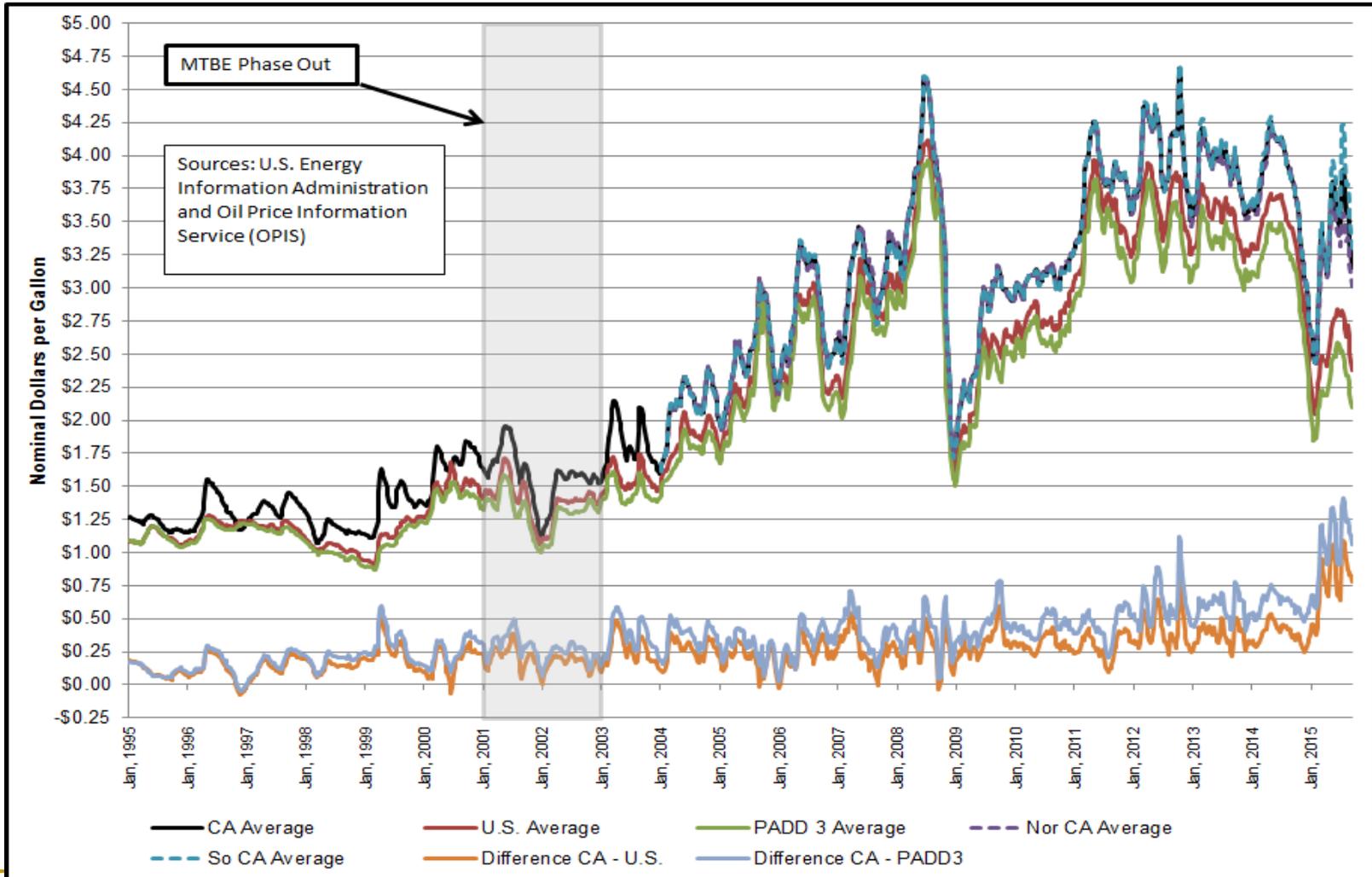

Petroleum Market Advisory Committee Workshop on 2015 California Gasoline Price Premium

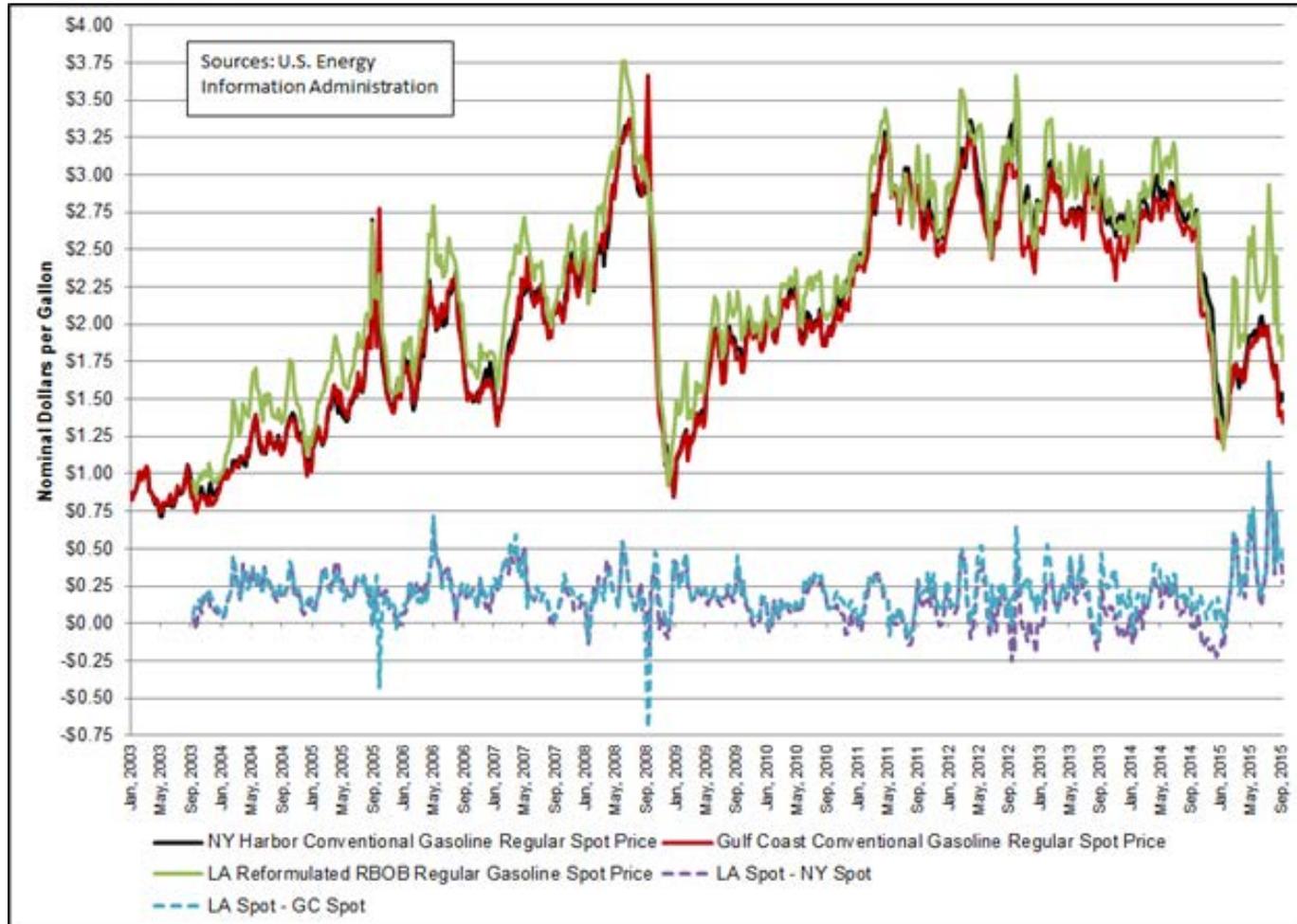
Severin Borenstein, PMAC Chair

Haas School of Business and Energy Institute at Haas
University of California, Berkeley

Since February California has had an unprecedented price spike compared to rest of U.S.



Spot gasoline prices for LA, NY and Gulf Coast



What's a “normal” price differential?

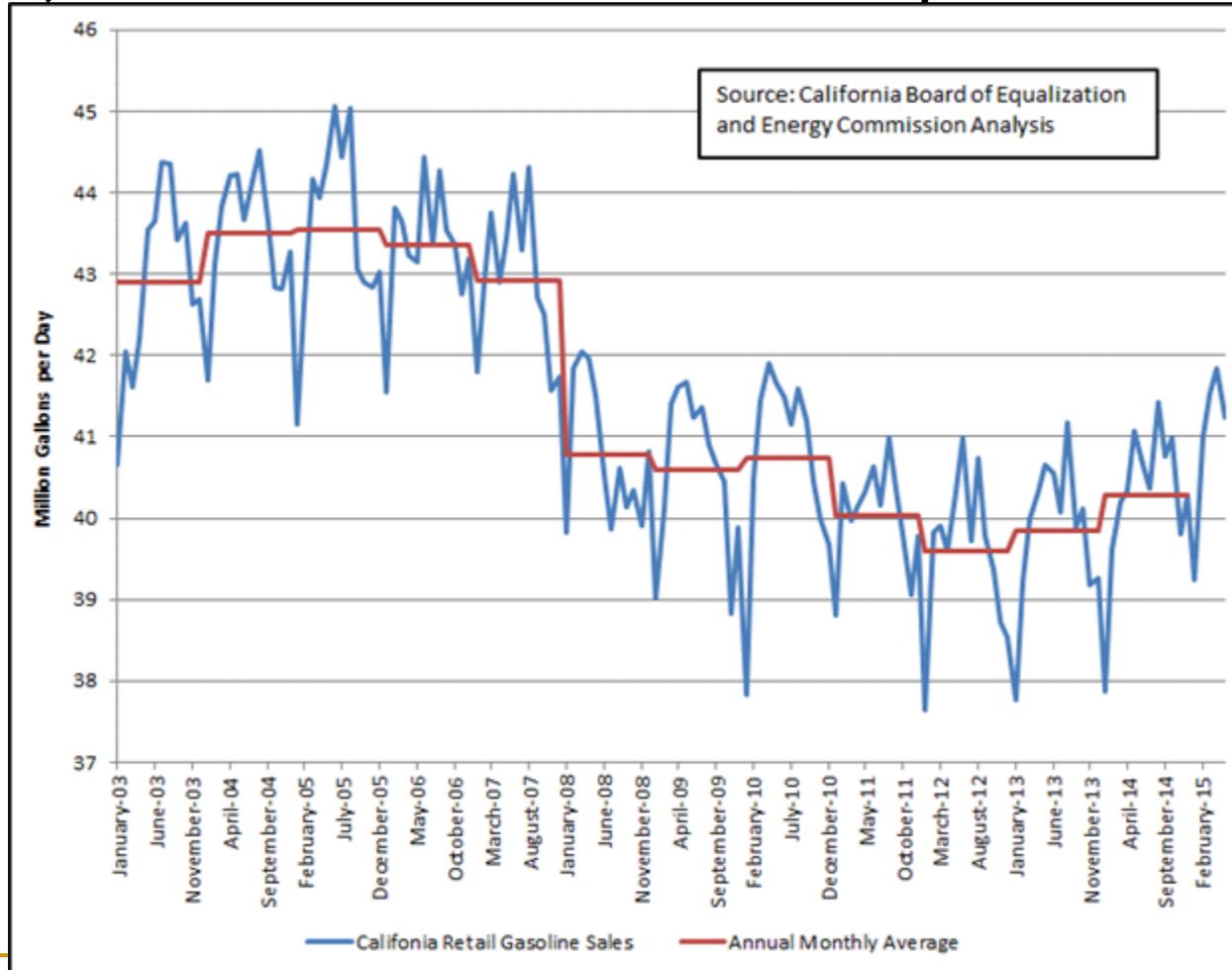
- Taxes are about \$0.20/gallon higher than U.S. average
- Cost of producing CARB gasoline generally thought to be about \$0.10/gallon
- Since January 1, selling gasoline incurs a cap-and-trade market liability of about \$0.10/gallon
- 2005 to 2014 average retail differential was \$0.31/gallon, 1/1/15-2/17/15 averaged \$0.42.

But since February 18...

- Average CA-US differential is more than \$0.80/gal
- Similar issue at spot prices since Feb 18, also up about \$0.40 gallon from normal differential
- Southern CA differential has been largest
- Past price spikes have been much shorter and generally differential have been smaller
- What has impeded returning to the normal CA-US differential?
- Some combination of higher demand and lower supply, but what's the cause?

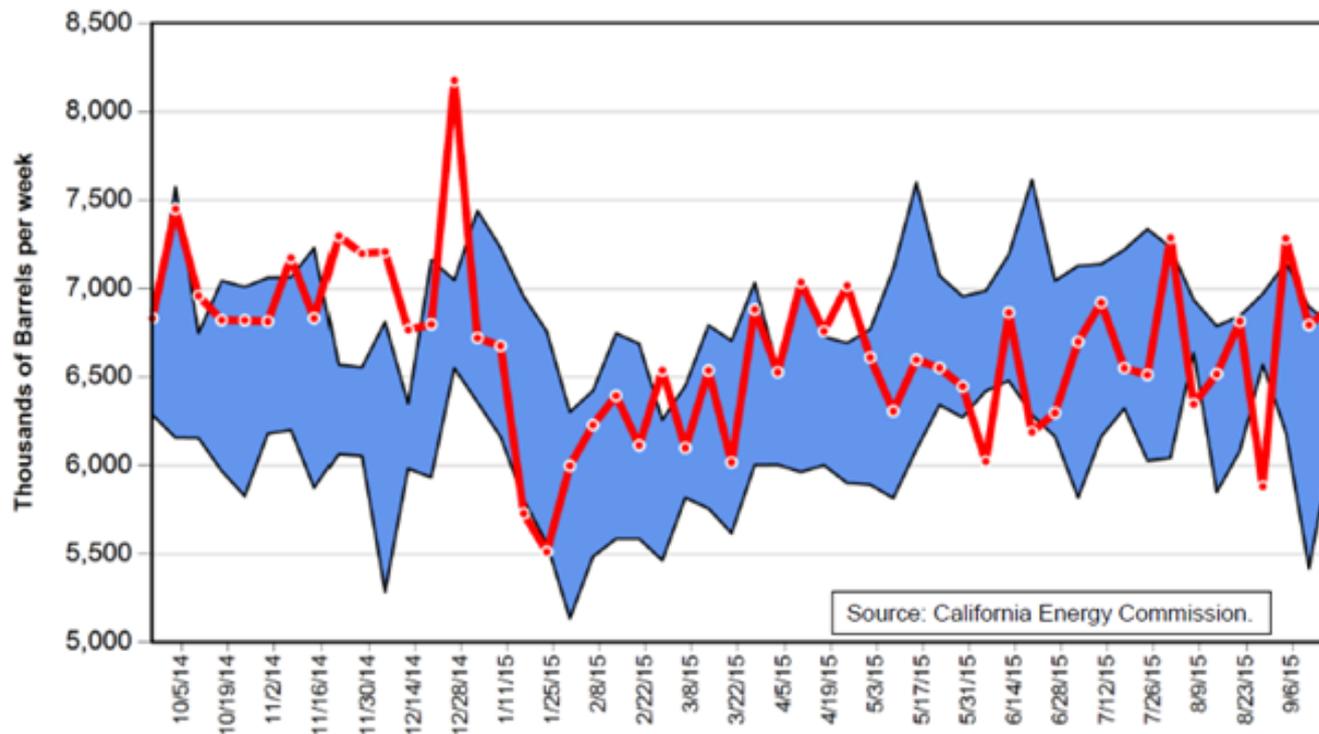
Demand

- CA gasoline demand up somewhat over lowest years, but still nowhere close to pre-2009



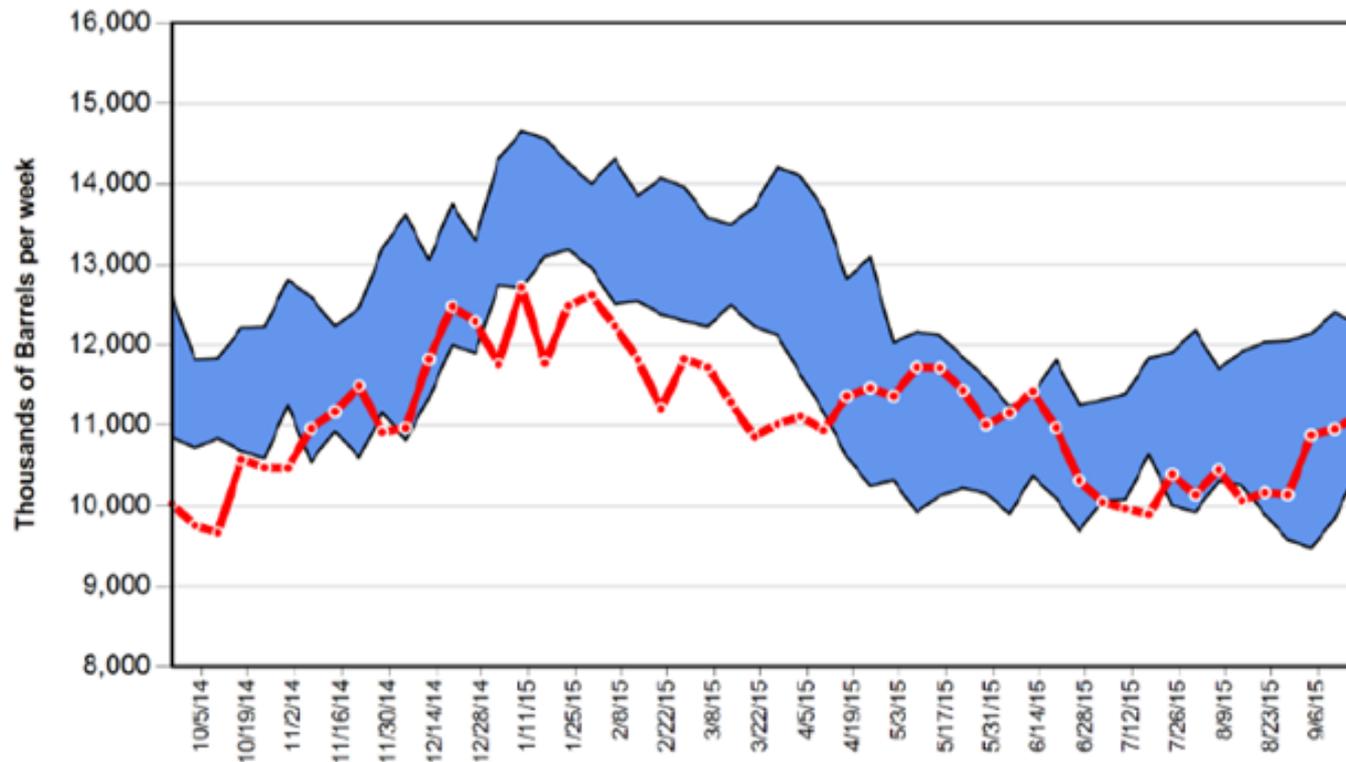
California in-state supply

- California CARB gasoline production with 5-year high/low band



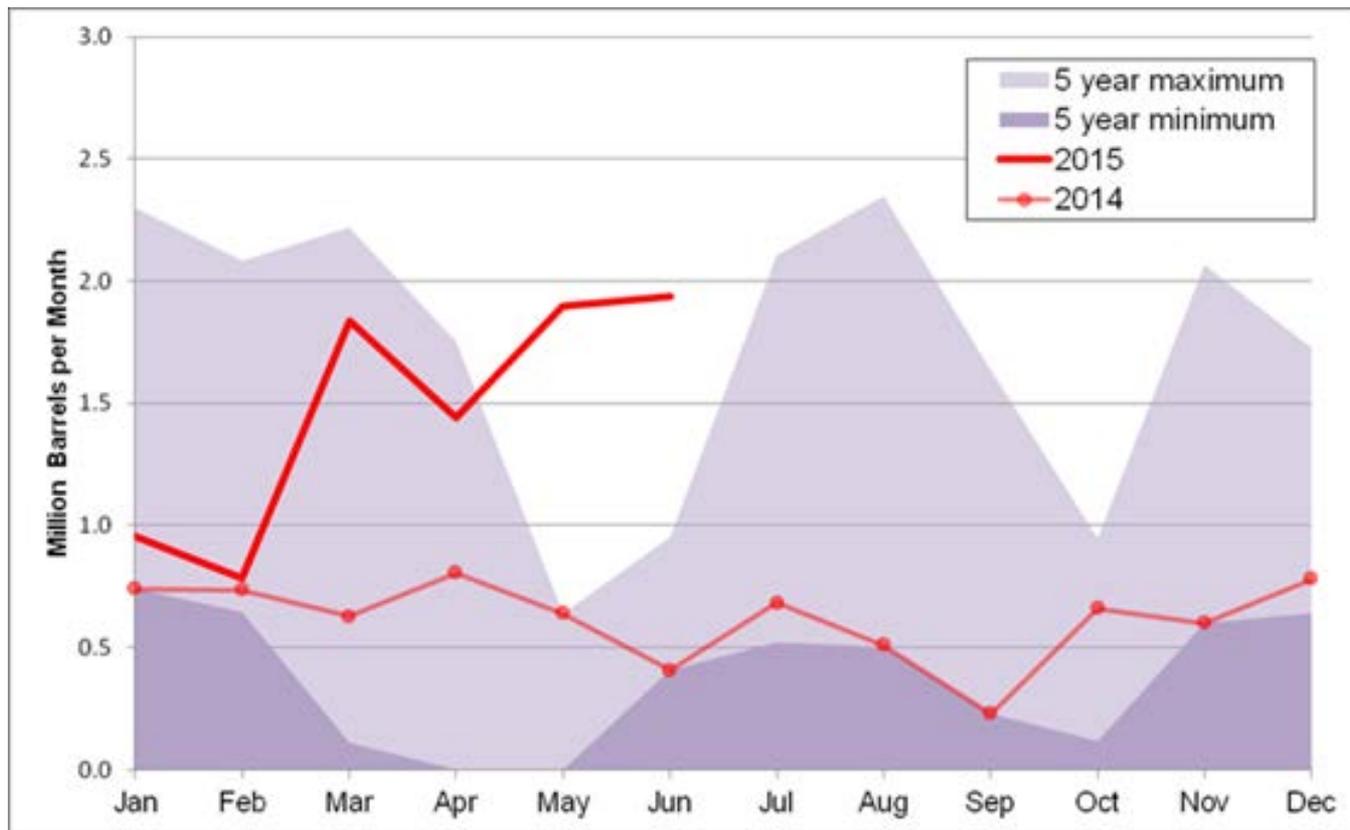
California in-state inventories

- California CARB gasoline inventories with 5-year high/low band

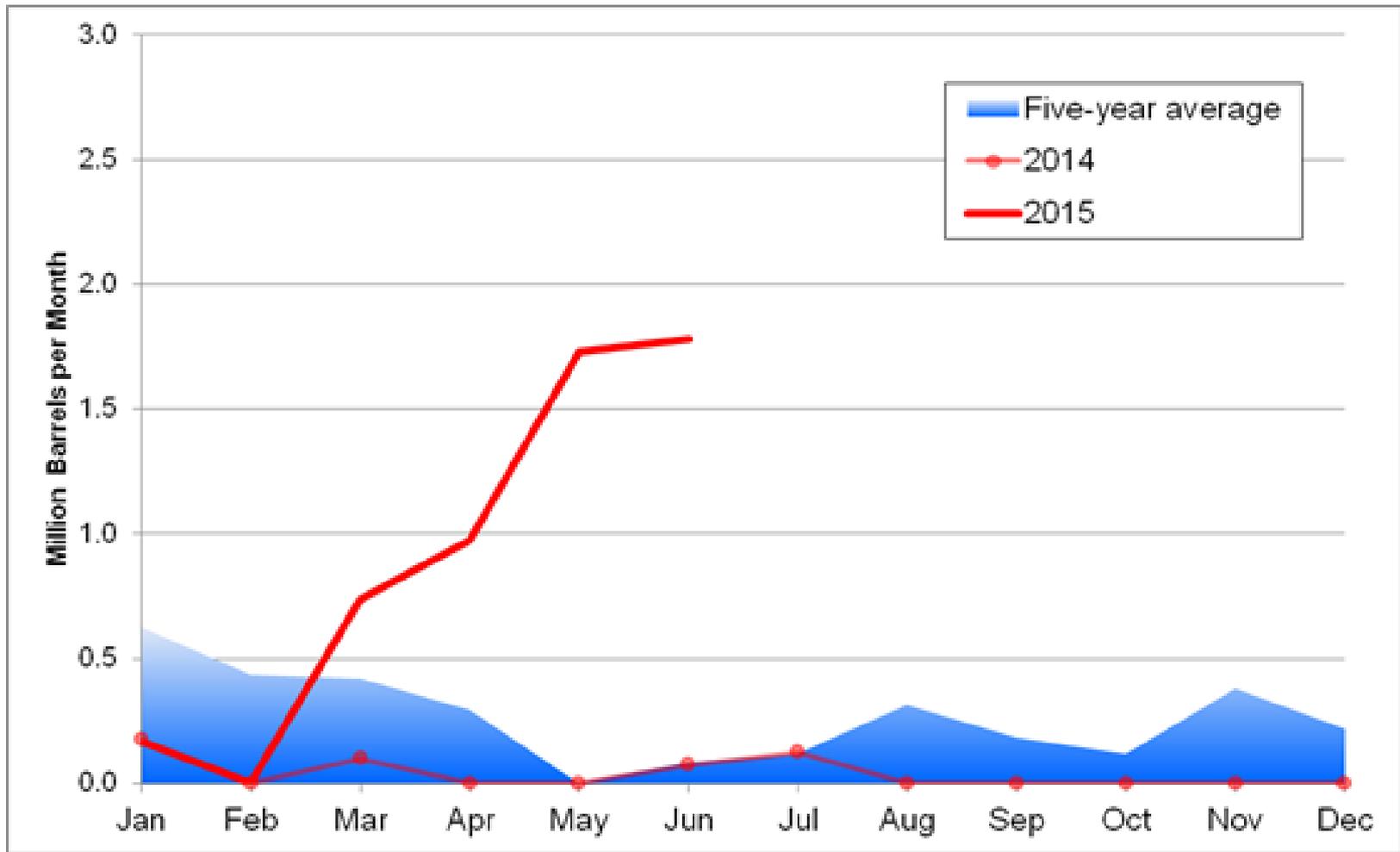


Import Supply

- California gasoline imports with 5-year high/low band



Southern California Imports



Potential Policies for Curbing California Price Spikes include:

- price pressure relief valve allowing non-CARB gasoline with a surcharge
- inventory requirement for gasoline sellers
- California state strategic CARB inventory
- California state forward purchases CARB gasoline to reduce risk of import shipments
- building new pipeline capacity from Gulf Coast
- expanding capacity of import terminals
- increasing refining capacity in state

Role of PMAC and this workshop

- PMAC was convened to inform CEC on petroleum market trends, their causes, and potential policy responses
- Role of this workshop is to understand factors that have driven CARB gasoline price spike since February
 - Why is this spike different in duration and level from past?
 - Is this a one-time event, or an indicator of greater volatility in the future?
 - Are there policies that would do more good than harm in addressing these factors?