

THE U.S. Energy DATABOOK

A summary of national and global energy indicators



MAY 6, 2022

FEDERAL RESERVE BANK *of* KANSAS CITY

SUMMARY OF CURRENT ENERGY CONDITIONS

Since the last edition of the U.S. energy databook, Russia's invasion of Ukraine added significant uncertainty to global energy markets, resulting in noticeably higher oil and gas prices. For the week ending April 22nd, West Texas Intermediate (WTI) crude oil averaged \$104.02 per barrel and North Sea Brent averaged \$105.72 per barrel, rising 21.1% and 18.6% over the last three months, respectively. The Henry Hub natural gas spot price averaged \$7.10 per million Btu for the week ending April 22nd, surging 57.8% over the last three months. In January, the number of total active drilling rigs in the United States rose 3.7% from a month ago, and is up 14.4% from three months ago. U.S. crude oil production dipped 0.4% from a month ago and is 3.9% lower from three months ago. Oil production remains below pre-pandemic levels. U.S. crude oil and petroleum products exports increased 47.9% in the last quarter and imports rose by 0.6%. Global demand for petroleum fell by 1.4% and global petroleum production rose 0.9% over the last quarter.

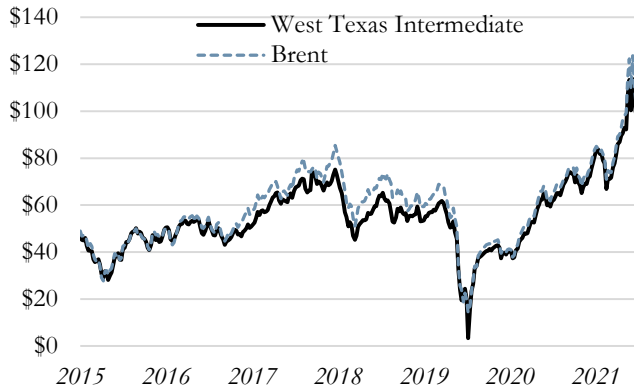
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S.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



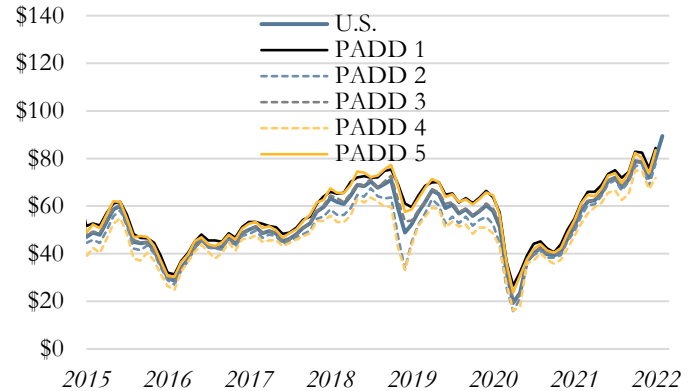
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

Weekly data through April 22, 2022

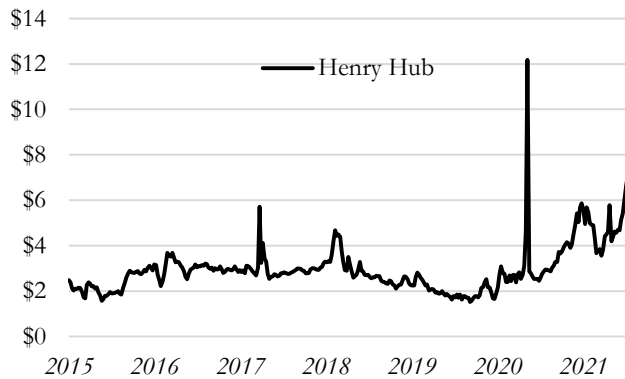
Weekly Oil Spot Prices, per barrel



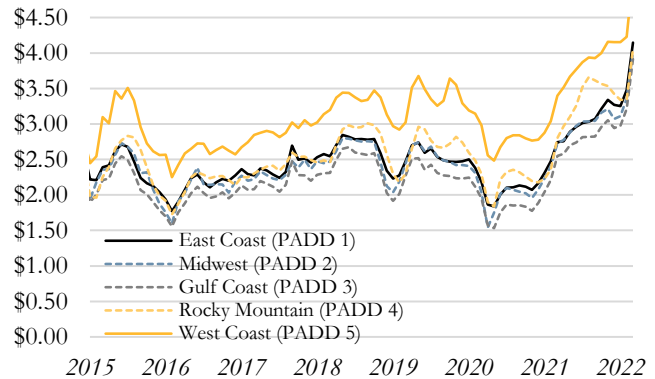
Refiner Acquisition Cost of Oil*, per barrel



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	4/22/22	Ago	Ago	Ago	Ago	Ago
West Texas Intermediate	\$104.02	\$2.56	-\$9.67	\$18.09	\$20.54	\$41.84
Brent	\$105.72	\$0.30	-\$17.88	\$16.56	\$20.74	\$40.38
Henry Hub	\$7.10	\$0.46	\$1.95	\$2.60	\$2.15	\$4.34

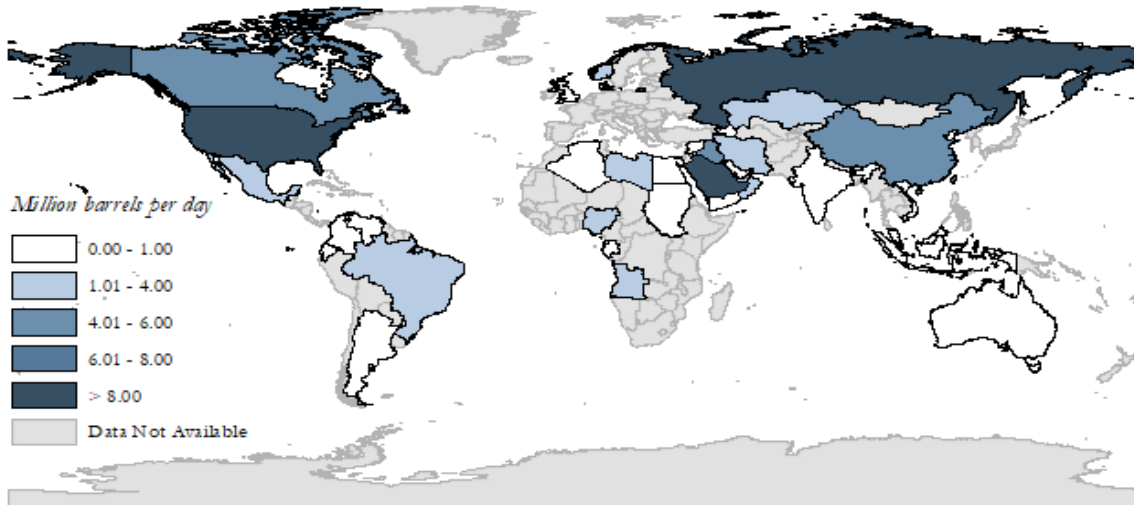
Monthly Gasoline Spot Prices, Change from

	Current	1 Month	3 months	6 Months	1 Year
Geographic Area	Mar-22	Ago	Ago	Ago	Ago
East Coast (PADD 1)	\$4.15	\$0.67	\$0.88	\$1.08	\$1.40
Midwest (PADD 2)	\$4.02	\$0.67	\$0.96	\$0.98	\$1.30
Gulf Coast (PADD 3)	\$3.92	\$0.70	\$0.98	\$1.10	\$1.37
Rocky Mountain (PADD 4)	\$4.06	\$0.72	\$0.64	\$0.45	\$1.26
West Coast (PADD 5)	\$5.11	\$0.88	\$0.95	\$1.18	\$1.71

*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

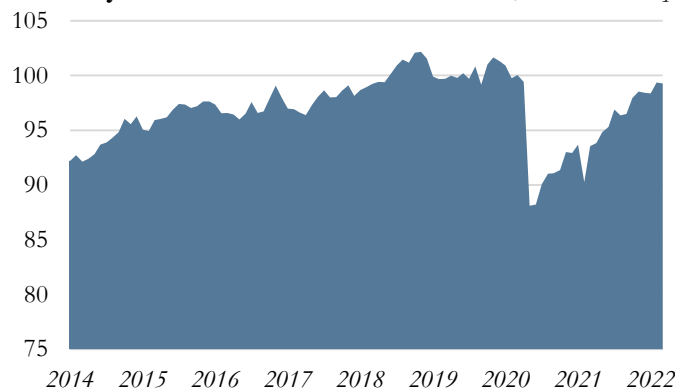
March 2022 Global Petroleum Production



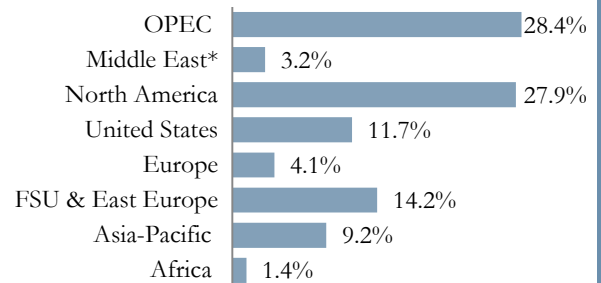
Source: Energy Information Administration/Haver Analytics

March 2022

Monthly Global Petroleum Production, million barrels per day

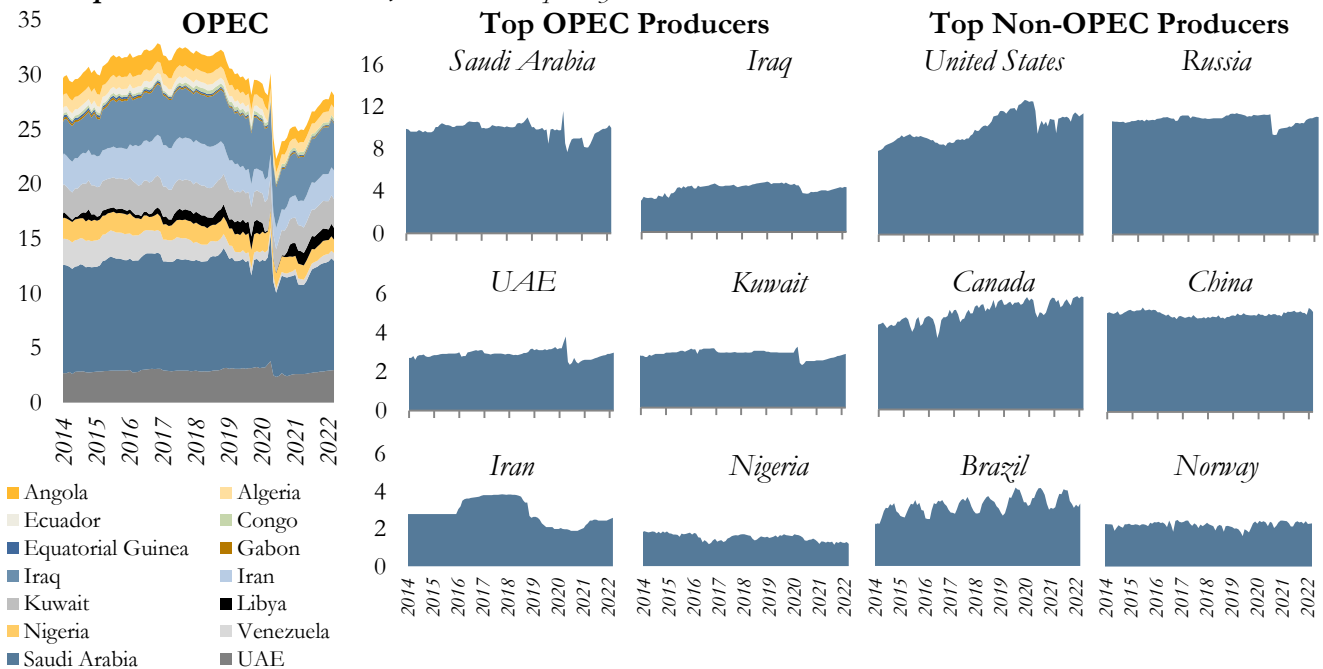


Regional Share of Production



*Excludes OPEC

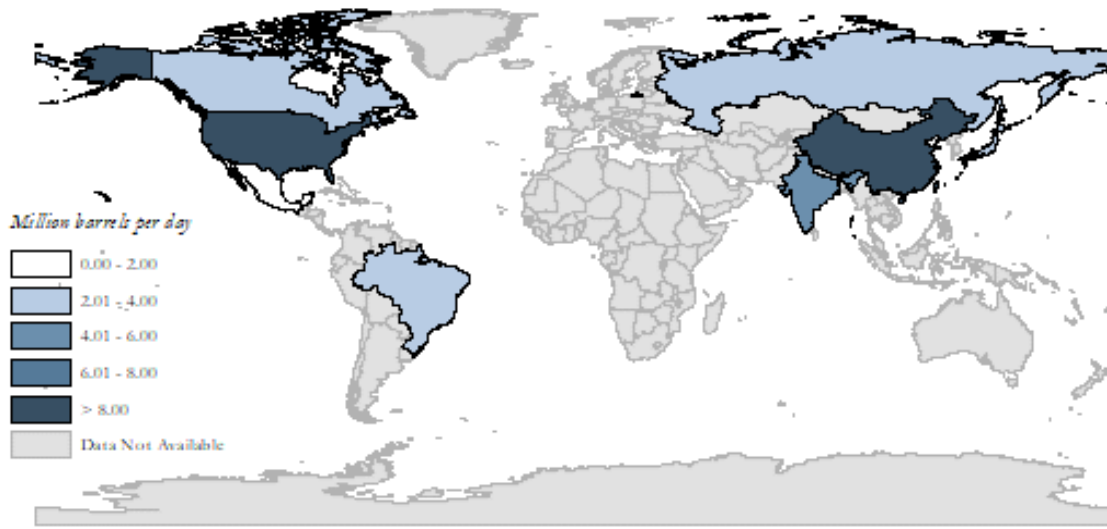
Top Crude Oil Producers, million barrels per day



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

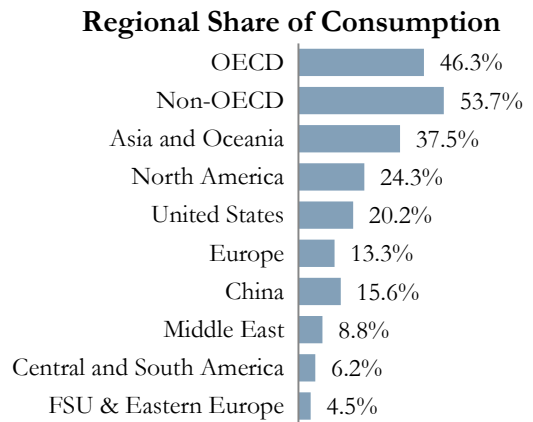
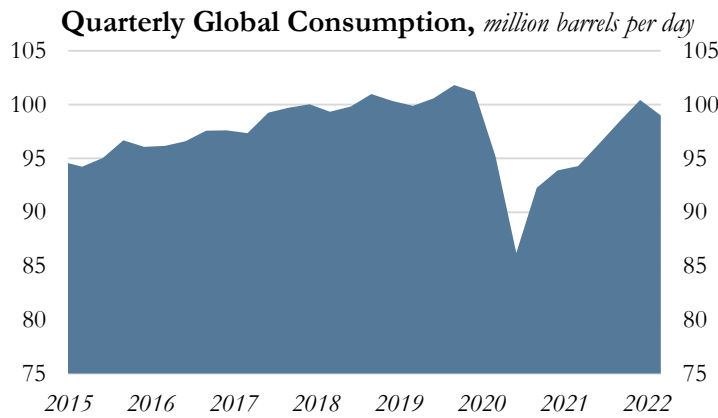
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

First Quarter 2022 Global Petroleum Consumption

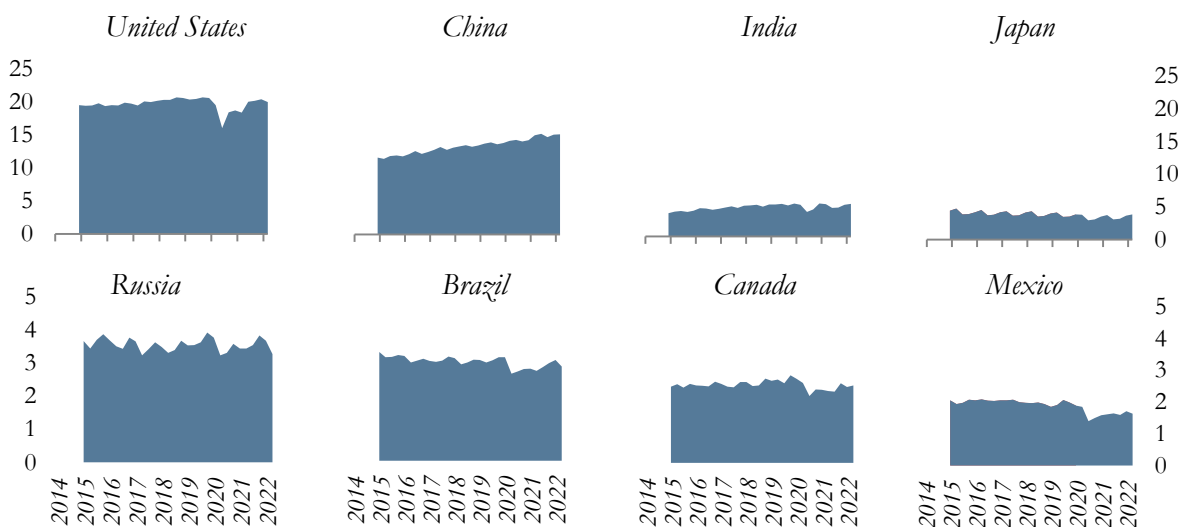


Source: Energy Information Administration / Haver Analytics

First Quarter 2022

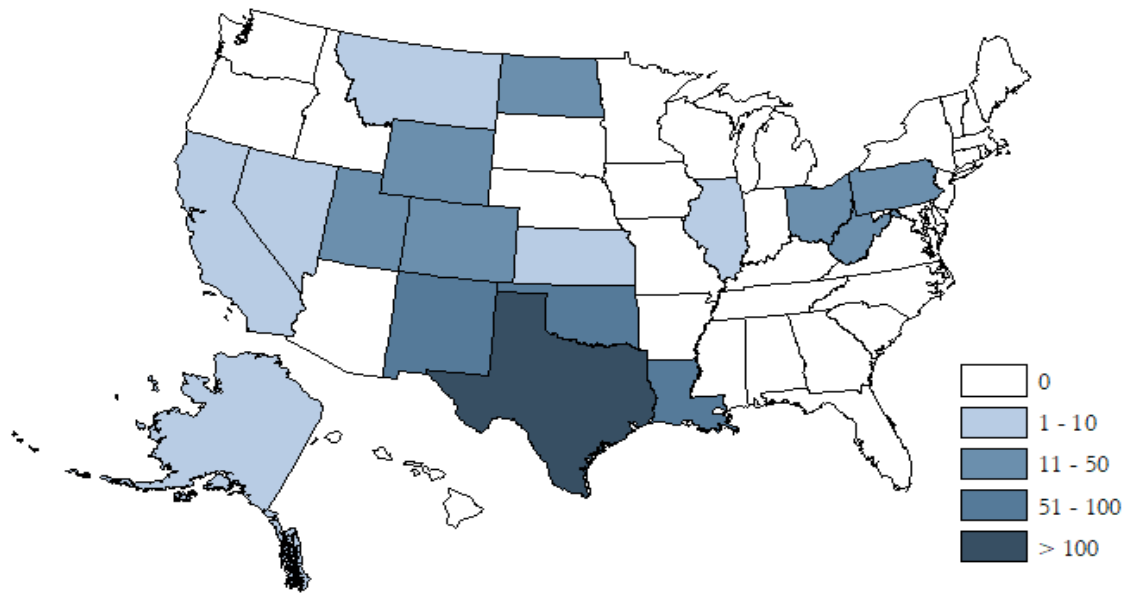


Top Petroleum Consumers, million barrels per day



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

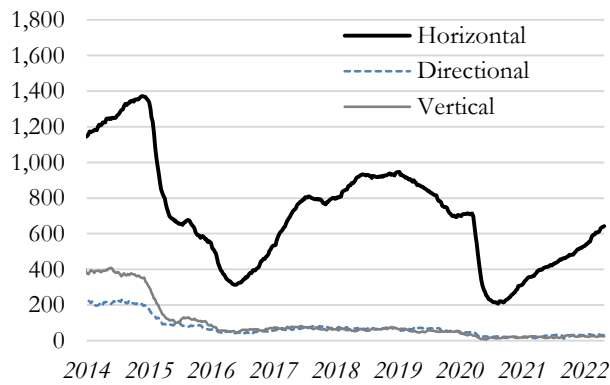
April 2022 Weekly Active Oil & Gas Drilling Rig Counts



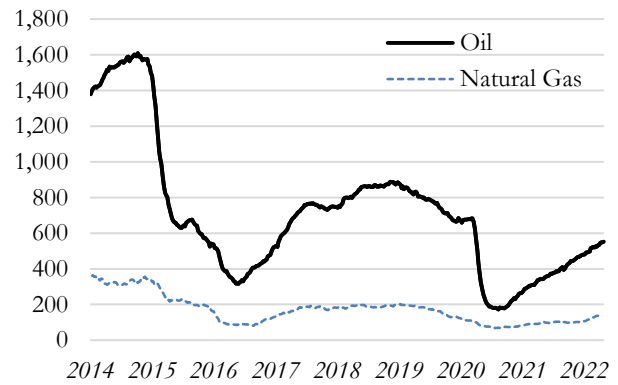
Source: Baker Hughes/Haver Analytics

April 29, 2022

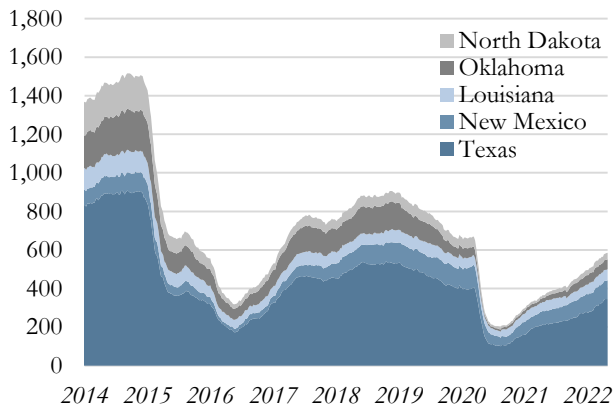
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

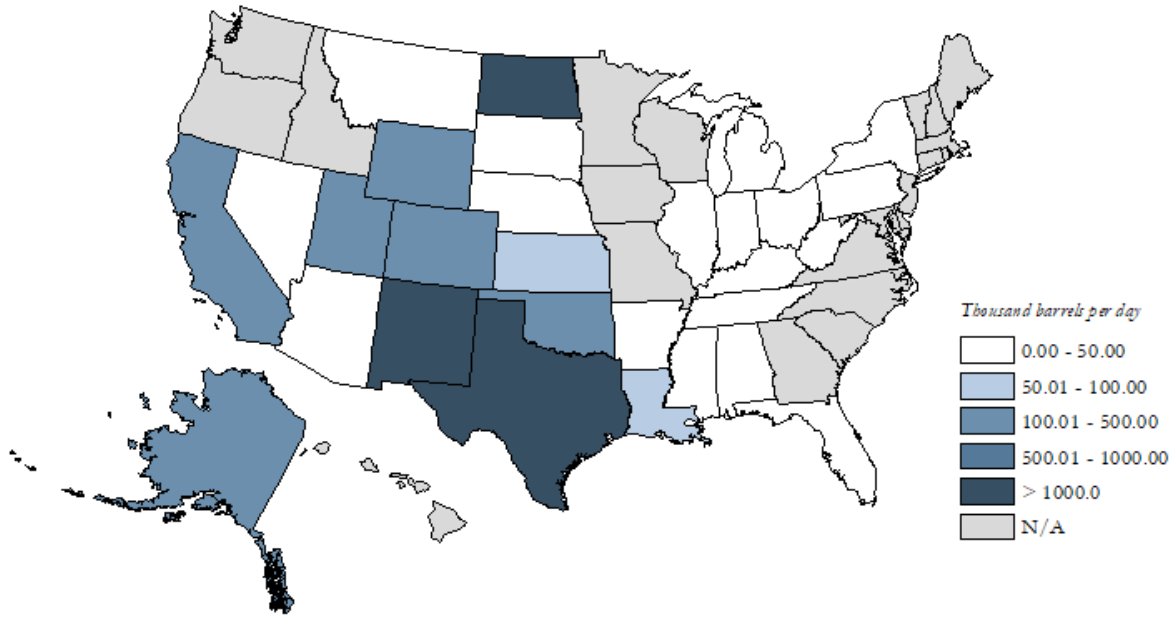
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	552	533	495	342
Gas	144	138	115	96
Misc	2	2	0	2
Total	698	673	610	440

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	3.6%	11.5%	61.4%
Gas	-	4.3%	25.2%	50.0%
Misc	-	0.0%	-	0.0%
Total	-	3.7%	14.4%	58.6%

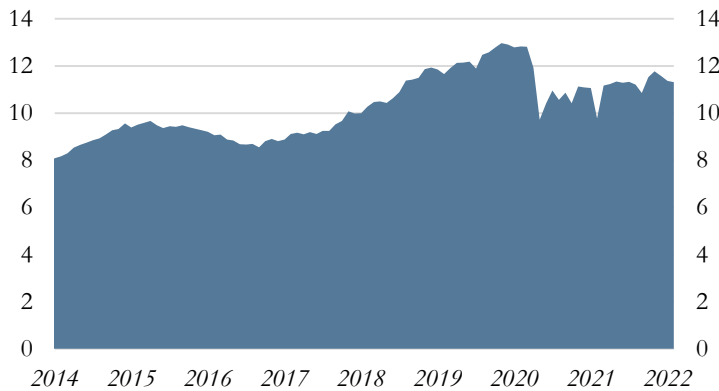
Source: Baker Hughes/Haver Analytics

February 2022 U.S. Crude Oil Production

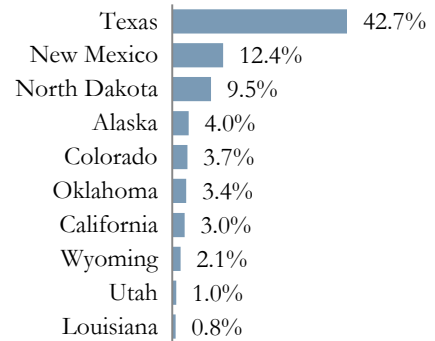


Source: Energy Information Administration/Haver Analytics

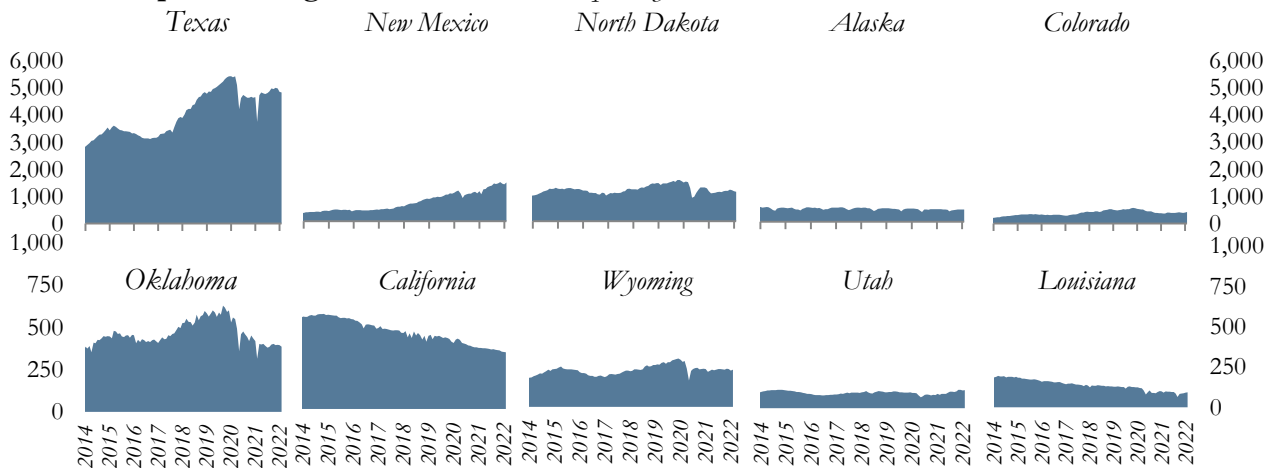
Monthly U.S. Production, million barrels per day



February 2022 Share of Production

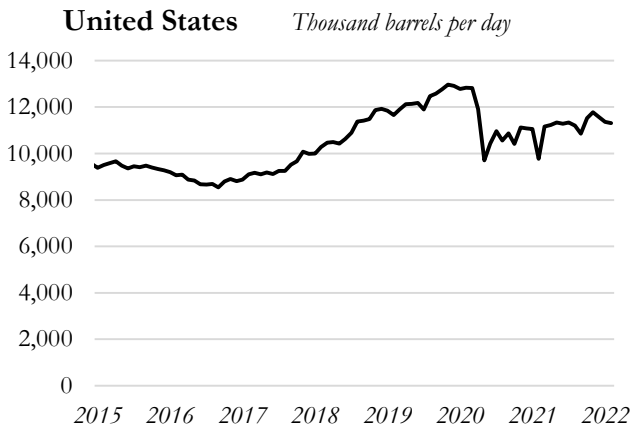


Top Producing States, thousand barrels per day

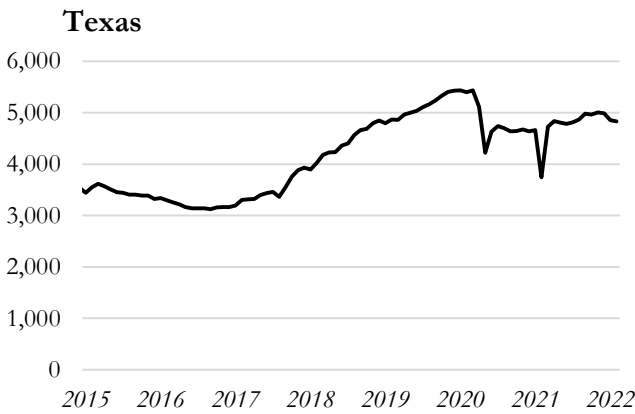


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Data through February 2022



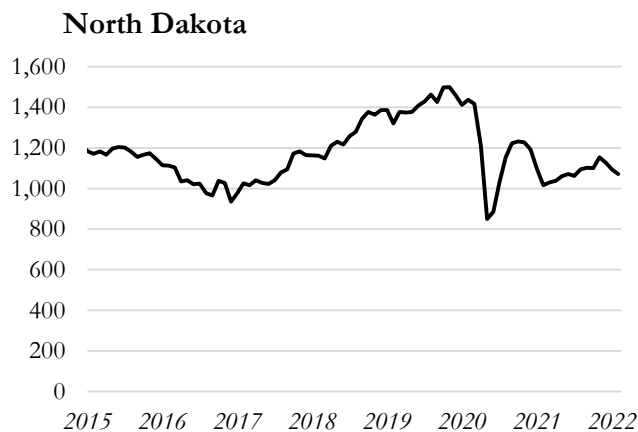
United States		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	11,312	
Month Ago	11,362	-0.4%
3 Months Ago	11,773	-3.9%
6 Months Ago	11,206	0.9%
1 Year Ago	9,773	15.7%



Texas		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	4,831	
Month Ago	4,858	-0.5%
3 Months Ago	5,004	-3.5%
6 Months Ago	4,865	-0.7%
1 Year Ago	3,745	29.0%
Share of U.S. Production		42.7%



New Mexico		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	1,407	
Month Ago	1,343	4.8%
3 Months Ago	1,423	-1.1%
6 Months Ago	1,378	2.1%
1 Year Ago	983	43.2%
Share of U.S. Production		12.4%

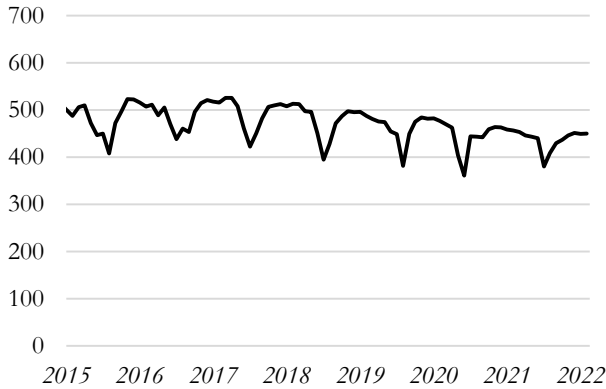


North Dakota		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	1,071	
Month Ago	1,094	-2.1%
3 Months Ago	1,153	-7.1%
6 Months Ago	1,094	-2.1%
1 Year Ago	1,016	5.5%
Share of U.S. Production		9.5%

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

Data through February 2022

Alaska *Thousand barrels per day*



	Alaska	<i>Change from</i>
	<i>Thousand barrels per day</i>	
Feb-22	450	
Month Ago	450	0.1%
3 Months Ago	446	1.0%
6 Months Ago	409	10.2%
1 Year Ago	457	-1.4%
Share of U.S. Production	4.0%	

Colorado



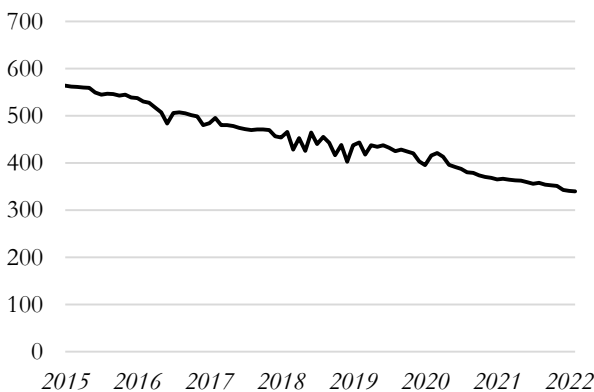
	Colorado	<i>Change from</i>
	<i>Thousand barrels per day</i>	
Feb-22	421	
Month Ago	403	4.3%
3 Months Ago	408	3.1%
6 Months Ago	392	7.4%
1 Year Ago	373	12.8%
Share of U.S. Production	3.7%	

Oklahoma



	Oklahoma	<i>Change from</i>
	<i>Thousand barrels per day</i>	
Feb-22	385	
Month Ago	395	-2.5%
3 Months Ago	395	-2.3%
6 Months Ago	385	0.2%
1 Year Ago	315	22.4%
Share of U.S. Production	3.4%	

California



	California	<i>Change from</i>
	<i>Thousand barrels per day</i>	
Feb-22	340	
Month Ago	341	-0.3%
3 Months Ago	351	-3.2%
6 Months Ago	358	-5.0%
1 Year Ago	366	-7.3%
Share of U.S. Production	3.0%	

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

Data through February 2022

Wyoming *Thousand barrels per day*



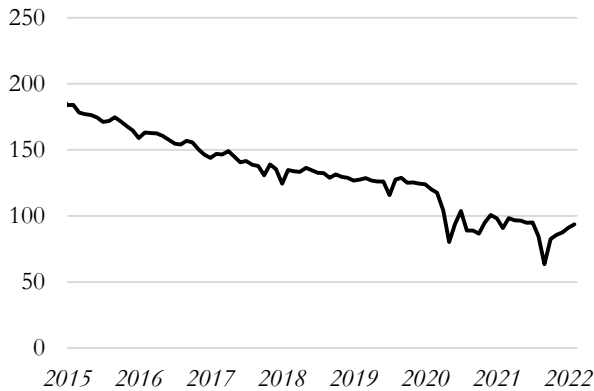
Wyoming		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	233	
Month Ago	227	2.3%
3 Months Ago	239	-2.8%
6 Months Ago	235	-1.2%
1 Year Ago	220	5.9%
Share of U.S. Production		2.1%

Utah



Utah		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	114	
Month Ago	111	3.0%
3 Months Ago	115	-0.9%
6 Months Ago	104	9.4%
1 Year Ago	85	34.4%
Share of U.S. Production		1.0%

Louisiana

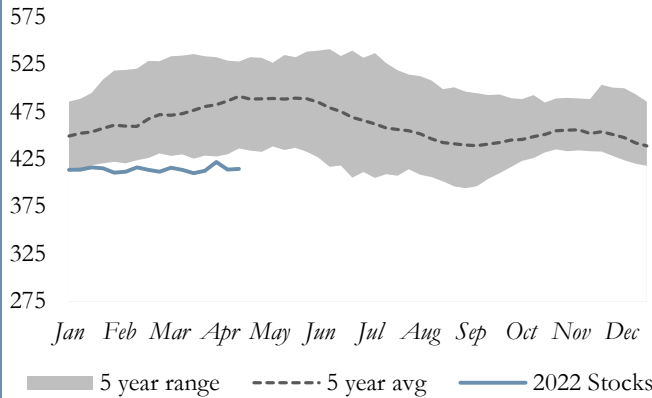


Louisiana		<i>Change from</i>
<i>Thousand barrels per day</i>		
Feb-22	94	
Month Ago	91	2.9%
3 Months Ago	86	9.3%
6 Months Ago	84	11.0%
1 Year Ago	91	3.2%
Share of U.S. Production		0.8%

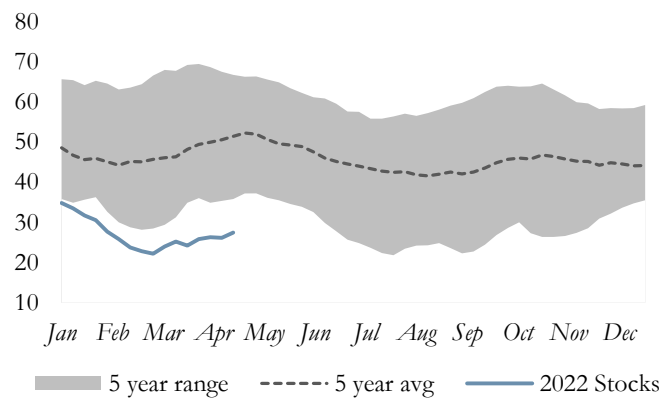
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

April 2022 Weekly U.S. Crude Oil Stocks

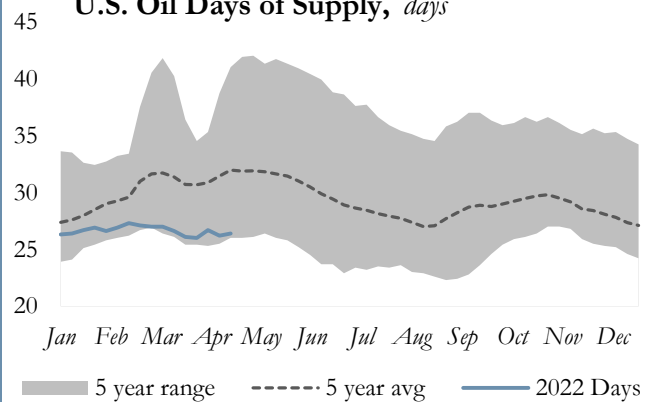
U.S. Oil Stocks, million barrels*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



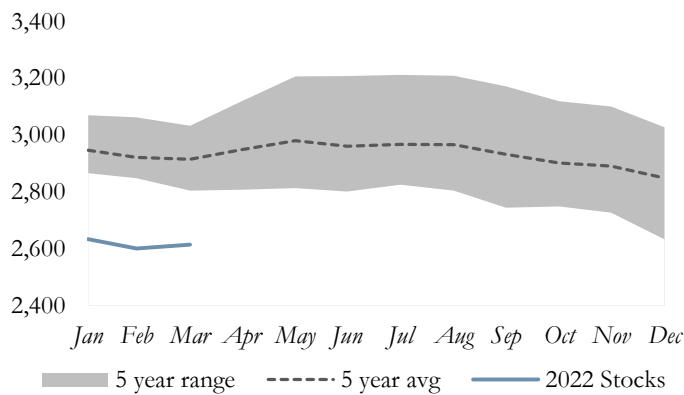
Crude Oil Stocks

	1 Week Change from Ago	1 Year Change from Ago
U.S.	0.2%	-16.0%
Cushing, OK	5.0%	-40.4%
Days of Supply	0.8%	-19.8%
East Coast (PADD 1)	16.5%	-10.6%
Midwest (PADD 2)	0.1%	-20.0%
Gulf Coast (PADD 3)	-0.3%	-18.5%
Rocky Mountain (PADD 4)	-3.4%	-4.5%
West Coast (PADD 5)	2.1%	3.3%

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

March 2022 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels



Petroleum Stocks

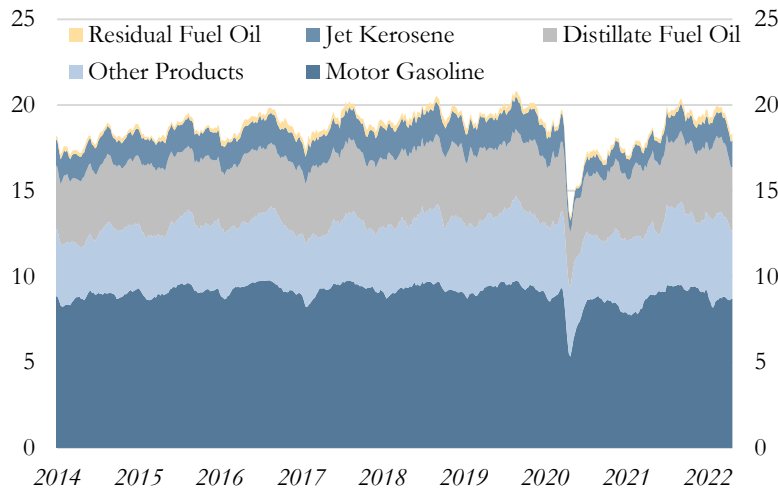
	Million Barrels	Change from
Current Month	2,614	
1 Month Ago	2,601	0.5%
3 Months Ago	2,633	-0.7%
6 Months Ago	2,745	-4.8%
1 Year Ago	2,908	-10.1%

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

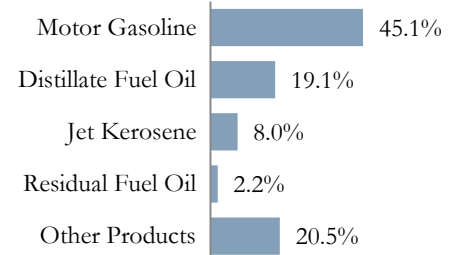
April 2022 Weekly U.S. Demand for Petroleum Products

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</i> 4/22/22	<i>1 Month</i> <i>Ago</i>	<i>3 Months</i> <i>Ago</i>	<i>6 Months</i> <i>Ago</i>	<i>1 Year</i> <i>Ago</i>
All Products	19,360	20,715	21,207	20,766	19,680
Motor Gasoline	8,726	8,760	8,202	9,392	8,926
Distillate Fuel Oil	3,697	4,153	4,200	4,111	3,994
Jet Kerosene	1,542	1,480	1,466	1,474	1,245
Residual Fuel Oil	421	280	339	311	219
Other Products	3,962	4,676	5,062	4,362	4,146

U.S. Consumption by Product, Change from

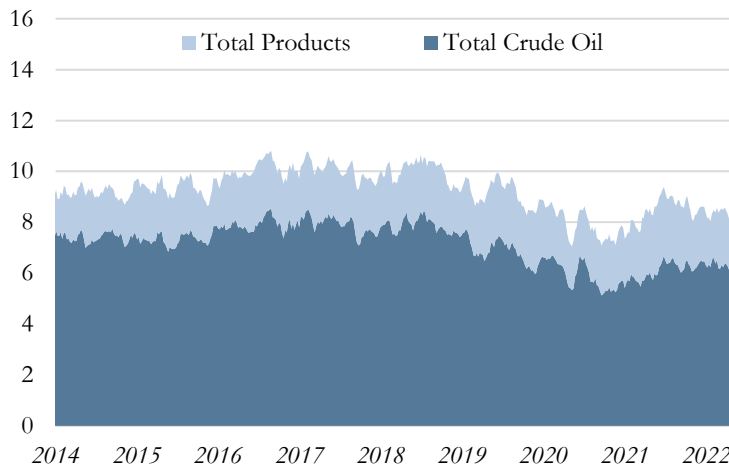
	<i>Current</i> 4/22/22	<i>1 Month</i> <i>Ago</i>	<i>3 Months</i> <i>Ago</i>	<i>6 Months</i> <i>Ago</i>	<i>1 Year</i> <i>Ago</i>
All Products	-	-6.5%	-8.7%	-6.8%	-1.6%
Motor Gasoline	-	-0.4%	6.4%	-7.1%	-2.2%
Distillate Fuel Oil	-	-11.0%	-12.0%	-10.1%	-7.4%
Jet Kerosene	-	4.2%	5.2%	4.6%	23.9%
Residual Fuel Oil	-	50.4%	24.2%	35.4%	92.2%
Other Products	-	-15.3%	-21.7%	-9.2%	-4.4%

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

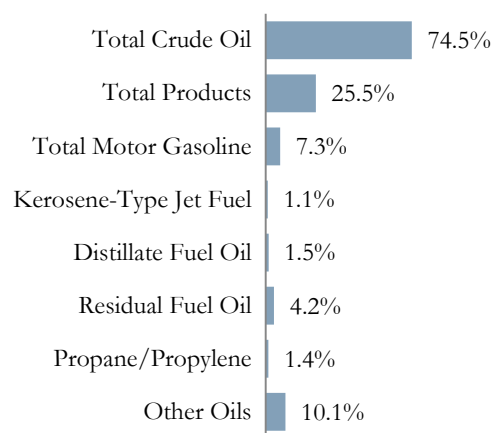
April 2022 Weekly U.S. Imports of Crude Oil & Petroleum Products

4-Week Averages

Imports, million barrels per day



Share of Total Imports



U.S. Imports by Product*

Thousand barrels per day

	Current 4/22/22	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	6,017	6,365	6,233	6,277	6,034
Total Products	2,063	2,218	1,799	2,209	2,507
Total Motor Gasoline	591	667	472	683	1,069
Kerosene-Type Jet Fuel	89	149	141	219	122
Distillate Fuel Oil	118	206	241	254	221
Residual Fuel Oil	341	220	179	202	112
Propane/Propylene	111	141	134	97	138
Other Oils	813	835	622	745	846
Total Imports	8,080	8,583	8,032	8,486	8,541

U.S. Imports by Product, Change from

	Current 4/22/22	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	-5.5%	-3.5%	-4.1%	-0.3%
Total Products	-	-7.0%	14.7%	-6.6%	-17.7%
Total Motor Gasoline	-	-11.4%	25.2%	-13.5%	-44.7%
Kerosene-Type Jet Fuel	-	-40.3%	-36.9%	-59.4%	-27.0%
Distillate Fuel Oil	-	-42.7%	-51.0%	-53.5%	-46.6%
Residual Fuel Oil	-	55.0%	90.5%	68.8%	204.5%
Propane/Propylene	-	-21.3%	-17.2%	14.4%	-19.6%
Other Oils	-	-2.6%	30.7%	9.1%	-3.9%
Total Imports	-	-5.9%	0.6%	-4.8%	-5.4%

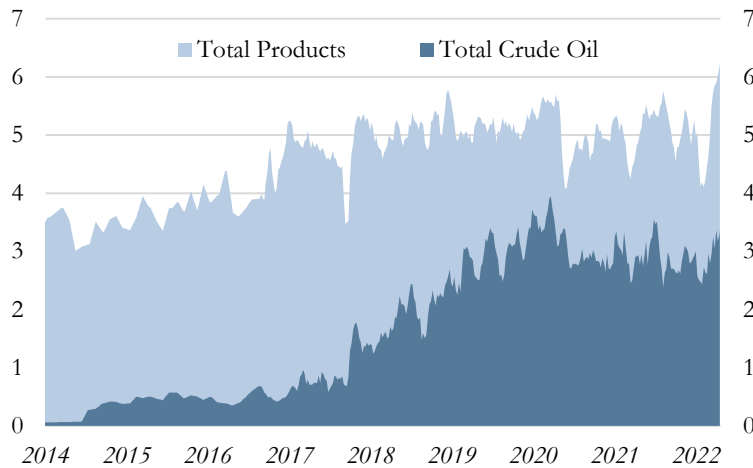
*Totals may not sum due to component rounding

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

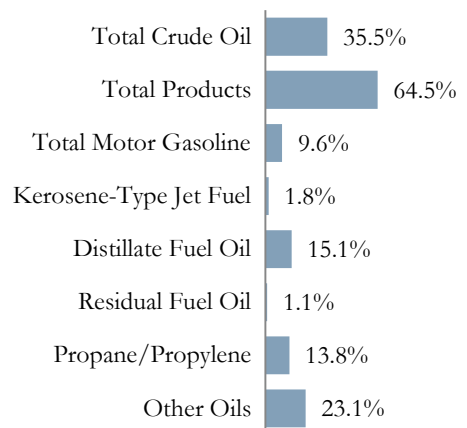
April 2022 Weekly U.S. Exports of Crude Oil & Petroleum Products

4-Week Averages

Exports, million barrels per day



Share of Total Exports



U.S. Exports by Product*

Thousand barrels per day

	<i>Current 4/22/22</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	3,466	3,048	2,479	2,619	2,776
Total Products	6,284	5,852	4,115	4,929	5,035
<i>Total Motor Gasoline</i>	936	778	450	612	684
<i>Kerosene-Type Jet Fuel</i>	178	154	112	117	97
<i>Distillate Fuel Oil</i>	1,468	1,168	753	934	1,023
<i>Residual Fuel Oil</i>	105	135	73	94	96
<i>Propane/Propylene</i>	1,346	1,249	1,050	1,191	1,192
<i>Other Oils</i>	2,252	2,368	1,677	1,981	1,945
Total Exports	9,750	8,900	6,594	7,547	7,811

U.S. Exports by Product, Change from

	<i>Current 4/22/22</i>	<i>1 Month Ago</i>	<i>3 Months Ago</i>	<i>6 Months Ago</i>	<i>1 Year Ago</i>
Total Crude Oil	-	13.7%	39.8%	32.3%	24.9%
Total Products	-	7.4%	52.7%	27.5%	24.8%
<i>Total Motor Gasoline</i>	-	20.3%	108.0%	52.9%	36.8%
<i>Kerosene-Type Jet Fuel</i>	-	15.6%	58.9%	52.1%	83.5%
<i>Distillate Fuel Oil</i>	-	25.7%	95.0%	57.2%	43.5%
<i>Residual Fuel Oil</i>	-	-22.2%	43.8%	11.7%	9.4%
<i>Propane/Propylene</i>	-	7.8%	28.2%	13.0%	12.9%
<i>Other Oils</i>	-	-4.9%	34.3%	13.7%	15.8%
Total Exports	-	9.6%	47.9%	29.2%	24.8%

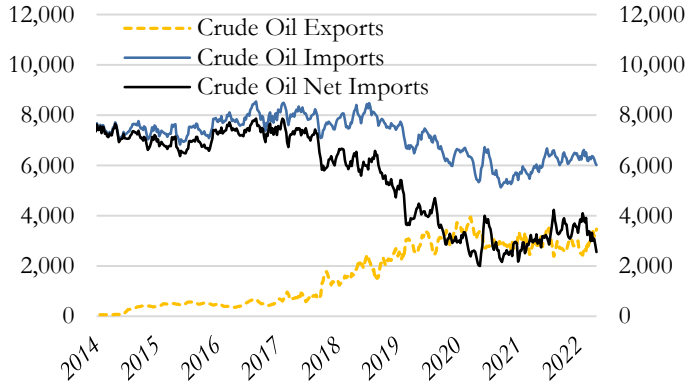
*Totals may not sum due to rounding

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

April 2022 Weekly U.S. Net Imports of Crude Oil & Petroleum Products

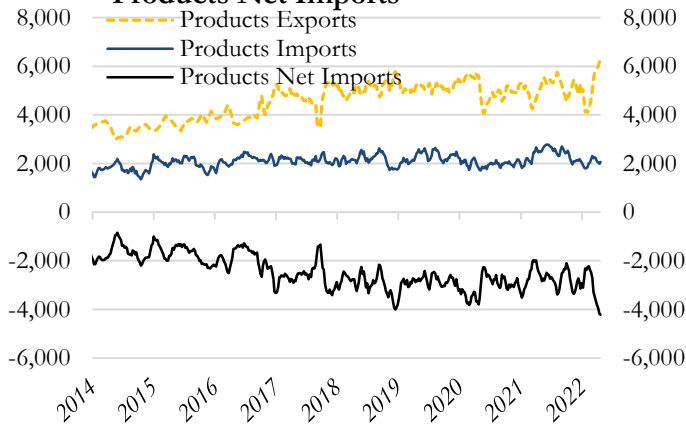
4-Week Averages, Thousand barrels per day

Crude Oil Net Imports



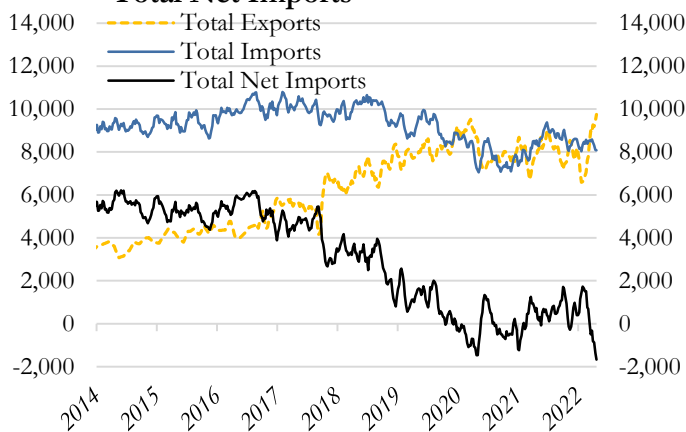
Crude Oil Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
4/22/22	2,551	
Month Ago	3,317	-23.1%
3 Months Ago	3,755	-32.1%
6 Months Ago	3,658	-30.3%
1 Year Ago	3,259	-21.7%

Products Net Imports



Products Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
4/22/22	-4,221	
Month Ago	-3,634	-
3 Months Ago	-2,316	-
6 Months Ago	-2,720	-
1 Year Ago	-2,528	-

Total Net Imports

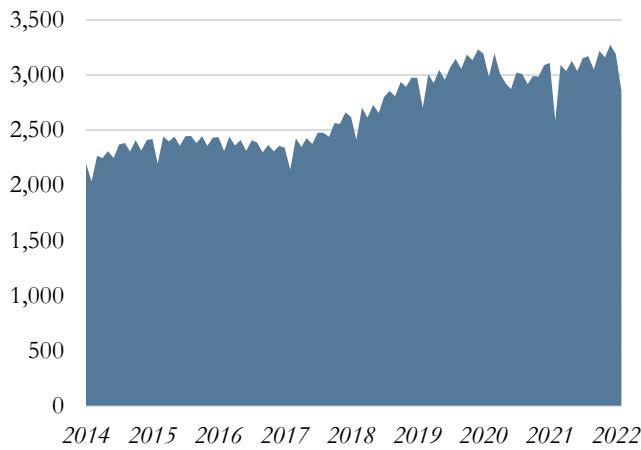


Total Net Imports		<i>Change from</i>
<i>Thousand barrels per day</i>		
4/22/22	(1,670)	
Month Ago	(317)	-
3 Months Ago	1,439	-
6 Months Ago	938	-
1 Year Ago	731	-

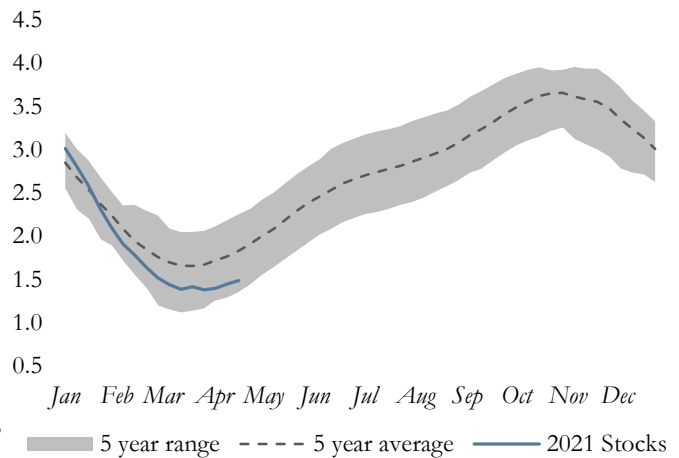
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

U.S. Natural Gas Production & Stocks

February 2022 Production
Total U.S. Production, Billion cubic feet (Bcf)



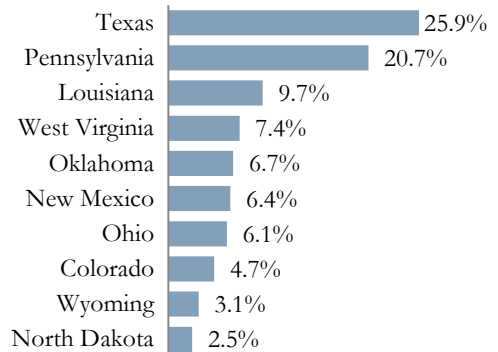
April 2022 Weekly Stocks
U.S. Natural Gas Stocks, Billion cubic feet (Bcf)



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	3,187	3,275	3,220	3,151	3,092
U.S. Stocks	1,490	1,415	2,591	3,548	1,898

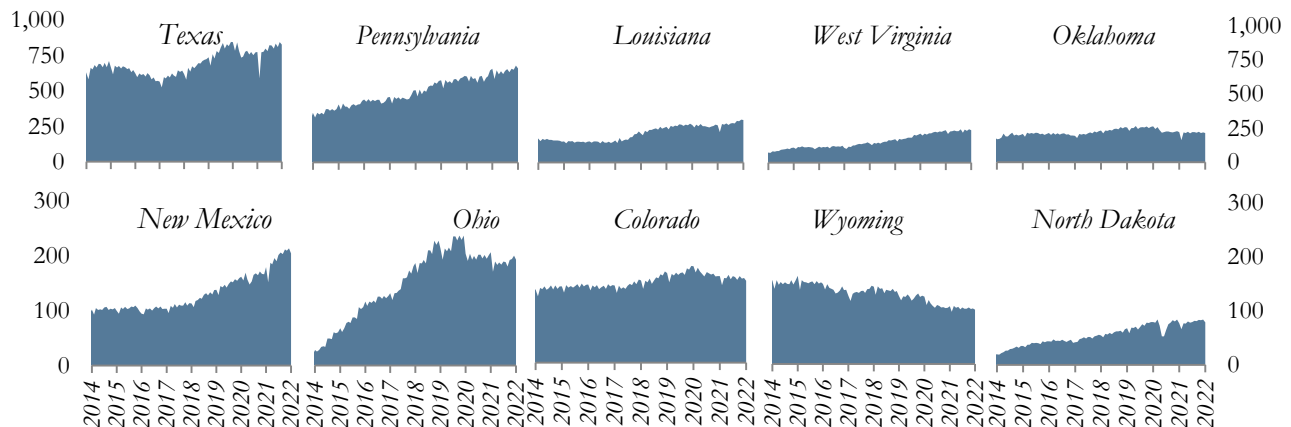
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	-2.7%	-1.0%	1.2%	3.1%
U.S. Stocks	-	5.3%	-42.5%	-58.0%	-21.5%

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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