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Why California Gasoline is So Expensive

In the early 1980s California had more refineries than it has now, and almost every refinery made gasoline. There was no reformulated gasoline. There were more independent gasoline stations than there were company owned stations. And although many independent stations carried the brands of a major oil company, there were just as many that simply sold whatever gasoline they could purchase. Low priced gasoline was often a way to draw people to a store or small filling station.

With only a couple of exceptions, gasoline was made primarily from crude oil. And although each refinery may have produced a slightly different product in terms of quality, these fuels would blend together in a tank or automobile to produce a fuel that had similar properties. (Blending was essentially straight line - if you mixed equal volumes of an 87 octane fuel with a 92 octane fuel, you would get a fuel with about 89.5 octane. Since switching and mixing fuels was of little consequence, independent gasoline stations could safely purchase from any refiner or distributor. Thus there was a large fraction of the California gasoline market which was "up for grabs." Which ever refinery made the lowest priced gasoline typically took that market share. The "swing" market share was large enough to make it worth an oil company's effort to periodically lower prices to get these customers.

From inside of the California Energy Commission (I was there), there was a pattern. As the average price of gasoline increased, demand would slow and sales would taper off. It was almost always the same oil company that would then cut prices and take the swing market. The system seemed to work well. As they then slowly increased their prices, the customers would go back to the other stations, which also raised their prices until demand began to shrink, then the cycle would play out again. The constant competition for the independent market kept gasoline prices in check.

From 1985 to 1995 California vigorously enforced its underground tank program. But what set California apart from the other states is that it also classified refined products that had spilled to the ground as "hazardous waste." An explanation of how this view came about is the subject of another paper at another time. The end result of this policy was that it was outrageously expensive to clean up a leaky gasoline tank site. During that 10 year period, California's environmental program put the bulk of independent gasoline stations out of business. Countless stations stood idle with giant holes where tanks once were, piles of dirt in the parking lot and a fence around the property. Meanwhile, the major oil companies cleaned up their sites, replaced their underground tanks and built more stations in new locations. The shift of power from independent to company owned stores was an inevitable fall out of enforcement of California's environmental programs.

Simultaneously, California struggled to bring its air quality in line with the federal Clean Air Act. Additional regulation of point source emissions, such as refineries and power plants, would not achieve the goal. California had to get emissions from automobiles down. The plan finally proposed to the oil companies was to make gasoline that would be less volatile (eliminate benzene emissions during storage, transportation and fueling) and would have lower tail pipe emissions. California would define the emissions goals and each oil company could figure out how to achieve the goal. Had they stopped at this point, the competitive market might have survived. But then California added the requirement to add oxygenates to reformulated fuels. Oxygenates were widely believed to significantly reduce emissions. Examples of these additional fuel components include ethanol (made from agricultural material, such as corn), methanol (made from natural gas), and MTBE (That's ARCO's special ether). Regulators were surprised at how easy it was to convince the oil companies to go along with reformulated fuel. The oil companies probably had a pretty good sense of where their market was headed.

By 1996 the oil companies had control of the distribution of gasoline through branded and company owned stores, and regulators were forcing them to make special gasoline which would require a significant capital investment in the refineries. Small refineries making gasoline would almost certainly not be able to make the new fuel. And most importantly, the new oxygenated fuels would not blend linearly. Gasoline stations would have to stay with the same brand product if they want to avoid quality problems.

Sure enough, the small refineries left the retail gasoline market, leaving only the big guys to supply the major cities. With no significant market share to compete for, the oil companies settled into their respective markets and priced their products relative to their competitor's prices, at margins they knew their client base would support. ARCO anchored the prices with their low priced AM/PM stores. When ARCO prices went up, so did all the rest. There was no need for collusion -- the prices are posted on big signs in front of your competitor's station.

There is no reason for refiners to lower their prices because there is no market share up for grabs anymore. That means any market share competition must occur at the gasoline station -- a station owner must independently decide to try to increase his volume by lowering his price. In the past the gas station owner could achieve lower prices by purchasing lower priced gasoline. But in the current market, he must actually give up profits to get customers. The station owners of branded stations are now pitted against the company owned stores. Both are selling the same gasoline from the same refinery.

Which brings us to the current situation. There is no longer any competition among California's refiners for market share. And refiners could charge just about anything they want to charge for gasoline. California is thirsty for gasoline. Refiners do not have to talk to each other to figure out how to keep the supply on the edge of short. The data is readily available through API and EIA.

Competition shifted to the retail level. There are reports of strange things happening, such as refineries selling the same gasoline at different prices to different stations, based on their geographic area. Some branded station owners say they have been threatened by big oil companies if they lower their prices. If such things are happening, there is definitely reason for concern. And they could be happening, because if any of the oil companies wants to make more money from the sale of gasoline, the only way to do it is to increase sales and prices at their Company stores - at the expense of the owner of the branded station which also sells their gasoline. But why even bother? Oil companies have California consumers in the palm of their hand right now. If they want more money, all they have to do is increase the price of product from the refinery.

California is faced with certain anomalies, such as gasoline selling in San Diego at an average $1.28 per gallon while the same fuel is selling at an average $1.17 in Los Angeles. Gasoline is sold from the same rack at the same time at two different prices, depending on the destination of the fuel. It appears that the oil companies will charge what the market will bear. San Diego, and other areas are considering "divorcement" which prevents oil companies from building new stores and attempts to instill competition back into the system by preventing manipulation of rack prices and by allowing independent branded gas stations to purchase from any vendor (of the same brand product). It is unlikely that divorcement will work in California, even though there has been some success in other States. The combined tight supply, limited swing market, and reformulated fuel requirements have virtually eliminated the opportunity of consumers to enjoy the benefits of serious competition. And oil companies can increase the price of gasoline until Californians reduce their driving.

Ultimately, the control of fuel prices lies with the consumers. If you don't like the price, don't buy gasoline and, instead, use an alternative mode of transportation. If consumers actually take the extra step -- stop using fuel -- then the environmental programs will achieve the desired goal, i.e. less emissions. (Which is why environmental agencies don't have much sympathy for those crying about high prices.)

Everyone thinks that just because the oil company's crude oil prices are low, the refiners must lower the cost of gasoline. Not so. This is a free market. The reality is that refiners can charge what ever the consumer will pay.

On the bright side, California's refineries should see pretty high profits this year.

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