

PETROLEUM WATCH

CALIFORNIA ENERGY COMMISSION

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PETROLEUM NEWS

PRICES

- **Crude Oil Prices:** On January 29, Brent and West Texas Intermediate (WTI) crude prices closed at \$58.97 and \$53.07, respectively. The Brent crude price is \$10.11 lower than one year ago and the WTI price is \$12.60 lower (**page 2**).
- **California Retail Gasoline Prices:** On January 28, prices reached \$3.13, a decrease of \$0.09 since the end of December. Through January, California prices averaged \$0.91 higher than the national average (**page 4**).
- **California Retail Diesel Prices:** On January 28, prices reached \$3.73. This was a decrease of \$0.08 from the end of December. Through January, California prices averaged \$0.76 higher than the national average (**page 5**).

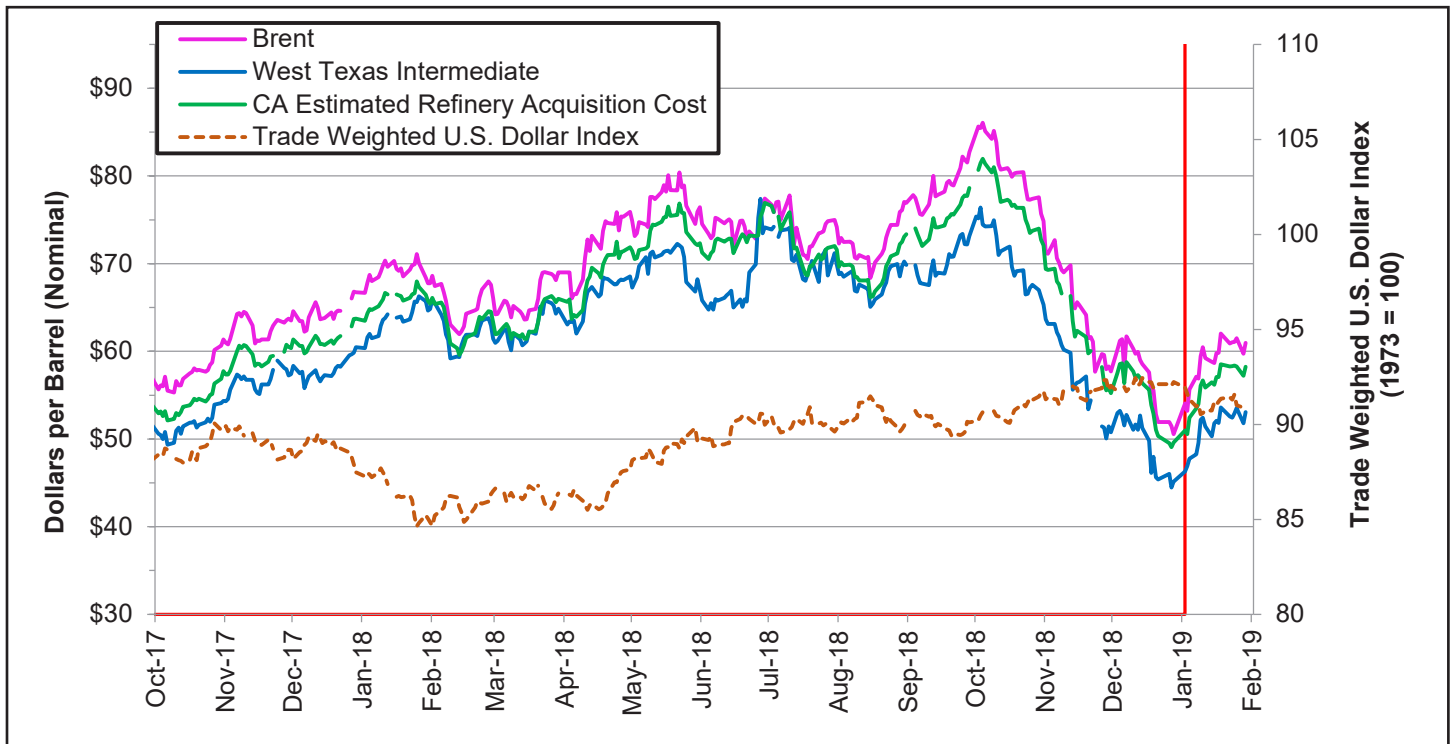
REFINING NEWS

- **Chevron El Segundo Refinery:** On January 23, the refinery shut down the alkylation unit for unplanned maintenance. The refinery restarted the unit the same day. On January 31, the refinery shut down because of a lightning strike that caused a power outage. The refinery is working to return to regular production.
- **PBF Torrance Refinery:** On January 10, the refinery shut down a delayed coker unit for planned maintenance. The refinery expects to complete maintenance on February 23.



CRUDE OIL PRICES

Figure 1: Daily West Coast Spot Crude Oil Prices



Source: U.S. Energy Information Administration (EIA), Oil Price Information Service (OPIS) and Federal Reserve Bank of St. Louis.

CRUDE OIL PRICES

January 2019 vs 2018

(Percent Change)

Brent 11% lower

WTI 14% lower

CA-RAC 11% lower

January 2019 Averages

Brent \$57.06

WTI \$49.52

CA-RAC \$54.85

January 29, 2018

Brent \$54.06

WTI \$46.31

CA-RAC \$50.97

Crude oil spot prices showed signs of recovery during the first half of January (Figure 1). Price growth stagnated towards the end of January despite Organization of Petroleum Exporting Countries (OPEC) efforts to lower production.¹ Prices peaked across all indexes on January 18 with Brent at \$62.04, WTI at \$53.60, and California Refinery Acquisition Cost (CA-RAC) at \$58.54.²

The price difference between Brent and WTI ranged from \$6.31 to \$8.83, averaging \$7.87 for January. The narrowest gap occurred on January 3 when Brent was at \$53.23, its lowest price for January. The widest gap occurred on January 7 when Brent had a 12.9 percent weekly increase from December 28. This was Brent's highest weekly increase

in January. Brent's monthly price growth of \$1.91 slightly outpaced WTI's monthly price growth of \$1.58, leading to a \$0.33 increase from December's average spread. The narrowing of the range suggests that uncertainty between the international and United States markets have dropped.

The U.S. continues to produce crude oil at record-levels (page 3) while imports of WTI crudes have yet to cease completely in China.³ This should keep U.S. prices relatively low until trade agreements with China finalize. If China decides to stop importing U.S. crude oil, expect WTI to drop and Brent to rise. Unless other nations increase their imports of U.S. crude oil, losing the large demand from China would drop WTI prices if the U.S. maintains these production levels.

¹ "OPEC oil output drops on Saudi cut, outages and sanctions," Reuters, January 31, 2019

<https://www.reuters.com/article/us-oil-opec-survey/opec-oil-output-drops-on-saudi-cut-outages-and-sanctions-idUSKCN1PP1LF>

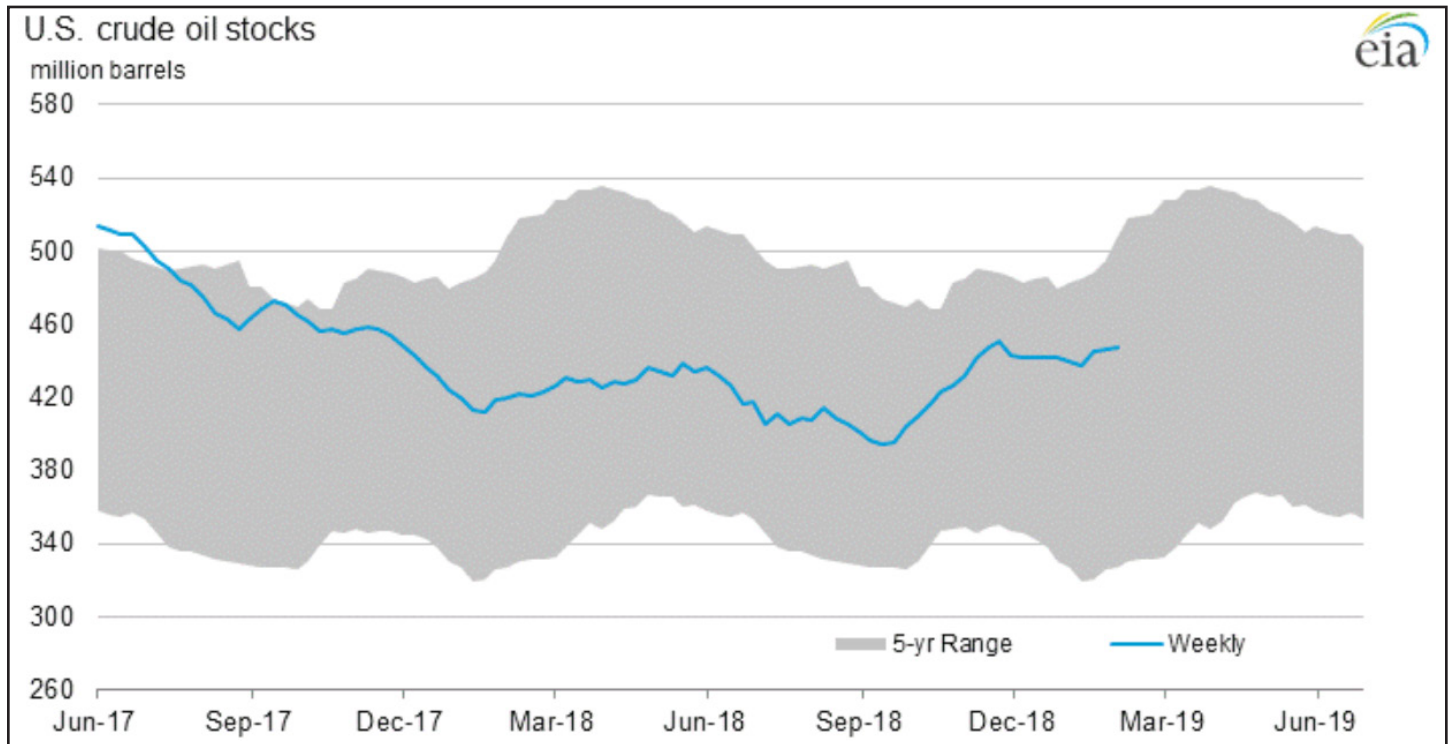
² CA-RAC is a weighted average of the prices of California (San Joaquin Valley) crude, Alaskan crude, and foreign crude.

³ "First U.S. crude cargoes head to China since trade breakthrough," Reuters, January 4, 2019

<https://www.reuters.com/article/us-usa-crude-exports/first-u-s-crude-cargoes-head-to-china-since-trade-breakthrough-sources-idUSKCN1P82LN>

CRUDE OIL PRODUCTION & STORAGE

Figure 2: U.S. Crude Oil Inventories



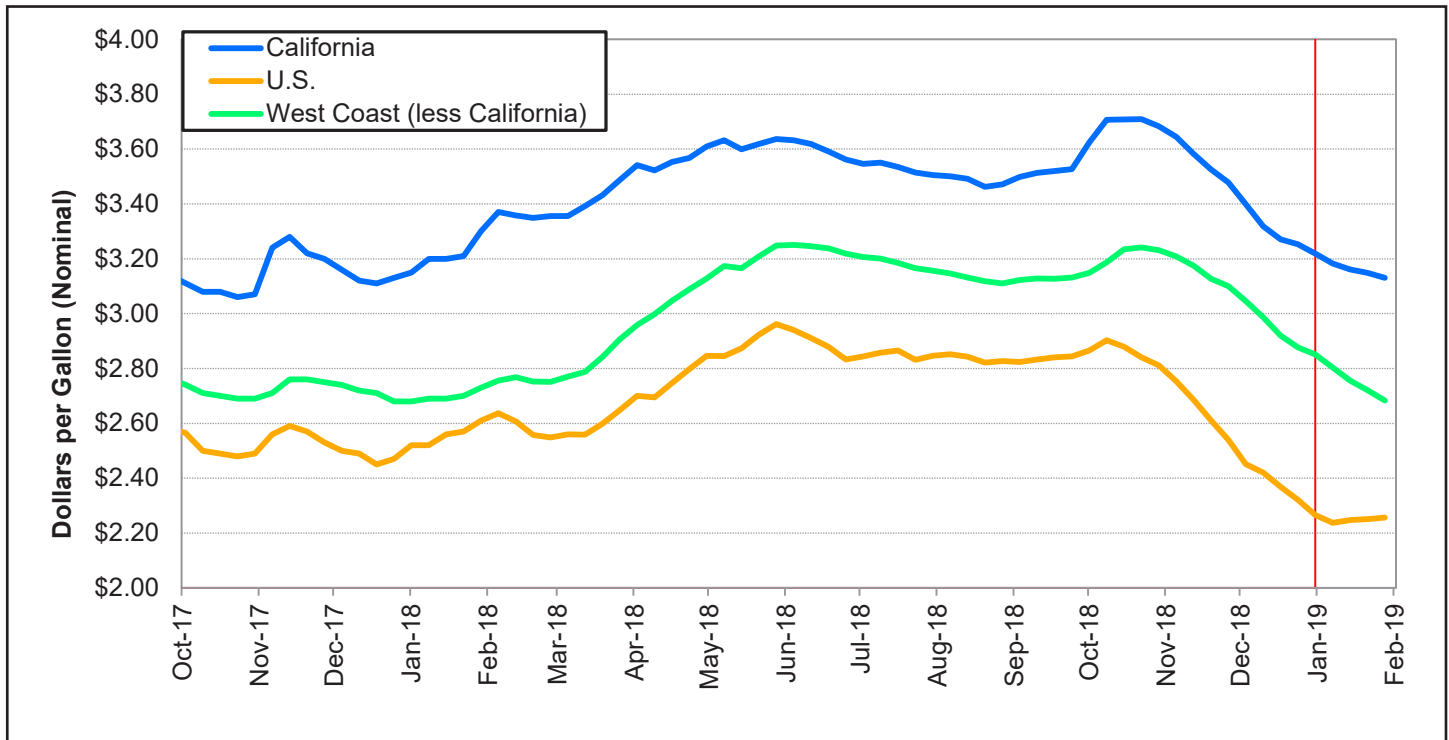
Source: U.S. Energy Information Administration

- U.S. crude oil production for January averaged 11.85 million barrels per day (bpd). This amount is 20,000 bpd higher than the December 2018 four-week average of 11.65 million bpd. This is a 2.09 million bpd increase from January 2018, when production averaged 9.76 million bpd.
- Crude oil imports increased in January by 195,750 bpd to 7.66 million bpd over December 2018. Compared to January 2018 imports, this is a decrease of 328,000 bpd.
- U.S. crude oil refinery inputs decreased by 413,000 bpd since December 2018, finishing January at a four-week average of 17.075 million bpd. Refinery inputs are 450,000 bpd higher than a year ago.
- Average U.S. crude oil inventory in January increased from December 2018 to 446 million barrels from 441 million barrels. Current inventories are 27.5 million barrels higher than a year ago.
- According to OPEC's January Monthly Oil Market Report, total December OPEC production decreased by 751,000 bpd to 31.58 million bpd.⁴ OPEC forecasts global crude oil demand in 2019 to reach 100.08 million bpd.

⁴ OPEC December *Monthly Oil Market Report*, page iii, page 57: http://www.opec.org/opec_web/en/publications/338.htm.

GASOLINE AND DIESEL RETAIL PRICES

Figure 3: Gasoline Retail Prices



Source: U.S. Energy Information Administration

GASOLINE PRICES

January 2019 vs 2018

(Percent Change)

California	2% lower
U.S.	12% lower
West Coast	2% higher

January 2019 Averages

California	\$3.16
U.S.	\$2.25
West Coast	\$2.74

January 28, 2019

California	\$3.13
U.S.	\$2.26
West Coast	\$2.68

Gasoline retail prices in California and the West Coast (less California) have continued to fall, a trend that started in October (Figure 3). The average weekly price for California and the West Coast decreased each of the four weeks in January. On January 7, the average weekly price for the United States broke away from the downward trend and increased slightly each week.

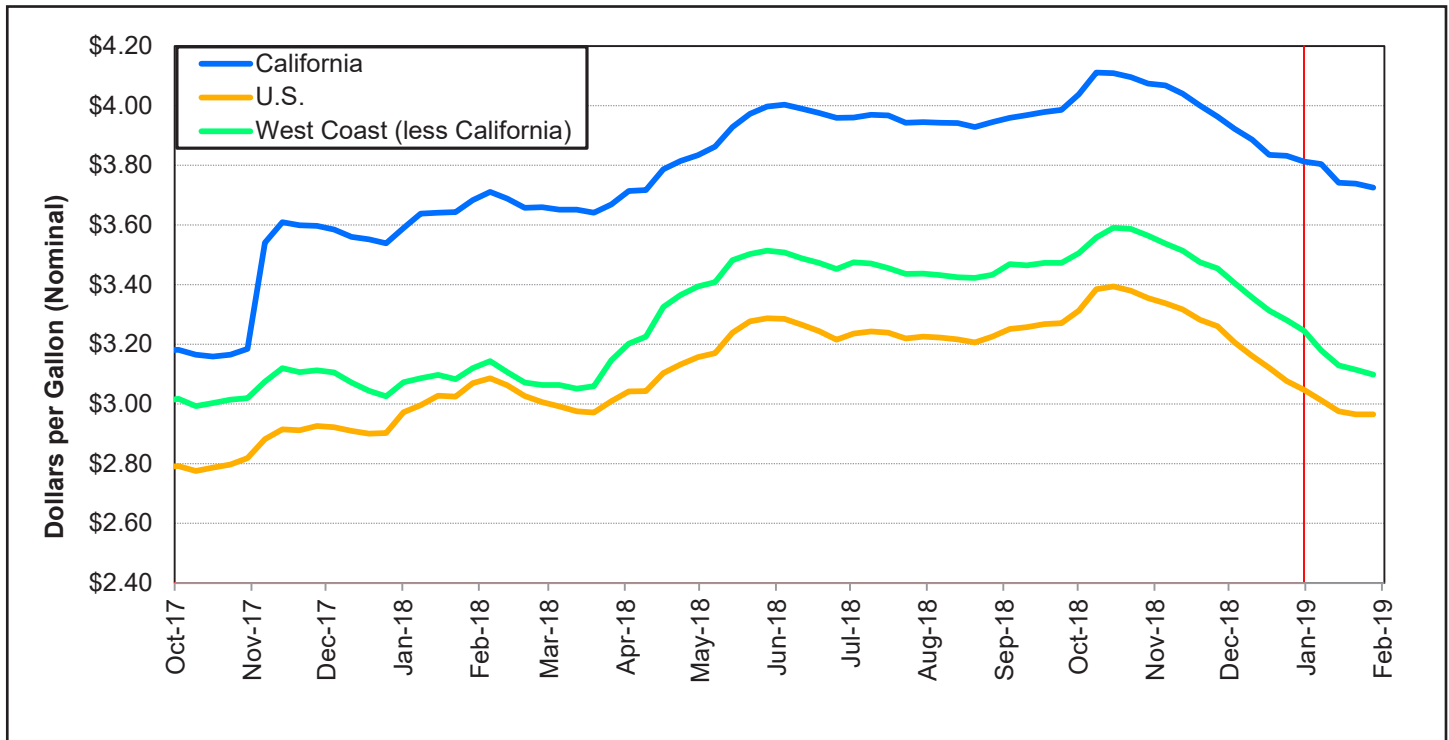
The January average price for California, United States, and West Coast (less California) were lower than December and decreased by \$0.13, \$0.12, and \$0.20, respectively (sidebar). On January 28, the average price for a gallon of gasoline was \$3.13 in California, \$2.26 in the United States, and \$2.68 on the West Coast.

The price difference between California and the United States was \$0.87.

Despite an increase in crude oil prices, retail gasoline prices continued to fall in California and the West Coast (Figure 1). Retail prices can be slow to react to changes in crude oil prices. California gasoline production decreased in January while inventories increased indicating low demand (Figure 6).

GASOLINE AND DIESEL RETAIL PRICES

Figure 4: Diesel Retail Prices



Source: U.S. Energy Information Administration

DIESEL PRICES

January 2019 vs 2018

(Percent Change)

California	3% higher
U.S.	1% lower
West Coast	1% higher

January 2019 Averages

California	\$3.75
U.S.	\$2.98
West Coast	\$3.13

Week of January 28, 2018

California	\$3.73
U.S.	\$2.97
West Coast	\$3.10

Diesel retail prices continued to decline throughout January. The California monthly average price decreased \$0.11 to \$3.75, up \$0.11 since December 2018 (Figure 4). The United States monthly average price fell \$0.14 since December to \$2.98 and the West Coast (less CA) average price fell \$0.19 to \$3.13. All prices declined the first two weeks of January and then leveled off on January 21 having little week over week change.

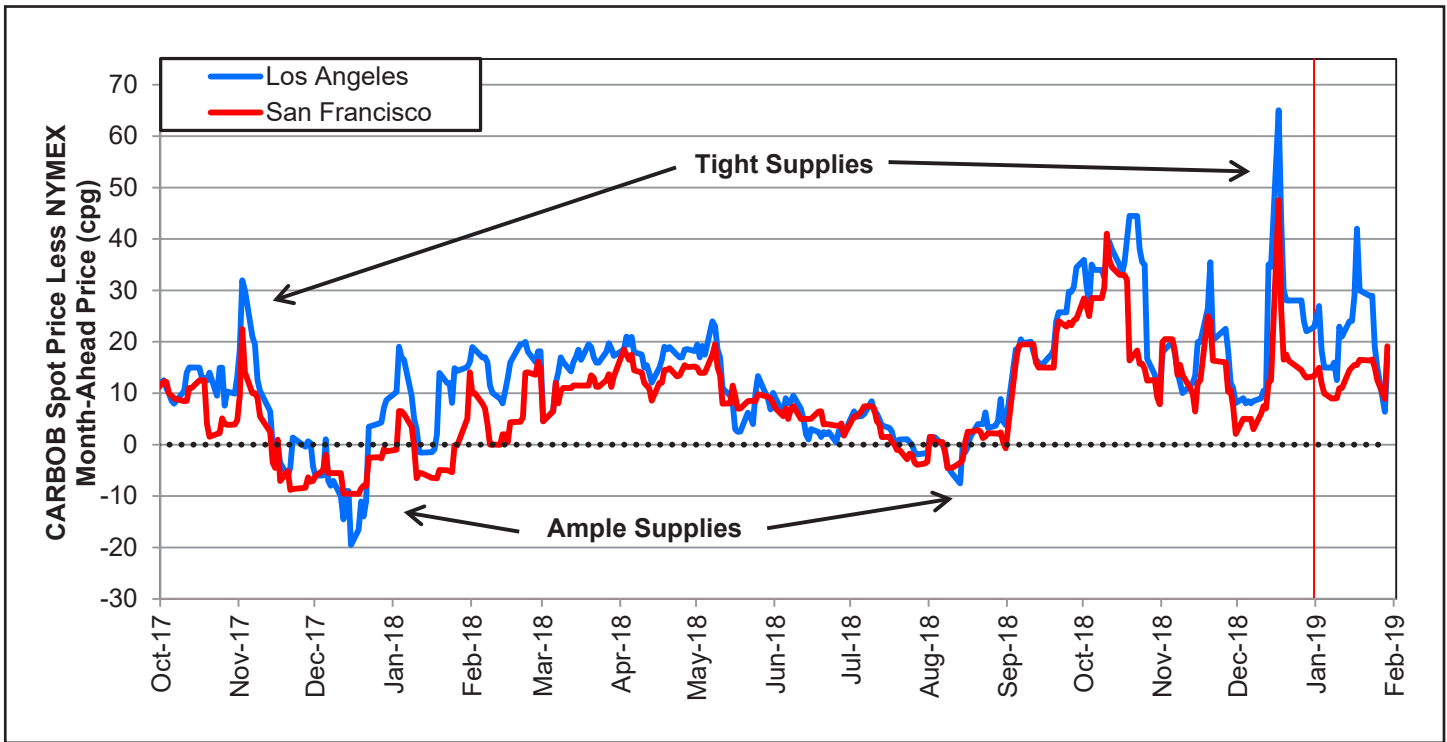
California diesel prices remained higher than the United States average, despite the price drops in January. The retail price difference between California and the United States was the highest since the November 2017 California diesel excise tax increase. The California monthly average price was \$0.77

higher than the United States and \$0.62 higher than the West Coast. The largest difference occurred January 7 when California was \$0.79 higher than the United States. Tight diesel inventories in Southern California during December kept prices high and slowed the price declines seen in the rest of the United States (page 9). As a result, retail prices in California did not fall as greatly as the United States or the West Coast.

Based on historical trends, diesel prices should continue to decrease into February and then pick up in March as agricultural demand increases. Farmers need most of their fuel for planting in the spring and harvesting in the fall. During these seasons, expect to see higher demand and therefore increased diesel prices.

SPOT MARKET SPREADS

Figure 5: California Spot Gasoline to NYMEX Futures Price Spread



Source: U.S. Energy Information Administration and OPIS

GASOLINE SPOT - FUTURES SPREAD

January 2019 vs 2018

Los Angeles	13¢ higher
San Francisco	14¢ higher

January 2019 Averages

Los Angeles	22¢
San Francisco	13¢

January 29, 2019

Los Angeles	17¢
San Francisco	19¢

The Los Angeles (LA) and San Francisco (SF) gasoline spot less New York Mercantile Exchanges (NYMEX) futures spreads remained high at \$0.27 and \$0.15, respectively, on January 2 (**Figure 5**). The LA spread decreased to \$0.13 on January 9 and then increase to \$0.42 on January 17. From January 02 to January 17, the SF spread average \$0.12 with a monthly high of \$0.16 on January 17. On January 28, the spreads decreased to \$0.06 for LA and \$0.09 for SF and then increased the following day to \$0.17 for LA and \$0.19 for SF.

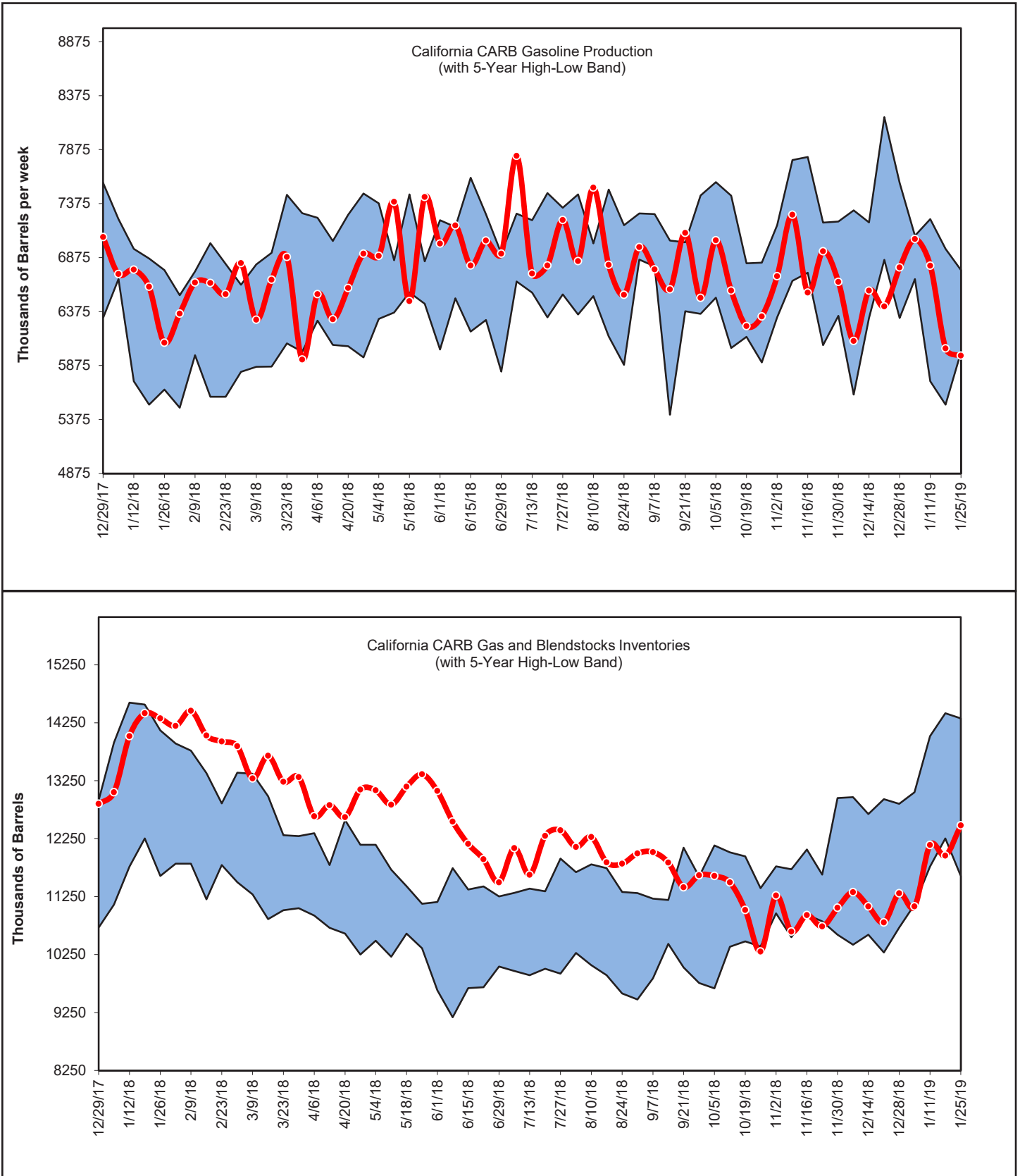
LA spread increased \$0.27 within ten days, from \$0.15 on January 7 to \$0.42 on January 17. Refineries in the LA area were in the process of switching from

winter to summer blend gasoline. This switch could have contributed to the mid-January price increase.

During January, California gasoline production was in a slump where production decreased from 7.0 million of barrels per week (bpw) on January 4 to 6.0 million bpw on January 25 (**Figure 6**). Meanwhile, gasoline inventories increased from 11.1 million gallons to 12.5 million gallons between January 4 and January 25. Inventories remained below the five-year band for two of the four weeks of January.

SPOT MARKET SPREADS

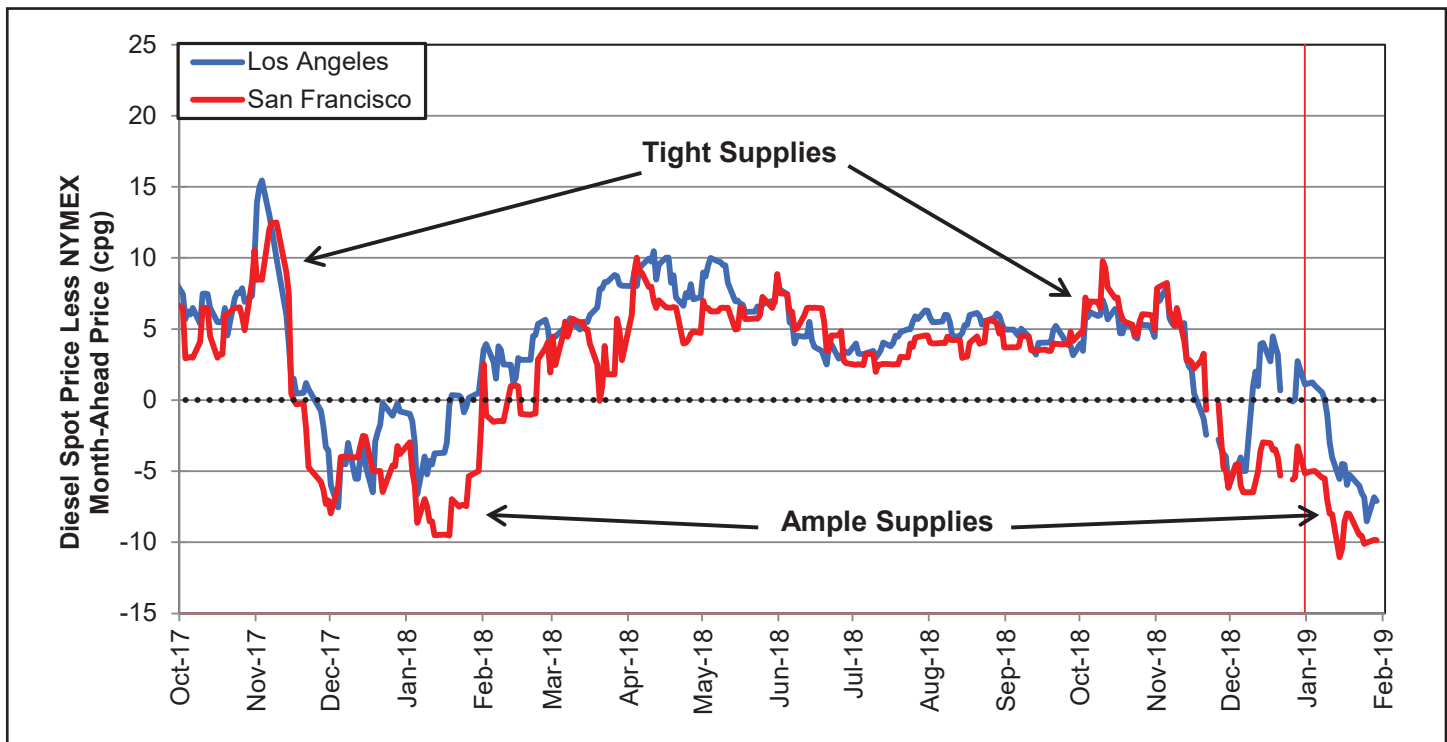
Figure 6: Gasoline Production and Inventories



Source: California Energy Commission PIIRA data

SPOT MARKET SPREADS

Figure 7: California Spot Diesel to NYMEX Futures Price Spread



Source: U.S. Energy Information Administration and OPIIS

DIESEL SPOT - FUTURES SPREAD

January 2019 vs 2018

Los Angeles	2¢ lower
San Francisco	1¢ lower

January 2019 Averages

Los Angeles	-4¢
San Francisco	-8¢

January 29, 2019

Los Angeles	-7¢
San Francisco	-10¢

The LA and SF spreads remained separated and continued a downward trend through January (Figure 7). The LA spread started at \$0.01 on January 2, and maintained that price for three days before dropping to -\$0.06 on January 14. The spread fluctuated for a few days and then dropped to the monthly low of -\$0.09 on January 25. By January 29, the spread gained 2 cents to end the month at -\$0.07 (side bar). The SF spread started at -\$0.05 on January 2, and followed the downward trend to hit a monthly low of -\$0.11 on January 14. The spread bounced up to -\$0.08 on January 18 and then slumped down to -\$0.10 on January 29.

January continues a trend in which the LA and SF spreads remain separated. In the first half of January, the LA spread averaged \$0.06 higher than SF.

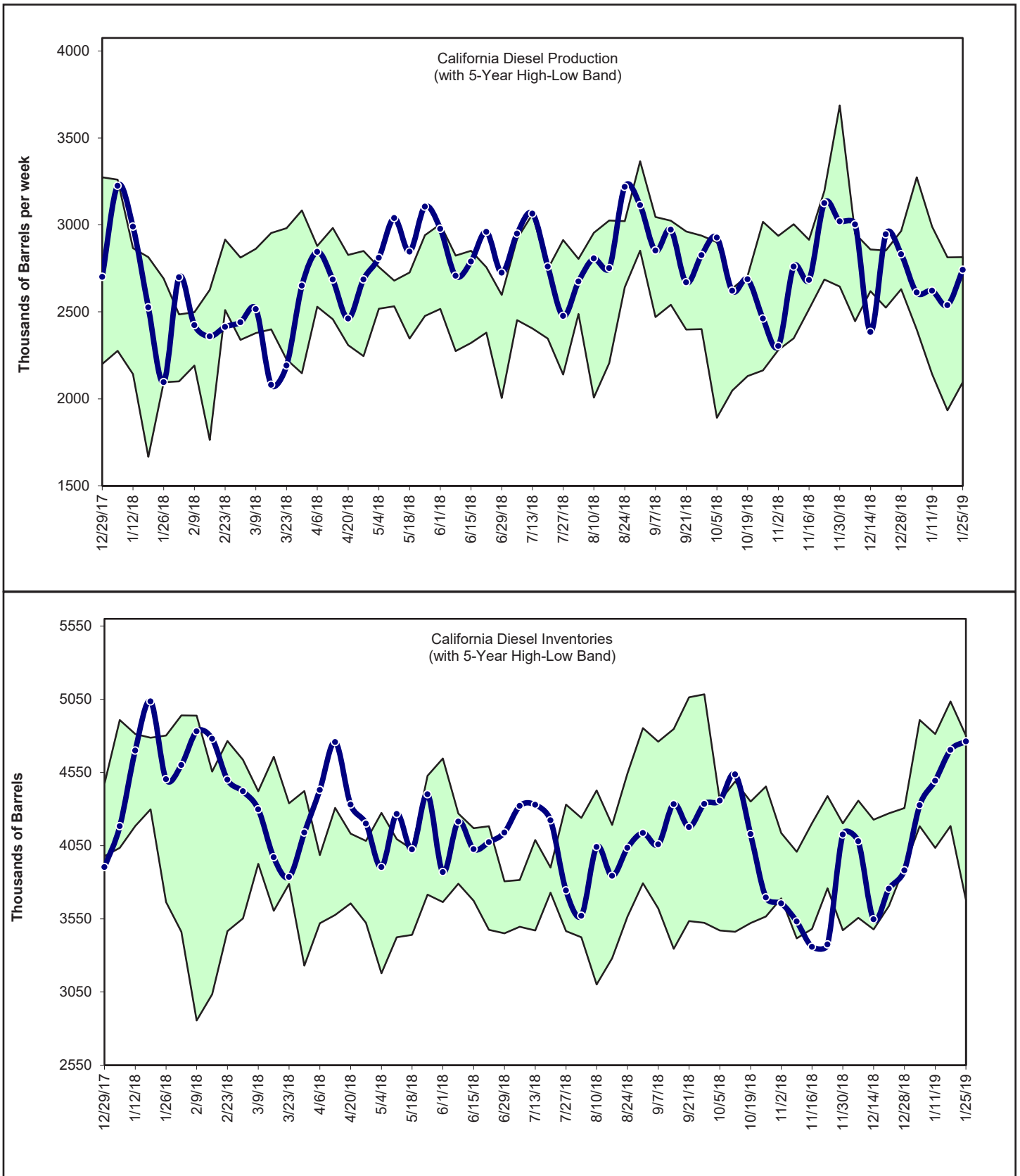
During this time, inventories in Southern California fell below the five-year band likely causing the \$0.06 difference.⁵ As inventories returned to within the five-year band, the difference between LA and SF shrunk to an average of \$0.03.

In January, diesel production remained within the five-year band (Figure 8). On January 25, production averaged 2.6 million bpw, which is 100,000 barrels less than last year. Despite the slight decline in production, inventories increased week after week. California added 500,000 barrels to its diesel inventories, ending the month on January 25 at 4.8 million barrels.

⁵ California Energy Commission. February 6, 2019. "Weekly Fuels Watch.": https://www.energy.ca.gov/almanac/petroleum_data/fuels_watch/Weekly_FuelsWatch_Summary.pdf#page=7.

SPOT MARKET SPREADS

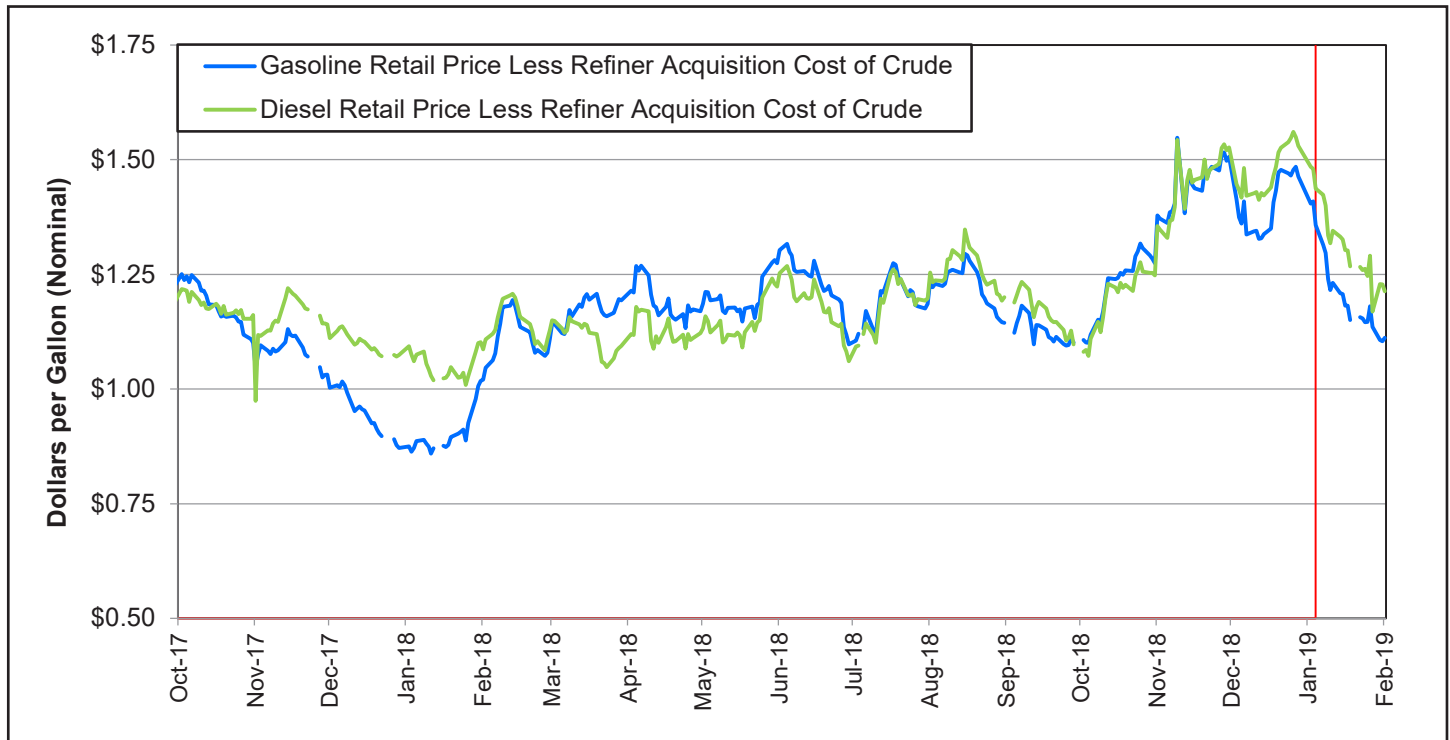
Figure 8: Diesel Production and Inventories



Source: California Energy Commission PIIRA data

GROSS MARGINS

Figure 9: Gross California Gasoline and Diesel Margins



Source: U.S. Energy Information Administration and OPIS

CRUDE TO RETAIL MARGINS

January 2019 vs 2018

Gasoline	35% higher
Diesel	26% higher

January 2019 Averages

Gasoline	\$1.22
Diesel	\$1.32

January XX, 2019

Gasoline	\$1.10
Diesel	\$1.23

Gross margins decreased noticeably in January, with the gasoline margin falling 21 percent and the diesel margin falling 17 percent (**Figure 9**). This fall was a result of retail fuel prices in California continuing to fall and crude oil prices beginning to trend upwards, narrowing the margin between them. January and February are typical points in the year where margins are low. Fuel demand is often low during this period, as the cold weather and the end of the holiday season tend to discourage increased driving. A similar drop happened last year in December as margins went from \$1.00 to \$0.89 and \$1.11 and \$1.08 for gasoline and diesel respectively.

Even with the fall in gasoline prices, margins are running higher than pre-2015 values. In 2014, the gasoline margin averaged \$0.83 and the diesel margin average \$1.10. This means that the January 2019 gross margins are roughly \$0.40 and \$0.20 greater than the 2014 averages for gasoline and diesel, respectively. Gross margin calculations include the costs for Low Carbon Fuel Standard and Cap-and-Trade compliance. It is noticeable that gross margins have not been under \$1.00 since late January 2018 for gasoline and the start of November 2018 for diesel.