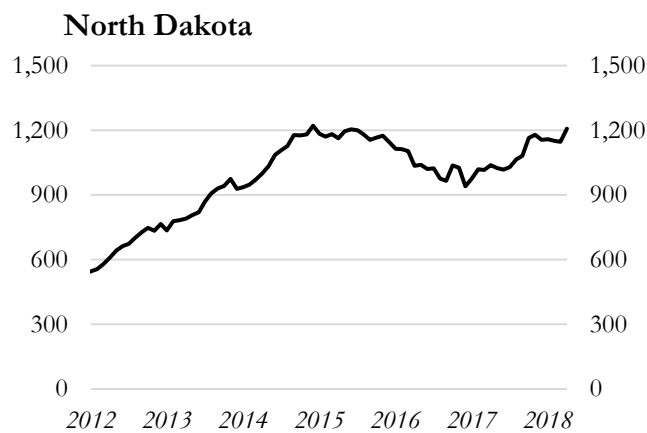
Data through April 2018



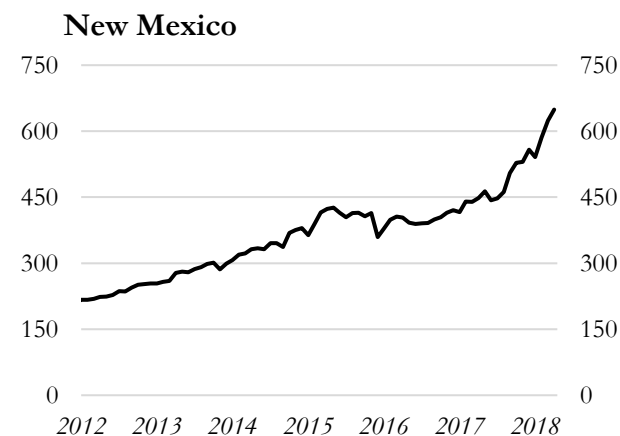
United States		Change
Thousand barrels per day		from
Apr-18	10,467	
Month Ago	10,469	0.0%
3 Months Ago	9,995	4.7%
6 Months Ago	9,687	8.1%
1 Year Ago	9,132	14.6%



Texas		Change
Thousand barrels per day		from
Apr-18	4,217	
Month Ago	4,187	0.7%
3 Months Ago	3,894	8.3%
6 Months Ago	3,776	11.7%
1 Year Ago	3,360	25.5%
Share of U.S. Production		40.3%



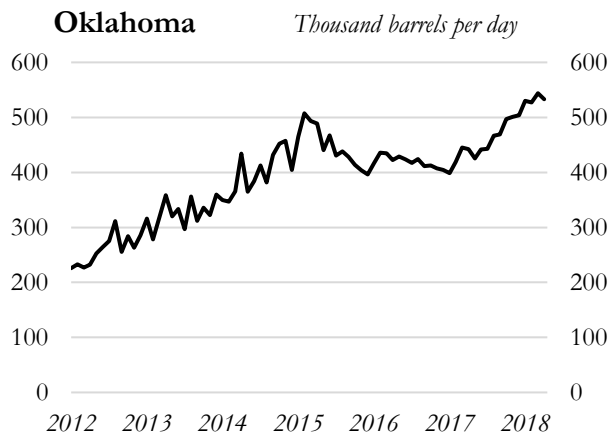
North Dakota		Change
Thousand barrels per day		from
Apr-18	1,207	
Month Ago	1,146	5.3%
3 Months Ago	1,158	4.2%
6 Months Ago	1,164	3.7%
1 Year Ago	1,038	16.3%
Share of U.S. Production		11.5%



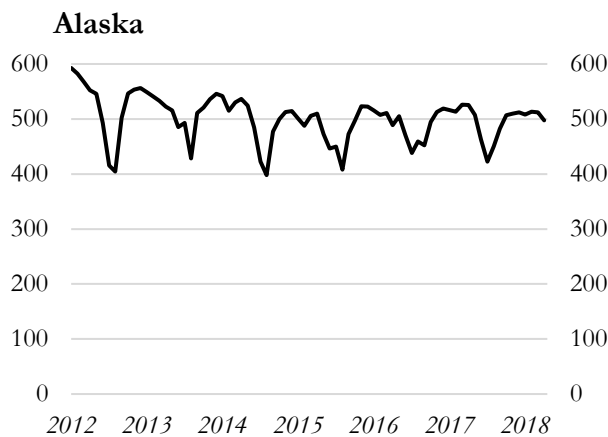
New Mexico		Change
Thousand barrels per day		from
Apr-18	649	
Month Ago	624	4.0%
3 Months Ago	541	19.9%
6 Months Ago	528	22.9%
1 Year Ago	448	44.9%
Share of U.S. Production		6.2%

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

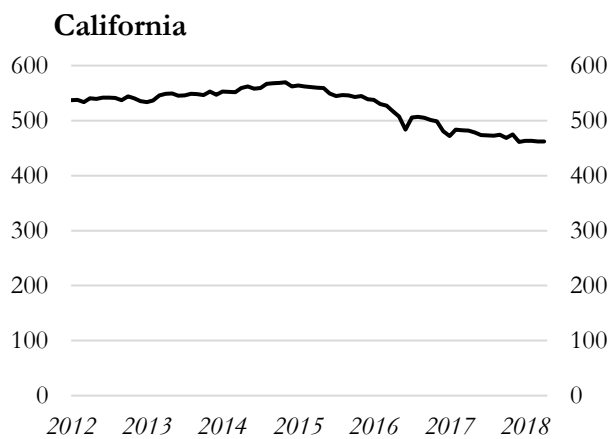
Data through April 2018



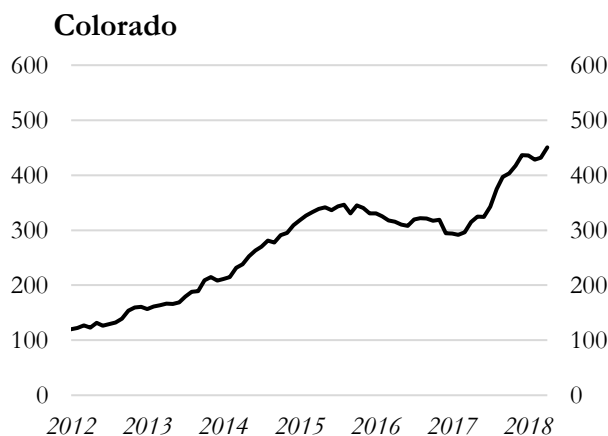
Oklahoma		<i>Change from</i>
<i>Thousand barrels per day</i>		
Apr-18	533	
Month Ago	544	-1.9%
3 Months Ago	530	0.6%
6 Months Ago	497	7.3%
1 Year Ago	442	20.5%
Share of U.S. Production	5.1%	



Alaska		<i>Change from</i>
<i>Thousand barrels per day</i>		
Apr-18	497	
Month Ago	512	-2.9%
3 Months Ago	508	-2.0%
6 Months Ago	507	-1.8%
1 Year Ago	525	-5.3%
Share of U.S. Production	4.8%	



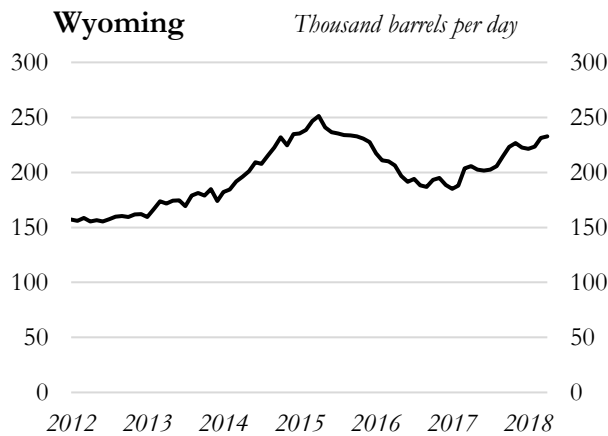
California		<i>Change from</i>
<i>Thousand barrels per day</i>		
Apr-18	462	
Month Ago	462	0.0%
3 Months Ago	463	-0.3%
6 Months Ago	469	-1.4%
1 Year Ago	482	-4.1%
Share of U.S. Production	4.4%	



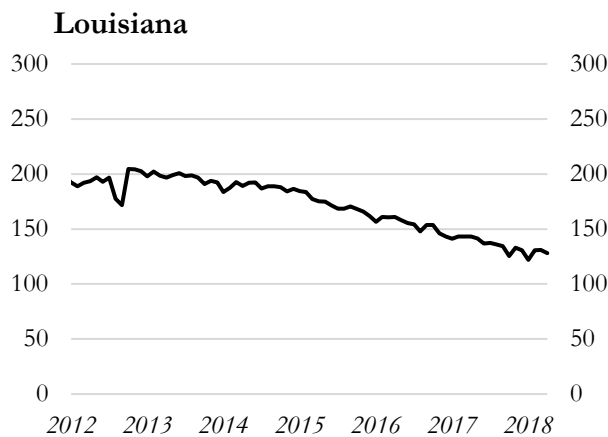
Colorado		<i>Change from</i>
<i>Thousand barrels per day</i>		
Apr-18	451	
Month Ago	432	4.3%
3 Months Ago	436	3.4%
6 Months Ago	403	11.8%
1 Year Ago	315	43.2%
Share of U.S. Production	4.3%	

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

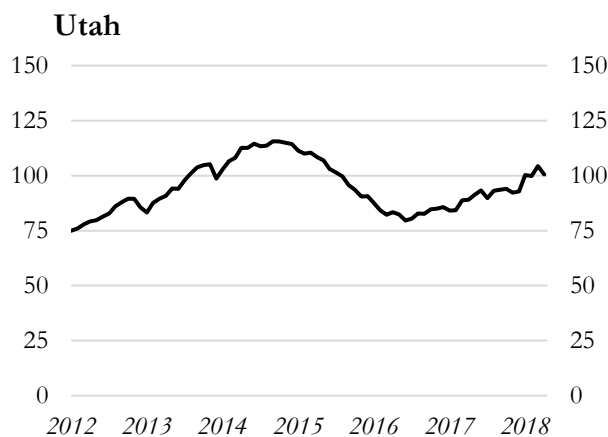
Data through April 2018



Wyoming		Change
Thousand barrels per day		from
Apr-18	233	
Month Ago	231	0.7%
3 Months Ago	221	5.2%
6 Months Ago	223	4.3%
1 Year Ago	206	13.3%
Share of U.S. Production		2.2%



Louisiana		Change
Thousand barrels per day		from
Apr-18	128	
Month Ago	131	-2.2%
3 Months Ago	122	5.1%
6 Months Ago	126	2.0%
1 Year Ago	143	-10.5%
Share of U.S. Production		1.2%

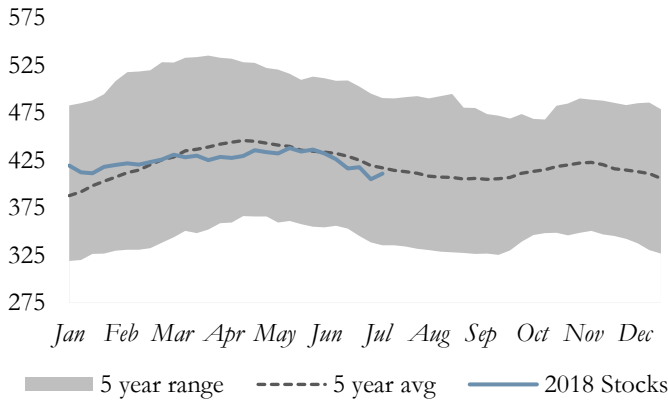


Utah		Change
Thousand barrels per day		from
Apr-18	101	
Month Ago	104	-3.6%
3 Months Ago	100	0.3%
6 Months Ago	94	7.1%
1 Year Ago	89	12.9%
Share of U.S. Production		1.0%

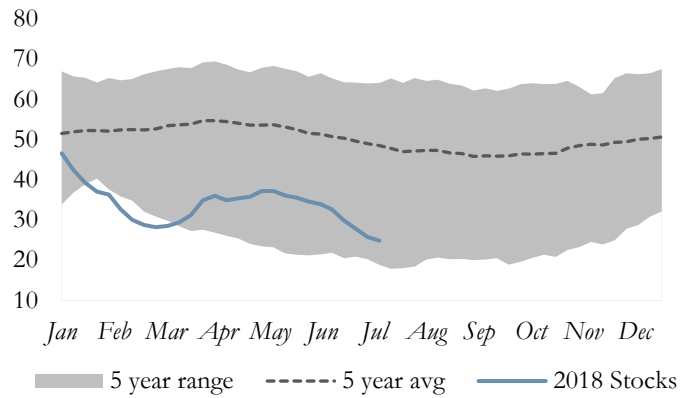
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

July 2018 Weekly U.S. Crude Oil Stocks

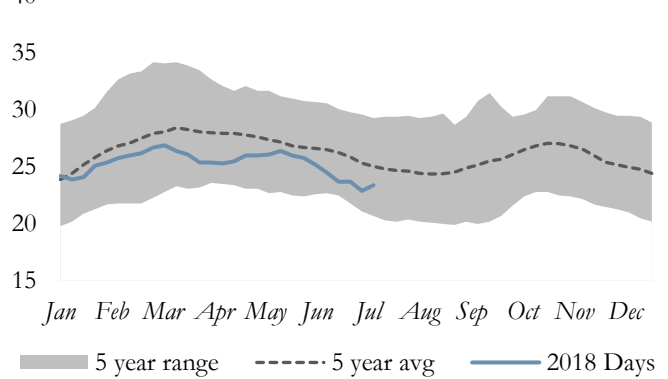
U.S. Oil Stocks, million barrels*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



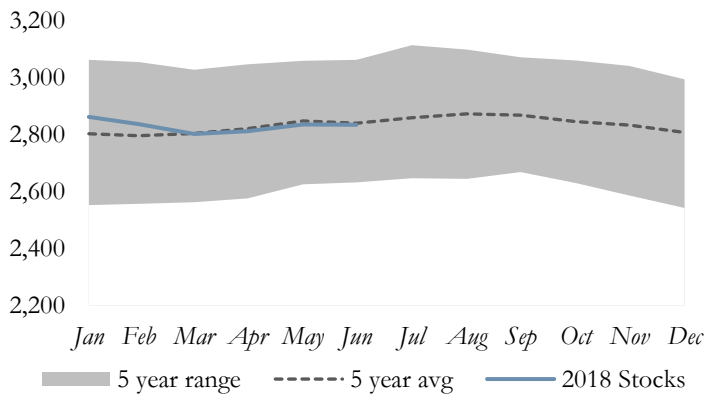
Crude Oil Stocks

	1 Week Change from Ago	1 Year Ago
U.S.	1.4%	-16.2%
Cushing, OK	-3.3%	-56.8%
Days of Supply	2.2%	-18.5%
East Coast (PADD 1)	22.2%	4.2%
Midwest (PADD 2)	-1.3%	-25.9%
Gulf Coast (PADD 3)	1.5%	-16.0%
Rocky Mountain (PADD 4)	-0.7%	-4.9%
West Coast (PADD 5)	3.0%	-1.4%

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

June 2018 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels

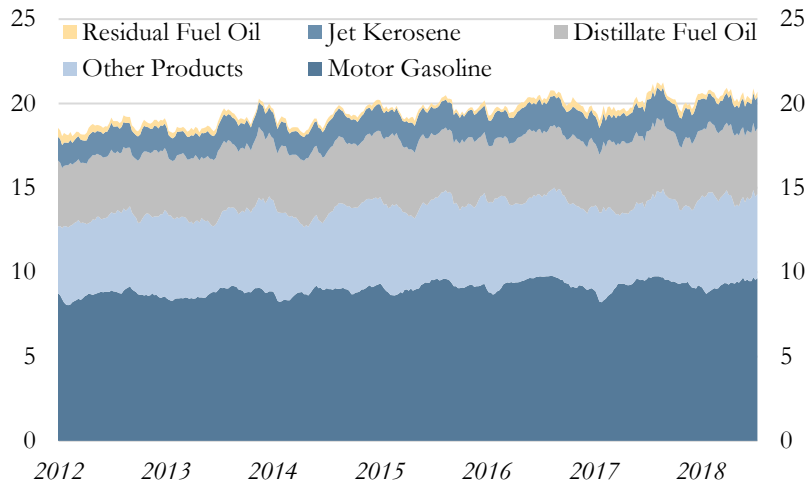


Petroleum Stocks	Million Barrels	Change from
Current Month	2,834	
1 Month Ago	2,835	0.0%
3 Months Ago	2,802	1.1%
6 Months Ago	2,844	-0.4%
1 Year Ago	3,012	-5.9%

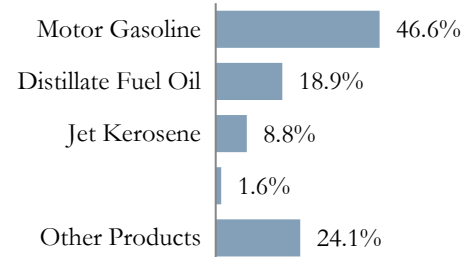
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

July 2018 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 7/13/18	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	20,694	20,343	20,845	20,543	20,752
Motor Gasoline	9,646	9,468	9,385	8,904	9,655
Distillate Fuel Oil	3,921	4,013	4,197	4,077	4,136
Jet Kerosene	1,825	1,735	1,760	1,781	1,811
Residual Fuel Oil	324	280	310	241	477
Other Products	4,978	4,847	5,193	5,540	4,673

U.S. Consumption by Product, Change from

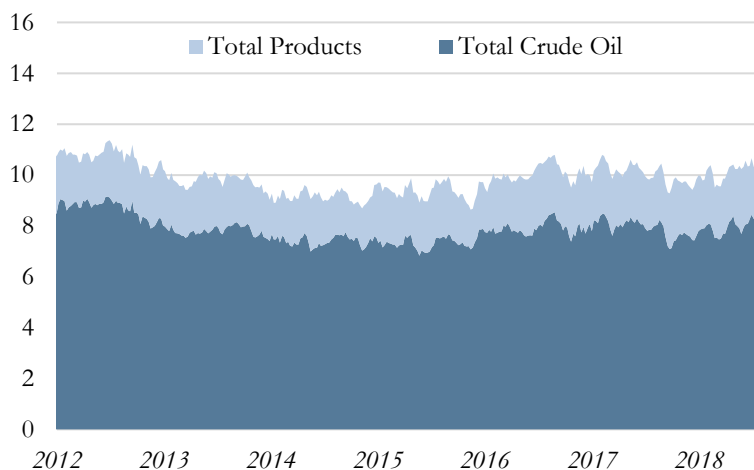
	Current 7/13/18	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	-	1.7%	-0.7%	0.7%	-0.3%
Motor Gasoline	-	1.9%	2.8%	8.3%	-0.1%
Distillate Fuel Oil	-	-2.3%	-6.6%	-3.8%	-5.2%
Jet Kerosene	-	5.2%	3.7%	2.5%	0.8%
Residual Fuel Oil	-	15.7%	4.5%	34.4%	-32.1%
Other Products	-	2.7%	-4.1%	-10.1%	6.5%

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

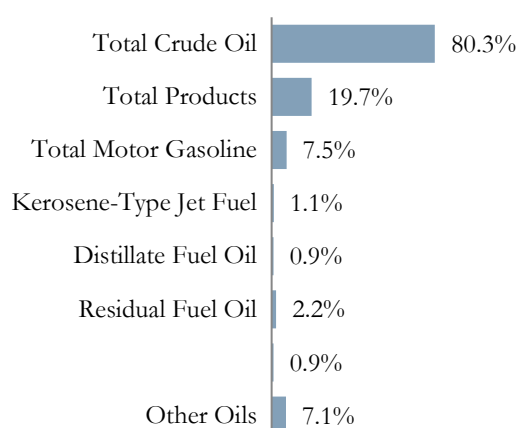
July 2018 Weekly U.S. Imports of Crude Oil & Petroleum Products

4-Week Averages

Imports, million barrels per day



Share of Total Imports



U.S. Imports by Product*

Thousand barrels per day

	Current 7/13/18	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	8,477	8,080	8,157	7,892	7,841
Total Products	2,080	2,258	2,154	1,890	1,974
Total Motor Gasoline	787	853	702	349	607
Kerosene-Type Jet Fuel	117	164	118	158	139
Distillate Fuel Oil	97	134	119	173	125
Residual Fuel Oil	236	284	238	159	139
Propane/Propylene	99	107	158	180	102
Other Oils	745	717	820	871	863
Total Imports	10,557	10,338	10,311	9,782	9,815

U.S. Imports by Product, Change from

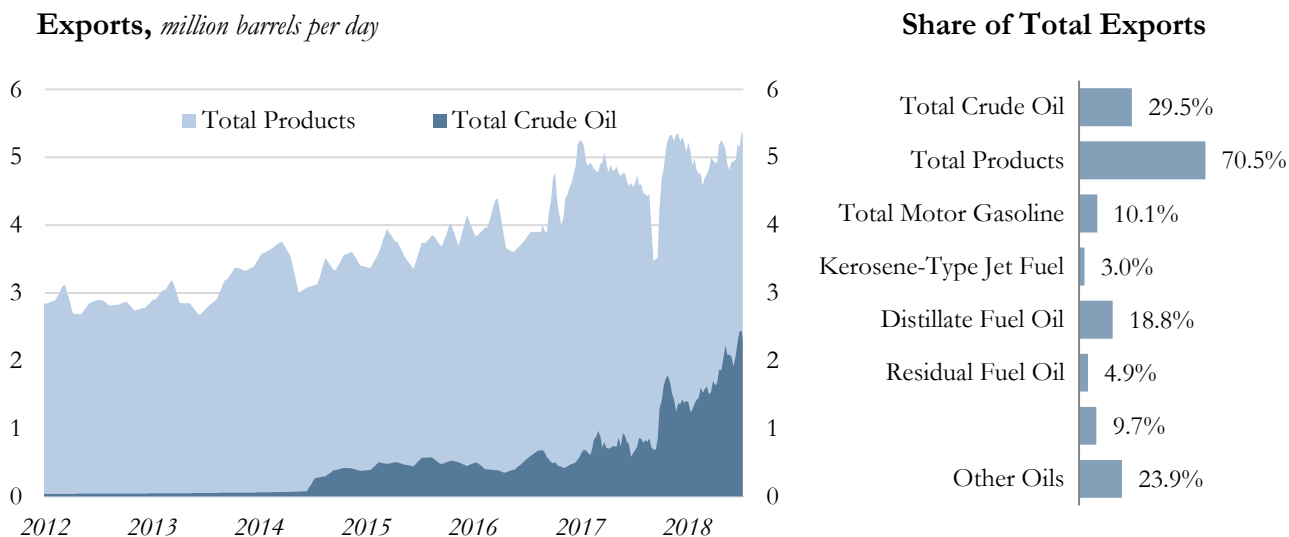
	Current 7/13/18	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	4.9%	3.9%	7.4%	8.1%
Total Products	-	-7.9%	-3.4%	10.1%	5.4%
Total Motor Gasoline	-	-7.7%	12.1%	125.5%	29.7%
Kerosene-Type Jet Fuel	-	-28.7%	-0.8%	-25.9%	-15.8%
Distillate Fuel Oil	-	-27.6%	-18.5%	-43.9%	-22.4%
Residual Fuel Oil	-	-16.9%	-0.8%	48.4%	69.8%
Propane/Propylene	-	-7.5%	-37.3%	-45.0%	-2.9%
Other Oils	-	3.9%	-9.1%	-14.5%	-13.7%
Total Imports	-	2.1%	2.4%	7.9%	7.6%

*Totals may not sum due to component rounding

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

July 2018 Weekly U.S. Exports of Crude Oil & Petroleum Products

4-Week Averages



U.S. Exports by Product*

Thousand barrels per day

	<i>Current 7/13/18</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	2,206	2,074	1,677	1,237	736
Total Products	5,263	4,966	4,914	5,074	4,733
<i>Total Motor Gasoline</i>	755	601	875	892	624
<i>Kerosene-Type Jet Fuel</i>	225	216	221	117	207
<i>Distillate Fuel Oil</i>	1,406	1,299	1,179	1,085	1,187
<i>Residual Fuel Oil</i>	369	365	276	300	306
<i>Propane/ Propylene</i>	723	854	735	856	649
<i>Other Oils</i>	1,786	1,632	1,628	1,825	1,761
Total Exports	7,469	7,041	6,591	6,311	5,468

U.S. Exports by Product, Change from

	<i>Current 7/13/18</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	-	6.4%	31.5%	78.3%	199.7%
Total Products	-	6.0%	7.1%	3.7%	11.2%
<i>Total Motor Gasoline</i>	-	25.6%	-13.7%	-15.4%	21.0%
<i>Kerosene-Type Jet Fuel</i>	-	4.2%	1.8%	92.3%	8.7%
<i>Distillate Fuel Oil</i>	-	8.2%	19.3%	29.6%	18.4%
<i>Residual Fuel Oil</i>	-	1.1%	33.7%	23.0%	20.6%
<i>Propane/ Propylene</i>	-	-15.3%	-1.6%	-15.5%	11.4%
<i>Other Oils</i>	-	9.4%	9.7%	-2.1%	1.4%
Total Exports	-	6.1%	13.3%	18.3%	36.6%

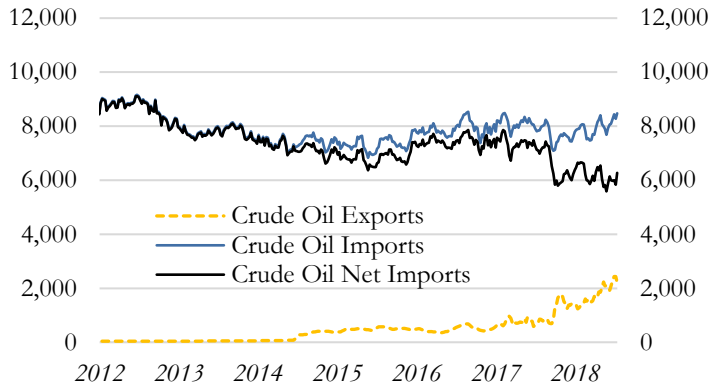
*Totals may not sum due to rounding

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

July 2018 Weekly U.S. Net Imports of Crude Oil & Petroleum Products

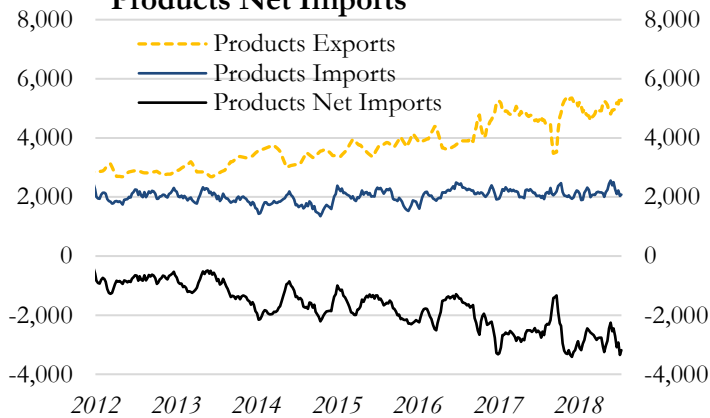
4-Week Averages, Thousand barrels per day

Crude Oil Net Imports



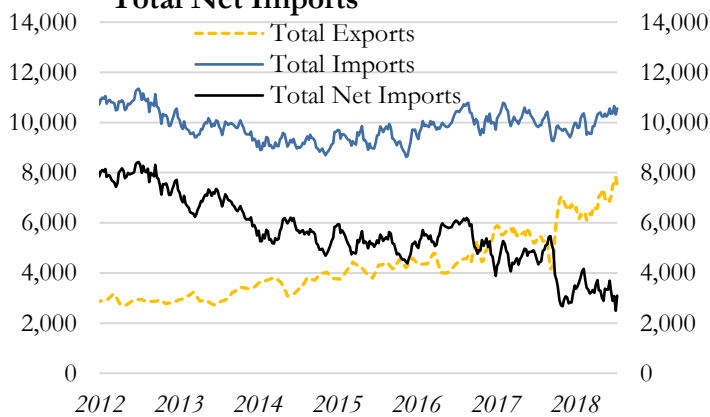
Crude Oil Net Imports		Change
Thousand barrels per day		from
7/13/18	6,271	
Month Ago	6,005	4.4%
3 Months Ago	6,480	-3.2%
6 Months Ago	6,655	-5.8%
1 Year Ago	7,106	-11.8%

Products Net Imports



Products Net Imports		Change
Thousand barrels per day		from
7/13/18	-3,184	
Month Ago	-2,709	-
3 Months Ago	-2,760	-
6 Months Ago	-3,184	-
1 Year Ago	-2,759	-

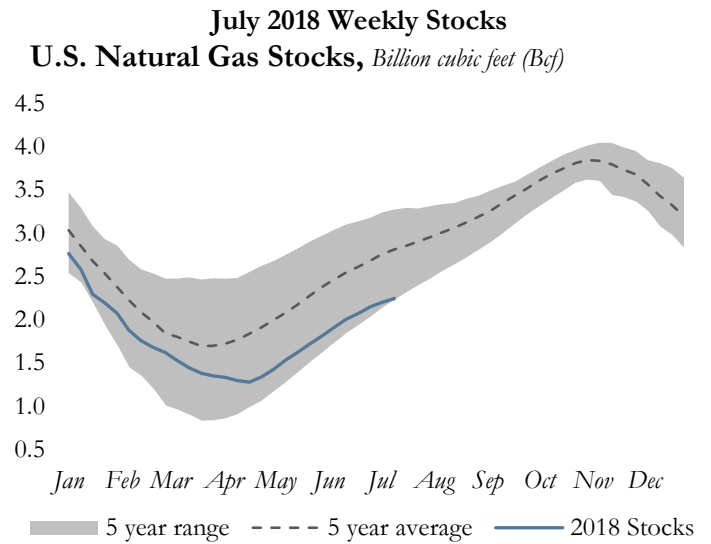
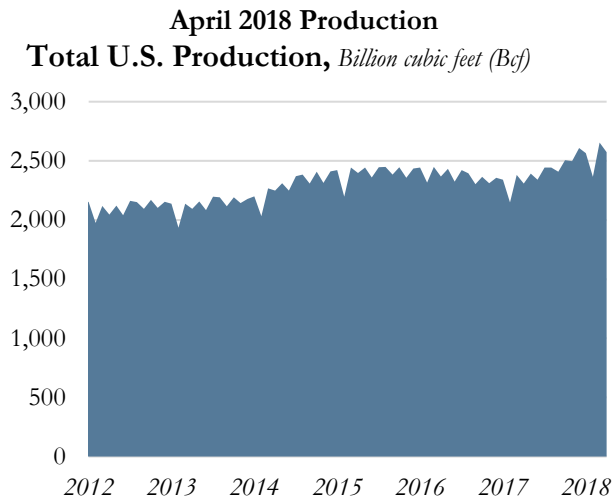
Total Net Imports



Total Net Imports		Change
Thousand barrels per day		from
7/13/18	3,088	
Month Ago	3,297	-6.3%
3 Months Ago	3,720	-17.0%
6 Months Ago	3,471	-11.0%
1 Year Ago	4,347	-29.0%

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

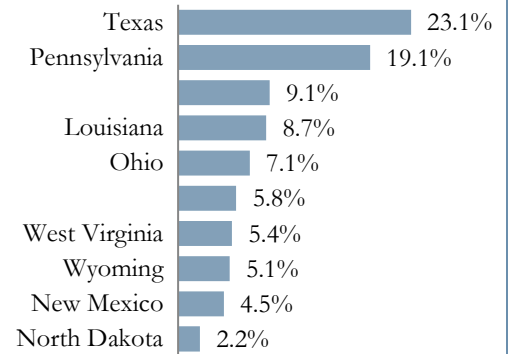
U.S. Natural Gas Production & Stocks



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	2,574	2,654	2,566	2,507	2,308
U.S. Stocks	2,249	2,008	1,299	2,584	2,963

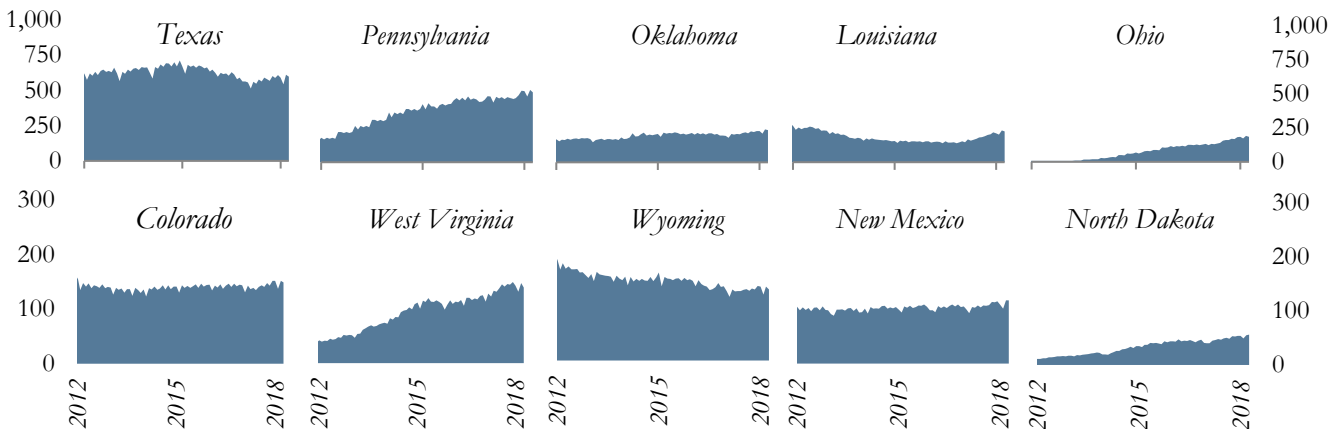
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	-3.0%	0.3%	2.7%	11.5%
U.S. Stocks	-	12.0%	73.1%	-13.0%	-24.1%

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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