McCullough Research

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To: McCullough Research Clients

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Subject: Market Power in West Coast Gasoline Markets: An Update

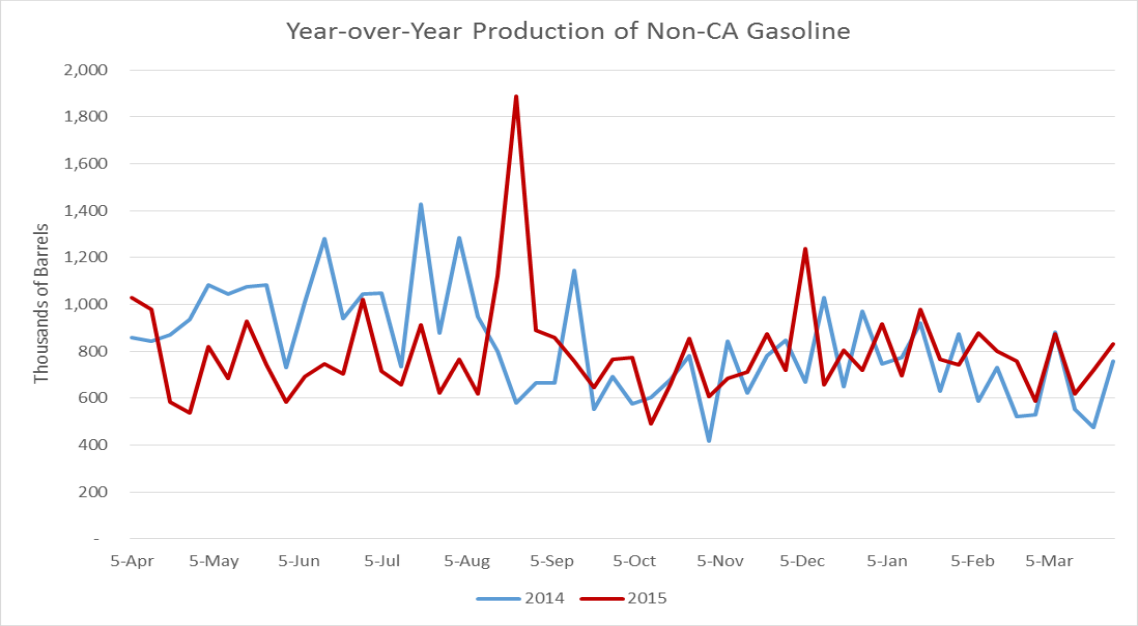
On February 18, 2015 an explosion took place at the Exxon-Mobile refinery at Torrance, California. On the week of March 23, McCullough Research issued a report that outlined the discrepancy between the dramatic rise in gasoline prices and the minimal effect the refinery explosion had on actual gasoline production and stocks. The fact that supply remained largely unaffected, coupled with persistently low crude oil prices, has led to the natural conclusion that recent high gasoline prices represent not a reaction to market forces, but instead an exercise of market power. Crude oil prices have declined 6.8% since the explosion, reaching levels as much as 15.7% lower than they were before the incident. In California refineries, gasoline inventories have decreased 10.7%, but production has increased 10.5%. Meanwhile, West Coast gasoline prices have increased more than 14% since February 18. Overall, the cost to consumers from over-priced gas increased by another $190.9 million in the week following our original report.[1]

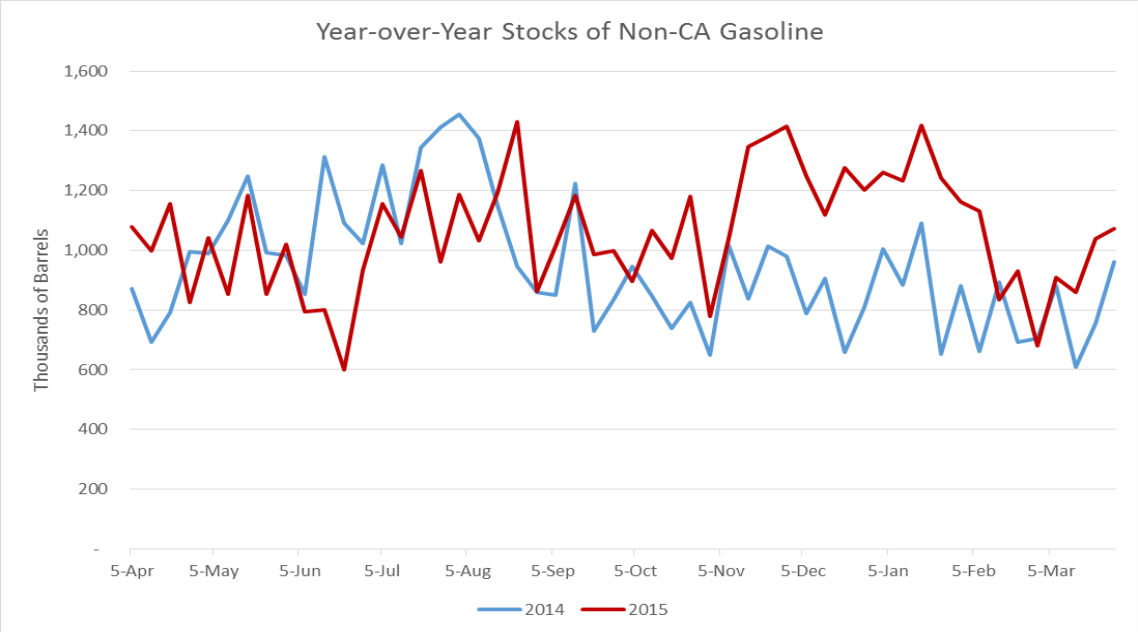
The West Coast as a whole saw the price of gasoline jump after the Torrance fire. A lion's share of the region's gasoline production is in California, and so a drop in either the production levels or reserves of non-California gasoline in California refineries could explain such a price jump.[2] However, weekly data provided by the California Energy Commission (CEC) shows no such drop. More data has been released since the original McCullough Resarch report, and our conclusions surrounding market power are unchanged.

[1] Using a forecast of expected market prices (see final graph), gasoline prices were on average $.56 higher than their natural level from March 23-30. Daily gasoline usage was estimated using California, Washington, and Oregon daily consumption data from the EIA at http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=c100050411&f=m

[2] California has stricter emissions standards than other states, and therefore only uses a specific type of gasoline called California reformulated gasoline blendstock for oxygenate blending (CARBOB), most of which is produced in-state. However, the state's refineries also produce a large amount of non-CARBOB fuel, which is exported to neighboring states.

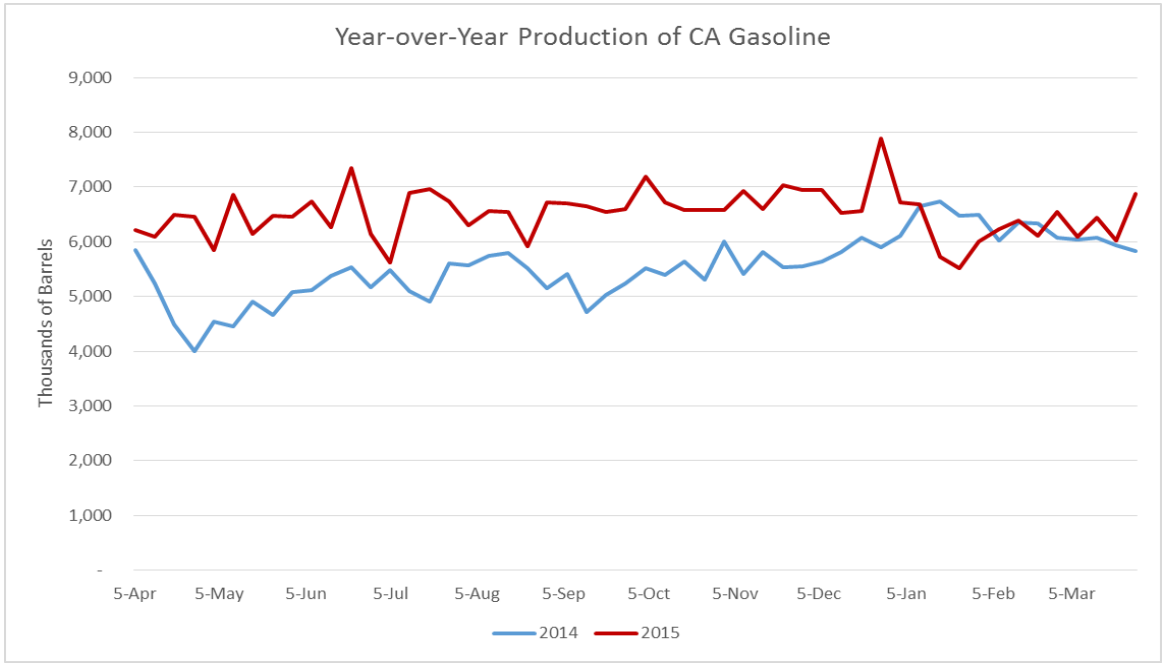
What follows are updated year-over-year comparisons of California refinery levels of weekly gasoline production and stocks not intended for sale in-state:[3]

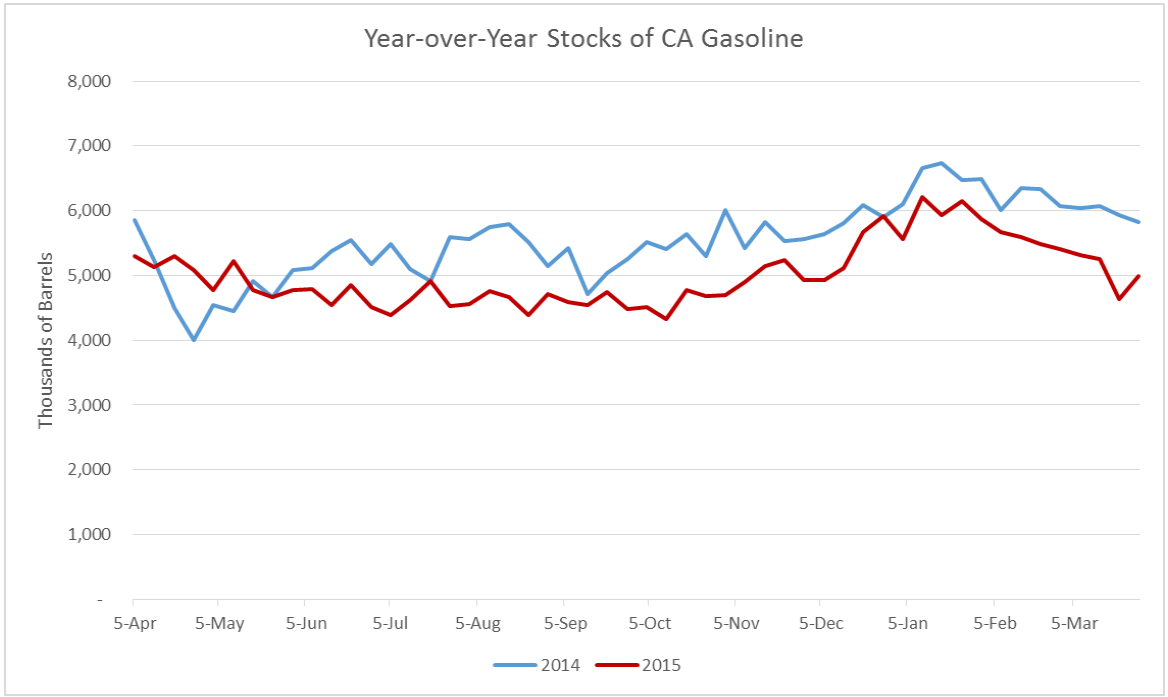




[3] http://energyalmanac.ca.gov/petroleum/fuels_watch/

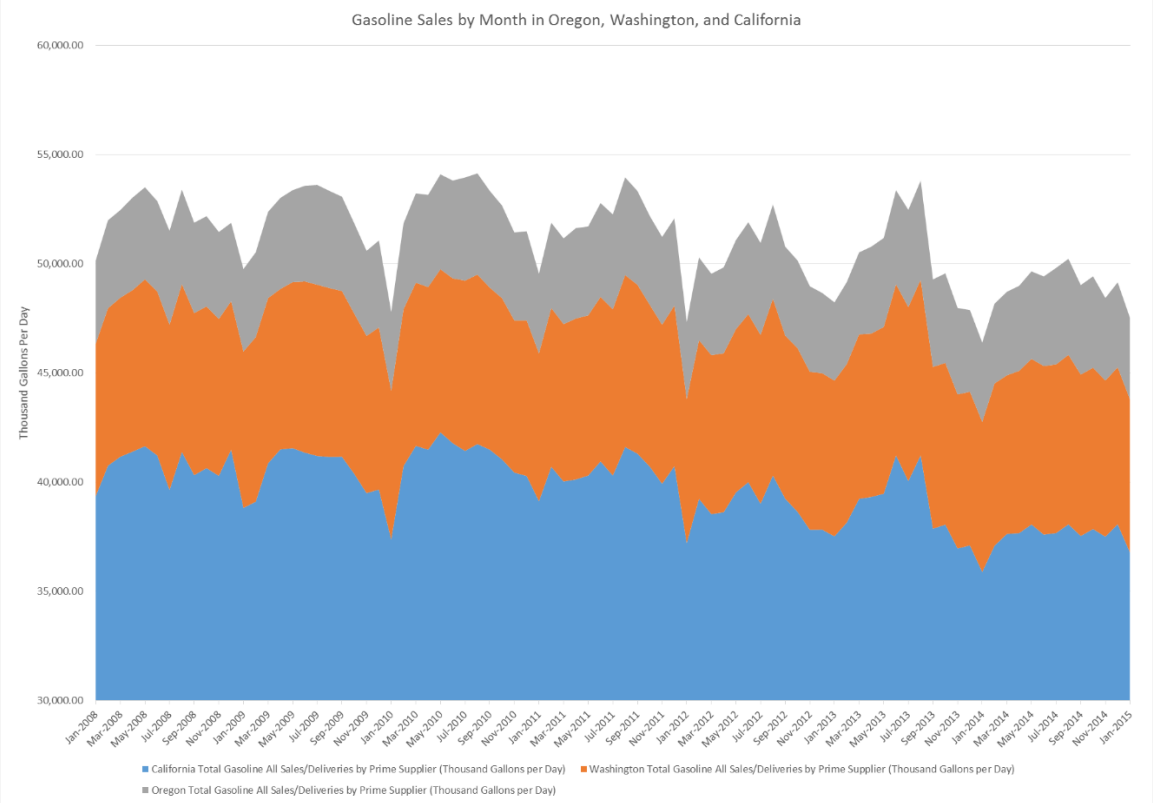
The updated production and stocks of gasoline intended for use inside California's borders, which is known as CARBOB, show a similarly minimal effect from the Torrance incident:



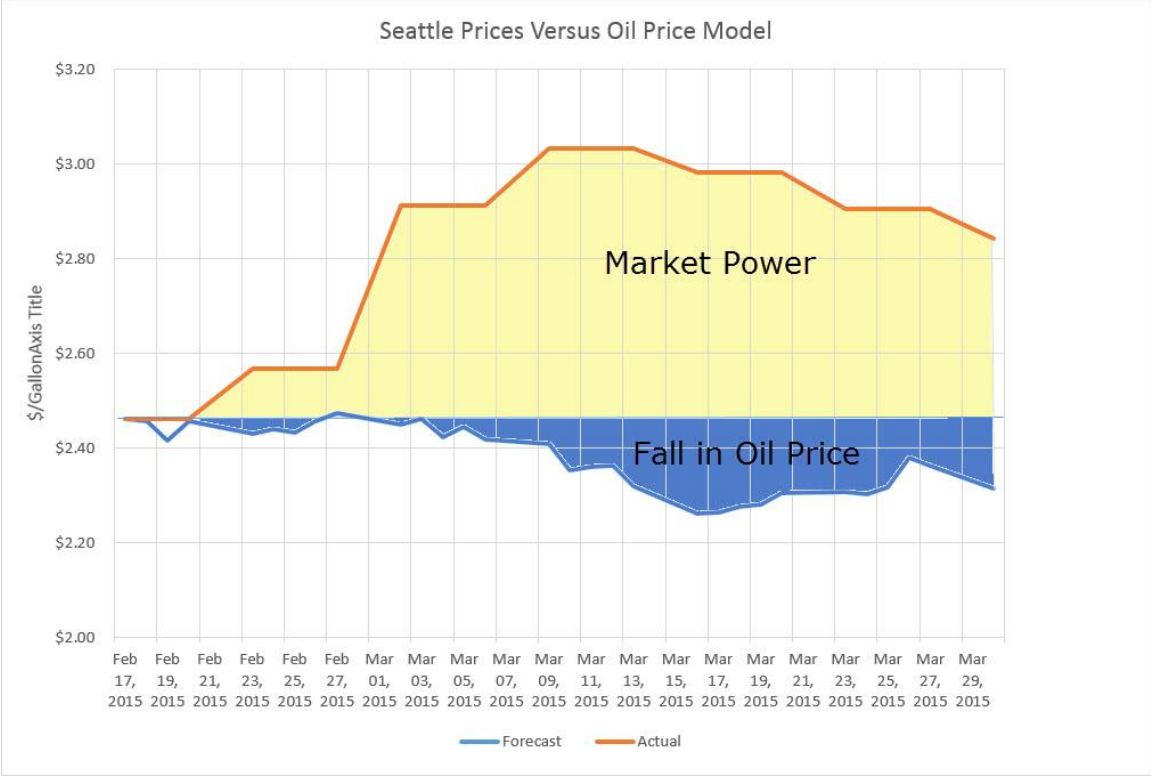


While stocks of CARBOB are slightly lower than they were one year ago, the difference is not drastic, and is in fact diminishing, as production has started rising.

Newly updated data on gasoline consumption in California, Oregon, and Washington show that it remains highly unlikely that demand has been driving the increase in West Coast prices:



And finally, the disparity between actual gasoline prices, and expected prices, forecasted using crude oil prices, persists. As long as this is the case, consumers on the West Coast will be subjected to the industry's exercise of market power through excessively high gas prices at the pump.


Seattle Prices Versus Oil Price Model
$3.20
$3.00
$2.80
$2.60
$2.40
$2.20
$2.00
$/GallonAxis Title
Market Power
Fall in Oil Price
Feb 17, 2015
Feb 19, 2015
Feb 21, 2015
Feb 23, 2015
Feb 25, 2015
Feb 27, 2015
Mar 01, 2015
Mar 03, 2015
Mar 05, 2015
Mar 07, 2015
Mar 09, 2015
Mar 11, 2015
Mar 13, 2015
Mar 15, 2015
Mar 17, 2015
Mar 19, 2015
Mar 21, 2015
Mar 23, 2015
Mar 25, 2015
Mar 27, 2015
Mar 29, 2015
Forecast
Actual