



Independent Statistics & Analysis
U.S. Energy Information
Administration

The Availability and Price of Petroleum and Petroleum Products Produced in Countries Other Than Iran

Number 14 in a series of reports required by section 1245(d)(4)(A)
of the National Defense Authorization Act for Fiscal Year 2012

April 24, 2014



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This is the fourteenth in a series of reports prepared in fulfillment of section 1245(d)(4)(A) of the National Defense Authorization Act (NDAA) for Fiscal Year 2012, as amended. The law requires the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy, to submit to Congress a report on the availability and price of petroleum and petroleum products produced in countries other than Iran in the two-month period preceding the submission of the report. By law, EIA’s data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The views in this report, therefore, should not be construed as representing those of the U.S. Department of Energy or other Federal agencies. However, EIA consulted with the U.S. Department of the Treasury, the U.S. Department of State, and the intelligence community in the process of developing this report. Readers may review early editions of this report for detailed background and contextual information not repeated here.

March – April 2014 Update

- The U.S. Energy Information Administration (EIA) estimates that the global petroleum and other liquids¹ consumption outpaced production in March and April, resulting in a 0.1-million-bbl/d average implied withdrawal from global oil stocks (**Table 1, Figure 1**). The recent withdrawals were similar to the previous two-month period. Global surplus crude oil production capacity remains low and unplanned global supply disruptions remain elevated compared with historical levels, both indicating continued general market tightness.
- North Sea Brent front month futures prices averaged about \$108/bbl from March 3 to April 22, nearly unchanged from the previous two-month average and about \$1/bbl higher than this time last year (**Figure 2**).
- Global petroleum and other liquids² consumption in March and April averaged 90.9 million bbl/d, relatively unchanged from the previous two-month period and 1.5 million bbl/d higher than the same time last year. Developing and emerging countries accounted for almost all of the consumption growth, led by China (**Table 2**).
- Global petroleum and other liquids production in March and April averaged 90.8 million bbl/d, 0.2 million bbl/d higher than the previous two-month period and 1.0 million bbl/d higher than the same time last year. Production from countries outside of the Organization of the Petroleum Exporting Countries (OPEC) grew by 1.7 million bbl/d compared with the same time last year, more than offsetting lower output from OPEC countries, particularly Libya (**Table 3**).
- Global surplus crude oil production capacity averaged 2.1 million bbl/d in March and April, 0.2 million bbl/d higher than the average during the previous two-month period but 0.5 million bbl/d lower than the year-ago level (**Table 3**). The estimate of effective surplus capacity does not include additional capacity that may be technically available in Iran, but which is offline due to the impacts of U.S. and European Union (EU) sanctions on Iran's ability to sell its oil.
- The estimated small stock draw during March and April is reflected in the relative stability of backwardation (when near-term prices are greater than further dated ones) in the Brent futures curve. The 1st-13th month spread for the Brent futures curve averaged about \$6/bbl for the five-trading-days ending April 22, nearly unchanged compared to the five-trading-day-period ending February 25 (**Figure 3**).
- OPEC crude oil supply disruptions averaged 2.6 million bbl/d in March and April, 0.3 million bbl/d higher than the average in January and February because of increased disruptions in Libya and Iraq. Libya continues to experience swings in production (**Figure 4**). Unplanned supply disruptions among non-OPEC producers averaged 0.6 million bbl/d in March and April, 0.1 million bbl/d lower than the average in January and February mainly because of fewer outages in Brazil and no outages in the North Sea, Indonesia, and China in March and April (**Figure 5**). EIA's estimates of unplanned outages account for crude oil only among OPEC producers and all liquid fuels among non-OPEC producers.

¹ The term "petroleum and other liquids" encompasses petroleum and petroleum products and close substitutes, including crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gain.

² The growth rates referenced in this report may not exactly match corresponding values in tables as a result of independent rounding.

These estimates of unplanned outages exclude normal maintenance and reflect the level of volumes shut in relative to an assessment of effective production capacity, which is periodically updated.

- Iran's petroleum and other liquids production averaged 3.4 million bbl/d in March and April, of which 2.8 million bbl/d was crude oil. Iran's liquid fuels production remains below the previous three-year average of 3.8 million bbl/d (**Table 1**). Iran's crude oil production and exports have been reduced by sanctions that have impeded its ability to carry out investment in oil projects necessary to offset natural declines in production. Sanctions have also limited Iran's ability to sell oil. The Joint Plan of Action (JPOA) between the five permanent members of the United Nations Security Council (the United States, United Kingdom, France, Russia, and China) plus Germany (P5+1) and Iran that came into effect on January 20, 2014, provides limited sanctions relief to Iran, while leaving in place the core sanctions affecting Iran's oil sector. EIA's liquids estimates of Iran's production and use, and the implied level of exports, have not changed appreciably in the months following the announcement of the JPOA. However, EIA is currently reviewing its past and current estimates of Iran's non-crude oil production, which could lead to revisions in upcoming reports in this series. EIA will continue to assess the situation.
- U.S. domestic crude oil prices remain subject to the local supply and demand dynamics of the Midwest and U.S. Gulf Coast. The price spread between Brent, a global waterborne light sweet crude, and West Texas Intermediate (WTI) continued to decrease in March and April compared with the previous two-month period. WTI averaged about \$101/bbl in March and April, an increase of about \$4/bbl from its January and February average (**Table 5**).
- EIA revised the preliminary estimates of petroleum and other liquids production and consumption for January and February 2014 published in the previous edition of this report. Global petroleum and other liquids production was revised upward by 0.4 million bbl/d to average 90.6 million bbl/d, while global consumption was revised upward by 0.2 million bbl/d to average 90.8 million bbl/d, resulting in implied global stock draw of 0.2 million bbl/d. Surplus crude oil production capacity was revised downward by 0.3 million bbl/d to average 1.9 million bbl/d, mostly reflecting higher production in Saudi Arabia than expected in January and February.

Tables

Table 1. Summary of Estimated Petroleum and Other Liquids Quantities and Prices

	March 2014	April 2014	March – April 2014 Average	March – April 2013 Average	2011 – 2013 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	90.6	91.0	90.8	89.8	89.4
Global Petroleum and Other Liquids Consumption (b)	90.7	91.1	90.9	89.4	89.4
Biofuels Production (c)	1.5	1.8	1.6	1.5	1.9
Biofuels Consumption (c)	1.9	1.9	1.9	1.8	1.8
Iran Liquid Fuels Production	3.4	3.4	3.4	3.4	3.8
Iran Liquid Fuels Consumption	1.8	1.7	1.8	1.7	1.7
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	85.7	85.7	85.7	84.8	83.8
Consumption (d)	87.0	87.4	87.2	85.9	85.8
Production minus Consumption	-1.3	-1.7	-1.5	-1.0	-2.1
World Inventory Net Withdrawals Including Iran	0.1	0.1	0.1	-0.4	0.0
Estimated OECD Inventory Level (e) (million barrels)	2,562	2,576	2,569	2,657	2,659
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	2.0	2.2	2.1	2.5	2.4
Oil Price Level					
WTI Front Month Futures Price (g) (\$ per barrel)	100.51	102.46	101.35	92.50	95.77
Brent Front Month Futures Price (h) (\$ per barrel)	107.75	107.71	107.73	106.41	110.43
RBOB Front Month Futures Price (i) (\$ per gallon)	2.93	2.99	2.96	2.98	2.86
Oil Price Time Spread					
WTI 1st - 13th Month Futures Spread (\$ per barrel)	9.87	10.28	10.05	2.07	0.41
Brent 1st - 13th Month Futures Spread (\$ per barrel)	5.01	4.72	4.88	4.90	4.86

Note: The term "petroleum and other liquids" encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.

(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.

(b) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.

(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.

(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.

(e) Estimated inventory level is for OECD countries only.

(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field. It also does not include additional capacity that may be available in Iran, but which is currently offline due to the impacts of U.S. and EU sanctions on Iran's ability to sell its oil.

(g) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.

(h) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).

(i) RBOB refers to reformulated blendstock for oxygenate blending traded on the NYMEX.

Note: April prices include data through market close on April 22, 2014.

Source: U.S. Energy Information Administration.

Table 2. Global Petroleum and Other Liquids Production, Consumption, and Inventory Estimates

	March 2014	April 2014	March – April 2014 Average	March – April 2013 Average	2011 – 2013 Average
Production (million barrels per day) (a)					
OECD (b)	24.8	24.8	24.8	23.3	22.6
U.S. (50 States)	13.1	13.3	13.2	11.9	11.2
Canada	4.4	4.3	4.4	4.1	3.9
Mexico	2.9	2.9	2.9	2.9	2.9
North Sea (c)	2.9	2.8	2.8	2.9	3.1
Other OECD	1.5	1.5	1.5	1.5	1.6
Non-OECD	65.8	66.1	65.9	66.5	66.8
OPEC (d)	35.9	35.8	35.9	36.6	36.4
Crude Oil Portion	29.6	29.5	29.5	30.3	30.2
Non-crude liquids	6.3	6.3	6.3	6.3	6.1
Former Soviet Union (e)	13.7	13.7	13.7	13.5	13.4
China	4.5	4.5	4.5	4.5	4.4
Other non-OECD	11.7	12.1	11.9	11.9	12.6
Total World Production	90.6	91.0	90.8	89.8	89.4
Non-OPEC Production	54.7	55.1	54.9	53.2	53.0
Consumption (million barrels per day) (f)					
OECD	46.2	45.2	45.7	45.5	46.1
U.S. (50 States)	18.5	18.6	18.6	18.5	18.8
U.S. territories	0.3	0.3	0.3	0.3	0.3
Canada	2.3	2.2	2.2	2.3	2.3
Europe	13.7	13.3	13.5	13.6	13.9
Japan	4.8	4.4	4.6	4.5	4.6
Other OECD	6.5	6.4	6.4	6.2	6.3
Non-OECD	44.5	45.9	45.2	43.9	43.2
Former Soviet Union	4.7	4.7	4.7	4.5	4.5
Europe	0.7	0.7	0.7	0.7	0.7
China	10.6	11.3	10.9	10.6	10.3
Other Asia	11.3	11.5	11.4	11.2	10.9
Other non-OECD	17.3	17.7	17.5	16.9	16.9
Total World Consumption	90.7	91.1	90.9	89.4	89.4
Inventory Net Withdrawals (million barrels per day)					
U.S. (50 States)	0.1	-0.8	-0.3	-0.3	0.0 (g)
Other OECD	0.0	0.3	0.2	-0.2	0.1
Other Stock Draws and Balance	0.0	0.5	0.3	0.1	-0.1
Total Stock Draw	0.1	0.1	0.1	-0.4	0.0 (g)
End-of-period Inventories (million barrels)					
U.S. Commercial Inventory	1,045	1,068	1,056	1,104	--
OECD Commercial Inventory	2,562	2,576	2,569	2,657	2,659

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- a) Production includes production of crude oil (including lease condensates), natural gas liquids, biofuels, other liquids, and refinery processing gains.
- b) OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.
- c) North Sea includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.
- d) OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
- e) Former Soviet Union = Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Estonia is included in "Other OECD" totals.
- f) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.
- g) The estimates are 0.03 million bbl/d and -0.03 million bbl/d, respectively.
- Note: The sum of individual countries or regions may not add to the totals because of independent rounding.
- Source: U.S. Energy Information Administration.

Table 3. OPEC Crude Oil (Excluding Condensates) and Other Liquids Production Estimates

Production (million barrels per day)	March 2014	April 2014	March – April 2014 Average	March – April 2013 Average	2011 – 2013 Average
Crude Oil					
Algeria	1.2	1.2	1.2	1.2	1.2
Angola	1.6	1.7	1.6	1.8	1.7
Ecuador	0.5	0.5	0.5	0.5	0.5
Iran	2.8	2.8	2.8	2.8	3.1
Iraq	3.3	3.3	3.3	3.1	2.9
Kuwait	2.6	2.6	2.6	2.6	2.6
Libya	0.3	0.2	0.2	1.4	0.9
Nigeria	1.9	1.9	1.9	2.0	2.1
Qatar	0.7	0.8	0.7	0.7	0.8
Saudi Arabia	9.8	9.6	9.7	9.2	9.6
United Arab Emirates	2.7	2.7	2.7	2.7	2.6
Venezuela	2.2	2.2	2.2	2.2	2.2
OPEC Total	29.6	29.5	29.5	30.3	30.2
Non-crude liquids	6.3	6.3	6.3	6.3	6.1
Total OPEC Supply	35.9	35.8	35.9	36.6	36.4
Crude Oil Production Capacity					
Africa	4.9	5.0	5.0	6.4	5.9
South America	2.7	2.7	2.7	2.7	2.7
Middle East	23.9	23.9	23.9	23.7	24.0
OPEC Total	31.6	31.6	31.6	32.8	32.7
Surplus Crude Oil Production Capacity (a)					
Africa	0.0	0.0	0.0	0.0	0.0
South America	0.0	0.0	0.0	0.0	0.0
Middle East	2.0	2.2	2.1	2.5	2.4
OPEC Total	2.0	2.2	2.1	2.5	2.4

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Libya, and Nigeria (Africa); Ecuador and Venezuela (South America); Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates (Middle East).

a) EIA defines surplus crude oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field. It also does not include additional capacity that may be available in Iran, but which is currently offline due to the impacts of U.S. and EU sanctions on Iran's ability to sell its oil. Note: The sum of individual countries may not add to the totals because of independent rounding.

Source: U.S. Energy Information Administration.

Table 4. Non-OPEC Petroleum and Other Liquids Production Estimates

Production (million barrels per day)	March 2014	April 2014	March – April 2014 Average	March – April 2013 Average	2011 – 2013 Average
North America	20.5	20.5	20.5	18.9	18.0
Canada	4.4	4.3	4.4	4.1	3.9
Mexico	2.9	2.9	2.9	2.9	2.9
United States	13.1	13.3	13.2	11.9	11.2
Central and South America	4.3	4.7	4.5	4.5	4.9
Argentina	0.7	0.7	0.7	0.7	0.7
Brazil	2.1	2.5	2.3	2.3	2.7
Colombia	1.0	1.0	1.0	1.0	1.0
Other Central and South America	0.5	0.5	0.5	0.5	0.5
Europe	3.8	3.8	3.8	3.8	4.0
Norway	1.8	1.8	1.8	1.8	1.9
United Kingdom (offshore)	0.8	0.8	0.8	0.9	0.9
Other North Sea	0.3	0.3	0.3	0.2	0.2
Former Soviet Union (FSU) (a)	13.7	13.7	13.7	13.5	13.4
Azerbaijan	0.9	0.9	0.9	0.9	0.9
Kazakhstan	1.7	1.7	1.7	1.7	1.6
Russia	10.6	10.6	10.6	10.5	10.4
Turkmenistan	0.3	0.3	0.3	0.3	0.2
Other FSU	0.3	0.3	0.3	0.2	0.2
Middle East	1.2	1.2	1.2	1.2	1.4
Oman	1.0	1.0	1.0	0.9	0.9
Syria (b)	0.0	0.0	0.0	0.1	0.2
Yemen	0.1	0.1	0.1	0.1	0.2
Asia and Oceania	8.9	8.9	8.9	9.0	9.0
Australia	0.5	0.5	0.5	0.4	0.5
China	4.5	4.5	4.5	4.5	4.4
India	1.0	1.0	1.0	1.0	1.0
Indonesia	0.9	0.9	0.9	1.0	1.0
Malaysia	0.6	0.6	0.6	0.6	0.6
Vietnam	0.4	0.4	0.4	0.4	0.3
Africa	2.3	2.3	2.3	2.2	2.4
Egypt	0.7	0.7	0.7	0.7	0.7
Equatorial Guinea	0.3	0.3	0.3	0.3	0.3
Gabon	0.3	0.3	0.3	0.2	0.2
Sudan and South Sudan	0.3	0.3	0.3	0.1	0.3
Total non-OPEC liquids	54.7	55.1	54.9	53.2	53.0
OPEC non-crude liquids (c)	6.3	6.3	6.3	6.3	6.1
Non-OPEC + OPEC non-crude liquids	61.0	61.5	61.3	59.5	59.2

a) Former Soviet Union = Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

b) The estimates are 0.04 million bb/d in both months.

c) OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Note: The sum of individual countries may not add to regional totals because of independent rounding.

Source: U.S. Energy Information Administration.

Table 5. Crude Oil and Petroleum Product Price Data

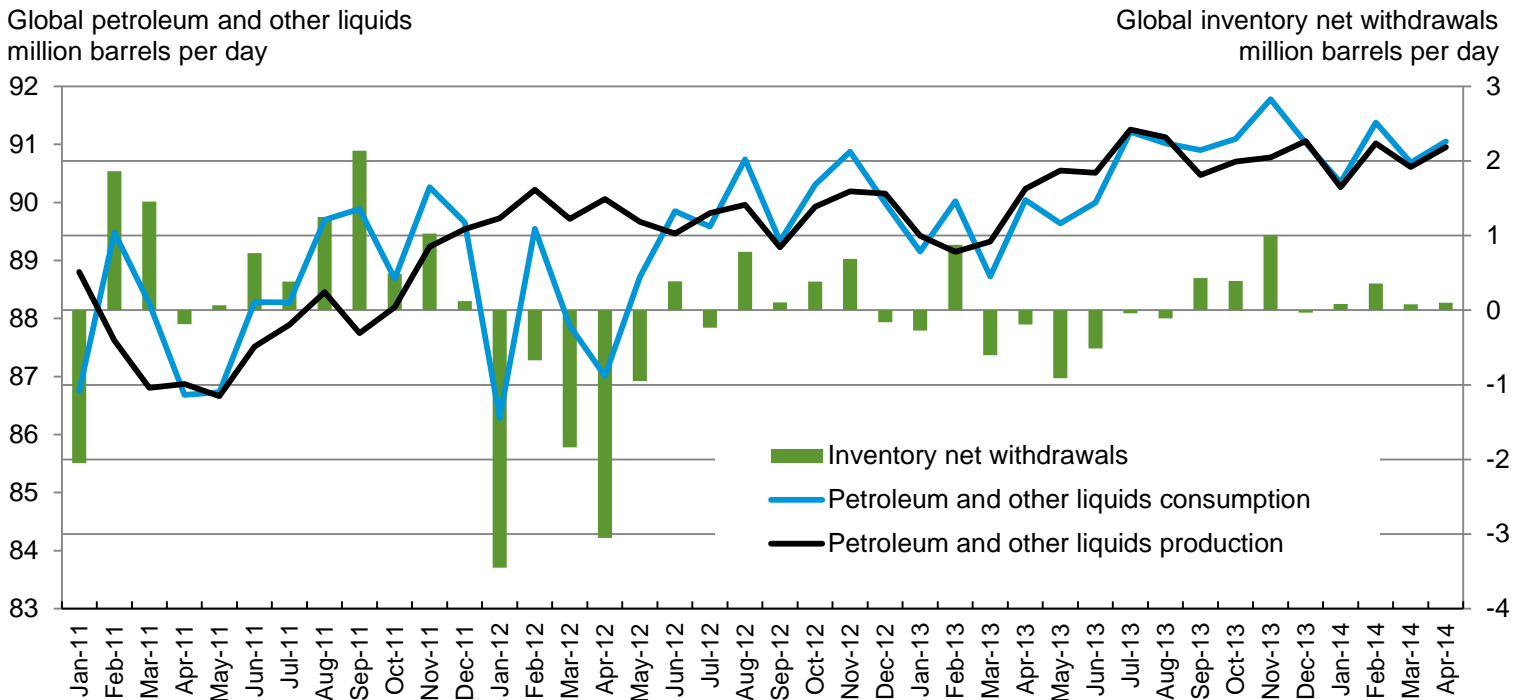
Item	March 2014	April 2014	March – April 2014 Average	March – April 2013 Average	2011 – 2013 Average
Brent Front Month Futures Price (\$ per barrel)	107.75	107.71	107.73	106.41	110.43
WTI Front Month Futures Price (\$ per barrel)	100.51	102.46	101.35	92.50	95.77
Dubai Front Month Futures Price (\$ per barrel)	104.36	104.56	104.45	103.53	107.21
Brent 1st - 13th Month Futures Spread (\$ per barrel)	5.01	4.72	4.88	4.90	4.86
WTI 1st - 13th Month Futures Spread (\$ per barrel)	9.87	10.28	10.05	2.07	0.41
RBOB Front Month Futures Price (\$ per gallon)	2.93	2.99	2.96	2.98	2.86
Heating Oil Front Month Futures Price (\$ per gallon)	2.95	2.95	2.95	2.91	2.99
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.37	0.43	0.39	0.44	0.23
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.39	0.38	0.38	0.38	0.36

Note: April prices include data through market close on April 22, 2014.

Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).

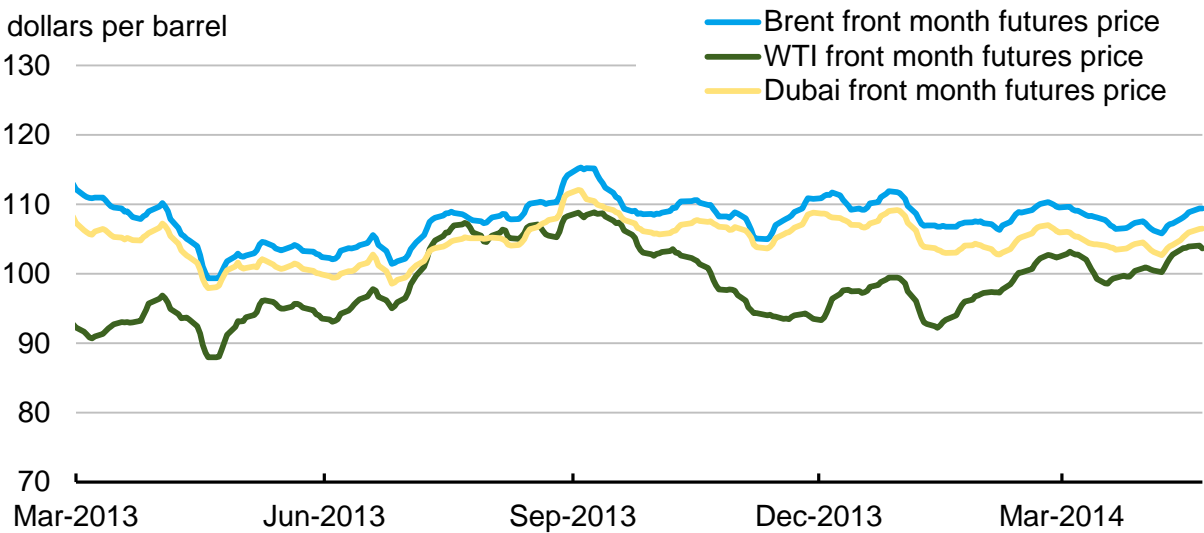
Figures

Figure 1. Global Petroleum and Other Liquids Production, Consumption, and Inventory Net Withdrawals, January 2011 – April 2014



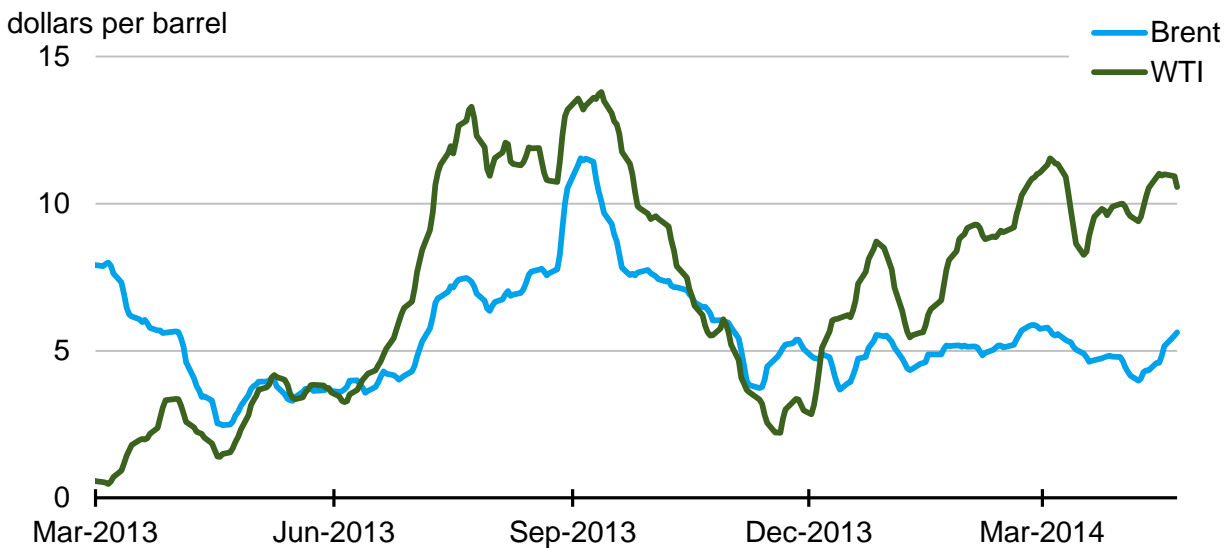
Note: See Table 1 footnotes for definitions of petroleum and other liquids, production, and consumption.
Source: U.S. Energy Information Administration.

Figure 2. Front Month Crude Oil Futures Prices



Note: All prices represent rolling 5-day averages.
Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE) and Dubai Mercantile Exchange (DME).

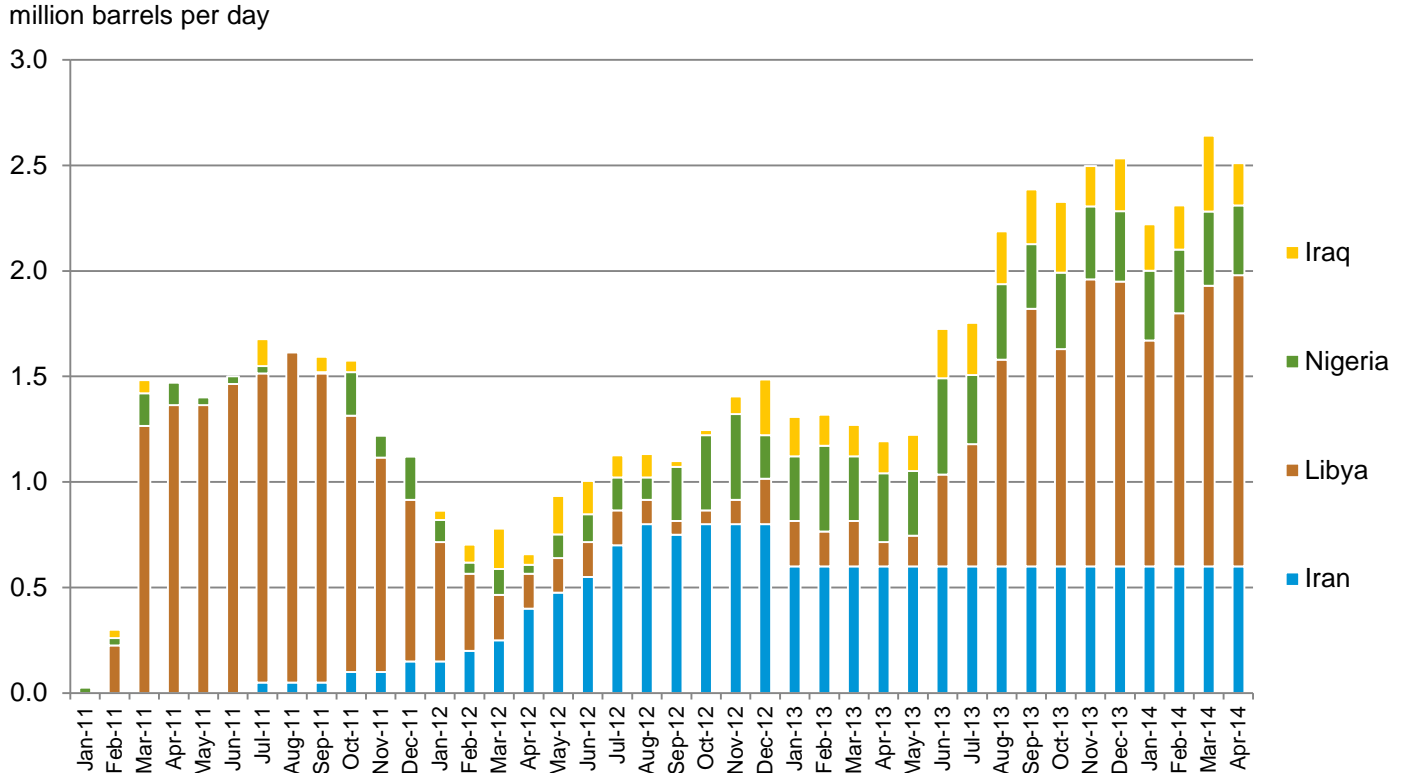
Figure 3. Crude Oil 1st - 13th Month Futures Price Spread



Note: All prices represent rolling 5-day averages.

Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME) and Intercontinental Exchange (ICE).

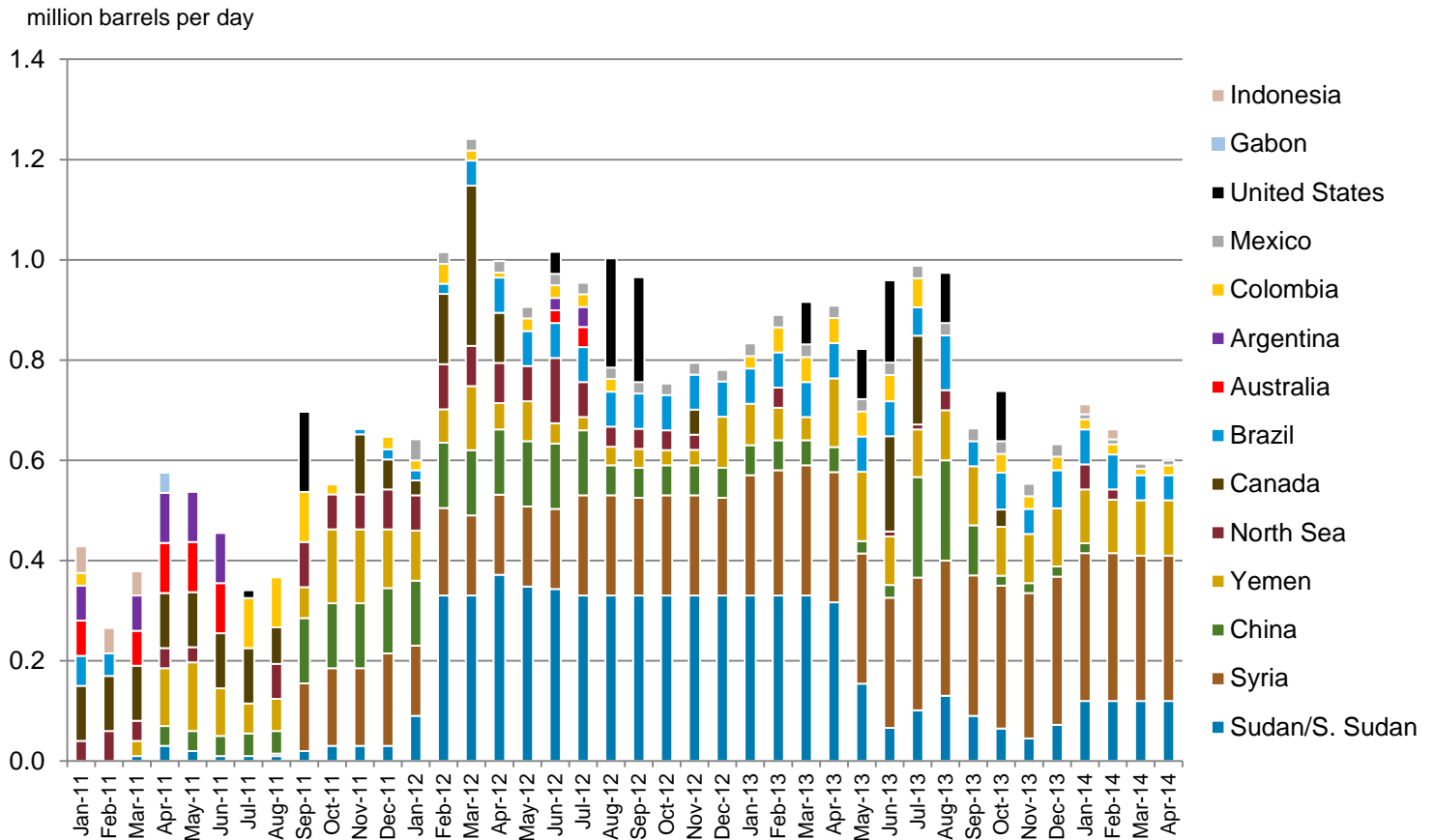
Figure 4. Estimated Unplanned Crude Oil Production Disruptions Among OPEC Producers, January 2011 – April 2014



Note: Estimated unplanned disruptions reflect the level of volumes shut in, accounting for effective production capacity.

Source: U.S. Energy Information Administration.

Figure 5. Estimated Unplanned Petroleum and Other Liquids Production Disruptions Among Non-OPEC Producers, January 2011 – April 2014



Note: Estimated unplanned disruptions reflect the level of volumes shut in, accounting for effective production capacity.
 Source: U.S. Energy Information Administration.