

Oil Market Review in Japan No. 04/2019

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Inui Bldg. Kachidoki, 11th Floor, 13-1, Kachidoki 1-chome, Chuo-ku, Tokyo, 104-8581 Japan
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Overview

The key WTI (West Texas Intermediate) crude oil futures contract on NYMEX (New York Mercantile Exchange) in the April 11-17 week moved within a range between \$63.40 per barrel and \$64.05/bbl.

On April 18, the May contract staged a small rally on a reported decline in Saudi Arabian crude oil exports in March and a Baker Hughes report that the number of operating U.S. oil-drilling rigs fell by eight from a week earlier to 825 for the first drop in three weeks, although selling came on the first rise in U.S. crude oil inventories in four weeks as announced by the EIA (Energy Information Administration) on the previous day and speculation that OPEC (Organization of the Petroleum Exporting Countries) and some other oil producing countries would not extend their joint oil production cut into the second half of this year. Saudi Arabia's crude oil exports in March were reported at 5.98 million barrels per day, down 0.27 million bpd from the previous month. The key contract closed at \$64.00/bbl, up \$0.24/bbl from the previous day.

On April 19, the market was closed for Easter Friday.

On April 22, the key contract rose further with a substantial gain as U.S. Secretary of State Mike Pompeo announced that the United States would end waivers on its Iran oil embargo for eight economies known as major Iranian oil importers on May 2. The May contract closed its final trading day at \$65.70/bbl, up \$1.70/bbl from the previous trading day.

On April 23, the key contract rose further to the highest level since last October 29 in response to the United States' policy of toughening sanctions on Iran as announced on the previous day. Saudi Arabian Energy Minister Khalid al-Falih vowed to cooperate with other oil producing countries to secure enough crude oil supply, while falling short of discussing specific measures. The June contract, which became the front-month contract on the day, gained 0.75/bbl to \$66.30/bbl.

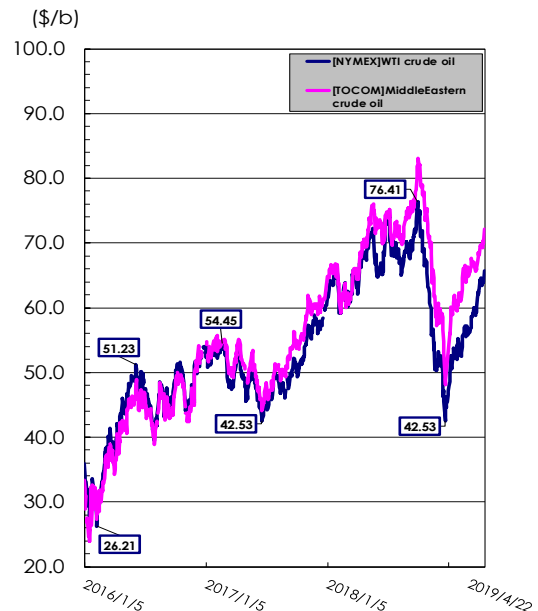
On April 24, the key contract turned down as the EIA reported that U.S. crude oil inventories posted a faster weekly increase than a market-forecast one, rising for the first time in two weeks. The June contract lost 0.41/bbl to \$65.89/bbl.

The Asian benchmark crude oil of Dubai for June delivery on the Tokyo market moved in a range between \$70.00/bbl and \$71.20/bbl in the April 11-17 week. It closed at \$70.90/bbl on April 18, at \$71.20/bbl on April 19, at \$73.10/bbl on April 22, at \$73.70/bbl on April 23 and at \$73.70/bbl on April 24.

On the foreign exchange market in the April 11-17 week, the dollar moved within a range between 111.11 and 112.14 yen. It changed hands at 112.04 yen in late trading on April 18, at 112.01 yen on April 19, at 111.99 yen on April 22, at 111.86 yen on April 23 and at 111.95 yen on April 24.

Japan's average retail price on April 22 increased by 1.2 yen/l from a week earlier for gasoline, by 1.1 yen/l for diesel oil and by 15 yen for kerosene on an 18-liter tank basis. The gasoline, diesel and kerosene prices rose for the 10th straight week. As crude oil cost rose in the fourth week of April, Motouri companies raised their wholesale prices by 2.0 yen/l for gasoline, diesel oil and kerosene for the next two weeks.

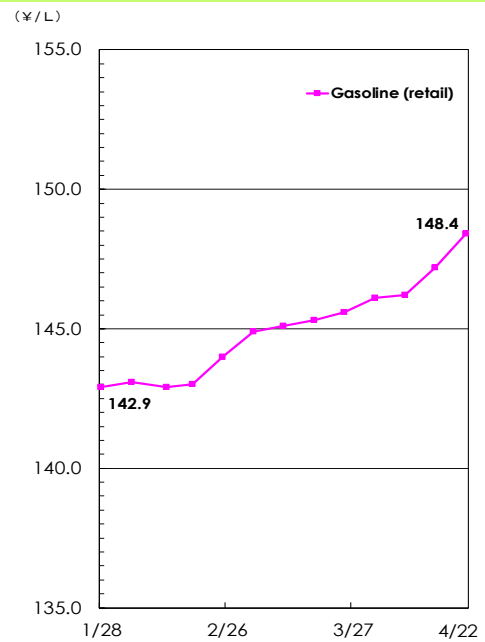
| Crude oil | | | This week | From a week earlier | From a year earlier |
|-------------------|---|-------------|-----------|---------------------|---------------------|
| Supply/ Demand | Crude oil runs (1,000 kl) | 4/14 ~ 4/20 | 3,489 | ▲ 13 | ▲ — |
| | Topper capacity utilization rate (%) | " | 89.1 | ▲ 0.3 | ▲ — |
| | Crude oil inventories (1,000 kl) | 4/20 | 12,886 | ▼ -19 | ▼ — |
| Prices | Middle Eastern crude oil (TOCOM) (\$/bbl) | 4/22 | 72.11 | ▲ 2.69 | ▲ 2.7 |
| | WTI crude oil (NYMEX) (\$/bbl) | 4/22 | 65.70 | ▲ 2.30 | ▼ -2.9 |
| | Crude oil import CIF price (\$/bbl) | Late Mar | 66.83 | ▲ 1.04 | ▲ 0.04 |
| | ① Crude oil import CIF price (yen/kl) | " | 46,869 | ▲ 824 | ▲ 2,105 |
| | ② Yen-dollar exchange rate (yen/dollar) | " | 111.48 | ▼ -0.21 | ▼ -4.92 |
| | TTS exchange rate (yen/dollar) | 4/22 | 112.99 | ▲ 0.02 | ▼ -4.15 |



(Unit: 1,000 kl, yen/l)

| Gasoline | | This week | From a week earlier | From a year earlier | |
|-------------------|---|--------------------|---------------------|---------------------|-------|
| Supply/ Demand | Production | 4/14 ~ 4/20 | 944 ▲ 4 | ▲ — | |
| | Imports | " | n.d. | n.d. | |
| | Shipments | " | 895 ▼ -34 | ▲ — | |
| | Exports | " | 80 ▲ 80 | ▼ — | |
| | Inventories | 4/20 | 1,550 ▼ -31 | ▼ — | |
| Prices | Gyoten (spot) [4-district average lorry rack price] (RIM) | 4/16 ~ 4/22 | 64.5 ▲ 0.4 | ▲ 2.5 | |
| | Futures [front-month contract/closing price] | (TOCOM/ Tokyo Bay) | 4/16 ~ 4/22 | 62.9 ▲ 1.3 | ▲ 0.7 |
| | | (TOCOM/ Chubu) | 4/22 | 66.0 ▲ 2.0 | ▲ 4.5 |
| | Retail prices [weekly trend] (published by ANRE) | 4/22 | 148.4 ▲ 1.2 | ▲ 4.3 | |

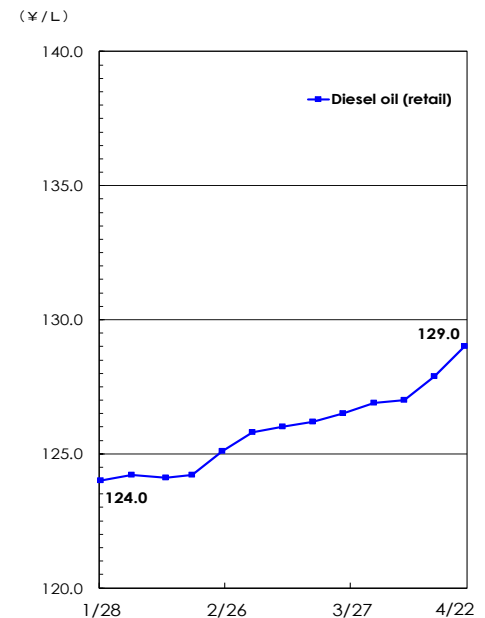
*Gyoten and futures prices are before tax



(Unit: 1,000 kl, yen/l)

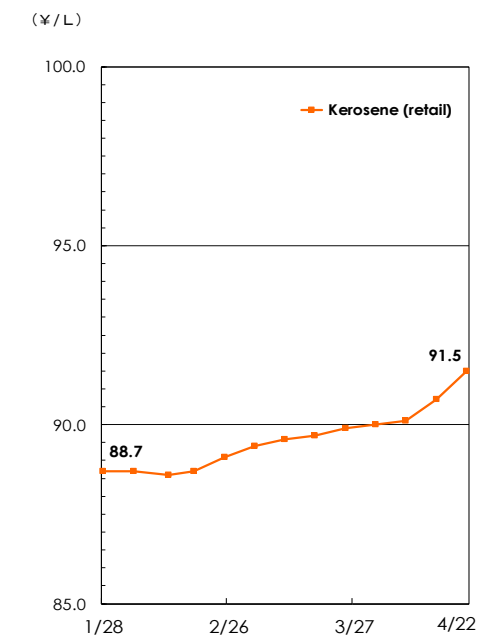
| Diesel oil | | This week | From a week earlier | From a year earlier | |
|-------------------|---|--------------------|---------------------|---------------------|-------|
| Supply/ Demand | Production | 4/14 ~ 4/20 | 919 ▲ 187 | ▲ — | |
| | Imports | " | n.d. | n.d. | |
| | Shipments | " | 657 ▲ 10 | ▼ — | |
| | Exports | " | 242 ▲ 100 | ▲ — | |
| | Inventories | 4/20 | 1,360 ▲ 20 | ▼ — | |
| Prices | Gyoten (spot) [4-district average lorry rack price] (RIM) | 4/16 ~ 4/22 | 67.0 ▲ 0.7 | ▲ 3.8 | |
| | Futures [front-month contract/closing price] | (TOCOM/ Tokyo Bay) | 4/16 ~ 4/22 | 67.1 ▲ 0.4 | ▲ 4.8 |
| | | (TOCOM/ Chubu) | 4/22 | — | — |
| | Retail prices [weekly trend] (published by ANRE) | 4/22 | 129.0 ▲ 1.1 | ▲ 6.3 | |

*Gyoten and futures prices are before tax



(Unit: 1,000 kl, yen/l)

| Kerosene | | This week | From a week earlier | From a year earlier | |
|-------------------|---|--------------------|---------------------|---------------------|-------|
| Supply/ Demand | Production | 4/14 ~ 4/20 | 190 ▼ -16 | ▲ — | |
| | Imports | " | n.d. | n.d. | |
| | Shipments | " | 205 ▼ -62 | ▼ — | |
| | Exports | " | 0 ➡ 0 | ➡ — | |
| | Inventories | 4/20 | 1,106 ▼ -15 | ▼ — | |
| Prices | Gyoten (spot) [4-district average lorry rack price] (RIM) | 4/16 ~ 4/22 | 67.4 ▲ 1.1 | ▲ 4.3 | |
| | Futures [front-month contract/closing price] | (TOCOM/ Tokyo Bay) | 4/16 ~ 4/22 | 65.9 ▲ 0.4 | ▲ 3.2 |
| | | (TOCOM/ Chubu) | 4/22 | 66.5 ▲ 2.3 | ▲ 6.0 |
| | Retail prices [weekly trend] (published by ANRE) | 4/22 | 91.5 ▲ 0.8 | ▲ 3.7 | |



Relevant Information

1 Overseas crude oil prices

On April 24, the most frequently traded crude oil futures contract on NYMEX turned down as concern about a tight supply-demand balance receded on the EIA's report that U.S. crude oil inventories posted a weekly increase of 5.5 million barrels, far faster than a market-forecast rise of 1.3 million barrels, to 460 million barrels, the highest since October 6, 2017. On the previous day, the IEA (International Energy Agency) released a view that supply in the international oil market was sufficient, with no problem seen with surplus supply capacity. The June contract closed at \$65.89/bbl, down \$0.41/bbl. The July contract fell by \$0.35/bbl to \$65.89/bbl.

According to the EIA, the average U.S. retail price of gasoline as of April 22 rose by 1.3 cents per gallon from a week earlier to \$2.841/gal (84.7 yen/l). The average diesel oil price increased by 2.9 cents/gal to \$3.147/gal (93.8 yen/l). The gasoline price increased for the 11th straight week, while the diesel price rose for the third straight week.

2 Petroleum products supply and demand in Japan (1) Shipments

According to a weekly report by the PAJ (Petroleum Association of Japan), inactive topper capacity in the April 14-20 week stood at 197,000 barrels per day, down 52,000 bpd from the previous week (total capacity remained at 3,519,000 bpd). Crude oil throughput in the week increased by 13,000 kl from the previous week to 3,489,000 kl. From a year earlier, it expanded by 19,000 kl. The topper capacity utilization rate stood at 89.1%, up 0.3 points from the previous week and up 0.5 points from a year earlier.

Production increased from the previous week for gasoline and diesel oil and decreased for other petroleum products. Output was up 0.5% for gasoline, down 7.7% for jet fuel, down 7.7% for kerosene, up 25.6% for diesel oil, down 11.7% for Fuel Oil A and down 4.2% for Fuel Oil C. Fuel Oil C imports in the week totaled 45,000 kl, up 38,000 kl from the previous week. Diesel oil exports aggregated 242,000 kl, up 100,000 kl.

Shipments (excluding imports) in the week increased from the previous week for jet fuel, diesel oil and Fuel Oil A and decreased for other petroleum products. From a year earlier, shipments expanded for gasoline, diesel oil and Fuel Oil A and fell for others. Gasoline shipments decreased by 3.7% from the previous week to 895,000 kl for the second straight weekly drop, remaining below 1 million kl for 16 months on end. Shipments

totalled 139,000 kl for jet fuel (up 81.9% from the previous week), 205,000 kl for kerosene (down 23.2%), 657,000 kl for diesel oil (up 1.6%), 212,000 kl for Fuel Oil A (up 5.9%) and 182,000 kl for Fuel Oil C (down 2.4%).

(Unit: 1,000 kl)

| | This week (4/14 ~ 4/20) | Previous week (4/7 ~ 4/13) | From a week earlier |
|------------------------|----------------------------|-------------------------------|------------------------|
| Gasoline | 895 | 929 | ▼ -34 (-4%) |
| Jet fuel | 139 | 76 | ▲ 63 (83%) |
| Kerosene (heating Oil) | 205 | 267 | ▼ -62 (-23%) |
| Diesel oil | 657 | 647 | ▲ 10 (2%) |
| Fuel oil A | 212 | 200 | ▲ 12 (6%) |
| Fuel Oil C | 182 | 186 | ▼ -4 (-2%) |
| Total | 2,290 | 2,305 | ▼ -15 (-1%) |

This week's shipments = (Previous weekend inventories + This week's production + This week's imports) - (This week's exports + This weekend inventories)

2 Petroleum products supply and demand in Japan (2) Inventories

Inventories as of April 20 increased from a week earlier for diesel oil and decreased for other petroleum products. From a year earlier, inventories increased for Fuel Oil A and decreased for others.

Gasoline inventories totaled 1,550,000 kl, down 31,000 kl from a week earlier and down 143,000 kl from a year earlier.

Kerosene inventories totaled 1,106,000 kl, down 15,000 from a week earlier and down 270,000 kl from a year earlier.

Diesel oil inventories totaled 1,360,000 kl, up 20,000 kl from a week earlier and down 94,000 kl from a year earlier.

Fuel Oil A inventories totaled 742,000 kl, up 10,000 kl from a week earlier and up 12,000 kl from a year earlier.

Fuel Oil C inventories totaled 1,908,000 kl, down 8,000 kl from a week earlier and down 89,000 kl from a year earlier.

(Unit: 1,000 kl)

| | This week (4/20) | Previous week (4/13) | From a week earlier |
|------------------------|---------------------|-------------------------|------------------------|
| Gasoline | 1,550 | 1,581 | ▼ -31 (-2%) |
| Jet fuel | 894 | 971 | ▼ -77 (-8%) |
| Kerosene (heating Oil) | 1,106 | 1,121 | ▼ -15 (-1%) |
| Diesel oil | 1,360 | 1,340 | ▲ 20 (1%) |
| Fuel oil A | 742 | 752 | ▼ -10 (-1%) |
| Fuel Oil C | 1,908 | 1,916 | ▼ -8 (-0%) |
| Total | 7,560 | 7,681 | ▼ -121 (-1.6%) |

3 Petroleum products wholesale prices in Japan (1) Wholesale price revision trend

In the April 16-22 week, crude oil cost might have risen from the previous week, as crude oil price hikes coincided with the yen's slight depreciation against the dollar.

Onshore cargo spot prices during the April 16-22 week rose slightly and fell back in a 118-119 yen/l range for gasoline, increased in a 66-68 yen/l range for diesel oil and rose in a 66-68 yen/l range for kerosene.

Offshore barge spot prices during the week shot up in a 119-122 yen/l range for gasoline, rose slightly in a 67-68 yen/l range for diesel oil and increased sharply in a 65-68 yen/l range for kerosene.

The key futures price during the week soared in a 116-119 yen/l range for gasoline, rose slightly in a 67-68 yen/l range for diesel oil and increased sharply in a 65-67 yen/l range for kerosene.

For the next two weeks, Motouri companies raised their wholesale prices by 2.0 yen/l for gasoline, kerosene and diesel oil.

3 Petroleum products wholesale prices in Japan (2) Spot (Gyoten) and futures price trend

Spot petroleum products prices this week increased from the previous week's averages, excluding offshore barge kerosene prices that leveled off.

The latest onshore cargo spot price (the average onshore rack price for four districts -- Chiba, Kawasaki, Chukyo and Hanshin -- for the April 16-22 week) that influences Motouri's wholesale prices applied to the April 25-May 8 period rose by 0.4 yen/l from the previous week for gasoline, by 1.1 yen/l for kerosene and by 0.7 yen/l for diesel oil.

The average offshore barge spot price in Tokyo Bay increased by 1.1 yen/l for gasoline, leveled off for kerosene and rose by 0.3 yen/l for diesel oil.

The key futures price rose by 1.3 yen/l for gasoline, by 0.4 yen/l for kerosene and by 0.4 yen/l for diesel oil.

For the first week of May, major Motouri companies increased their wholesale prices by 2.0 yen/l for gasoline, diesel oil and kerosene. Motouri based wholesale price revisions on crude oil and petroleum products market prices and each other's prices from 2010 and have adopted an approach giving greater priority to crude oil acquisition cost since June 2014.

| (RIM) [4-district average lorry rack price] | | (Unit: yen/l) | | |
|--|------------|----------------------------|-------------------------------|------------------------|
| | | This week (4/16 ~ 4/22) | Previous week (4/9 ~ 4/15) | From a week earlier |
| Spot Prices | Regular | 64.5 | 64.1 | ▲ 0.4 |
| | Kerosene | 67.4 | 66.3 | ▲ 1.1 |
| | Diesel oil | 67.0 | 66.3 | ▲ 0.7 |

| (TOCOM) [Front-month contract/closing price] [Average] | | (Unit: yen/l) | | |
|--|------------|----------------------------|-------------------------------|------------------------|
| | | This week (4/16 ~ 4/22) | Previous week (4/9 ~ 4/15) | From a week earlier |
| Futures Price | Regular | 62.9 | 61.6 | ▲ 1.3 |
| | Kerosene | 65.9 | 65.5 | ▲ 0.4 |
| | Diesel oil | 67.1 | 66.7 | ▲ 0.4 |

Above prices are before tax.

Reference (April 16 - April 22 actual data)

| (Unit: yen/l) | | | |
|---------------|-------|---------|---------|
| Products | Spot | Futures | Average |
| Gasoline | ▲ 0.4 | ▲ 1.3 | ▲ 0.8 |
| Kerosene | ▲ 1.1 | ▲ 0.4 | ▲ 0.8 |
| Diesel oil | ▲ 0.7 | ▲ 0.4 | ▲ 0.6 |
| Fuel Oil A | ▲ 1.0 | | |

(Source) Spot: RIM 4-district average lorry rack price (Chiba, Kawasaki, Chukyo, Hanshin)

Futures: TOCOM average offshore barge spot price for Keihin District

4 Retail prices of petroleum products in Japan

The average retail service station price as of April 22 increased by 1.2 yen/l from a week earlier to 148.4 yen/l for gasoline, by 1.1 yen/l to 129.0 yen/l for diesel oil and by 15 yen to 1,647 yen for kerosene on an 18-liter tank basis (or by 0.8 yen/l to 91.5 yen/l). The gasoline, diesel and kerosene prices rose for the 10th straight week. Gasoline prices increased in all of Japan's 47 prefectures. The lowest gasoline price among the prefectures was 142.6 yen/l in Tokushima Prefecture (up 2.1 yen/l from a week earlier). The second lowest was 144.0 yen/l in Chiba (up 0.6 yen/l) and Saitama (up 1.6 yen/l). The highest price was 158.2 yen/l in Nagasaki (up 0.5 yen/l). Logging the sharpest price rise of 3.0 yen/l was Miyagi (148.5 yen/l).

As crude oil cost rose last week, major Motouri companies raised their wholesale prices by 1.0 yen/l for gasoline, diesel oil and kerosene for this week.

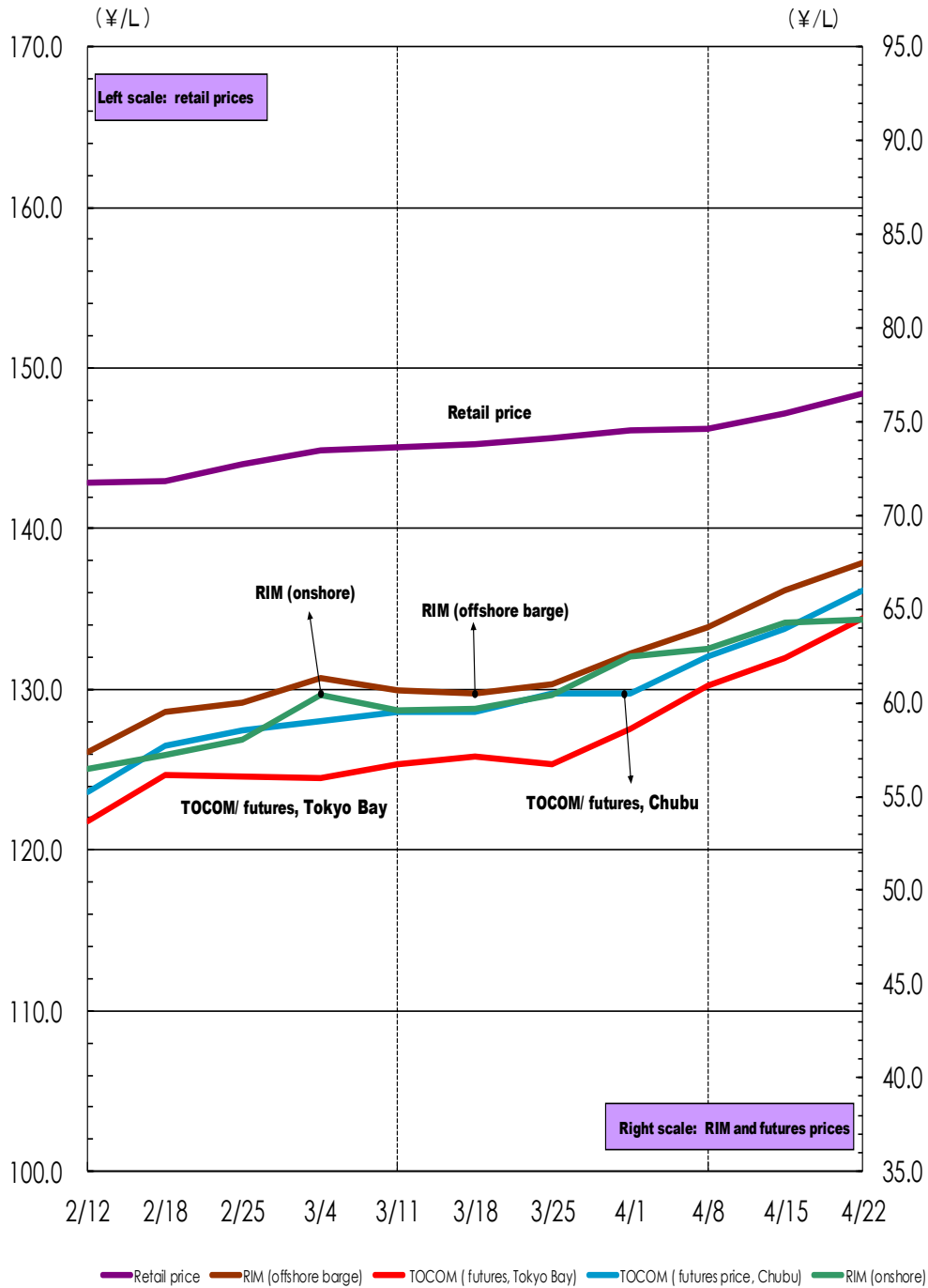
Crude oil cost increased this week as crude oil price hikes coincided with the yen's slight depreciation against the dollar. Motouri raised their wholesale prices by 2.0 yen/l for next week for gasoline, diesel oil and kerosene. Retail gasoline and kerosene prices are expected to rise toward May 7.

| (Published by ANRE)[Weekly trend] | | (Unit: yen/l) | | | |
|---|------------|---------------------|-------------------------|------------------------|---------------|
| | | This week (4/22) | Previous week (4/15) | From a week earlier | Latest high |
| Retail Price | Regular | 148.4 | 147.2 | ▲ 1.2 | 08/8/4 185.1 |
| | Kerosene | 91.5 | 90.7 | ▲ 0.8 | 08/8/11 132.1 |
| | Diesel oil | 129.0 | 127.9 | ▲ 1.1 | 08/8/4 167.4 |

Nationwide average cash retail price (including consumption tax)
Since April 2007, 2,000 service stations have been covered.
Latest highs are highest levels since October 2003.

Gasoline price trend

(2019/2/12 ~ 2019/4/22)



(Note) ① Retail price includes consumption Tax, RIM, TOCOM prices are before tax.
 ② RIM (onshore) is the average of four district .

Announcement

This report is available at the center's website (<https://eneken.ieej.or.jp/en/>).
The next issue (No. 5 for 2019) will be announced at 14:00 on May 17.

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Weekly Oil Market Review

In an interim report compiled in May 2004 by a petroleum products market trend study panel sponsored by the Petroleum Distribution and Retail Division of the Natural Resources and Fuel Department at the Agency for Natural Resources and Energy, the panel stated, "We hope that the Japanese oil industry will solidify its market and price-finding functions and that the oil industry as a mainstay industry in Japan will further enhance its rationality and vitality over a medium term as industry people deepen their understanding of the need for rational price recognition based on market and price-finding functions to be established in the oil industry and for business decisions based on recognition under the principle of self-responsibility."

In response to the report, this Center has published the Weekly Oil Market Review as a tool for oil-related people, business administrators (particularly service station managers) and ordinary consumers to accurately understand crude oil and petroleum products supply and demand and price trends, in cooperation with relevant organizations such as the Petroleum Association of Japan and the Zensekiren (Japan's Dealers Association) since May 2005.

Sources of data provided in this report

① [Crude oil and petroleum products supply and demand] (weekly PAJ report)

Data in weekly statistics on crude oil and petroleum product supply by the Petroleum Association of Japan are calculated in terms of 1,000 kiloliters. Shipments are estimated by this Center.

② [Crude oil and futures prices] (WTI crude and Middle Eastern crude)

For the WTI crude, the front-month WTI crude futures contract's daily closing price on the New York Mercantile Exchange (NYMEX) is adopted.

For the Middle Eastern crude, the front-month Middle Eastern crude futures contract's closing price on the Tokyo Commodity Exchange (TOCOM) is adopted. * "Second-month (next-month) contract"

Underlying the Middle Eastern crude price is the average price for the Dubai and Oman crude oil. The telegraphic transfer middle rate (TTM) released by the Bank of Tokyo-Mitsubishi UFJ is adopted as the foreign exchange rate.

The crude oil import CIF price is a dollar-denominated reference price estimated by the PAJ based on the average crude oil price (on a 10-day basis) in the Ministry of Finance trade statistics.

③ [Motouri wholesale prices of petroleum products in Japan]

Motouri wholesale prices are prices for transactions between Motouri petroleum products wholesalers (primary wholesalers) and their affiliates (secondary wholesalers).

Motouri companies modified their new pricing system in April 2010 to decide specific policies in comprehensive consideration of crude oil and petroleum products market prices, each other's prices and other data. In June 2014, they modified the system further to give greater priority to crude oil cost.

④ [Gyoten spot prices of petroleum products in Japan] (RIM gyoten)

Onshore cargo spot prices are the average onshore lorry rack prices for the four districts of Tokyo, Kawasaki, Chukyo and Hanshin in the Lorry Rack Report of RIM Intelligence Co.

⑤ [Futures prices of petroleum products in Japan] (TOCOM)

Front-month petroleum products futures contracts' daily closing prices for TOCOM Tokyo Bay and Chubu are adopted.

TOCOM Tokyo Bay prices are the average offshore barge prices for the Keihin district. TOCOM Chubu prices are the average lorry rack prices in the Chubu district.

⑥ [Retail prices of petroleum products in Japan] (Weekly trend survey)

Average cash retail prices at some 2,000 service stations subject to a weekly nationwide survey are adopted (as released by the Agency for Natural Resources and Energy). The survey covers prices on Monday and is released at 14:00 on Wednesday (available on the website of the Agency for Natural Resources and Energy).