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Preliminary WSPA Margin Cap Framework Workshop Comments [Docket 23-OIIP-01]

Resubmitting: enhanced images in Adobe to recognize text.

Additional submitted attachment is included below.

WSPA
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Preliminary WSPA Comments on Gross Gasoline Refining Margin Framework Workshop

On behalf of the Western States Petroleum Association (WSPA), I am providing these initial comments on the California Energy Commission's (CEC) September 12, 2024, Senate Bill (SB) X1-2 (2023) gross gasoline refining margin framework workshop. We are providing preliminary comments given the limited time available to comment on the staff presentations by both the CEC and the Division of Petroleum Market Oversight (DPMO). Further analysis – which will reasonably require a detailed review by industry experts and economists beyond 12 working days – will be submitted to the docket later.

WSPA stresses at the outset the need for both the CEC and DPMO to thoroughly and thoughtfully evaluate the potential unintended consequences of setting a maximum Gross Gasoline Refining Margin (GGRM) and any associated penalty. Several questions were raised from the dais about this. In addition, numerous California legislators have repeatedly expressed concerns about potential unintended consequences in prior hearings about SB X1-2. These consequences include direct negative impacts to fuel availability for California consumers, as well as regional impacts to our neighboring states given that both Arizona and Nevada receive gasoline supplies from California's refineries. The CEC and DPMO must therefore evaluate how any production losses due to compliance with a maximum GGRM in California would impact both the California market and regional fuel supplies out of California.

WSPA is also concerned that some of the information presented during the workshop was misleading. The presenters ignored the mandatory unplanned refinery maintenance reports they receive from refiners when explaining regional market dynamics and rising gasoline prices. This presentation of incomplete data raises significant questions about the DPMO's ability to transparently analyze market dynamics and present factually complete information to the public. That unplanned refinery outages known to be occurring in Northern California could be intentionally omitted from staff's presentation, while staff implies that price movements in Northern California are disconnected from supply and demand fundamentals, only highlights a perceived bias and undermines trust and confidence in the process. If the CEC and/or DPMO cannot be trusted with the simplest of information being presented, then how can we trust use of the data being collected, a calculation of a maximum GGRM, or any other approach that depends on factual assessments?

During the workshop, CEC Vice Chair Siva Gunda commented that a margin penalty could reduce periods of market volatility in California's neighboring states.[1] We disagree. Dr. Zaragoza-Watkins described fundamentals of margin caps as only effective *if* refineries currently have excess production and storage capacity. However, the CEC acknowledged in its Transportation Fuels Assessment Report that "[r]efineries typically operate at their maximum stated capacity when possible."[2] With no excess production capacity, the margin penalty will likely increase retail prices, as DPMO's Dr. Moreno acknowledged in the April 11, 2024, CEC workshop, stating "If the industry does not have capacity … there is no way that industry can respond by increasing output. Then you do have a situation where the policy looks more like a price cap within the refining sector … If there is no capacity, what's going to

[1] CEC Workshop on Gross Gasoline Refining Margin, September 12, 2024, event recording at 0:37:44 mark.
[2] CEC Transportation Fuels Assessment Report, August 15, 2024, p. 14.

happen is that you could potentially increase price at the retail end of the market."[3] Thus, the margin penalty could similarly negatively impact retail prices in neighboring states that rely on California refineries.

WSPA RESPONSE TO PRESENTATION BY CEC STAFF

There are multiple factors that can contribute to market volatility. The CEC's own Petroleum Market Advisory Committee previously identified in their final report[4] factors including: unplanned refinery outages; a reduction in the number of import traders, which makes it harder to import additional product and increases risk premiums; higher shipping costs, particularly given a shortage of Federal Jones Act compliant vessels, which limit the potential for supply from domestic refining centers; underground storage regulations that reduced the amount of bulk storage capacity at the wholesale level; refinery turnarounds; the difficulty in obtaining additional storage tank capacity in California; that "uncertainty" is a significant contributor; and a reluctance to invest in the kind of infrastructure needed to promptly address market volatility given the mixed messages in the current market. WSPA previously noted impacts from the precipitous reduction in the number of in-State refineries in preceding decades; the consequences of which cannot be ignored when examining causes for California's fuels market volatility.

In addition, WSPA believes market reactions to major industry announcements and activities, such as the conversion of traditional refineries, may play a role in California's gasoline market volatility. Unfortunately, the CEC and DPMO missed an important opportunity to highlight and explain how conversions of traditional refineries impact the gasoline market.

WSPA RESPONSE TO PRESENTATION BY DPMO CHIEF ECONOMIST DR. MORENO

We offer two preliminary observations about the data presented by Dr. Moreno. First, the attempt to correlate GGRMs and market volatility has no merit. Wholesale margins do not "cause" market volatility at the retail level, as GGRM is a calculated value based on wholesale and *crude oil* prices, whereas wholesale and *retail* prices move due to various market factors. This can be observed by comparing the weekly average retail price with the monthly average GGRMs. Also, differences would have been more pronounced had DPMO displayed net, rather than gross, GGRM values.

Second, we note the emphasis on "a sharp upward trend" in average retail prices for Northern California, versus the slight rise in Southern California. Both the DPMO and CEC are fully aware of the recent unplanned refinery outages in the greater San Francisco Bay Area. Yet no mention was made of this even though they were likely contributing factors to strong increases in Northern California's spot prices for gasoline and local retail prices. Refinery outage information can easily be gleaned from the CEC's refinery maintenance unplanned outage reports and subsequent Petroleum Industry Information Reporting Act protected conversations with individual refiners. The seemingly intentional exclusion of critical information is misleading to State leaders and to the public.

WSPA RESPONSE TO PRESENTATION BY DPMO DEPUTY CHIEF ECONOMIST DR. SHEARS

At the outset, we address staff's repeated emphasis on the point that the "top four refiners control 90%" of California's "highly concentrated" refining capacity. Yes, the number of California refiners has declined precipitously in the preceding decades – from 30 refiners in the 1990's to only nine today. But this decline has largely been driven by California's own policies, the very purpose of which is to move California's entire transportation system to alternative energy sources while discouraging the production and sale of gasoline. As a result, California lacks the very infrastructure it needs to meet ongoing

[3] CEC Workshop on Gross Gasoline Refining Margin, April 11, 2024, event recording at 0:57:01 mark.
[4] Petroleum Market Advisory Committee Final Report, September 2017, at https://www.energy.ca.gov/data-reports/planning-and-forecasting/petroleum-market-advisory-committee.

gasoline demand. There is no additional capacity to bring online and the State has become increasingly reliant on out-of-state imports, especially when supply is impacted by unplanned refinery outages. WSPA continues to believe that compounding additional policy burdens on the few remaining in-State refiners would only exacerbate this situation, further limiting supply and driving up prices. Furthermore, the lack of in-State refining capacity is not a unique issue to California. According to United States Energy Information Administration, there are nine states with a single refiner representing 100% of that state's refining capacity and four other states with only two refineries.[5]

While staff focused on five features of California's petroleum refining industry, the presentation failed to provide important contextual information. This includes important California fuel market factors such as a description of a normally balanced, self-sufficient market that is isolated from near-term resupply by several weeks. WSPA has repeatedly explained how the multi-week timeline for outside resupply of product (typically from Asia) is a significant contributing factor to near-term price increases following unplanned refinery outages. The limited availability of Federal Jones Act compliant vessels is another significant factor. Indeed, staff stated that, "High fixed costs create barriers to entry" but provided no data to illustrate this point.

Staff's efforts to address GGRM also fell short. Staff noted that, "Gross gasoline refining margins are the main indicator of profitability for gasoline refining." WSPA disagrees. GGRM provides a directional measure of refiner economics but is useless unless there is an understanding of relevant costs. The crack spreads discussed during the workshop are used in industry as a general market performance indicator that could be helpful to directionally indicate potential for profit margins. However, neither the GGRMs nor crack spreads can reliably be used in the way the CEC and DPMO are proposing: to set policy, develop a regulation, and certainly not to establish a threshold and penalty for "excessive profits" without any reference to associated costs.

To pronounce that, "In the oil and gas sector, gross (not net) refining margins are the industry standard for reporting profitability" is therefore misleading at best because it does not account for operational costs that significantly impact net profit. Operational costs can cause refiners' net profit to turn negative, as reported on the CEC's website.[6] Changes in gross refining margins from one quarter to the next can be an indication of higher or lower profitability over time – as long as operational and capital expenditures have remained stable. It is also misleading to show different regions outside of the West Coast with lower gross margins, thereby implying that West Coast operations are more profitable than those in, for example, the Gulf Coast. A proper economic analysis would have compared net margin and refining cost differentials associated with each region to render any potential profitability differences. We ask the CEC and DPMO to consider variations in geographical costs to doing business between different regions; this analysis should include the cost differences in material inputs, labor, taxes, imports, compliance and environmental emission controls costs. We believe there will be a strong correlation to the additional regulatory burdens between the Gulf Coast and West Coast. In addition, when comparing facilities' crack spreads, it is standard practice to compare facilities of similar complexity and product make up.

Staff also noted that retail margins increased with the 2023 market volatility as prices decreased. This essentially captures the "up like a rocket, down like a feather" dynamic, which shifts the profit center from refiner to retailer. Staff should be examining this relationship more thoroughly – particularly given prior observations and questioning by the Director of the California Department of Tax and Fee Administration as well as independent expert economists – to be able to more transparently discuss why retail prices do not decline at a more rapid pace. For example, U.C. Berkeley Professor Severin Borenstein previously explained[7] that, on a long-run trend basis, we are not seeing a widening gap of

[5] EIA Refinery Capacity at https://www.eia.gov/petroleum/refinerycapacity/.
[6] California Oil Refinery Cost Disclosure Act Monthly Report, https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure.
[7] California State Assembly SB X1-2 implementation oversight hearing, May 15, 2024: https://autl.assembly.ca.gov/hearings/2023-24-informationaloversight-hearings.

California's spot market relative to the rest of the country, so focusing on solutions like holding more inventory may mean we end up with solutions that do not address the problem – or make the problem worse by limiting supply to the market. He also noted that a margin cap/penalty does not address this downstream problem, and that he would be very worried about the subsequent unintended consequences and need to stress test such scenarios.

Yet staff continues down the road to their preferred policy preferences, without addressing these issues, and state that the evidence suggests the need for policy. Their presentation notes that, "Addressing excessive gasoline refining margins through policy intervention is worth exploring further." However, the size of the "GGRM" is not the issue that merits exploring further. It should be the size of the net gasoline refiner margins. Which is why the DPMO should explain why they are not looking more closely at California's negative net refining margins that occurred each month between October 2023 and February 2024.

Staff then presented overarching concepts for a penalty's design. We fully agree with questioning from the dais that further, more detailed evaluation is warranted. Specifically, any ramifications if refiners would not knowingly violate the law by exceeding a maximum margin. The DPMO must prepare a thoughtful and thorough analysis of how such a concept would inform a proposed maximum GGRM and how it could impact refiners, other market participants, and overall supply availability for California consumers, as well as any supply impacts to neighboring states that could result.

DPMO staff also explicitly stated that "the max GGRM and penalty policy is **not a price cap**."[8] WSPA questions this presumption, and urges DPMO to consider the substantive effect of the proposal, not the labels used to describe it – the penalty's design and resulting refiner behavior would likely be such that a maximum GGRM will indeed function as a *de facto* price cap.

WSPA RESPONSE TO PRESENTATION BY CONSULTANT DR. ZARAGOZA-WATKINS

Dr. Zaragoza-Watkins' presentation sought to explain how a well-designed maximum GGRM and penalty could be designed.

His economic theory relies on a critical, but unsupported, assumption: that California has excess production and storage capacity. He asks whether there is "a max margin and penalty design that would improve the gasoline supply and demand balance in California and lead to ideally lower, not higher average retail prices…"[9] He continues, "now for that to be the case, we need to understand whether firms have additional profitable, importing, production, and storage capacity…" This unsupported assumption is seen in his graph, where he shows "Q*" (the quantity supplied under the margin cap) is higher than the current equilibrium production quantity.[10] That is, he assumes that refiners would respond to the margin cap *by producing more than they do currently*. He presents no evidence supporting his assumption that refiners have additional production capacity.

A margin cap would only be effective if refineries currently have excess production and storage capacity. As shown in **Appendix A**, if refineries do not have excess capacity, a margin cap can reduce the quantity of wholesale gasoline sold, increasing the retail price of gasoline (consistent with Dr. Moreno's comments noted previously).

Dr. Zaragoza-Watkins' also presented the main elements of the proposed analytical framework. WSPA notes that "firm-level profit and product-level production and cost functions" should be linear programs of each of California's remaining nine refineries. We would also recommend adding an import timing response model that looks at future California demand and the potential for supply and imports in

[8] CEC Workshop on Gross Gasoline Refining Margin Framework, event recording at 01:10:23 mark (emphasis added): https://www.energy.ca.gov/event/workshop/2024-09/workshop-gross-gasoline-refining-margin-framework.
[9] CEC Workshop on Gross Gasoline Refining Margin, September 12, 2024, event recording at 1:34:46 mark.
[10] CEC Workshop on Gross Gasoline Refining Margin, September 12, 2024, Presentation, p. 58.

sufficient volume to balance the market, as well as adding a Monte Carlo simulation of unplanned outages (or import flow disruptions) that solves for the "gross margin penalty" that minimizes price and/or price volatility.

SAMPLE REFINERY MOGAS SYSTEM

The CEC and DPMO are making a critical assumption regarding refiners' ability to tap into a larger infrastructure of California – or even West Coast – gasoline inventory capacity. This assumption is deeply flawed and reminiscent of misconceptions repeated when a minimum inventory requirement was proposed prior to the end of the 2024 regular California legislative session. From this workshop, Director Milder said that refiners "do build inventories regularly to much higher levels during the winter-time, so they do know how to do this within their existing footprint."[11] We disagree. Please see **Figure 1** below, which provides additional information and helps demonstrate why more analysis is needed.

First, when the CEC refers to "days of supply," they fail to recognize or communicate that half of the typical refinery inventory on hand is in the form of gasoline *components* (the ingredients needed for gasoline blending). If one of these key components runs short, it can make all other ingredients "unblendable." This would be like trying to make a cake without having sugar.

Second, the component tanks are continuous production tanks for the raw ingredients being produced by several processing units across a refinery. A refinery will almost always see these tanks well below 100% capacity because there is an inherent safety risk if one was overfilled. As such, avoiding this risk involves turning down operations at processing units, resulting in less gasoline components production (i.e., less gasoline).

Third, it is not possible to run at 100% capacity in finished product tanks. You can see in the sample illustration below that you will always have one tank that has been blended and certified, while there are other tanks that are being blended or being emptied (by definition, you will typically see these at well below 100% total capacity).

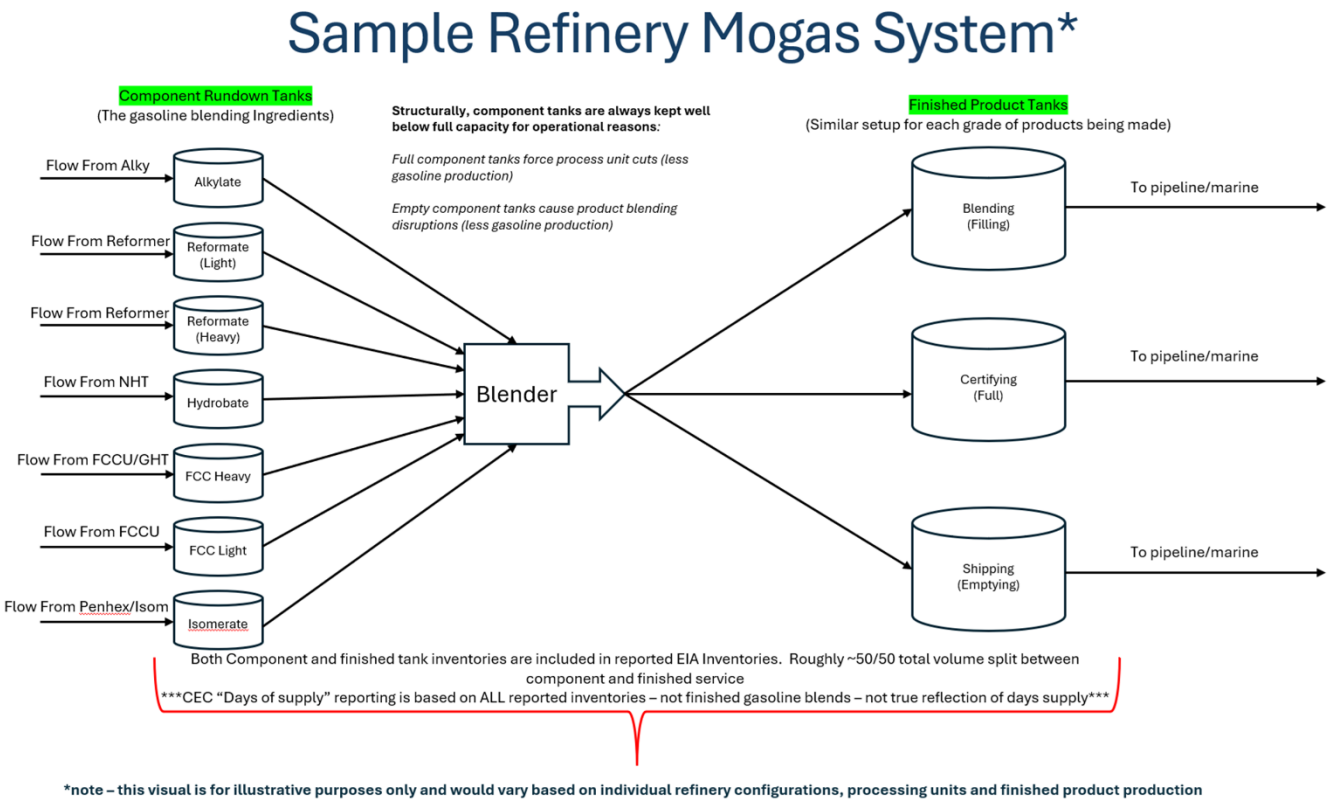
Fourth, low refinery tank utilization across a system like this is very realistic. This is not a function of artificially low inventory, but rather that reality of the complexity that makes up blending CARBOB gasoline. There simply are not enough tanks today to hold additional finished blends for storage.

Fifth, when a refinery experiences a single unit upset (e.g., a Fluid Catalytic Cracking unit), it does not lose finished gasoline – the refinery loses *production of key components* to produce finished gasoline. This can quickly limit the refinery's ability to produce CARBOB blends within just a few days' time. The Transportation Fuels Assessment report should provide additional explanation to policymakers, including identifying potential bottlenecks that occur in liquidity of inventory that naturally occurs during the high-demand summer driving season. First, the feasibility of sourcing finished CARBOB gasoline from Asia needs thorough examination, considering the logistical challenges and time frames involved. Second, the analysis must encompass the cost constraints associated with importing finished gasoline from Asia, factoring in both market prices and potential tariffs. Third, the availability of Jones Act-compliant vessels capable of transporting the finished gasoline between supply points on the West Coast should be evaluated to ensure sufficient maritime logistics support. Lastly, assuming there are no roadblocks to procuring floating blending components, the report should have addressed whether California has the necessary blending capacity to process these components at higher rates than currently achieved during peak summer demand. These points are critical in understanding the constraints and opportunities in maintaining a stable fuel supply chain. Some of that work was begun by

[11] CEC Workshop on Gross Gasoline Refining Margin, September 12, 2024, Presentation, p. 58.

Turner, Mason & Company, which begins to show how California's policies have pushed for a fuel and crude importing strategy that will challenge the existing marine facility utilization.[12]

Figure 1



CONCLUSION

Thank you for the time and consideration of these comments.

Sincerely,

Catherine H. Reheis-Boyd
President and CEO

[12] Turner Mason & Company Comments - Transportation Energy Supply Chain Infrastructure and Investment Study (TESCII) – Turner, Mason & Company – June 15, 2024; at https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OIIP-01 and https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-SB-02

APPENDIX A

Wholesale Market (Chart 1): the first chart demonstrates the economics of a reduction in supply by oil refiners in response to SB X1-2.

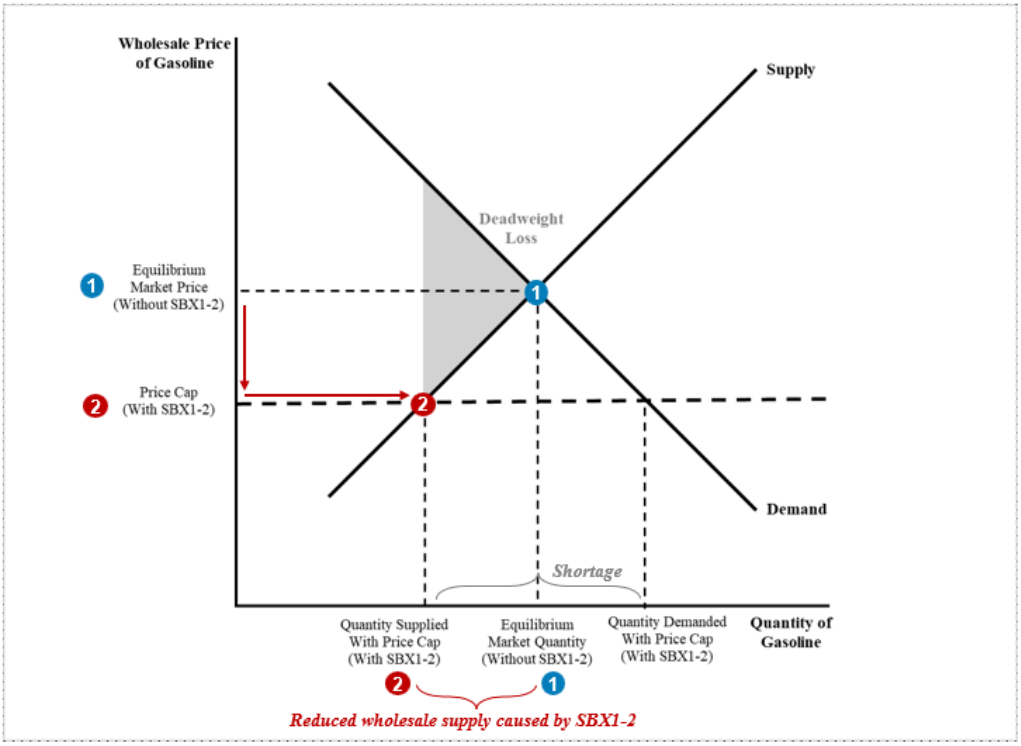
- **An effective price cap**: SB X1-2 sets a maximum monthly margin for gasoline refiners, essentially a firm-specific price cap for the month
- **Refiners' response**: at the lower price, refiners' profitability and therefore incentive to refine gasoline is reduced
- **Wholesale supply reduction**: this results in reduced supply in the wholesale market where the quantity supplied is less than the quantity supplied absent SB X1-2

WHOLESALE MARKET: SBX1-2 ACTS LIKE A PRICE CAP

SBX1-2 is an effective price cap in the wholesale market

1. **Equilibrium**: Without SBX1-2, the wholesale market is in equilibrium at the "Equilibrium Market Price" and "Equilibrium Market Quantity", where quantity demanded equals quantity supplied
2. **SBX1-2**:
   - SBX1-2 requires refiners to sell at an artificially low price to retailers, the "Price Cap."
   - At the "Price Cap" level, refiners supply less than the "Equilibrium Market Quantity", creating reduced supply that would not exist absent SBX1-2

- **Deadweight Loss**: This inefficiency will adversely impact the downstream market: the supply reduction in the wholesale market will cause an equivalent supply reduction in the retail market (see next slide).



Retail Market (Chart 2): The second chart, below, demonstrates the economic impact of the supply reduction in the wholesale market on the retail market.

- **An effective quota**: the artificially low quantity supplied in the wholesale market results in an effective quota in the retail market, limiting the supply of gasoline that retailers can buy and ultimately sell in the retail market
- **Retailer response**: with a restricted supply, retailers will charge an elevated price (where the new supply line intersects demand)
- **Retail elevated prices**: elevated retail prices will result in consumer harm

RETAIL MARKET: SBX1-2 RESULTS IN AN EFFECTIVE QUOTA

SBX1-2 results in an effective quota in the retail market

1. **Equilibrium**: Without SBX1-2, the retail market is in equilibrium at the "Equilibrium Retail Market Price" and "Equilibrium Market Quantity", where quantity demanded equals quantity supplied
2. **SBX1-2**:
   - The reduced supply in the wholesale market results in an effective quota in the retail market, limiting retailers' supply to the "Quantity Supplied With Wholesale Price Cap"
   - At this limited supply, retailers set the "Retail Market Price (With SBX1-2)", above the "Equilibrium Market Price"

- **Deadweight Loss**: This adversely impacts consumer welfare: the supply reduction in the wholesale market caused an equivalent supply reduction in the retail market, resulting in elevated retail prices