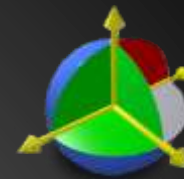
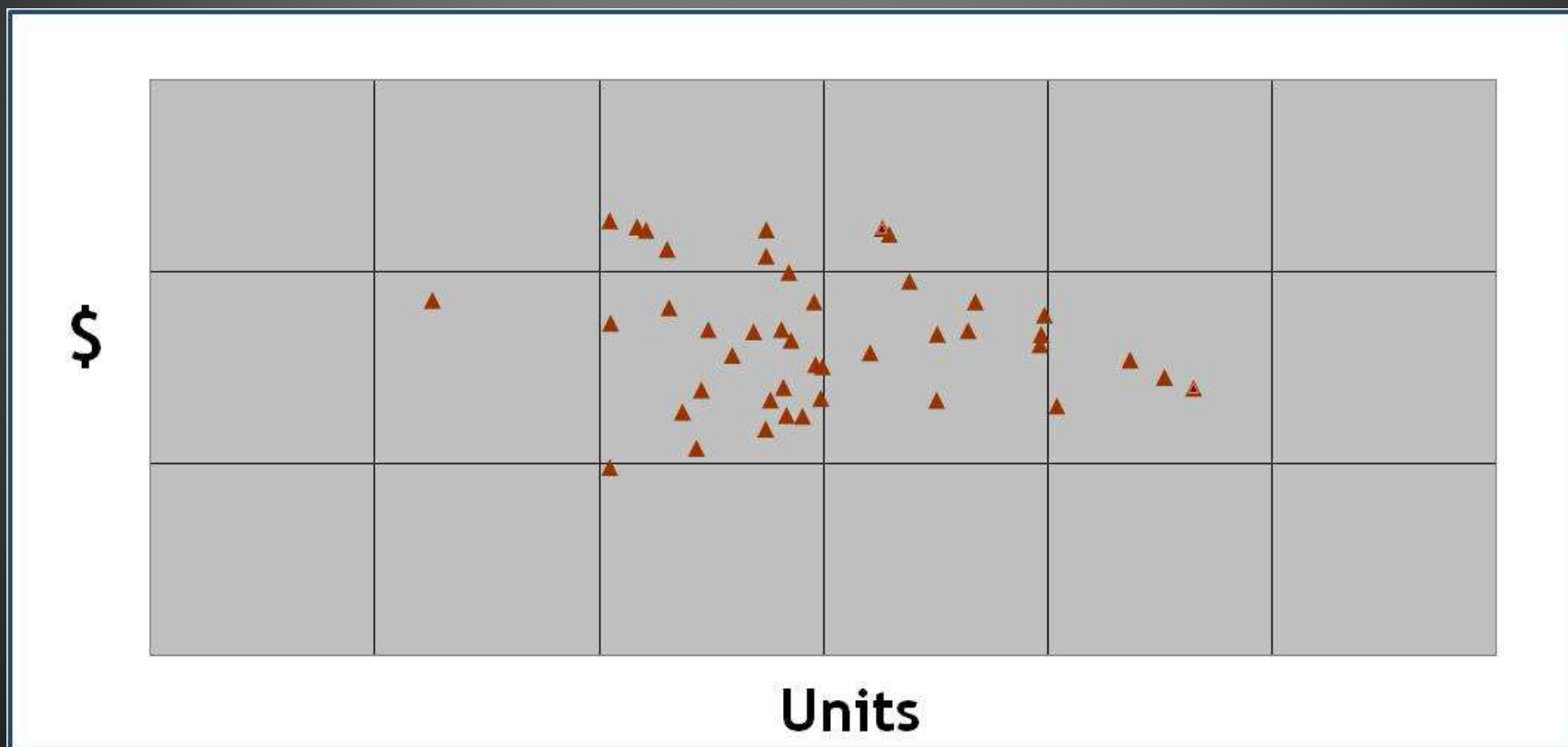


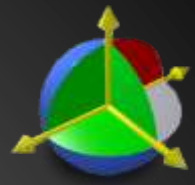
What are Demand Frontiers and Producer Limits?

- Demand Frontiers are the outer & upper market boundaries with respect to quantities and prices, respectively
 - No producer sells $>$ the outer boundary
 - No buyer purchases for prices $>$ the upper boundary
- Producer limits are lower and inner market boundaries
 - Lower limits form when costs $>$ values
 - Inner limits exist when sales $<$ break-even

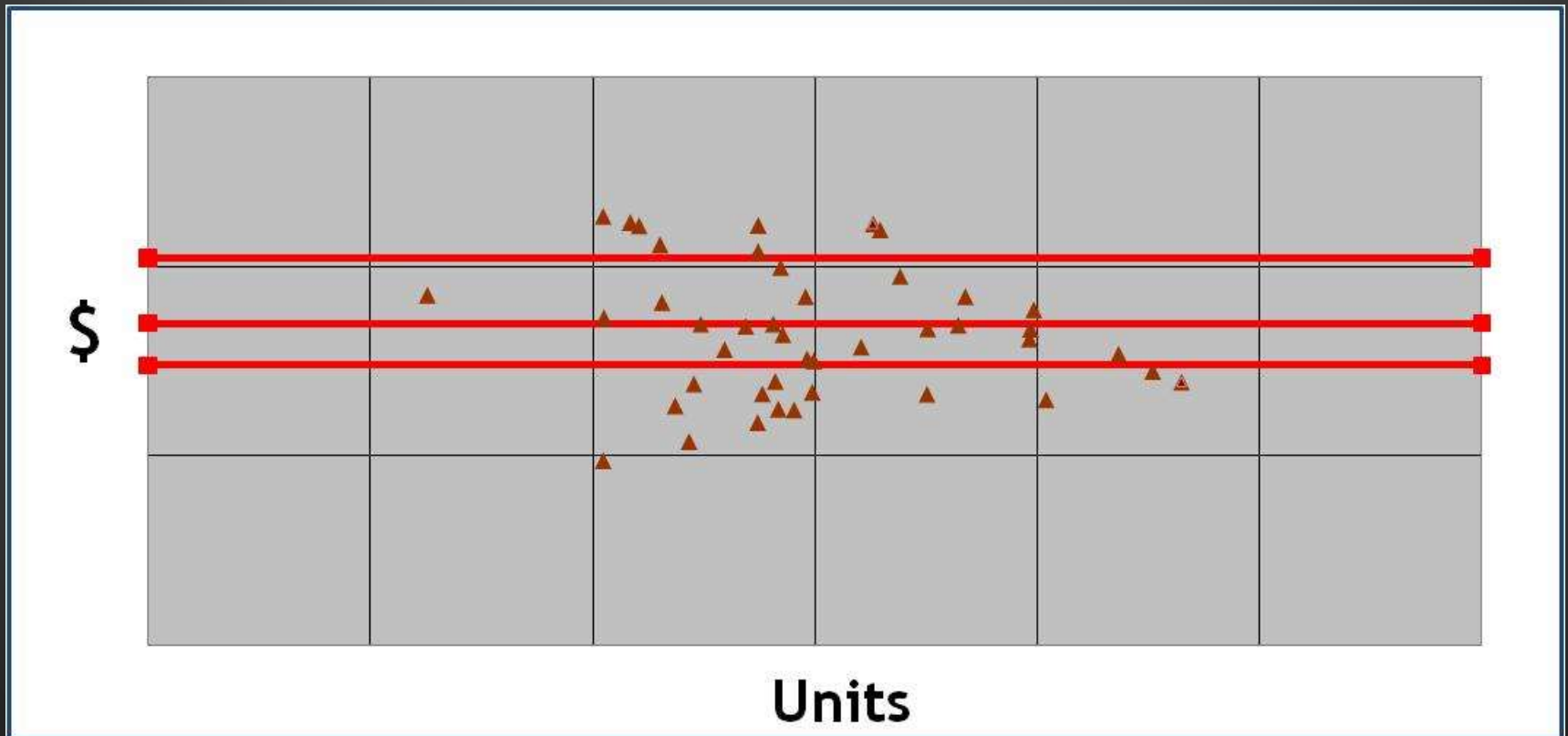


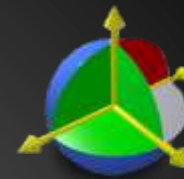
Start with Quantity (Horizontal) and Price (Vertical)
Points (as for General Aviation Aircraft)...



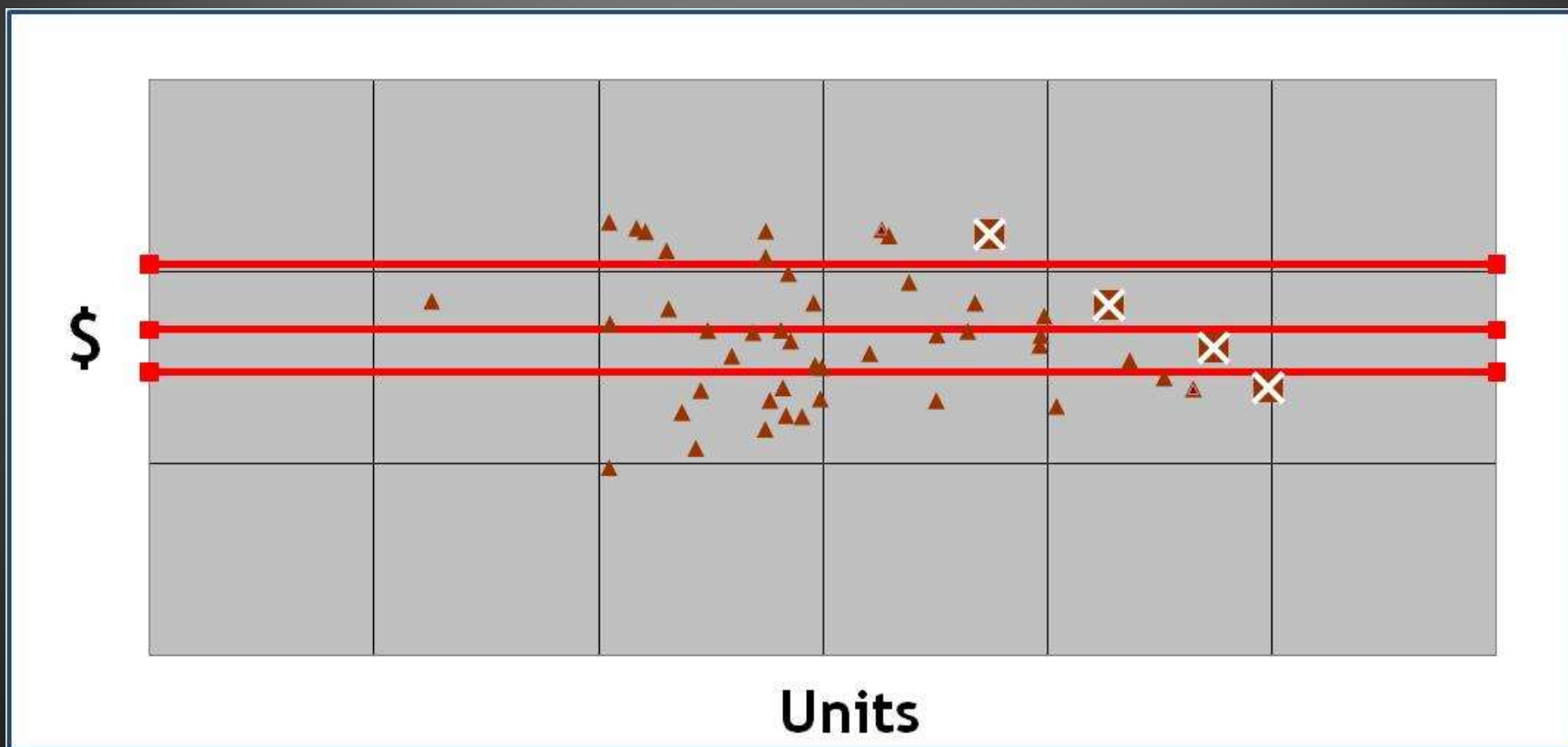


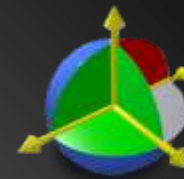
Place the data into bins...



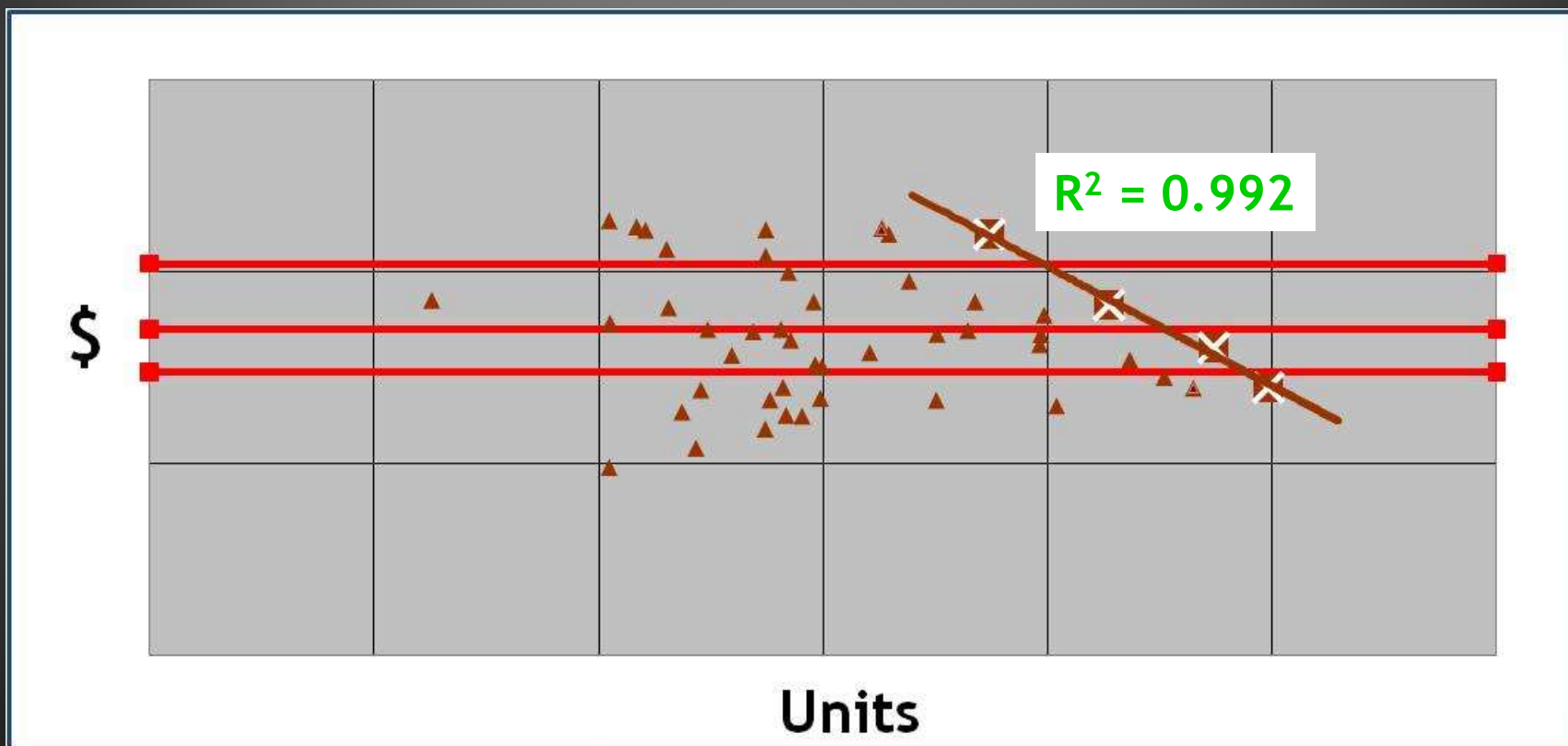


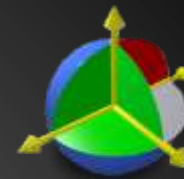
Add the TOTAL QUANTITY & calculate the AVERAGE PRICE in each bin...



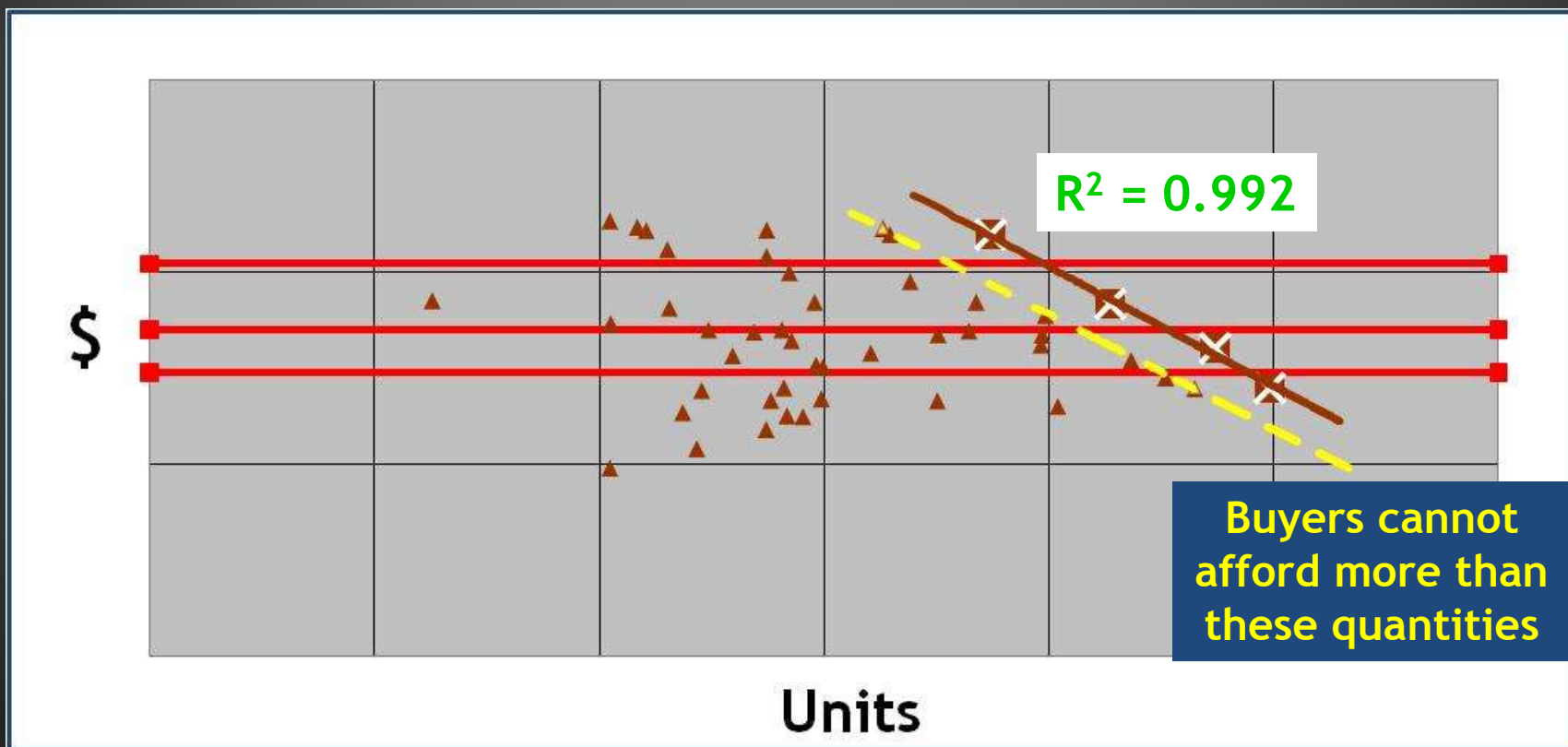


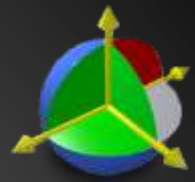
Regress...the aggregate data shows very strong correlation





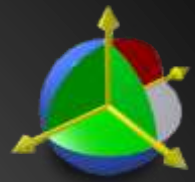
Calculate the Outer Demand Frontier as the slope of the two outermost points, or as the aggregate demand slope through the outermost point



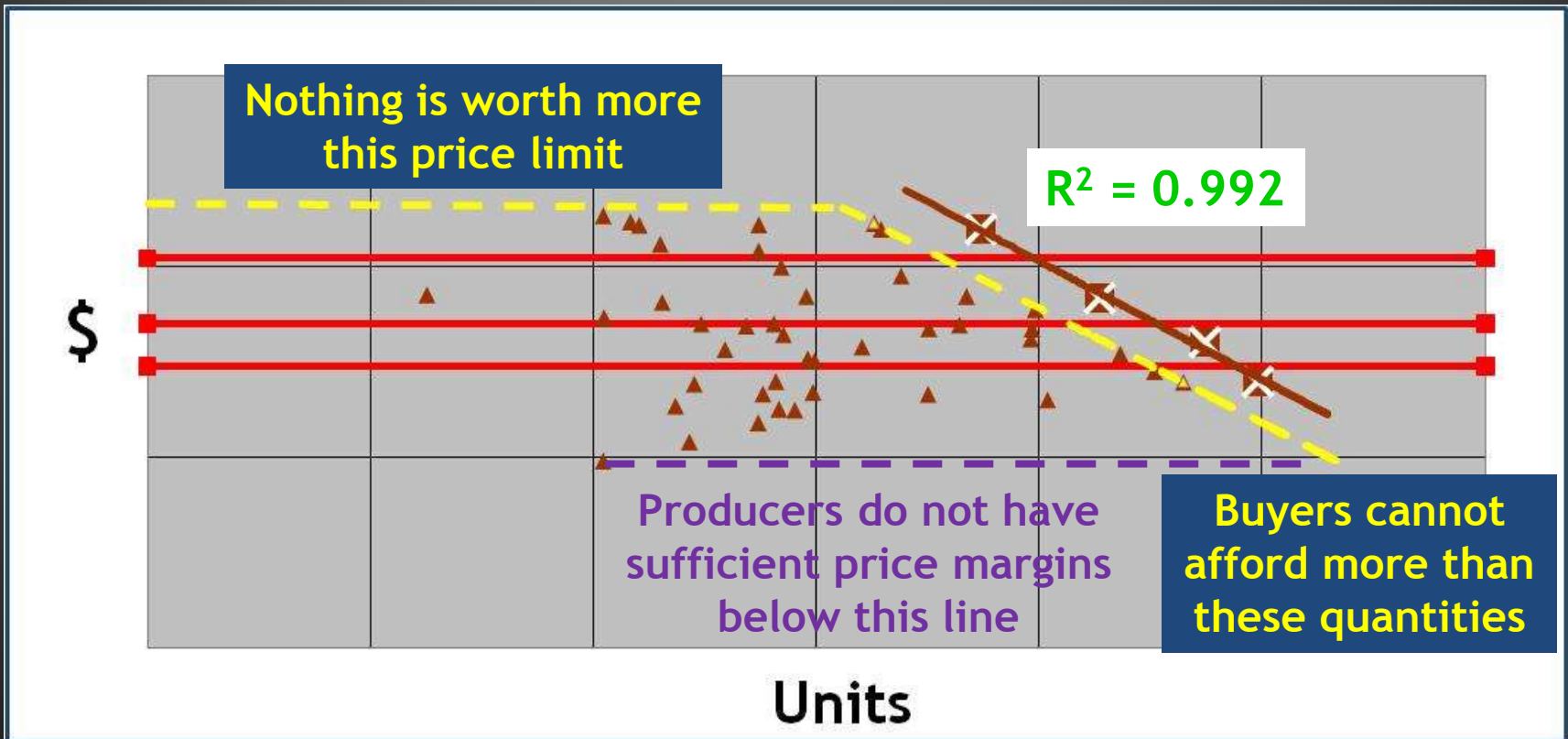


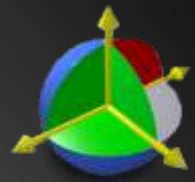
Find the upper price limit in the market...this is a horizontal line through the most expensive product



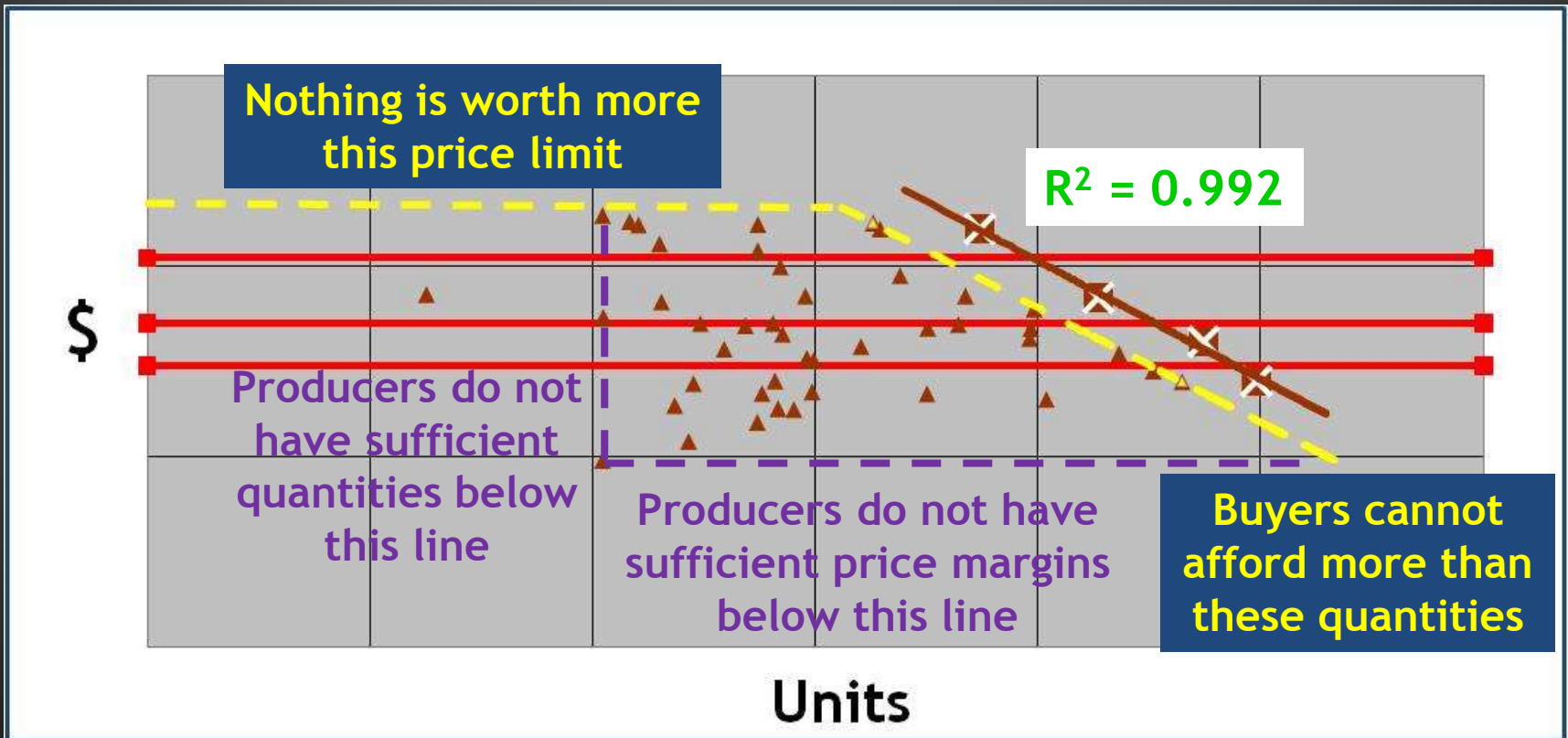


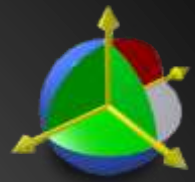
Find the lower producer limit...it is a horizontal line through the lowest-priced product in the market



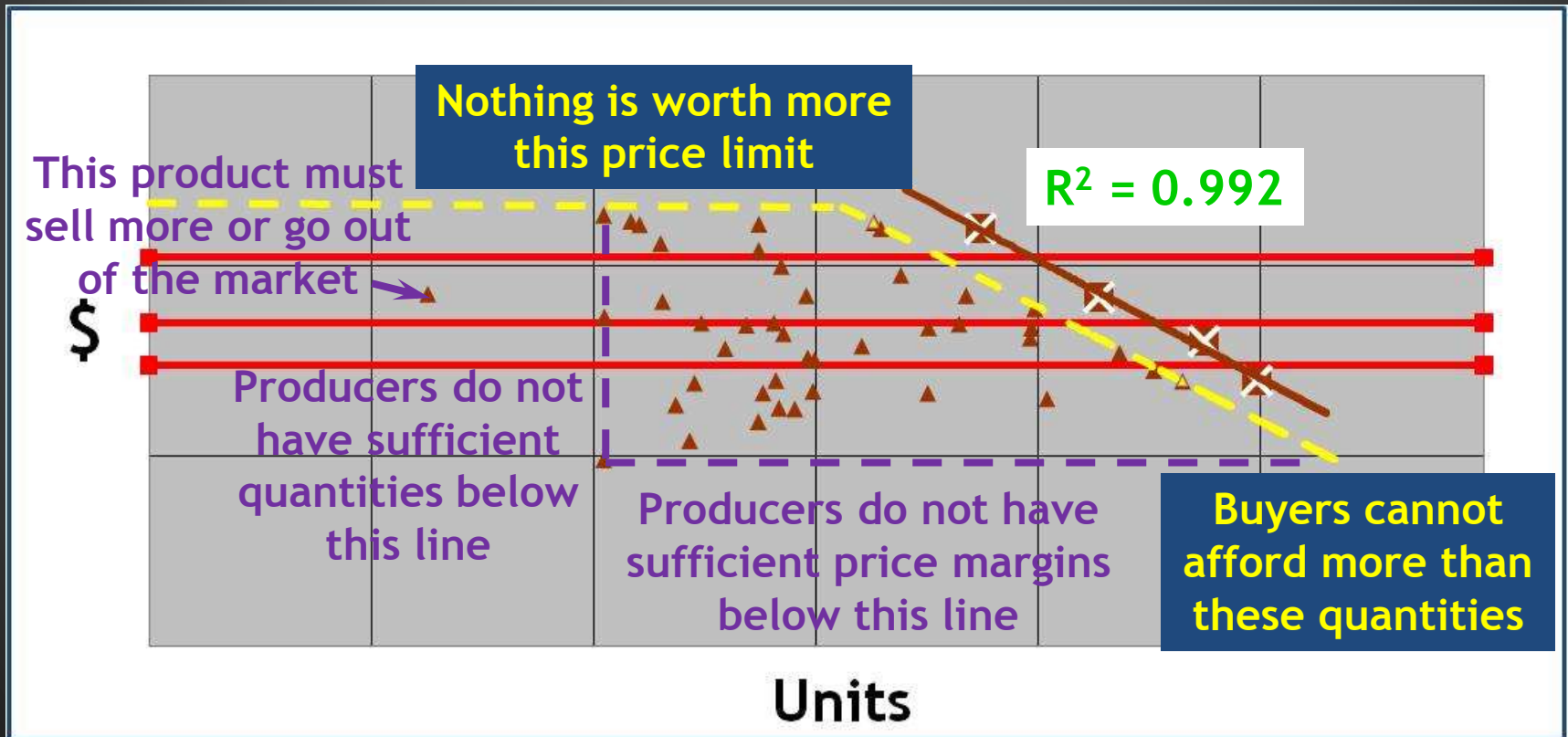


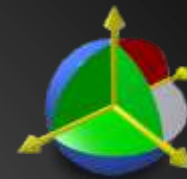
Find the inner producer limit...sales quantities below this amount are not feasible





Find the inner producer limit...sales quantities below this amount are not feasible





Demand Frontiers & Producer Limits Conclusions

- **Markets (customers) demonstrate**
 - Product Quantity Limits (Outer Demand Frontier)
 - Price Limits (Upper Demand Frontiers)
 - These Limits change as customers bring more money to markets
- **Producers demonstrate**
 - Price floors below which they do not have sufficient profit margins
 - Quantity minimums below which they cannot produce enough to cover costs
 - These Limits changes as producers find new low-cost technologies