



PETROLEUM WATCH

California Energy Commission

July 2015

Recent Petroleum News and Outside Analyses

Prices

- **California Gasoline Prices:** Gasoline price differences between California and the rest of the United States decreased from \$1.03 above the national average in May to 68 cents during the third week in June.
- **California Diesel Prices:** California diesel prices in 2015 remain lower than same time last year (22 percent). In June the California differential to the United States diesel price decreased 3 cents.

Refining News

- **Plains All American Crude Oil Line 903:** On June 3, Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a corrective action order to Plains requiring maintenance to the pipeline before restart can begin. This closure reduces crude oil shipments to the Phillips 66 Santa Maria Refinery by roughly 44,500 barrels per day.
- **Phillips 66 Santa Maria Refinery:** On June 19, due to reduced crude oil deliveries the Santa Maria Refinery has accelerated planned maintenance activities to the refinery.
- **Exxon Mobil Torrance Refinery:** Refinery remains offline for maintenance.

State and Federal Policy News

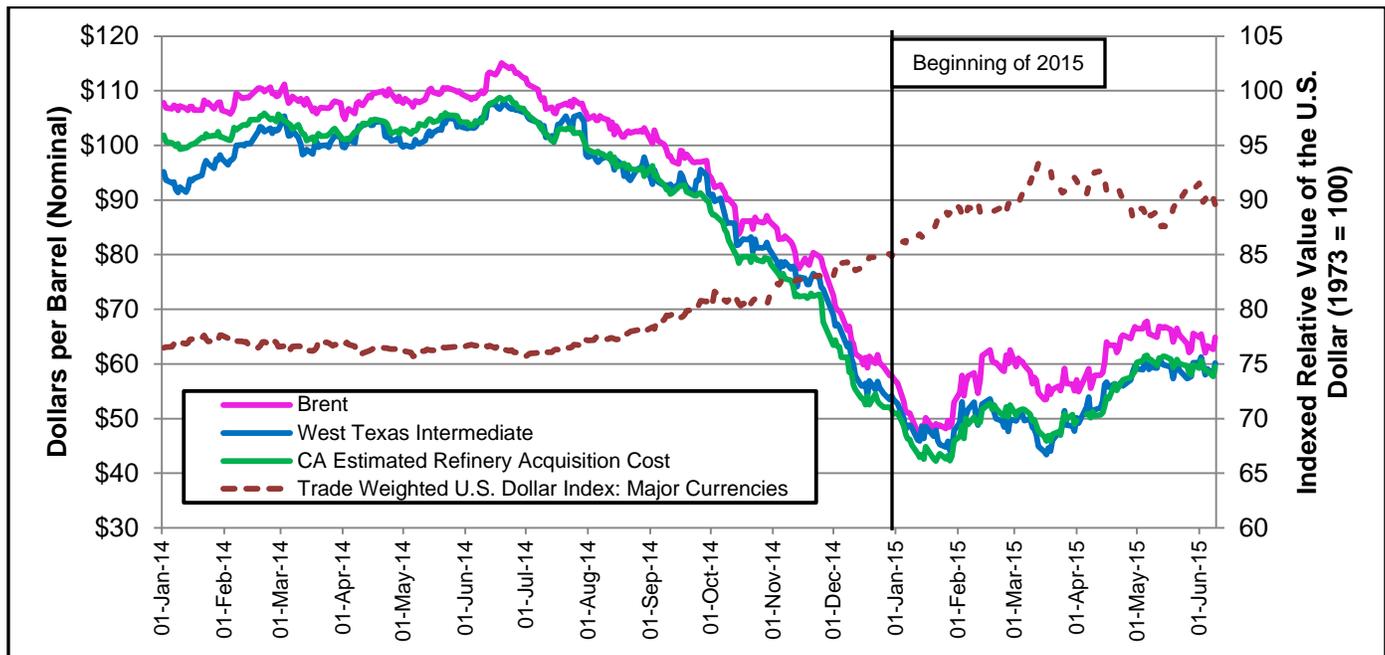
- **California Board of Equalization (BOE):** June 16, BOE announced change to the California diesel excise tax rate, increasing the rate from 11 cents to 13 cents.

Outside Analysis

Nothing to report.

Crude Oil Prices

Figure 1: Daily West Coast Spot Crude Oil Prices, January 2014 to Present



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

After increasing in April, crude oil prices have leveled off in May and June. The California Estimated Refiner Acquisition Cost¹ (CA-RAC) of crude oil was \$59.49 a barrel, which is a slight decrease from the \$60.87 a barrel estimated on May 18 for the June 2015 publication of *Petroleum Watch* (see **Figure 1**). After spending two-thirds of 2014 at a price above \$100 a barrel, Brent crude oil has yet to reach the \$70 mark, with the May 5 price of \$67.52 remaining the 2015 high. The 2015 West Texas Intermediate (WTI) crude oil price also remain noticeably lower than 2014 prices, with the June 10 price of \$61.36 becoming the new 2015 high.

Increases in crude oil prices halted at roughly the same time that the U.S. dollar began to strengthen on the international exchange markets (dotted line in **Figure 1**). Using the FRED² index of the U.S. dollar against the major currencies, the average purchasing power of the dollar increased 3.8 percent in the second half of May, lowering that dollar needed to purchase international products, including crude oil.

Crude Oil Prices	
June 2014 vs 2015 (Percent Change)	
WTI	43% lower
Brent	43% lower
CA-RAC	45% lower
May 2015 Averages	
WTI	\$59.27
Brent	\$65.61
CA-RAC	\$60.35
June 9, 2015	
WTI	\$60.15
Brent	\$64.88
CA-RAC	\$59.49

¹ California Estimated Refiner Acquisition Cost was created as an estimate of the average price of crude oil paid by California refineries. It is created using California refinery input proportions of California crude, Alaskan crude, and foreign crude and multiplying them by the prices of San Joaquin Valley, Alaskan North Slope, and Brent crude oil, respectively.

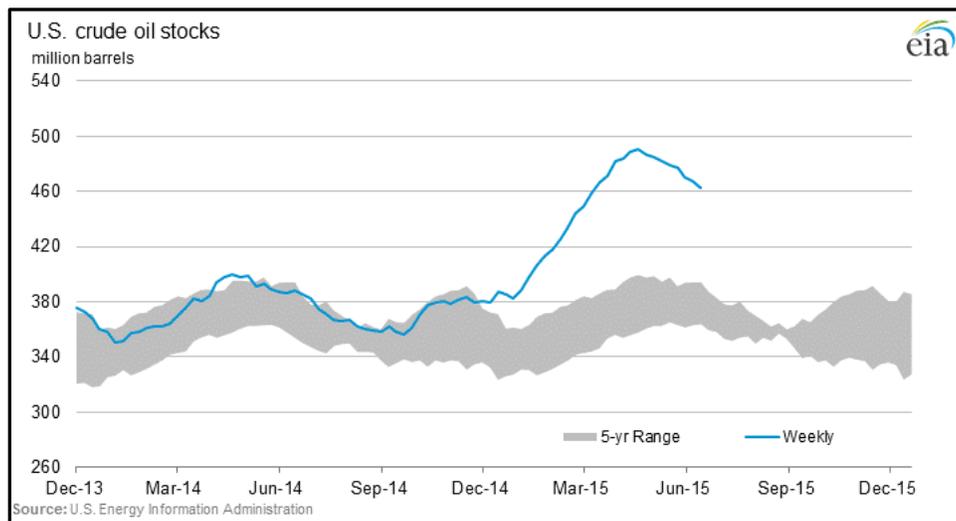
² Federal Reserve Economic Data, provided by St. Louis Federal Reserve Bank.

Crude Oil Production and Storage

The recent contradiction of rising trends in both price and quantity supplied has been resolved. Both prices and output of petroleum have leveled off over the past month, and the amount of crude oil in storage has fallen. Nevertheless, storage inventories remain high, and production remains at high levels. This is in part because refinery utilization remains at high levels, except in California however, where outages are keeping utilization rates at 87 percent, compared to the national rate of 94 percent.

- U. S. crude oil output has reached a plateau over the past month at 9.6 million barrels per day; nevertheless, this is the highest monthly level of domestic petroleum production since 1972.
- Imports of Canadian crude oil remained at 2.7 million barrels per day over the past month, staying well below the January-to-April figures of 3 million to 3.3 million barrels per day, according to U.S. Energy Information Administration (EIA) data.
- Although crude oil inventories in the United States remain at unusually high levels, they continue to decline from the late April highs and, given enough time, seem to be reverting to more normal levels. (see **Figure 2**). Storage levels have fallen from a peak of 491 million barrels in April to 463 million barrels on June 19, which is 19 percent higher than year-ago levels of 388 million barrels.

Figure 2: U.S. Crude Oil Inventories, December 2013 to Present

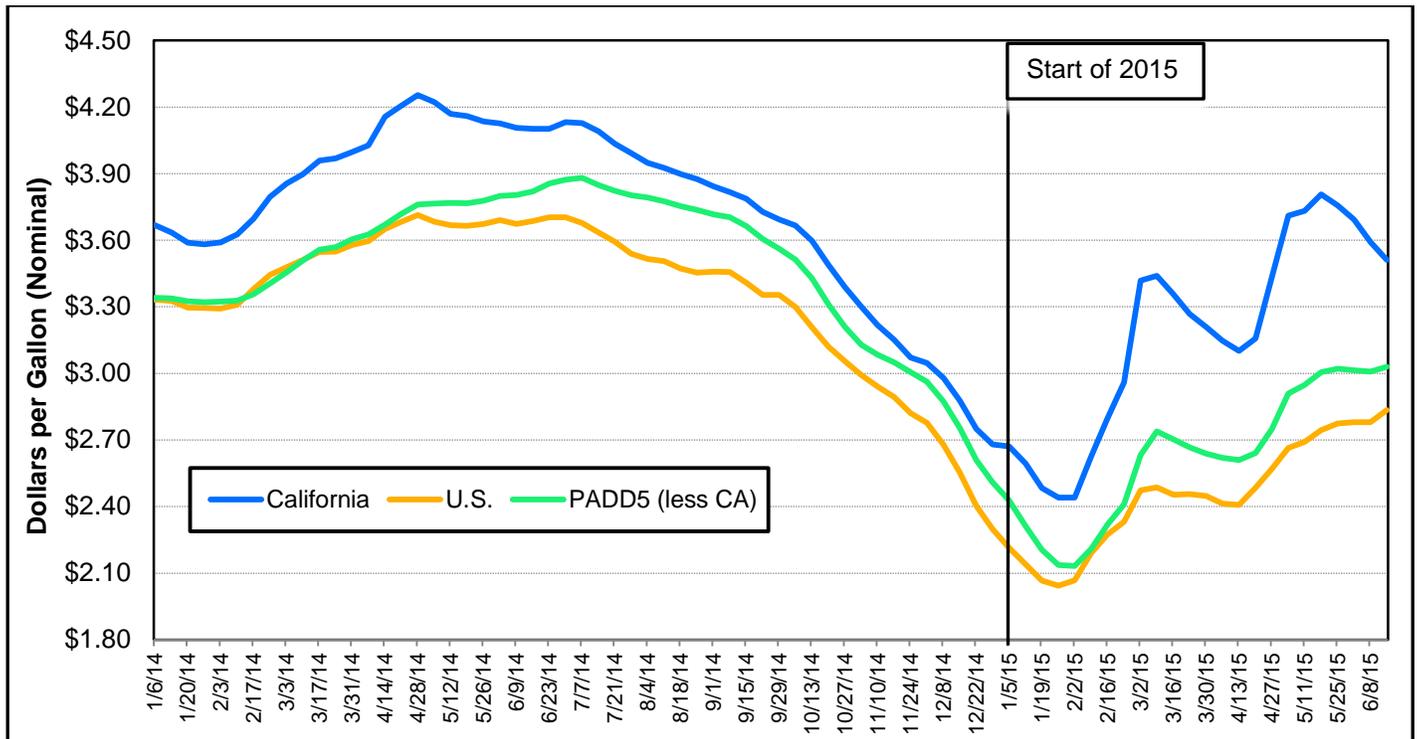


Source: EIA.

- According to the most recent data from the Organization of the Petroleum Exporting Countries (OPEC), Saudi Arabian crude output has remained at a plateau of 10.1 million of barrels per day from March through May. Total OPEC production has increased by less than 1 percent over the same period.

Gasoline and Diesel Retail Prices and Margins

Figure 3: Regular Grade Gasoline Retail Prices, California vs. PADD5⁴ vs. United States



Source: EIA.

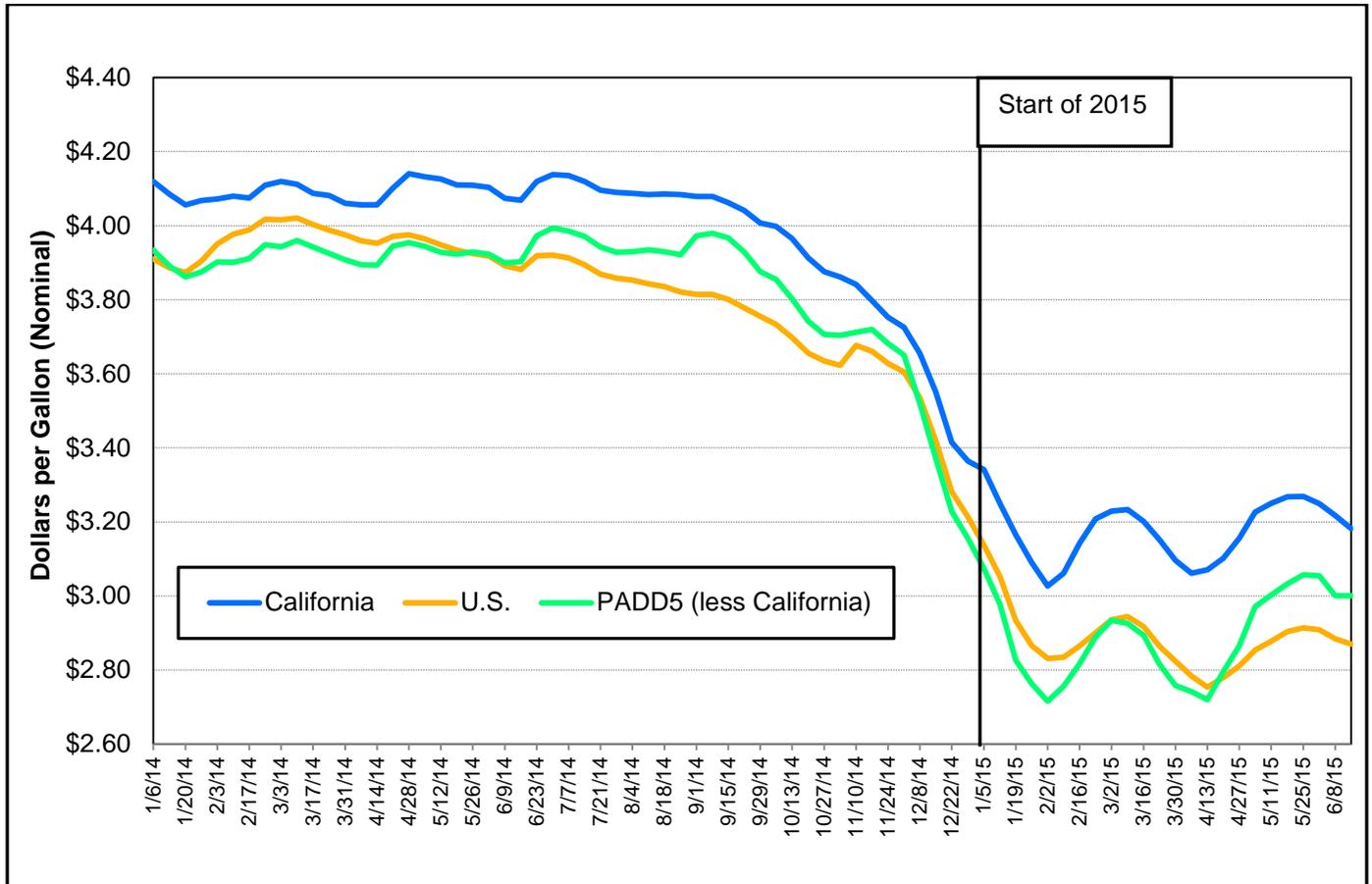
California gasoline prices rose to a 2015 high for the week of May 18, averaging \$3.81. Prices have since fallen to \$3.51 for the week of June 18, a 7.8 percent drop from the May 18 high. California’s decline in prices was not mirrored by the rest of the nation nor the West Coast. U.S. gasoline prices rose from \$2.74 to \$2.84 for the United States and from \$3.01 to \$3.03 for the West Coast over that same period, a 3 percent increase and 0.8 percent increase, respectively.

The California gasoline price difference to the U.S. gasoline price has decreased since the third week of May (\$1.06) to \$0.68 in the third week of June. This was a decrease of \$0.38 from the 2015 high and perhaps a sign of supply easing in the California gasoline market. California-to-West Coast price differences have decreased over that same period, dropping from \$0.80 (2015 high) to \$0.48, a change of \$0.32, which is similar to the U.S. gasoline price to California price change.

<u>Regular Gasoline Prices</u>	
<u>June 2014 vs 2015 (Percent Change)</u>	
California	10% lower
U.S.	26% lower
West Coast	21% lower
<u>May 2015 Averages</u>	
California	\$3.75
U.S.	\$2.72
West Coast	\$2.97
<u>Week of June 15, 2015</u>	
California	\$3.51
U.S.	\$2.84
West Coast	\$3.01

³ PADD stands for Petroleum Administration for Defense Districts. PADD 5 includes the states of Hawaii, Alaska, Washington, Oregon, California, Nevada, and Arizona. *West Coast* is being defined as all PADD 5 states minus California for this report.

Figure 4: No. 2 Diesel Ultra-Low-Sulfur Retail Prices, California vs. PADD5 vs. United States



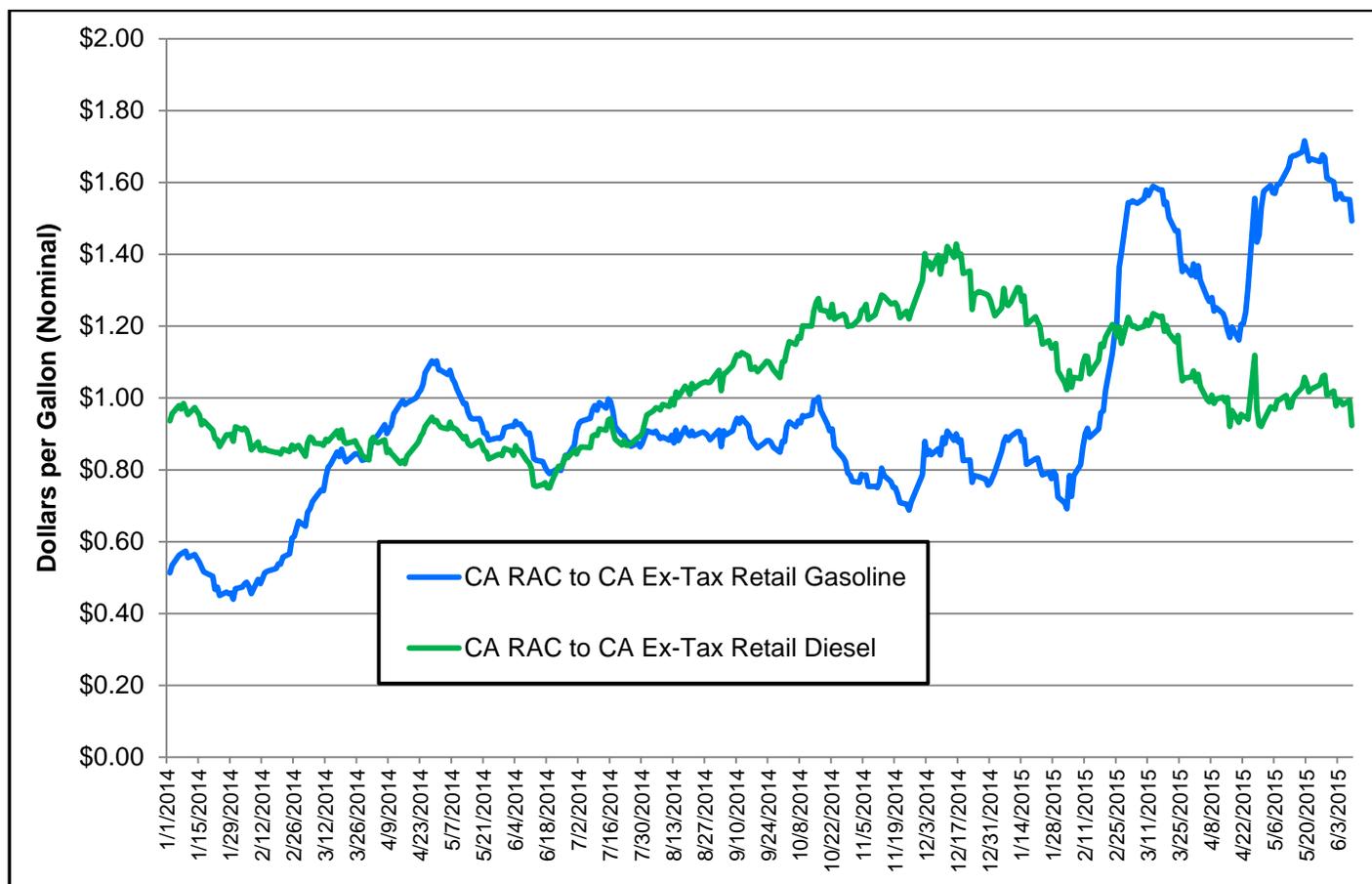
Source: EIA.

Diesel prices in California have decreased since the beginning of June, to \$3.16 during the week of June 15. During 2015, California diesel price trends have roughly mirrored both U.S. and West Coast prices, with California prices being the most expensive. Since the third week in April, the West Coast had the second most expensive diesel price, which rose from \$2.80 to \$3.00 a gallon on the third week of June. U.S. diesel prices have not been higher than \$3.00 since the second week in January and were \$2.87 in the third week of June.

With the decline in California diesel prices, the difference between U.S. diesel prices and California has decreased in June from \$0.34 to \$0.31. This was an 8 percent decrease in the differential over the first three weeks in June and represents a 16 percent drop since the beginning of May. The California-to-West Coast diesel price differential also showed the same movement over the same periods, decreasing 7 percent in the first three weeks in June and 29 percent drop since the beginning of May.

<u>Diesel Prices</u>	
<u>June 2014 vs 2015</u> (Percent Change)	
California	22% lower
U.S.	26% lower
West Coast	23% lower
<u>May 2015 Averages</u>	
California	\$3.25
U.S.	\$2.89
West Coast	\$3.02
<u>Week of June 15, 2015</u>	
California	\$3.18
U.S.	\$2.87
West Coast	\$3.00

Figure 5: CA-RAC to Ex-Tax California Gasoline and Diesel Margins



Source: EIA and OPIS.

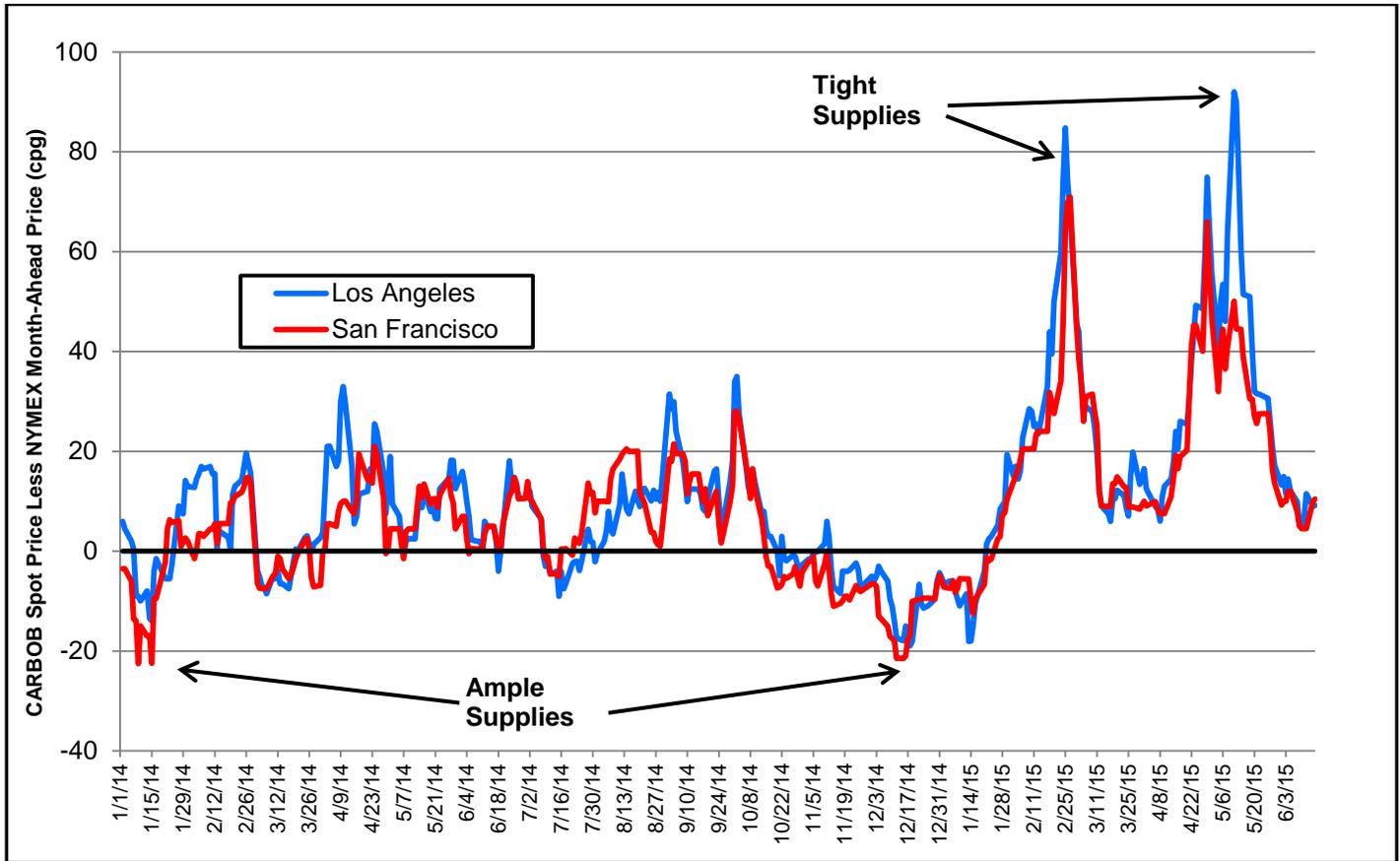
The average June 9 CA-RAC-to-ex-tax retail margin⁴ was \$1.49 for regular gasoline and \$0.92 for diesel (see **Figure 4**). Since May 18, the gasoline margin decreased \$0.19, and the diesel margin decreased 6 cents.

PADD 5 refinery outages have eased in June, which likely explains the decrease in gasoline margins since the May 18 high of \$1.72. While the situation in the PADD 5 region has improved, Exxon Mobil’s Torrance refinery remains offline due to the February explosion and resultant maintenance to repair the facility, reducing California’s gasoline production capabilities. Also in Southern California, Phillips 66’s Santa Maria Refinery has accelerated maintenance plans due to reduced crude oil supplies from the Plains All American Line 903 leak, further reducing refining capabilities.

<u>Crude to Retail Margins</u>	
<u>June 2014 vs 2015 (Percent Change)</u>	
Gasoline	98% higher
Diesel	22% higher
<u>May 2015 Averages</u>	
Gasoline	\$1.64
Diesel	\$0.98
<u>June 9, 2015</u>	
Gasoline	\$1.49
Diesel	\$0.92

⁴ The RAC-to-retail margin refers to the difference between the retail price and the refiners acquisition cost for crude oil. Thus, it includes all costs of producing gasoline or diesel. “Ex-tax” refers to the removal of all California taxes on the price of fuel, which is done to remove any distortions from taxes that may affect this calculation.

Figure 6: California Spot Gasoline to NYMEX Futures Price Spread



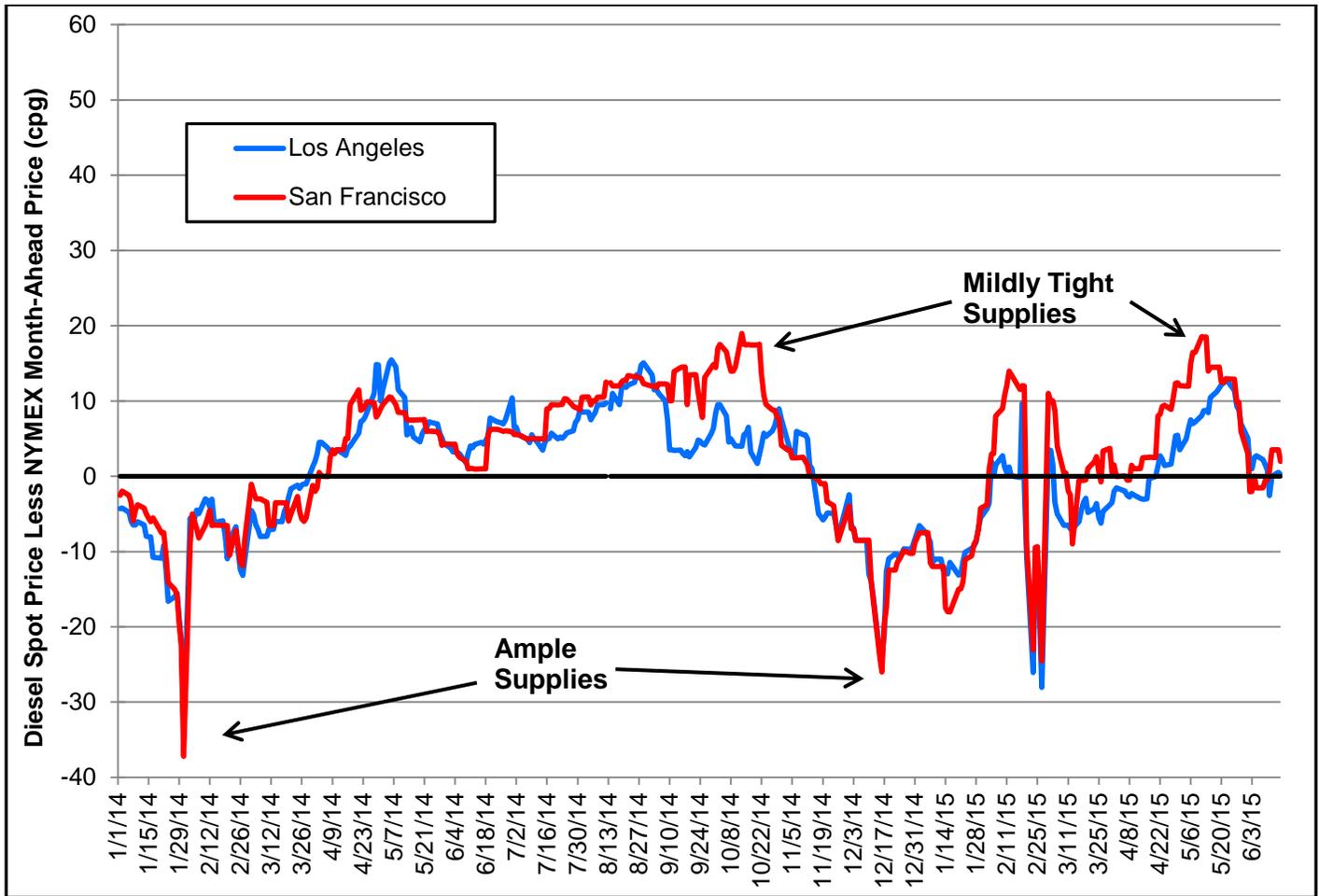
Source: EIA and OPIS.

The Los Angeles-to-New York Mercantile Exchange spot-futures spread⁵ reached a 2015 high on May 11 at 92 cents a gallon (see Figure 6). Since then, it has decreased 90 percent to 9 cents on June 16. This is a possible sign that the retail gasoline market will be easing, and retail prices in California will continue to decrease in coming days. The San Francisco to NYMEX spot-futures spread has eased as well over that same period, decreasing 79 percent from 50 cents to 10 cents. The combined average of the two spreads for June 2015 is 9 cents, which is 6 cents higher than the combined 2014 average of 3 cents.

<u>Gasoline Spot-Futures Spread</u>	
<u>June 2014 vs 2015</u> (cents)	
Los Angeles	3¢ higher
San Fran.	3¢ higher
<u>May 2015 Averages</u>	
Los Angeles	48¢
San Francisco	34¢

⁵ A higher spread between the state's spot fuel prices and the NYMEX futures price indicates supplies are tighter in California, and a lower or negative spread indicates the market is relatively well-supplied compared to the rest of the country. The NYMEX futures price reflects the national market, while California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) is a gasoline blend unique to California and is usually sold at a premium to the NYMEX.

Figure 7: California Spot Diesel to NYMEX Futures Price Spread



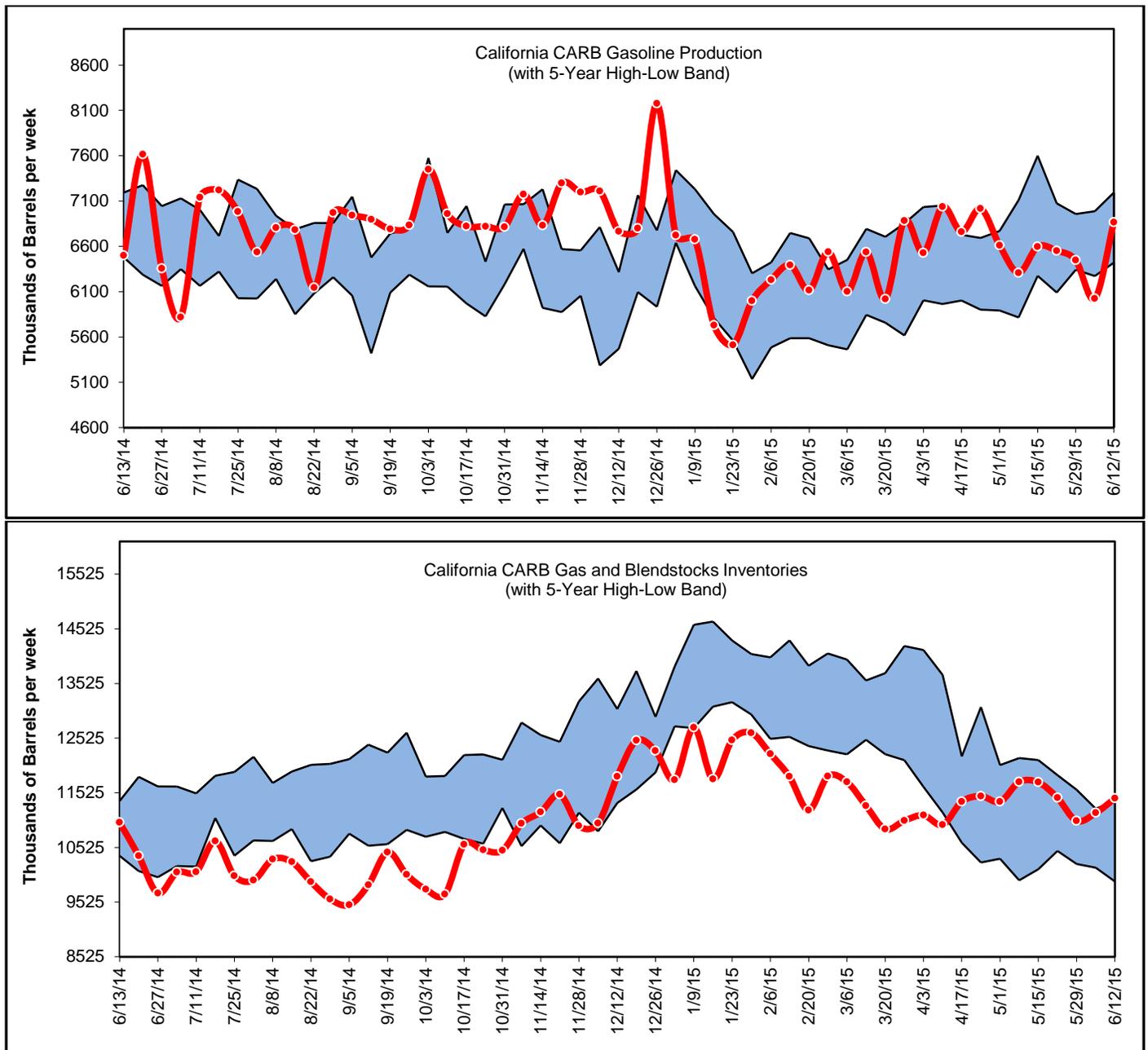
Source: EIA and OPIS.

In spite of the refinery outages and in stark contrast to the gasoline market, the diesel market appears balanced to the NYMEX in June. After appearing mildly undersupplied in early May, both the Los Angeles-to-NYMEX and San Francisco-to-NYMEX diesel spot-futures spread have decreased in late May and into early June (see Figure 7). June averages are lower than the same time last year, with the Los Angeles-to-NYMEX reaching a 2015 high on May 22 of 13 cents before decreasing to less than a penny on June 16. The San Francisco to NYMEX showed similar behavior, reaching a 2015 high on May 11 of 19 cents before decreasing to 2 cents on June 16.

<u>Diesel Spot-Futures Spread</u>	
<u>June 2014 vs 2015</u> (cents)	
Los Angeles	3¢ lower
San Fran.	4¢ lower
<u>May 2015 Averages</u>	
Los Angeles	9¢
San Francisco	14¢

California Gasoline and Diesel Production and Inventories

Figure 7: Gasoline Production and Inventories

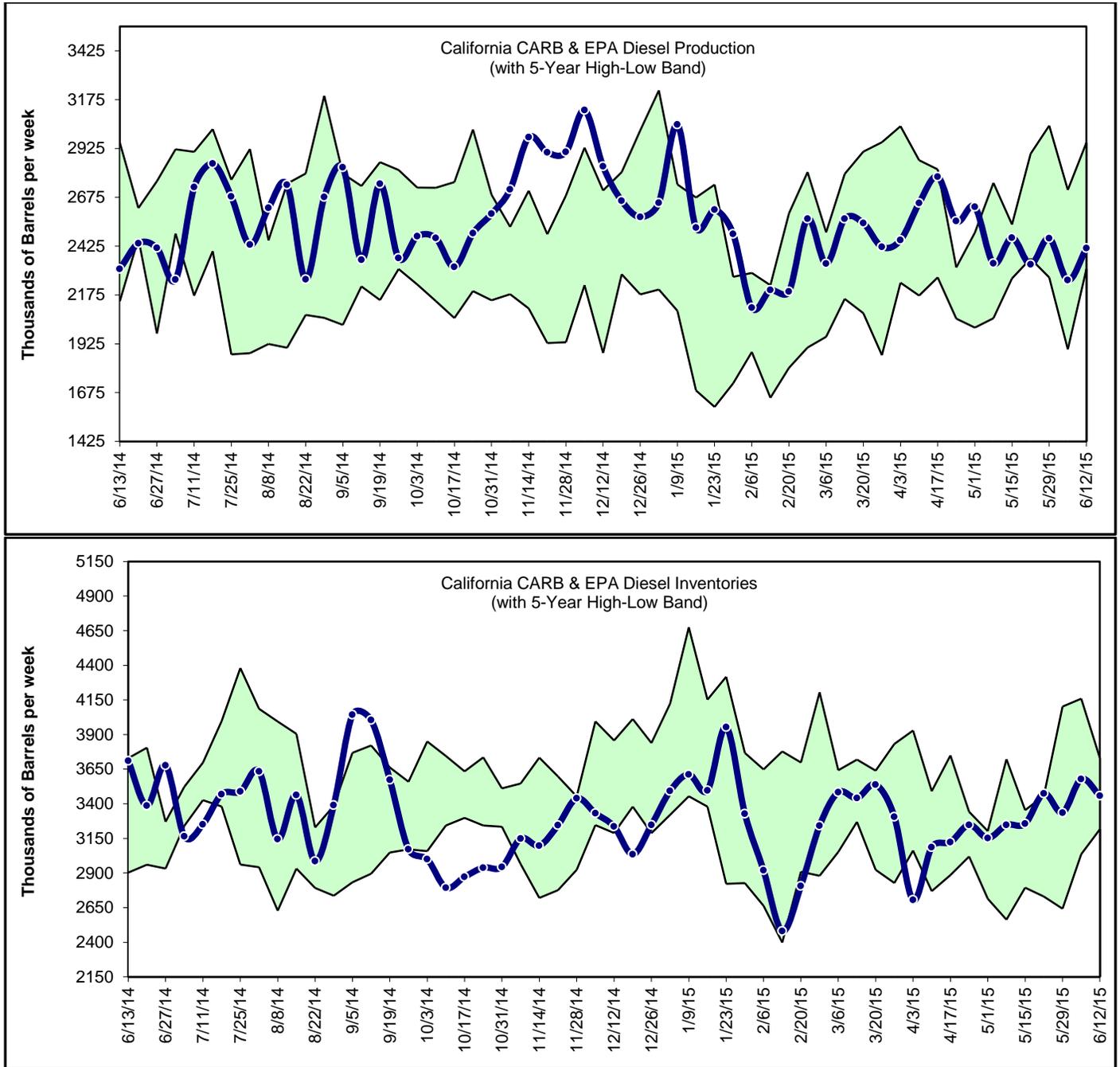


Source: Petroleum Industry Information Reporting Act data.

After spending a portion of May and the beginning of June at the low end of the five-year production band, California gasoline production increased to 6.8 million barrels of production for the week of June 12. This production increase placed California production for that week at a level similar to that seen in April. It also ended a production decline that began in late April.

Inventory levels in California have returned to the upper portion of the five-year high/low inventory level band. Spending much of the beginning of 2015 well below recent levels, March and June inventory totals have trended above 11 million barrels.

Figure 8: Diesel Production and Inventories



Source: Petroleum Industry Information Reporting Act data.

Diesel production has continued its downward trend into the beginning of June and is approaching the bottom of the five-year band. In spite of this, diesel inventories continue to move in the opposite direction and remain near the high end of the five-year band.

Current production and inventory levels for the beginning of June are similar to those of a year ago. Combining these trends with the current low spot market differentials for diesel indicates that diesel prices will likely remain steady, barring any large changes in crude oil prices.