



Independent Statistics & Analysis
U.S. Energy Information
Administration

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

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

August 29, 2013



Table of Contents

July – August 2013 Update	2
Tables	4
Figures	10

This is the tenth 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.

July – August 2013 Update

- The U.S. Energy Information Administration (EIA) estimates that global liquid fuels¹ consumption outpaced supply in July and August 2013, resulting in a 0.3-million-barrel-per-day (bbl/d) average withdrawal in global oil stocks (**Table 1, Figure 1**), virtually equal to those during the same time period last year. Commercial inventories, both in the United States and other Organization for Economic Cooperation and Development (OECD) countries, were also roughly equal to their year-ago levels (**Table 2**).
- Unexpected supply disruptions from various oil-producing countries, occurring at a time of low surplus production capacity amid unrest in the Middle East and North Africa, are reflected in a tighter world oil market. The Brent front month futures price averaged about \$111 per barrel for the five-trading-day period ending August 27, a rise of about \$9 per barrel compared to the five-trading-day average ending June 25 (**Figure 2**). Other crude oils of varying quality and location displayed similar rises over the same time period, indicating that the recent tightness is not limited to light-sweet crude oil in the Atlantic basin. In July and August 2013, Brent averaged about \$109 per barrel, about \$1 per barrel higher than in the July-August period last year (**Table 1**).
- Global liquid fuels² supply during July and August 2013 was 1.2 million bbl/d higher than in the comparable 2012 period but about 0.1 million bbl/d lower than the average during May and June 2013. The increase in supply compared with last year was due to rising production from countries outside of the Organization of the Petroleum Exporting Countries (OPEC). Non-OPEC producers supplied 2.2 million bbl/d more liquids than in the same two-month period last year. North America accounted for most of the growth, with tight oil plays contributing to most of the 1.4-million-bbl/d increase in U.S. production (**Table 2**). OPEC liquid fuels production fell by about 1.0 million bbl/d from the comparable year-ago period, mainly reflecting lower crude oil output in Libya, Saudi Arabia, and Nigeria (**Table 3**).
- Global liquid fuels consumption during July and August 2013 averaged 1.2 million bbl/d higher than its average during July and August 2012. Consumption during July and August 2013 was approximately 1.2 million bbl/d higher than the average consumption for May and June 2013. The increase in consumption in July and August relative to preceding months is consistent with the expected increase in world demand during the third quarter, which reflects both the United States' driving season and increased oil use for electricity generation in the Middle East. Non-OECD countries accounted for most of the increase in total world consumption over year-ago levels and the three-year average (**Table 2**).
- Global surplus crude oil production capacity in July and August 2013 averaged 2.2 million bbl/d, which is 0.3 million bbl/d above the year-ago level, but still 0.8 million bbl/d lower than the historical three-year average (**Table 3**). The estimate of effective surplus capacity does not include additional capacity that may be technically available in Iran, but which is off line due to the impacts of U.S. and European Union (EU) sanctions on Iran's ability to sell its oil.

¹ The term "liquid fuels" encompasses petroleum and petroleum products and close substitutes, including crude oil, lease condensate, natural gas plant 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.

- The total volume of production that is off line due to unplanned outages in OPEC and non-OPEC countries is estimated to be 2.6 million bbl/d in July 2013 and 2.8 million bbl/d in August 2013. The volumes shut in due to unplanned outages in August 2013 were the highest since at least January 2011. EIA's estimates of unplanned outages account for crude oil only among OPEC producers and all liquid fuels among non-OPEC producers. 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. Given the further disruption in supply from Libya in recent days, total unplanned disruptions towards the end of August are significantly above their monthly average level.
- The relatively high level of total disruptions was mainly driven by outages among OPEC producers, which saw an average of 2.0 million bbl/d disrupted in July and August, the highest level since at least January 2009, when EIA began tracking OPEC disruptions. Libya's outages increased due to the recent deterioration in the security environment and the shutdown of key oil exporting facilities. In addition, shut-in volumes in Iraq and Nigeria have risen in July and August 2013 compared to year ago levels (**Figure 3**).
- Unplanned outages among non-OPEC producers were somewhat lower than the previous two-month period, averaging 0.7 million bbl/d. Unplanned disruptions in China, Brazil, and Colombia decreased in July and August 2013 and more than offset higher outages in the North Sea (**Figure 4**).
- Iran's liquid fuels production averaged 3.4 million bbl/d in July and August 2013, of which 2.8 million bbl/d was crude oil, remaining at the same average level as in May and June 2013. Iran's liquid fuels production remains well below the three-year average of 4.0 million bbl/d (**Table 1**). July and August 2013 production was slightly above the output level during the same period last year, but this likely reflects the timing of sanctions imposed on Iranian oil exports in 2012. Sanctions enacted by the EU, which not only banned all imports of Iranian oil, but also barred all EU insurance companies from providing protection and indemnity coverage to vessels that carry Iranian oil became effective in July 2012, resulting in precipitous declines in Iranian production in July and August 2012.
- The recent increase in backwardation (when near-month prices are higher than farther dated prices) of the Brent futures curve reflects tightness in world crude oil markets (**Figure 5**). Backwardation in the Brent futures curve moved higher in July and August 2013 and averaged over \$8 per barrel for the five-trading-day period ending August 27. This is an increase of more than \$4 per barrel compared to the five-trading-days ending June 25 and higher relative to this time last year (**Table 5**).
- EIA has revised the preliminary estimates for May and June 2013 liquid fuels production, consumption, and stock draws published in the previous edition of this report. World liquid fuels production was revised upward by 0.9 million bbl/d to average 90.7 million bbl/d, while the estimate for global liquid fuels consumption remained the same at 89.7 million bbl/d although revisions were made for OECD and non-OECD countries. China's consumption in May and June averaged 10.9 million bbl/d, about 0.5 million bbl/d higher than previously estimated, but this change was more than offset by downward revisions to the rest of non-OECD consumption. Inventory net builds for May and June averaged 1.0 million bbl/d, which was 0.9 million bbl/d higher than previously estimated. Surplus capacity averaged 2.1 million bbl/d in May and June, about 0.3 million bbl/d lower than previously estimated.

Tables

Table 1. Summary of Estimated Liquid Fuels Quantities and Prices

	July 2013	August 2013	July – August 2013 Average	July – August 2012 Average	2010 – 2012 Average
Total Global Liquid Fuels					
Total Global Liquid Fuels Production (a) (million bbl/d)	90.6	90.5	90.6	89.4	87.9
Total Global Liquid Fuels Consumption (b) (million bbl/d)	90.9	90.8	90.9	89.7	88.3
Biofuels Production and Consumption					
Biofuels Production (c) (million bbl/d)	2.2	2.2	2.2	2.2	1.8
Biofuels Consumption (c) (million bbl/d)	1.8	1.8	1.8	1.8	1.7
Iran Liquid Fuels Production and Consumption					
Iran Liquid Fuels Production (million bbl/d)	3.4	3.4	3.4	3.3	4.0
Iran Liquid Fuels Consumption (million bbl/d)	1.9	1.8	1.9	1.6	1.7
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran					
Production (d) (million bbl/d)	85.1	84.9	85.0	83.9	82.1
Consumption (d) (million bbl/d)	87.2	87.1	87.2	86.3	84.9
Production minus Consumption	-2.1	-2.2	-2.2	-2.4	-2.8
World Inventory Net Withdrawals Including Iran (million bbl/d)					
World Inventory Net Withdrawals Including Iran (million bbl/d)	0.3	0.3	0.3	0.3	0.4
Estimated OECD Inventory Level (e) (million barrels)					
Estimated OECD Inventory Level (e) (million barrels)	2,688	2,682	2,685	2,702	2,689
Surplus Production Capacity					
OPEC Surplus Crude Oil Production Capacity (f) (million bbl/d)	2.2	2.2	2.2	1.9	3.0
Oil Price Level					
WTI Front Month Futures Price (g) (\$ per barrel)	104.70	106.36	105.47	91.19	89.62
Brent Front Month Futures Price (h) (\$ per barrel)	107.43	109.97	108.61	107.93	100.98
RBOB Front Month Futures Price (i) (\$ per gallon)	3.00	2.96	2.98	2.93	2.62
Oil Price Time Spread					
WTI 1st - 13th Month Futures Spread (\$ per barrel)	11.30	11.72	11.49	-1.74	-3.16
Brent 1st - 13th Month Futures Spread (\$ per barrel)	6.65	7.73	7.15	4.69	1.31

Note: The term "liquid fuels" encompasses crude oil, lease condensate, natural gas plant 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 plant 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 since 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: August prices include data through market close on August 27, 2013.

Source: U.S. Energy Information Administration.

Table 2. International Liquid Fuels Production, Consumption, and Inventory Estimates

	July 2013	August 2013	July – August 2013 Average	July – August 2012 Average	2010 – 2012 Average
Production (million barrels per day) (a)					
OECD (b)	23.7	23.9	23.8	22.2	21.9
U.S. (50 States)	12.2	12.4	12.3	10.9	10.3
Canada	4.3	4.3	4.3	3.8	3.6
Mexico	2.9	2.9	2.9	2.9	3.0
North Sea (c)	2.8	2.8	2.8	3.0	3.4
Other OECD	1.6	1.6	1.6	1.6	1.6
Non-OECD	66.9	66.6	66.7	67.2	66.0
OPEC (d)	36.0	35.7	35.9	36.8	35.6
Crude Oil Portion	30.2	29.9	30.1	31.1	30.2
Non-crude liquids	5.8	5.8	5.8	5.7	5.5
Former Soviet Union (e)	13.5	13.4	13.5	13.4	13.3
China	4.5	4.6	4.5	4.3	4.3
Other non-OECD	12.8	12.9	12.9	12.6	12.7
Total World Production	90.6	90.5	90.6	89.4	87.9
Non-OPEC Production	54.7	54.8	54.7	52.5	52.3
Consumption (million barrels per day) (f)					
OECD	46.0	46.0	46.0	46.3	46.5
U.S. (50 States)	19.1	19.1	19.1	18.9	18.9
U.S. territories	0.3	0.3	0.3	0.3	0.3
Canada	2.3	2.4	2.3	2.4	2.3
Europe	13.7	13.4	13.6	13.8	14.2
Japan	4.2	4.3	4.3	4.5	4.5
Other OECD	6.3	6.4	6.4	6.4	6.3
Non-OECD	44.9	44.8	44.8	43.4	41.8
Former Soviet Union	4.8	4.7	4.8	4.5	4.3
Europe	0.7	0.7	0.7	0.7	0.7
China	10.9	10.8	10.8	10.3	9.8
Other Asia	10.3	10.3	10.3	10.4	10.6
Other non-OECD	18.2	18.2	18.2	17.5	16.4
Total World Consumption	90.9	90.8	90.9	89.7	88.3
Inventory Net Withdrawals (million barrels per day)					
U.S. (50 States)	0.0	0.1	0.1	0.1	0.0 (g)
Other OECD	0.1	0.1	0.1	-0.6	0.1
Other Stock Draws and Balance	0.2	0.1	0.1	0.8	0.4
Total Stock Draw	0.3	0.3	0.3	0.3	0.4
End-of-period Inventories (million barrels)					
U.S. Commercial Inventory	1,119	1,115	1,117	1,109	--
OECD Commercial Inventory	2,688	2,682	2,685	2,702	2,689

a) Production includes production of crude oil (including lease condensates), natural gas plant 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 estimate is -0.03 million bbl/d.

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 Liquid Fuels Production Estimates

Production (million barrels per day)	July 2013	August 2013	July – August 2013 Average	July – August 2012 Average	2010 – 2012 Average
Crude Oil					
Algeria	1.3	1.3	1.3	1.3	1.3
Angola	1.7	1.7	1.7	1.7	1.8
Ecuador	0.5	0.5	0.5	0.5	0.5
Iran	2.8	2.8	2.8	2.8	3.5
Iraq	3.2	3.2	3.2	3.1	2.6
Kuwait	2.5	2.5	2.5	2.6	2.4
Libya	1.0	0.6	0.8	1.4	1.2
Nigeria	2.0	2.0	2.0	2.2	2.1
Qatar	0.7	0.7	0.7	0.7	0.8
Saudi Arabia	9.8	9.8	9.8	10.0	9.3
United Arab Emirates	2.6	2.6	2.6	2.7	2.5
Venezuela	2.2	2.2	2.2	2.2	2.2
OPEC Total	30.2	29.9	30.1	31.1	30.2
Non-crude liquids	5.8	5.8	5.8	5.7	5.5
Total OPEC Supply	36.0	35.7	35.9	36.8	35.6
Crude Oil Production Capacity					
Africa	5.9	5.6	5.7	6.6	6.3
South America	2.7	2.7	2.7	2.7	2.7
Middle East	23.8	23.8	23.8	23.7	24.3
OPEC Total	32.4	32.1	32.3	33.0	33.2
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	2.2	2.2	2.2	1.9	3.0
OPEC Total	2.2	2.2	2.2	1.9	3.0

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 Liquid Fuels Production Estimates

Production (million barrels per day)	July 2013	August 2013	July – August 2013 Average	July – August 2012 Average	2010 – 2012 Average
North America	19.3	19.6	19.4	17.6	16.9
Canada	4.3	4.3	4.3	3.8	3.6
Mexico	2.9	2.9	2.9	2.9	3.0
United States	12.2	12.4	12.3	10.9	10.3
Central and South America	5.3	5.4	5.3	5.1	4.8
Argentina	0.7	0.7	0.7	0.7	0.8
Brazil	3.1	3.1	3.1	2.9	2.7
Colombia	1.0	1.0	1.0	0.9	0.9
Other Central and South America	0.5	0.5	0.5	0.5	0.5
Europe	3.7	3.7	3.7	3.9	4.3
Norway	1.8	1.8	1.8	1.9	2.0
United Kingdom (offshore)	0.8	0.7	0.8	0.9	1.1
Other North Sea	0.3	0.3	0.3	0.2	0.3
Former Soviet Union (FSU) (a)	13.6	13.4	13.5	13.4	13.3
Azerbaijan	0.9	0.8	0.9	0.9	1.0
Kazakhstan	1.6	1.6	1.6	1.6	1.6
Russia	10.5	10.5	10.5	10.4	10.3
Turkmenistan	0.3	0.3	0.3	0.2	0.2
Other FSU	0.3	0.3	0.3	0.2	0.2
Middle East	1.2	1.2	1.2	1.3	1.4
Oman	0.9	0.9	0.9	0.9	0.9
Syria	0.1	0.1	0.1	0.2	0.3
Yemen	0.1	0.1	0.1	0.2	0.2
Asia and Oceania	9.1	9.1	9.1	8.9	9.0
Australia	0.6	0.6	0.6	0.6	0.6
China	4.5	4.6	4.5	4.3	4.3
India	1.0	1.0	1.0	1.0	1.0
Indonesia	1.0	1.0	1.0	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	2.5	2.5	2.5	2.3	2.5
Egypt	0.7	0.7	0.7	0.7	0.7
Equatorial Guinea	0.3	0.4	0.3	0.3	0.3
Gabon	0.2	0.2	0.2	0.2	0.2
Sudan (b)	0.3	0.3	0.3	0.1	0.4
Total non-OPEC liquids	54.7	54.8	54.7	52.5	52.3
OPEC non-crude liquids (c)	5.8	5.8	5.8	5.7	5.5
Non-OPEC + OPEC non-crude liquids	60.4	60.6	60.5	58.3	57.8

- a) Former Soviet Union = Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.
- b) Sudan production represents total production from both Sudan and South Sudan.
- 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

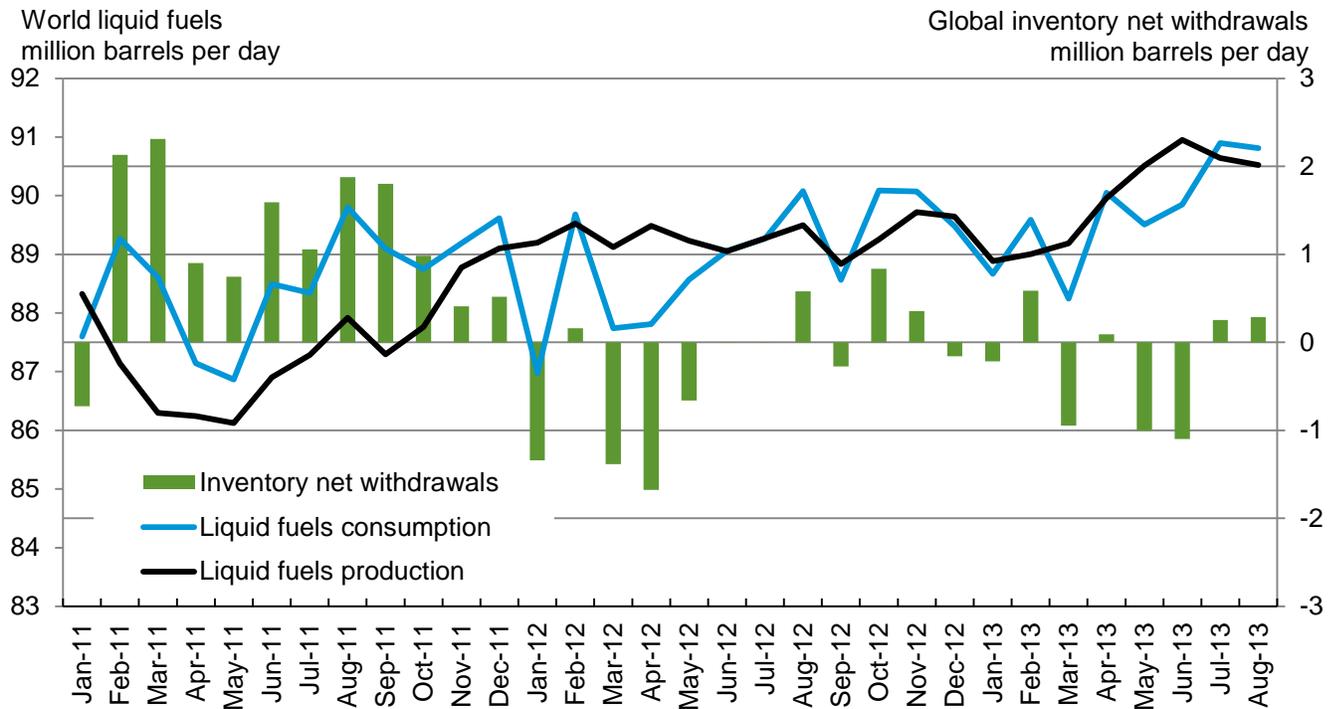
Item	July 2013	August 2013	July – August 2013 Average	July – August 2012 Average	2010 – 2012 Average
Brent Front Month Futures Price (\$ per barrel)	107.43	109.97	108.61	107.93	100.98
WTI Front Month Futures Price (\$ per barrel)	104.70	106.36	105.47	91.19	89.62
Dubai Front Month Futures Price (\$ per barrel)	103.94	106.65	105.20	104.82	98.17
Brent 1st - 13th Month Futures Spread (\$ per barrel)	6.65	7.73	7.15	4.69	1.31
WTI 1st - 13th Month Futures Spread (\$ per barrel)	11.30	11.72	11.49	-1.74	-3.16
RBOB Front Month Futures Price (\$ per gallon)	3.00	2.96	2.98	2.93	2.62
Heating Oil Front Month Futures Price (\$ per gallon)	3.02	3.06	3.04	2.94	2.71
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.45	0.34	0.40	0.36	0.22
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.46	0.44	0.45	0.37	0.31

Note: August prices include data through market close on August 27, 2013.

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

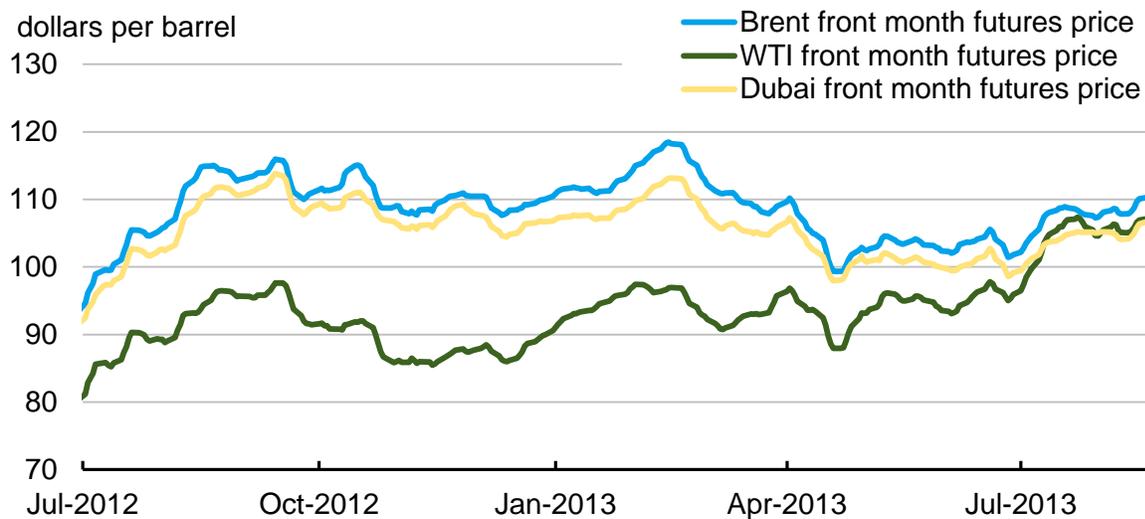
Figures

Figure 1. World Liquid Fuels Production, Consumption, and Net Inventory Withdrawals, January 2011 – August 2013



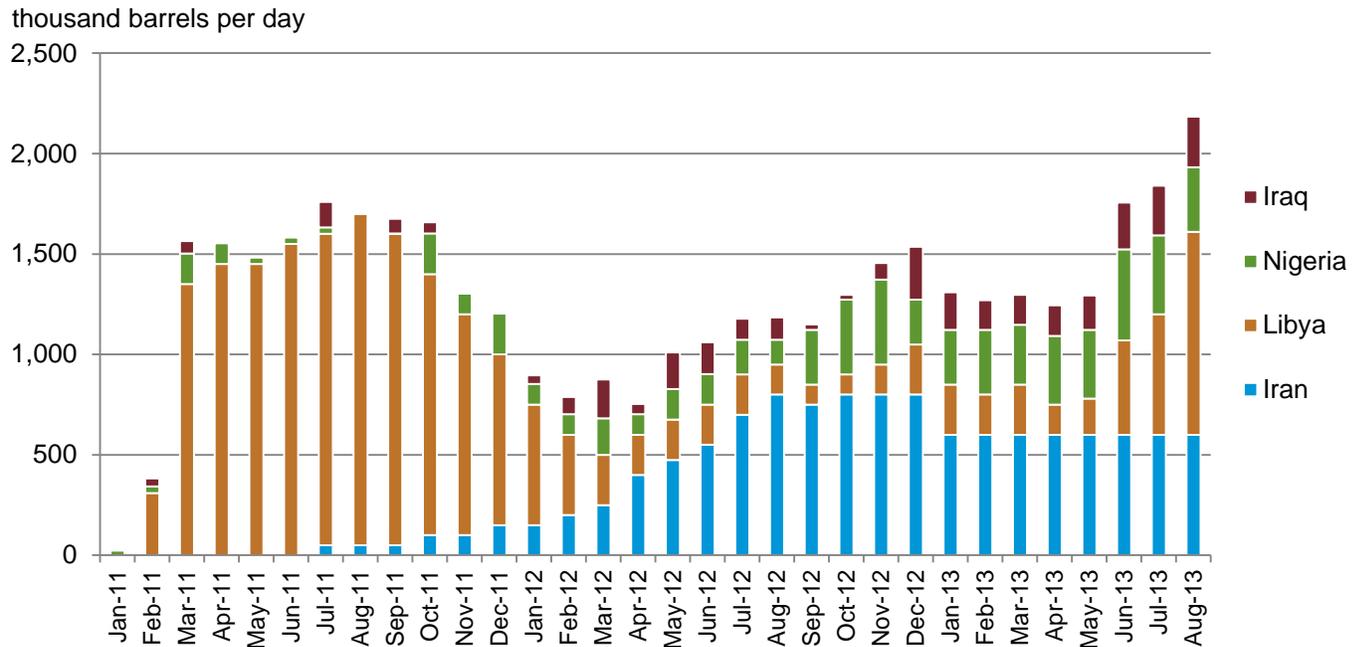
Note: See Table 1 footnotes for definitions of liquid fuels, production, and consumption.
 Source: U.S. Energy Information Administration.

Figure 2. Front Month Crude Oil Futures Prices



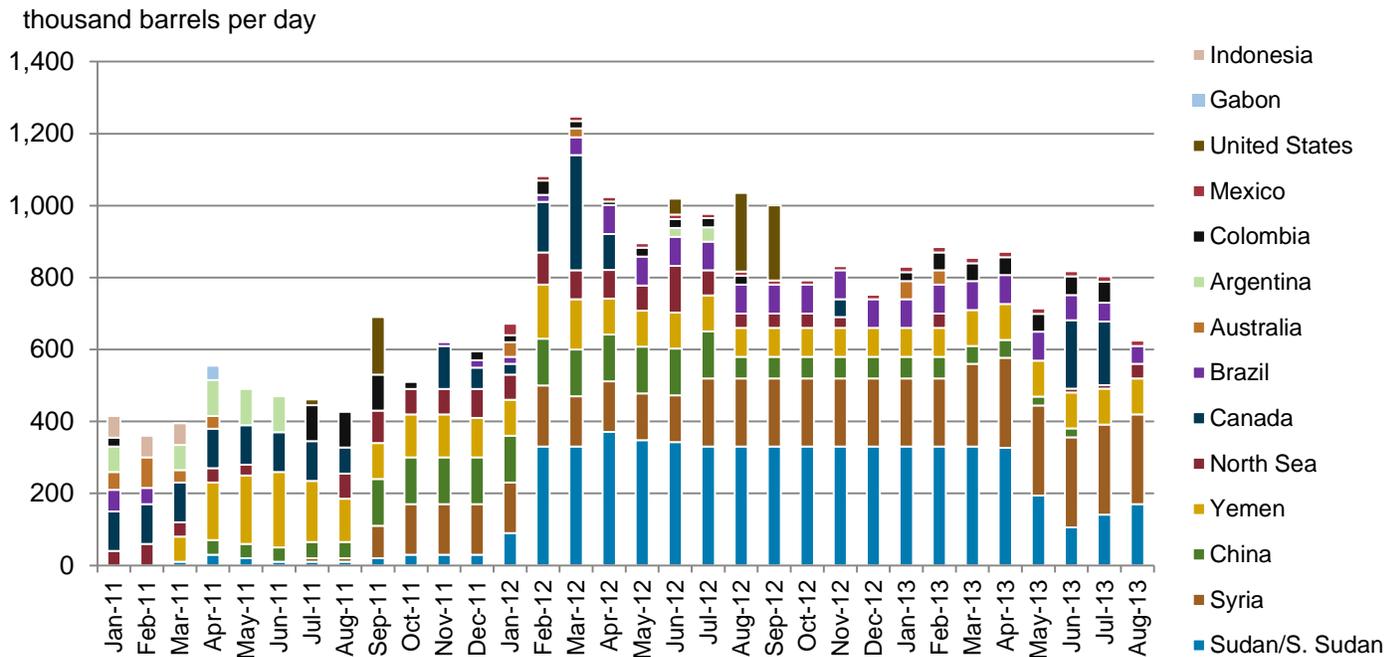
Note: All prices represent rolling 5-day averages.
 Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE) and Dubai Mercantile Exchange (DME).

Figure 3. Estimated Unplanned Crude Oil Production Disruptions Among OPEC Producers, January 2011 – August 2013



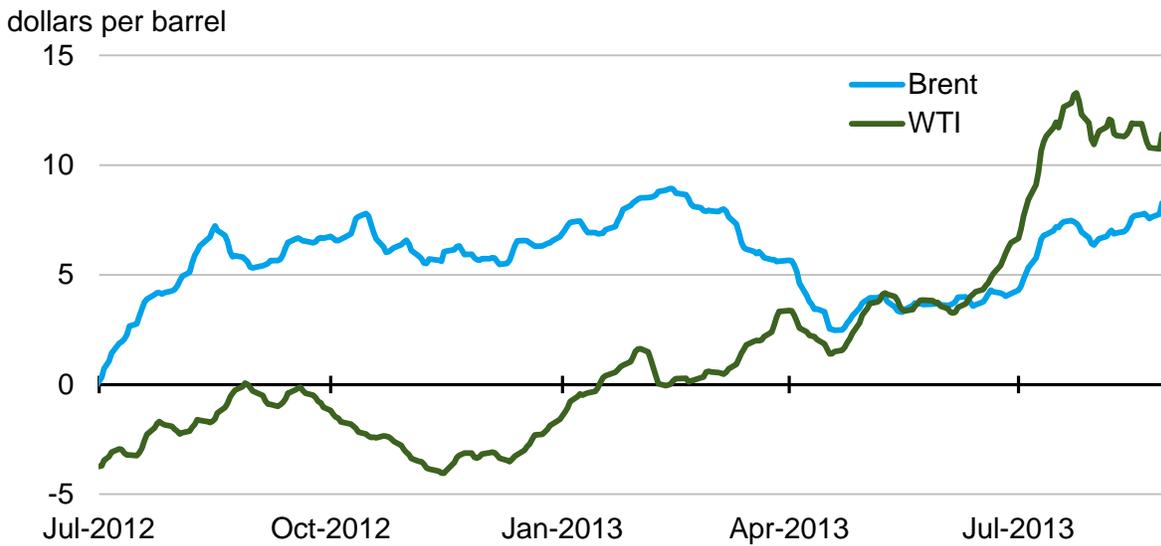
Note: Estimated unplanned disruptions reflect the level of volumes shut-in, accounting for effective production capacity.
Source: U.S. Energy Information Administration.

Figure 4. Estimated Unplanned Liquid Fuels Production Disruptions Among Non-OPEC Producers, January 2011 – August 2013



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

Figure 5. 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).