

EXECUTIVE SUMMARY

In a remarkable month, the United States natural gas and oil industry scored a hat trick of new records for production, exports and refinery throughput. In June 2018, the U.S. had its highest ever

- Production of crude oil (10.7 million barrels per day, mb/d) and natural gas liquids (NGLs, 4.2 mb/d),
- Exports of crude oil (2.3 mb/d); and,
- Gross inputs to refineries (18.0 mb/d).

Solid economic and energy market fundamentals also underpinned the strongest U.S. petroleum demand since 2007, at 20.6 mb/d. In an attempt to satisfy demand, domestic refineries ran at their highest percent capacity utilization rate in June (96.6 percent) since 2005. With the record refinery throughput, U.S. petroleum inventories held steady as an accumulation of refined product stocks more than offset the drawdown in crude oil stocks.

The global and U.S. economies have had an appetite for U.S. production growth, which has satisfied all global liquids demand growth so far in 2018 and additionally compensated for production losses in some OPEC nations. Continued increases in drilling activity have positioned the U.S. for further increases in natural gas and oil production. To achieve further growth, however, the U.S. natural gas and oil industry critically needs the support of policies that enhance domestic infrastructure and continue to enable access to global markets throughout the energy value chain.

June highlights

(Click hyperlinks to advance to any section)

Demand

- **U.S. petroleum demand year-to-date at its strongest since 2007.**
 - Motor gasoline demand slipped from a record pace.
 - Strong freight trucking activity has driven distillate demand.
 - Jet fuel demand in June exceeded 1.8 mb/d for only the second time on record.
 - Residual fuel oil seasonal demand declined.
 - Refinery and petrochemical feedstock demand reaccelerated in June.

Prices & Macroeconomy

- **U.S. crude oil prices remained at a discount as global prices eased.**
- **Solid economic indicators, tariff uncertainty.**

Supply

- **New U.S. production records for crude oil (10.7 mb/d) and NGLs (4.2 mb/d).**

International trade

- **Record crude oil exports led improvement in U.S. petroleum trade balance.**

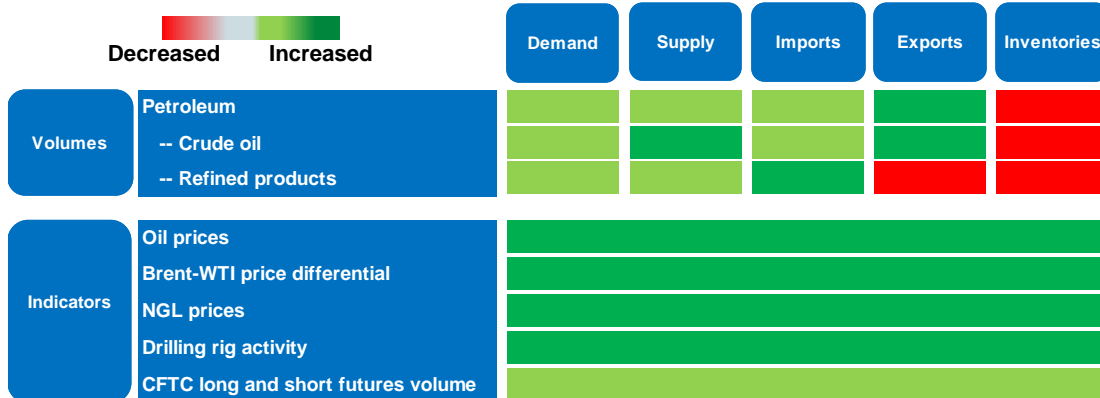
Industry operations

- **A new record 18.0 mb/d for refinery throughput.**

Inventories

- **U.S. petroleum inventories steady as accumulation of refined products offset a crude oil drawdown.**

Heat map of year-to-year percentage changes



* Boldest colored increases and decreases reflect monthly changes vs. prior year that are in the top or bottom quartile for the past five years
sources: API Monthly Statistical Report, EIA, CFTC, Baker Hughes

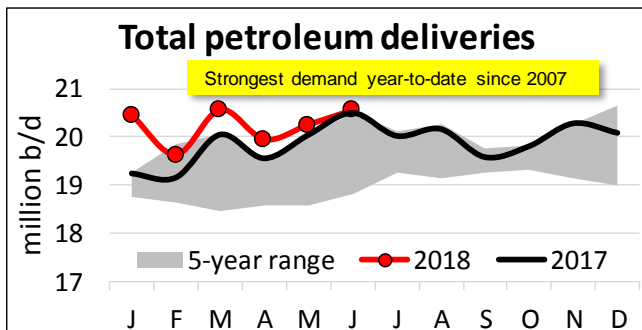
Highlights for June 2018, compared with June 2017

- ▶ Tightened market with strong demand and export growth having drawn inventories down
- ▶ The U.S. petroleum net trade balance narrowed as exports grew by more than imports
- ▶ Drilling activity continued to rise, which positioned the U.S. for further supply growth

Details by section

Demand

U.S. petroleum demand year-to-date at its strongest since 2007



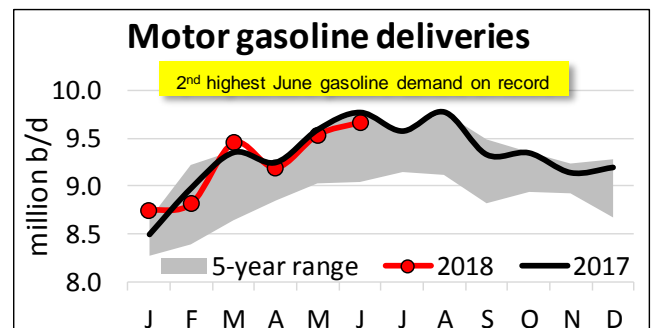
U.S. petroleum demand, as measured by total domestic petroleum deliveries, was 20.6 mb/d in June, which was an increase of 1.5 percent from May and 0.4 percent compared with June 2017.

Year-to-date through June, petroleum demand was at its strongest since 2007, averaging 20.2 mb/d. This was an increase of 480 thousand barrels per day (kb/d) over the first half of 2017.

Notably, the pace of growth slowed through the first half of the year – from 6.3 percent y/y in January to being on par with its 20-year average growth in June. This has reflected solid economic growth, industrial activity, and consumer confidence so far this year.

Gasoline

Motor gasoline demand slipped from a record pace



Consumer gasoline demand, as measured by total motor gasoline deliveries, was 9.7 mb/d in June. This was 1.1 percent below the level from June 2017, which was the second highest monthly demand on record.

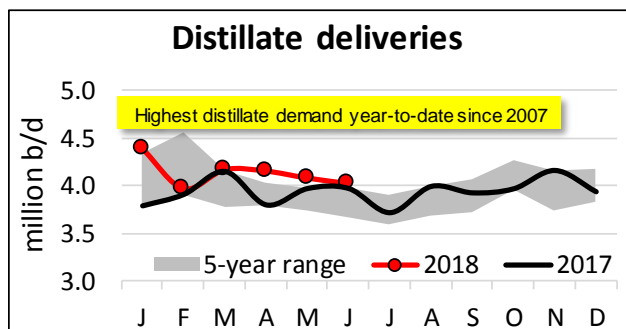
Through the first half of 2018, U.S. gasoline demand also was the second strongest on record and has kept pace with last year despite higher prices.

In June, reformulated-type gasoline, which is consumed primarily in urban areas, increased by 1.8 percent to 3.4 mb/d from 3.3 mb/d in May. By contrast, conventional gasoline is used more in rural areas and increased to 6.3 mb/d in June from 6.2 mb/d in May.

According to [Energy Information Administration \(EIA\) estimates](#), crude oil is the #1 factor in the cost of gasoline, so gasoline prices generally track those of crude oil. West Texas Intermediate (WTI) crude oil averaged \$67.87 per barrel in June, down by \$2.11 per barrel from May. The average price of regular-grade gasoline was \$2.97 per gallon in June, which was down by 1.7 cents per gallon from May.

Distillate Fuel Oil

Strong freight trucking activity has driven distillate demand



In June, distillate deliveries of 4.0 mb/d were up by 1.3 percent compared with June 2017 but down 1.5 percent from May. June reflected a third consecutive monthly decline for distillate demand and convergence with the top of the 5-year range.

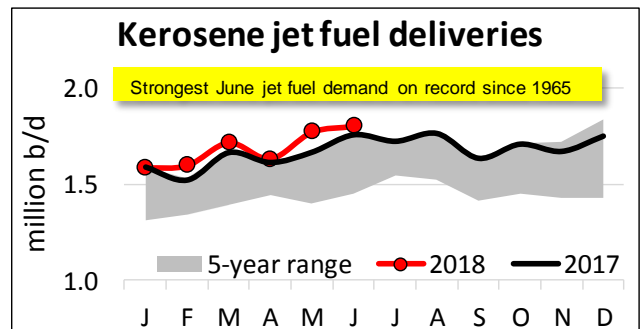
About 97 percent of distillate demand in June was for ultra-low sulfur distillate (ULSD), which has accounted for all distillate demand growth so far in 2018. A key driver has been road freight transportation activity, which the Bureau of Labor Statistics' (BLS) Producer Price Index for freight trucking shows rose by 8.8 percent y/y in June. The strong increase in road freight prices reflected a

combination of rising freight demand and [broad reports of shortages in truckers](#).

The remaining 3.0 percent of distillate demand was high sulfur distillate fuel (HSD), which is a heating fuel in the residential and commercial sectors and a marine fuel when blended to upgrade heavy fuel oil. HSD deliveries fell to just 125 kb/d in June.

Kerosene Jet Fuel

Jet fuel demand in June exceeded 1.8 mb/d for only the second time on record

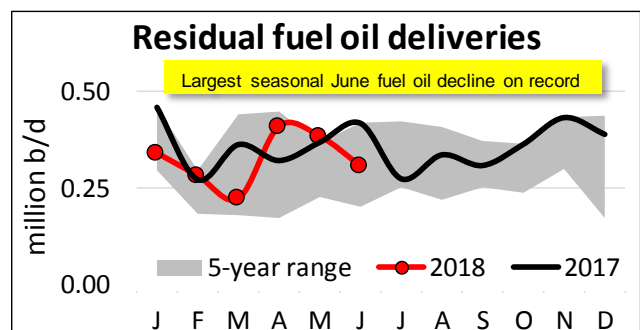


Since economic growth and air transportation tend to go hand-in-hand, jet fuel demand generally is a solid contemporaneous economic indicator. In June, kerosene jet fuel deliveries exceeded 1.8 mb/d for only the second time since 2000 in what was the strongest June demand on record and the second highest monthly jet fuel demand ever.

In early July, the [International Air Transport Association \(IATA\)](#) reported record load factors through May that suggested the demand for air connectivity has remained strong.

Residual Fuel Oil

Residual fuel oil seasonal demand declined

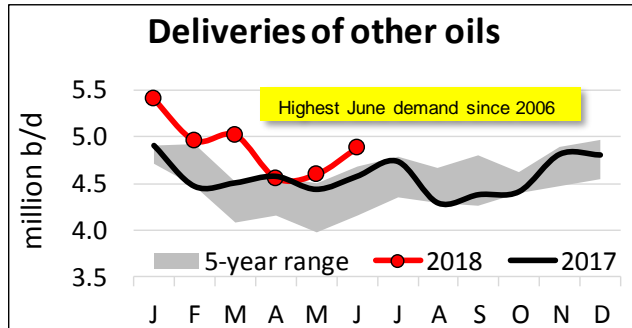


Residual fuel oil is used in electric power production, space heating, vessel bunkering and

other industrial applications. Residual fuel oil demand fell to 307 kb/d in June, which was a 19.8 percent decrease from May and a decline of 26.6 percent versus June 2017. This was the largest seasonal decline on record for the month of June, but the level of residual fuel oil demand remained in the middle of the 5-year range.

Other Oils

Refinery and petrochemical feedstock demand reaccelerated in June

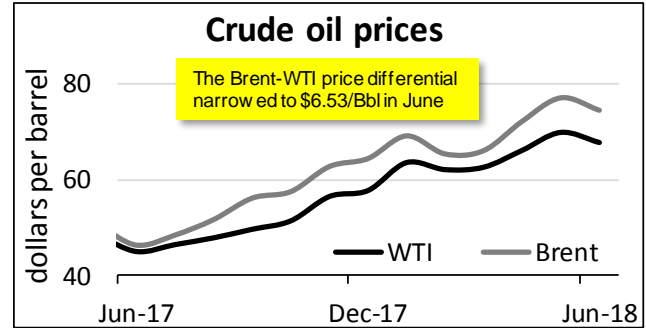


Refining and petrochemical demand for liquid feedstocks, naphtha and gasoil (“other oils”), reaccelerated. In June, other oils’ demand was 4.9 mb/d, which was an increase of 6.2 percent from May and 6.7 percent versus June 2017. This reflected a pick up in refining and petrochemical activity and was consistent with American Chemistry Council’s [Chemical Activity Barometer](#)

which accelerated to 4.3 percent y/y in June from 4.0 percent y/y in May.

Prices

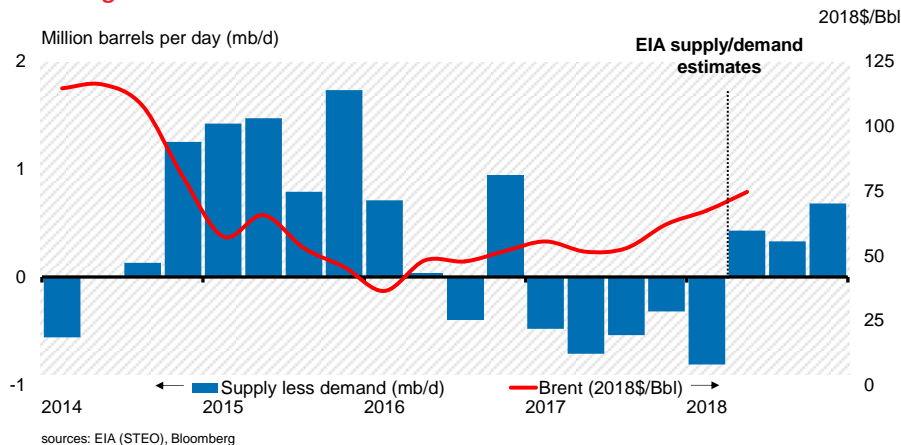
U.S. crude oil prices remained at a discount as global prices eased



Domestic West Texas Intermediate (WTI) crude oil prices averaged \$67.87 per barrel in June, which was a decrease of \$2.11 per barrel from May. By comparison, international Brent crude oil prices averaged \$74.40 per barrel and fell by \$2.58 per barrel from May. The difference of \$6.53 per barrel between WTI and Brent crude oil prices was a discount attributable mainly to the U.S. having strong domestic oil production.

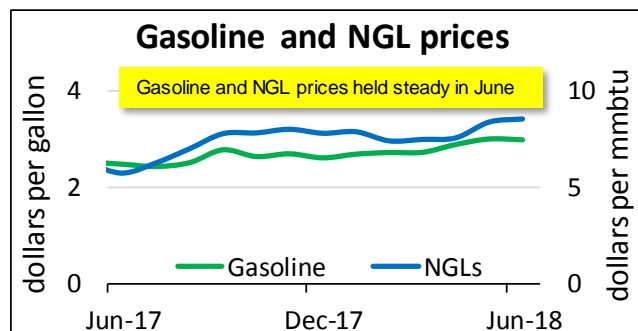
energy API EIA anticipates that global oil supply may outpace demand, beginning in Q2 2018

EIA global supply/demand estimates and actual Brent crude oil prices through June 2018



• The EIA has estimated that the U.S., Canada and other Non-OECD countries will add 2.8 mb/d of production by Q4 2018, compared with Q4 2017

As the oil market heatmap suggested, global oil demand and supply have risen since last year. The [EIA's latest assessment](#) of the global supply/demand balance suggests that the global market could have returned to a surplus beginning in Q2 2018, even without increased output by OPEC. For more analysis, please [see API's Industry Outlook](#) for Q2 2018.



With the rise this year in crude oil prices coupled with increased refining and petrochemical demand, natural gas liquids (NGL) prices averaged \$8.57 per million BTU (MMBtu) in June, which was an increase of 1.9 percent from May. Among the constituent NGLs, increases in ethane prices more than offset declines in propane, butane, and field natural gasoline according to Bloomberg data.

Macroeconomy

Solid economic indicators, tariff uncertainty

The backdrop for petroleum demand remained strong in June, as indicators of the business climate, consumer sentiment, and employment conditions suggested further growth but also highlighted uncertainties about the effects of prospective tariffs and trade disputes on the economy.

Global and U.S. economic growth expectations were little changed since last month. Based on country growth rates in the Bloomberg consensus, global GDP growth in 2018 could be 3.2 y/y on a market exchange rate basis, which would be the strongest rate since 2011. The Bureau of Economic Analysis revised its estimate of U.S. GDP growth for Q1 2018 down by 0.1 percent to 2.0 percent at a seasonally adjusted annualized rate (saar). This was the second downward revision from the initial report of 2.3 percent saar. Meanwhile, the Bloomberg

consensus raised its expectations by 0.1 percent to 2.9 percent y/y through the second half of 2018, but still expects a slowing of annual U.S. growth to 2.5 percent and 1.9 percent in 2019 and 2020, respectively.

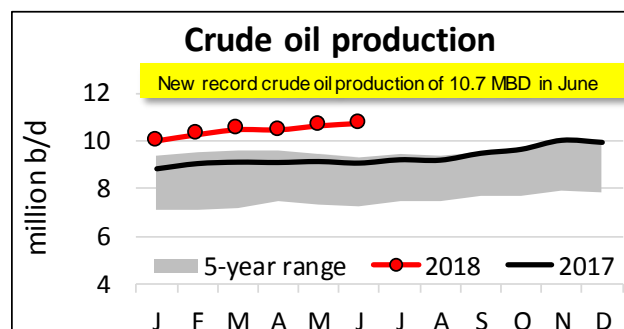
Leading economic indicators have continued to suggest expanding business conditions. The [Institute for Supply Management's Purchasing Managers Index \(PMI\)](#) registered 60.2 in June, an increase of 1.5 percentage points from May. Any value above 50.0 suggests an expansion. New orders, production activity, employment, supplier deliveries, and the backlog of orders expanded. Growth occurred across 17 of the 18 manufacturing sectors surveyed, but a prominent concern expressed in the survey was for rising tariff activity.

Separately, the [University of Michigan's consumer sentiment index](#) rose to 98.2 in June but has slipped to 97.1 as of early July. This level remained relatively strong despite a rise in price inflation and interest rates. As with the ISM PMI, the University of Michigan's consumer sentiment index also flagged concerns over the effects of rising tariffs.

Labor markets have remained tight. U.S. non-farm payrolls grew by 213,000 in June, while the unemployment rate increased to 4.0 percent, according to the [Bureau of Labor Statistics \(BLS\)](#).

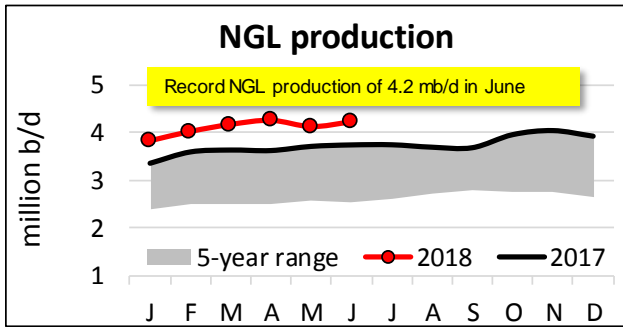
Supply

New U.S. production records for crude oil (10.7 mb/d) and NGLs (4.2 mb/d)



U.S. crude oil production rose to a record 10.7 mb/d in June, which was an increase of more than 100 kb/d above May. It also was 1.6 mb/d over June

2017 and tied the largest annual oil production increase in U.S. history (Dec. 2014, 1.6 MBD y/y).



Natural gas liquids (NGL) production, a co-product of natural gas production, added to U.S. production growth, contributing another new record of 4.2 mb/d in June. Including additional liquid fuels, total U.S. liquids production was 16.2 mb/d in June, up by 2.2 mb/d compared with June 2017.

By the EIA’s most recent [Short-term Energy Outlook](#), global liquids demand growth was expected to total 1.7 mb/d in 2018, which means the U.S. has been on pace this year to supply more than the world’s entire growth in oil demand.

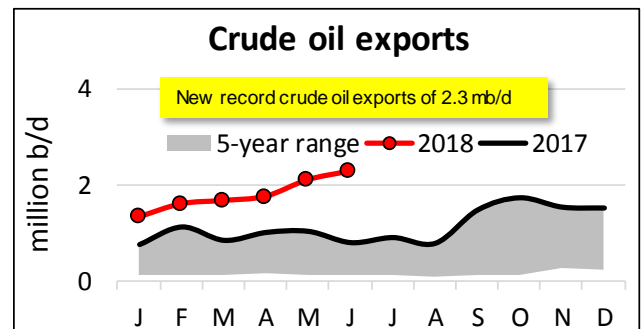
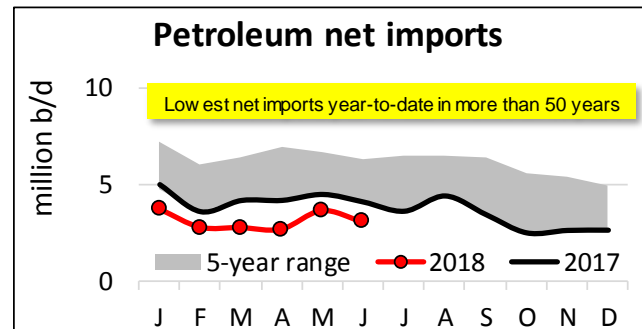
Moreover, according to Bloomberg, the consensus estimated that OPEC production in June 2018 was down by 800 kb/d since the same month a year ago, led by declines in Venezuela (590 kb/d), Angola (260 kb/d), Libya (150 kb/d), and Nigeria (130 kb/d). There also additional uncertainty about the impact of the re-imposition of sanctions against Iran.

Consequently, so far in 2018, the U.S. has shouldered the burden of all global oil demand growth and helped to offset about half of the decline in OPEC production.

With tightened oil market conditions and higher prices than last year, U.S. drilling activity continued to rise, averaging 1,056 rigs in June (up by 10 from May). This should continue to position the U.S. for further production growth.

International trade

Record crude oil exports led improvement in the U.S. petroleum trade balance

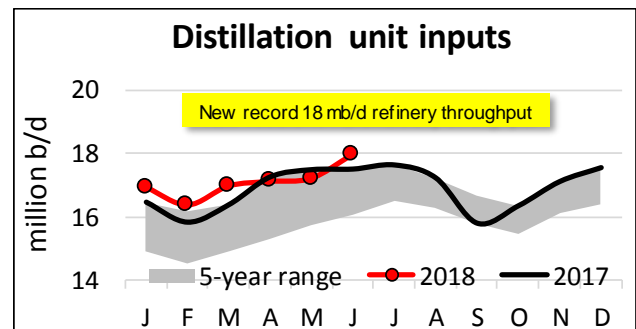


U.S. petroleum net imports of 2.8 mb/d in June were 350 kb/d lower than the same month a year ago. However, with strong demand for refined products as well as crude oil in June – gross petroleum imports of 10.5 mb/d were 300 kb/d above those of June 2017.

Net petroleum imports fell in June, however, as U.S. petroleum exports grew by 1.4 mb/d compared with those of June 2017. The improvement was attributable to increased crude oil exports, which reached a record 2.3 mb/d in June.

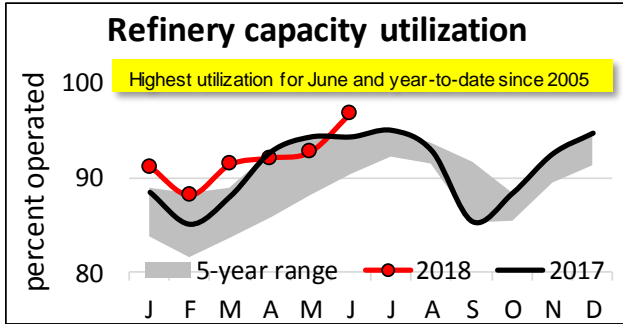
Industry operations

A new record 18.0 mb/d for refinery throughput



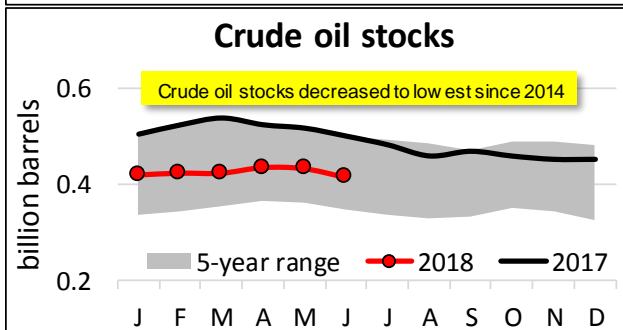
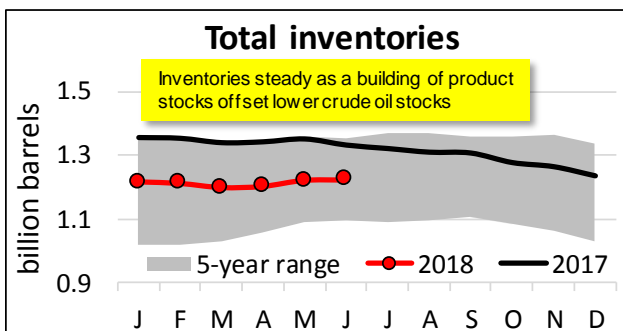
To meet strong demand, U.S. refineries in June set a new record for gross inputs of 18.0 mb/d and ran at their highest percent of capacity operated (96.6 percent) since 2005, and refinery outages reported by Bloomberg (143 kb/d) fell to their lowest level on record.

positioned U.S. inventories in the middle of the 5-year range.



Inventories

U.S. petroleum inventories steady as a refined product accumulation offset a crude oil drawdown



Total petroleum inventories in June were below last year’s levels. However, as refinery throughput ramped up to record levels in June, refined product inventories accumulated while those of crude oil were drawn down. In June, total crude and refined product inventories of 1.22 billion barrels were the same as they were in May but remained down by 8.1 percent compared with June 2017. This

ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

Disposition and Supply	June			Year-to-Date		
	2018 ²	2017	% Change	2018 ³	2017	% Change
Disposition:						
Total motor gasoline.....	9,658	9,766	(1.1)	9,235	9,242	(0.1)
Finished reformulated.....	3,356	3,365	(0.3)	3,129	3,070	1.9
Finished conventional.....	6,302	6,402	(1.6)	6,106	6,172	(1.1)
Kerosene-jet.....	1,804	1,762	2.4	1,687	1,641	2.8
Distillate fuel oil.....	4,019	3,969	1.3	4,132	3,929	5.2
≤ 500 ppm sulfur.....	3,894	3,842	1.4	3,961	3,741	5.9
≤ 15 ppm sulfur.....	3,879	3,839	1.0	3,946	3,735	5.7
> 500 ppm sulfur.....	125	127	(1.6)	172	188	(8.5)
Residual fuel oil.....	307	418	(26.6)	332	368	(9.8)
All other oils (including crude losses)	4,883	4,575	6.7	4,848	4,567	6.2
Reclassified ⁴	(105)	4	na	13	17	na
Total domestic product supplied.....	20,566	20,494	0.4	20,246	19,764	2.4
Exports.....	7,523	6,148	22.4	7,133	6,056	17.8
Total disposition.....	28,089	26,642	5.4	27,379	25,819	6.0
Supply:						
Domestic liquids production						
Crude oil (including condensate).....	10,738	9,089	18.1	10,427	9,070	15.0
Natural gas liquids.....	4,228	3,752	12.7	4,106	3,619	13.4
Other supply ⁵	1,278	1,204	6.1	1,239	1,187	4.3
Total domestic supply.....	16,244	14,044	15.7	15,771	13,877	13.7
Imports:						
Crude oil (excluding SPR imports).....	8,063	8,010	0.7	7,899	8,157	(3.2)
From Canada.....	3,842	3,270	17.5	3,701	3,455	7.1
All other.....	4,221	4,740	(11.0)	4,198	4,702	(10.7)
Products.....	2,476	2,229	11.1	2,300	2,164	6.3
Total motor gasoline (incl. blend.comp)....	766	755	1.5	670	670	0.0
All other.....	1,710	1,474	16.0	1,629	1,494	9.0
Total imports.....	10,539	10,240	2.9	10,199	10,321	(1.2)
Total supply.....	26,783	24,284	10.3	25,970	24,198	7.3
Stock change, all oils.....	(1,306)	(2,358)	na	(1,409)	(1,621)	na
Refinery Operations:						
Input to crude distillation units.....	17,954	17,513	2.5	17,091	16,832	1.5
Gasoline production.....	10,050	10,269	(2.1)	9,894	9,834	0.6
Kerosene-jet production.....	1,877	1,764	6.4	1,775	1,685	5.3
Distillate fuel production.....	5,371	5,275	1.8	5,006	4,968	0.8
Residual fuel production.....	334	415	(19.5)	417	437	(4.6)
Operable capacity.....	18,588	18,569	0.1	18,579	18,601	(0.1)
Refinery utilization ⁶	96.6%	94.3%	na	92.0%	90.5%	na
Crude oil runs.....	17,631	17,205	2.5	16,750	16,525	1.4

1. Total supply, i.e., production plus imports adjusted for net stock change is equal to total disposition from primary storage. Total disposition from primary storage less exports equals total domestic products supplied. Information contained in this report is derived from information published in the API *Weekly Statistical Bulletin* and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2. Based on API estimated data converted to a monthly basis.

3. Data for most current two months are API estimates. Other data come from U.S. Energy Information Administration (including any adjustments).

4. An adjustment to avoid double counting resulting from differences in product classifications among different refineries and blenders.

5. Includes unaccounted-for crude oil, withdrawals from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol, and downstream blending of ethanol.

6. Represents "Input to crude oil distillation units" as a percent of "Operable capacity".

R: Revised. na: Not available.

ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

	June 2018	May 2018	June 2017	% Change From	
				Month Ago	Year Ago
Stocks (at month-end, in millions of barrels):					
Crude oil (excluding lease & SPR stocks).....	415.0	432.8	500.4	(4.1)	(17.1)
Unfinished oils.....	90.8	92.8	88.7	(2.2)	2.4
Total motor gasoline.....	238.7	236.7	238.0	0.8	0.3
Finished reformulated.....	0.1	0.1	0.0	0.0	13.6
Finished conventional.....	23.6	22.8	22.5	3.5	5.0
Blending components.....	215.0	213.8	215.5	0.6	(0.2)
Kerosene-jet.....	41.0	41.7	41.0	(1.7)	(0.1)
Distillate fuel oil.....	119.4	114.7	151.6	4.1	(21.2)
≤ 500 ppm sulfur.....	110.7	105.7	142.2	4.7	(22.2)
≤ 15 ppm sulfur.....	106.8	102.0	135.6	4.7	(21.3)
> 500 ppm sulfur.....	8.7	9.0	9.4	(3.3)	(7.1)
Residual fuel oil.....	31.6	32.6	35.2	(3.1)	(10.2)
All other oils.....	285.2	269 R	275.1	6.0	3.7
Total all oils.....	1,221.7	1220.3 R	1,330.0	0.1	(8.1)