



Independent Statistics & Analysis
U.S. Energy Information
Administration

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

Number 23 in a series of reports required by section 1245(d)(4)(A)
of the National Defense Authorization Act for Fiscal Year 2012

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This is the 23rd 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.

For additional information on global oil markets, readers may review the latest oil market [short-term analysis and forecasting](#). Detailed background and contextual information not repeated here can be found in early [editions of this report](#).

August – September 2015 Update

- The U.S. Energy Information Administration (EIA) estimates that global oil inventories grew by an average of 1.8 million barrels per day (b/d) in August and September, sharply exceeding the 0.8-million b/d build during the same time last year and the average 0.3-million b/d build over the previous three years (2012-14) (**Table 1**). The sizeable build in inventories occurred amid continued high production levels, with year-over-year (y-o-y) growth averaging 2.3 million b/d for the two-month period. Global consumption also rose compared with last year, albeit by a much smaller volume of 1.3 million b/d on average, resulting in the large inventory build. Estimated inventories held by countries in the Organization for Economic Cooperation and Development (OECD) in August and September stood roughly 232 million barrels higher on average compared with last year (**Table 1**).
- While preliminary estimates show that global supply dropped from August to September, expectations for global economic growth were low and likely limited any potential increases in crude oil prices. The North Sea Brent front month futures contract averaged about \$49 per barrel (/b) in September (**Table 2**), relatively unchanged from the August average. The shape of the Brent futures curve also displayed a similar amount of contango (when near-term prices are lower than further dated ones) from August to September, with the continued build in global crude oil inventories supporting price incentives to store oil. The Brent 1st-13th month spread averaged about -\$7/b in August and September (**Table 2**).
- [Global petroleum and other liquids¹ production](#) in August and September averaged 96.3 million b/d, with the y-o-y growth for the two-month period roughly evenly split between members of the Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC producers. Among the OPEC producers, [Iraq and Saudi Arabia](#) posted the largest y-o-y production gains, while the [United States](#) drove non-OPEC y-o-y production higher. [Global petroleum and other liquids consumption²](#) in August and September averaged 94.5 million b/d, boosted by seasonal factors including crude oil burn for power generation in Saudi Arabia and seasonal demand in Europe in September (**Table 3d of the Short-Term Energy Outlook (STEO)**).
- [Global surplus crude oil production capacity](#) averaged 1.2 million b/d in August and September, 0.9 million b/d lower than at the same time last year. Spare capacity is typically an indication of market conditions, and surplus capacity below 2.5 million b/d is an indicator of a tight market. However, the current volume of global oil inventories makes the current low surplus capacity level less significant. Nonetheless, low surplus capacity heightens uncertainty about the market's ability to counteract unforeseen supply outages, particularly in the current geopolitical climate with ongoing conflicts in or next to major oil producing countries in the Middle East and North Africa (**Table 3c of the STEO**).
- Global unplanned supply disruptions averaged 3.7 million b/d in August and September, virtually unchanged from the previous two-month period. [Unplanned OPEC crude oil supply disruptions](#) averaged almost 3.0 million b/d in August and September, reflecting continued outages in Saudi Arabia and Kuwait, where the Neutral Zone production at the Khafji and Wafra fields was shut in, along with outages in Libya, Iran, Iraq, and Nigeria (**Figure 1**). [Unplanned non-OPEC liquid fuels supply disruptions](#) fell below 0.7 million b/d in August because of fewer outages in Colombia and no outages in Ghana and the North Sea compared with the previous month. However, non-OPEC disruptions increased to more than 0.8 million b/d in September because of an upgrader fire in Canada's Mildred

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.

Lake area that caused some oil sands production to be shut in (**Figure 2**). About 80% of total non-OPEC outages in August and September are accounted for by Yemen, South Sudan, and Syria.

- Iran's petroleum and other liquids production averaged 3.5 million b/d in August and September, of which 2.8 million b/d was crude oil and the remainder was condensate and natural gas plant liquids (**Table 1**). Iran's production 0.1 million b/d higher than at the same time last year due to growth in condensate and natural gas plant liquids production.
- EIA revised the preliminary estimates of petroleum and other liquids production and consumption for the previous two-month period. Global petroleum and other liquids production for June and July was revised downward by 0.1 million b/d to average 96.4 million b/d. Global consumption was also revised higher by about 0.5 million b/d to average 94.4 million b/d. Changes in global consumption were the result of higher-than-expected demand in the United States and Eurasia.
- EIA revised its historical estimates of unplanned OPEC crude oil supply disruptions in 2015. Iran's crude oil supply disruption increased from 0.6 million in 2014 b/d to 0.8 million b/d in 2015. The revision to Iran's disruption is attributed to an increase to Iran's crude oil production capacity ([the level of supply that could be available within one year under a normal operating environment](#)) based on information that Iran's oil fields have gone through workovers in anticipation of implementation of oil sanctions relief.

Tables

Table 1. Summary of Estimated Petroleum and Other Liquids Quantities

	August 2015	September 2015	August – September 2015 Average	August – September 2014 Average	2012 – 2014 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	96.5	96.0	96.3	93.9	91.6
Global Petroleum and Other Liquids Consumption (b)	94.1	94.8	94.5	93.2	91.3
Biofuels Production (c)	2.5	2.4	2.4	2.3	1.9
Biofuels Consumption (c)	2.1	2.0	2.1	2.0	1.9
Iran Liquid Fuels Production	3.5	3.5	3.5	3.4	3.4
Iran Liquid Fuels Consumption	1.8	1.8	1.8	1.8	1.9
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	90.5	90.1	90.3	88.2	86.3
Consumption (d)	90.3	91.0	90.6	89.4	87.6
Production minus Consumption	0.3	-0.8	-0.3	-1.2	-1.3
World Inventory Net Withdrawals Including Iran	-2.4	-1.2	-1.8	-0.8	-0.3
Estimated OECD Inventory Level (e) (million barrels)	2,927	2,946	2,937	2,705	2,651
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	1.2	1.3	1.2	2.1	2.1

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.

Source: U.S. Energy Information Administration.

Table 2. Crude Oil and Petroleum Product Price Data

Item	August 2015	September 2015	August – September 2015 Average	August – September 2014 Average	2012 – 2014 Average
Brent Front Month Futures Price (\$ per barrel)	48.21	48.54	48.38	100.99	106.61
WTI Front Month Futures Price (\$ per barrel)	42.89	45.47	44.18	94.56	95.04
Dubai Front Month Futures Price (\$ per barrel)	47.84	45.86	46.85	99.71	103.92
Brent 1st - 13th Month Futures Spread (\$ per barrel)	-7.40	-7.02	-7.21	-1.49	4.29
WTI 1st - 13th Month Futures Spread (\$ per barrel)	-7.22	-5.38	-6.30	3.56	3.19
RBOB Front Month Futures Price (\$ per gallon)	1.60	1.38	1.49	2.66	2.80
Heating Oil Front Month Futures Price (\$ per gallon)	1.53	1.54	1.53	2.80	2.93
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.46	0.23	0.34	0.26	0.26
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.38	0.38	0.38	0.39	0.39

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

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

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

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

Figures

Figure 1. Estimated Unplanned Crude Oil Production Disruptions Among OPEC Producers, January 2012 – September 2015

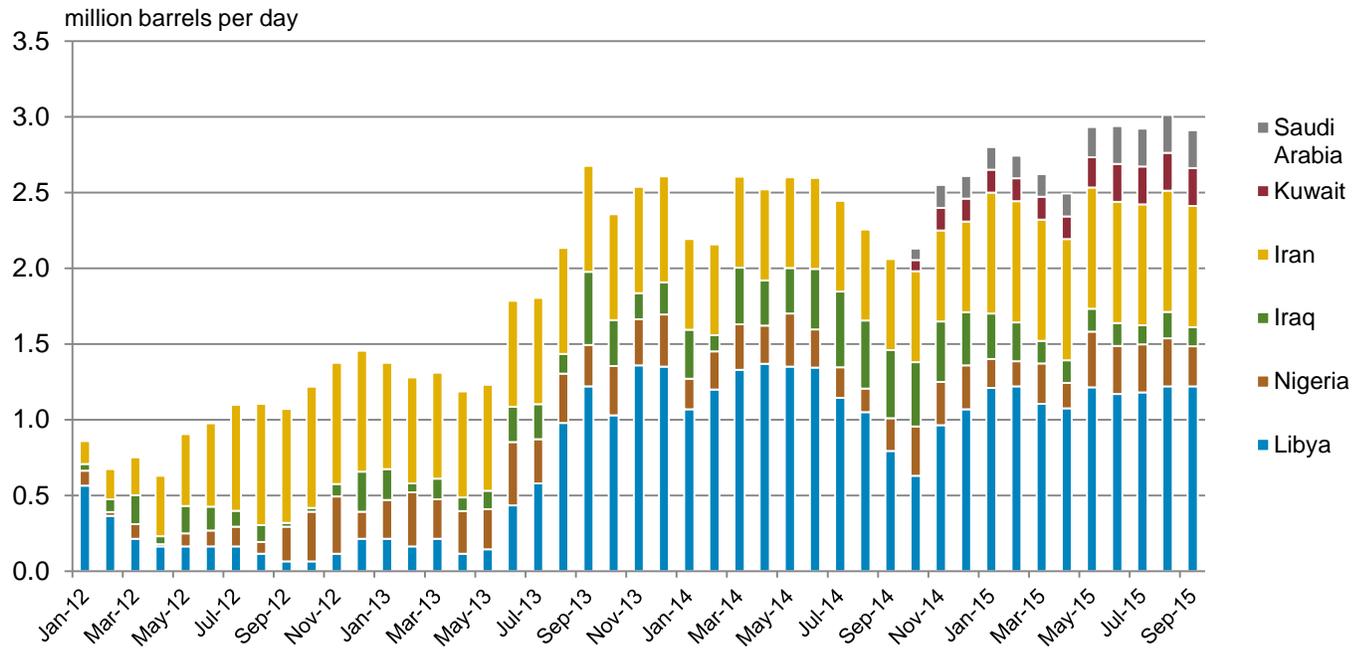


Figure 2. Estimated Unplanned Petroleum and Other Liquids Production Disruptions Among Non-OPEC Producers, January 2012 – September 2015

