

THE ART & SCIENCE OF PRICING DECISIONS

a predictive analytics framework for CCMs

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ART

Scenarios

Objectives

Constraints

Competition

SCIENCE

Self-Elasticity

Cross-Elasticity

Price Quadrants

Price Thresholds

SCENARIO

ART

Scenarios

Objectives

Constraints

Competition

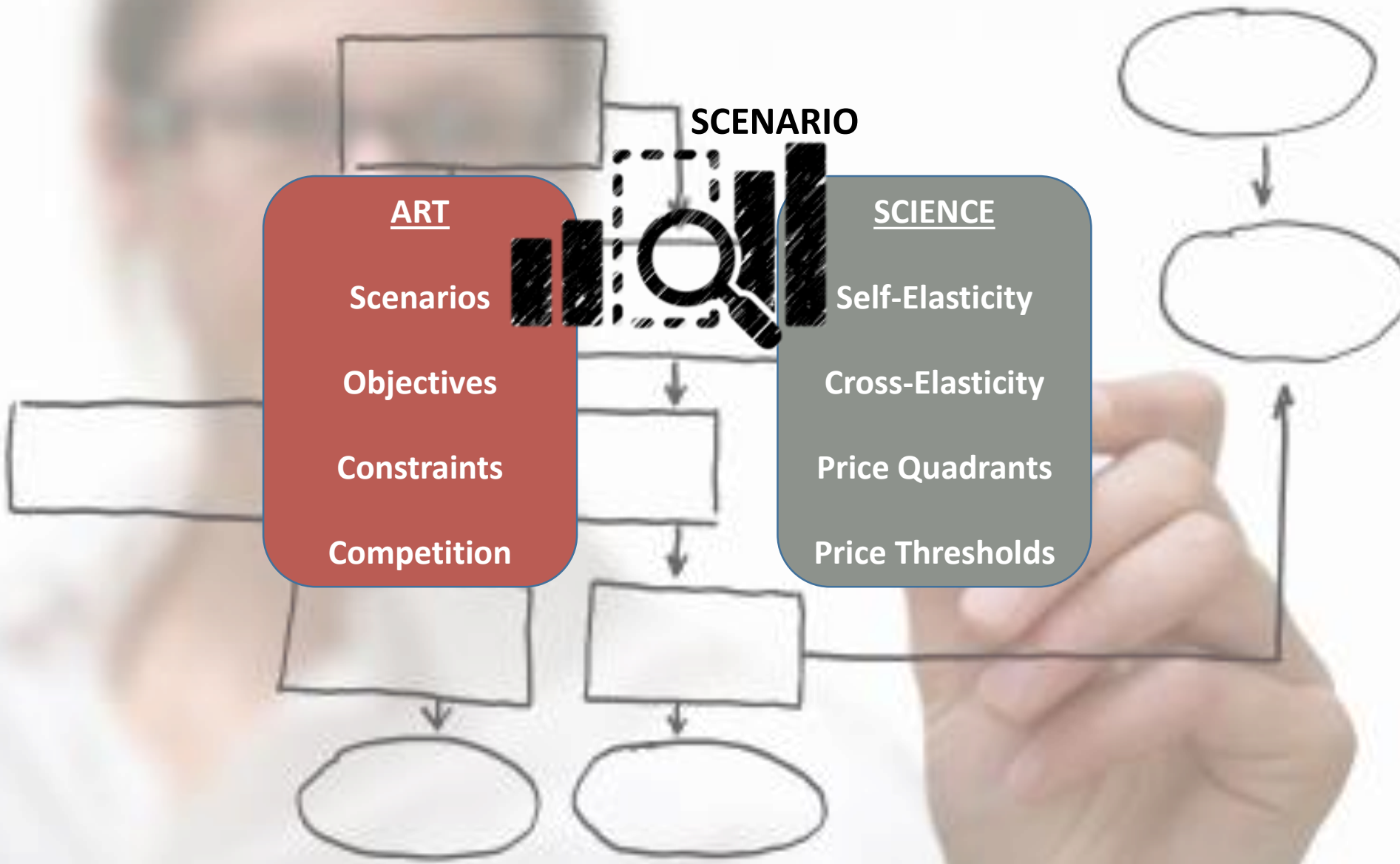
SCIENCE

Self-Elasticity

Cross-Elasticity

Price Quadrants

Price Thresholds



The ART of Pricing Decisions: When?



**NEW
PRODUCT**





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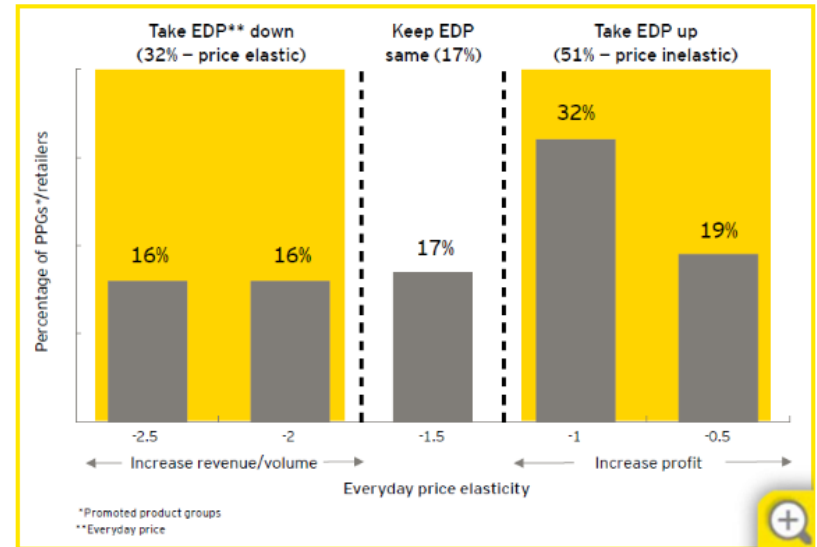


More than 80% of PPGs and retailers we studied could improve volume, revenue or profitability by changing their everyday prices.



About 50% could improve profitability by taking their price up, with limited impact on volume or revenue.

Adjusting everyday pricing will improve performance





Pricing Decision

Objectives

Constraints

Competition

Sensitivity

Internal Factors

External Factors



**Gross
Rev**



Margin



**Net
Rev**



Share



START

Is there a correlation between Promo Price & ROI? (All products with Regular Price = \$1.29)



Don't Forget:

- Marketing Mix Objectives / Strategy
 - Non-Pricing Positioning

Avg Event ROI	1.36	1.09	2.55	2.13	1.76	1.18
Avg Event MFR Margin %	15%	11%	32%	35%	32%	35%
Avg Trade Rate %	32%	36%	16%	13%	16%	13%
Avg Unit Lift %	2425%	634%	482%	163%	78%	32%

Promo Price (rounded)

The ART of Pricing Decisions:
Considerations - Objectives





Economic Conditions

Affects perception of value; may mute or exaggerate consumer response

Third Parties

How are resellers and distributors affected?
How might they react?

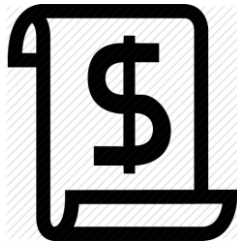
Legal Constraints

CPGs Don't Set Price

- List Price
- EDLC
- Incentives

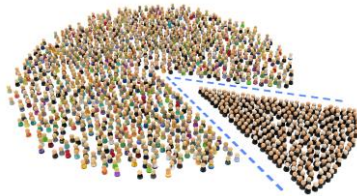


LIST PRICE



**Channel Differentiation
Trade Funds Tiers**

SEGMENTATION



**Channel Differentiation
Trade Funds Tiers**

LOGISTICS



**Incentives
Fees**

PRODUCT



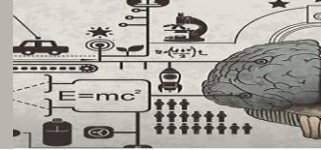
**Reformulation
Packaging (Up / Down)**



How might your competitors react?







Key Sensitivity Analytics & Demand Forecasting

What You Need to Get Started:



Full category syndicated data
(Week / UPC / Banner)



Assumptions
Dates, Retailer, Competitor



Costs (Past, Current, Future)
COGS / List / Trade / Etc

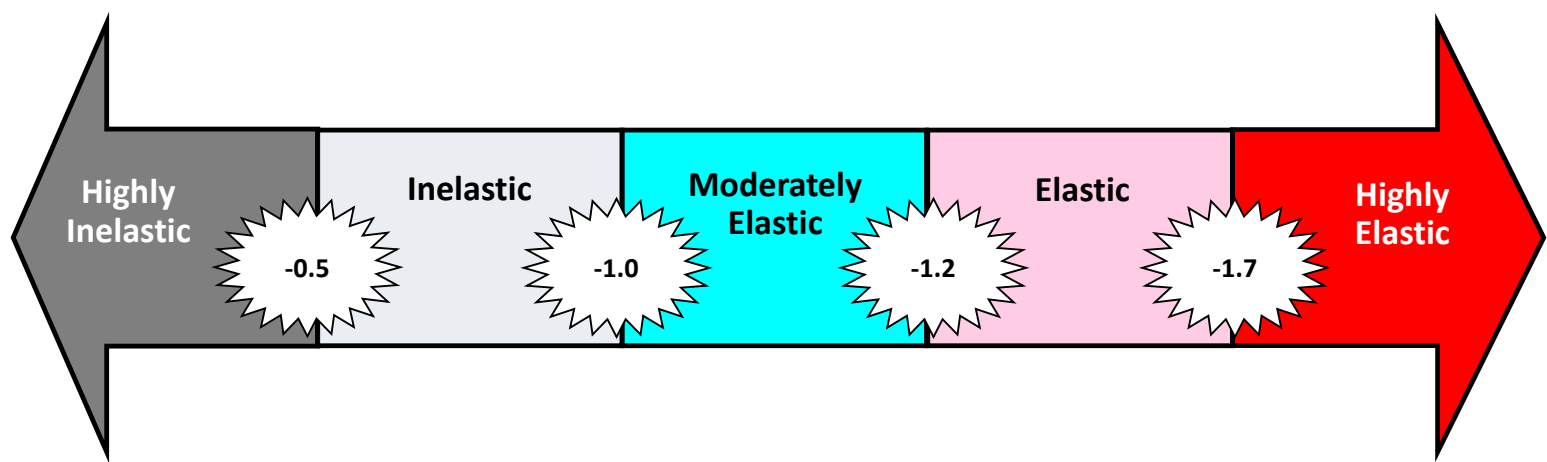


Modeling Capabilities



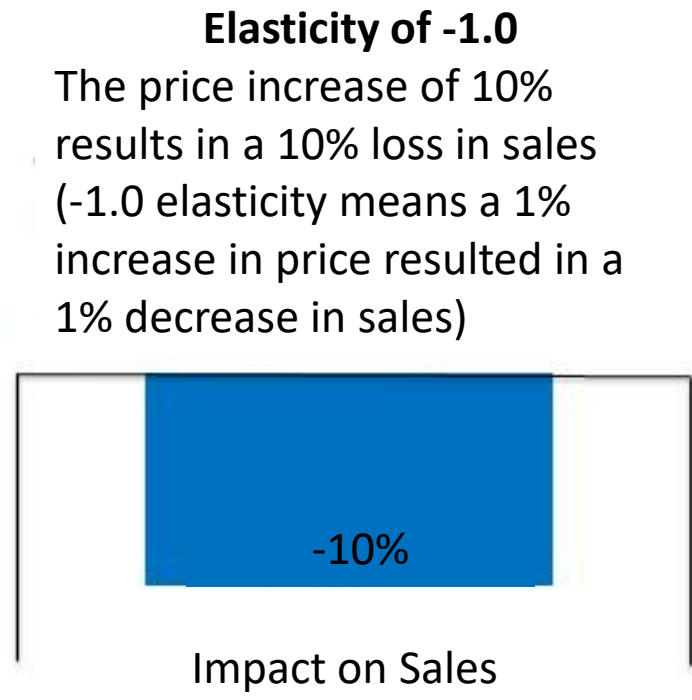
Price Elasticity Defined

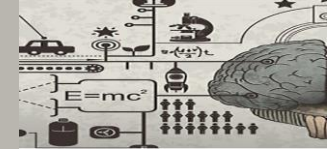
Price elasticity of demand is used to evaluate and understand the relationship between the change in quantity demanded as it relates to a change in price.



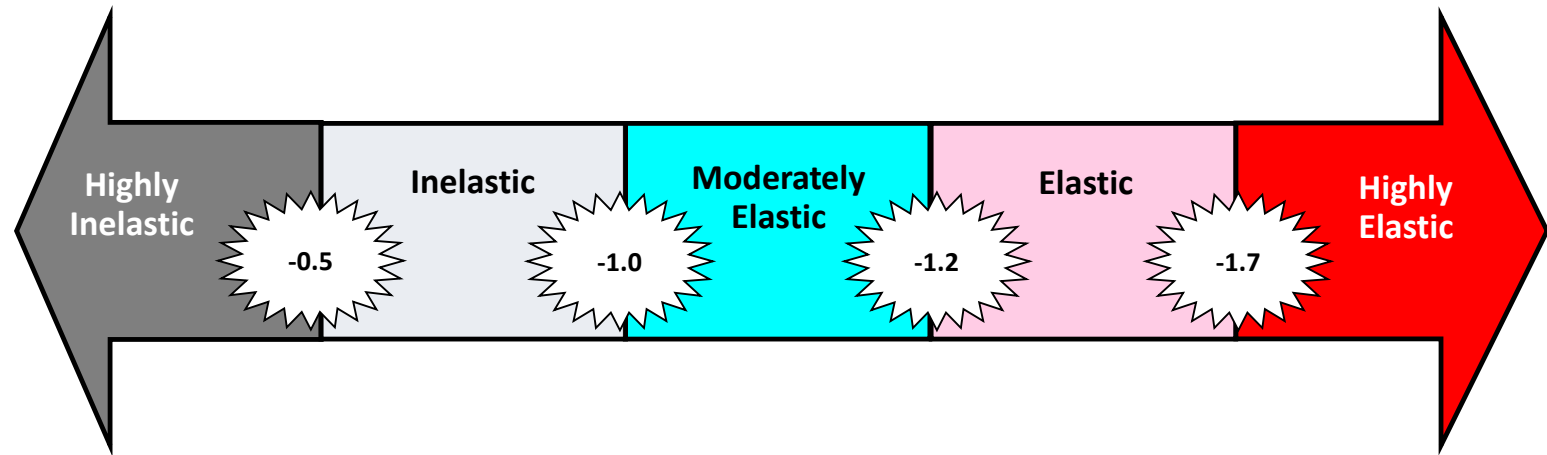


Price Elasticity: How to interpret





Price Elasticity – Decisions?



Price Increase + Low Elasticity =
Negative Units and **Positive Dollars**

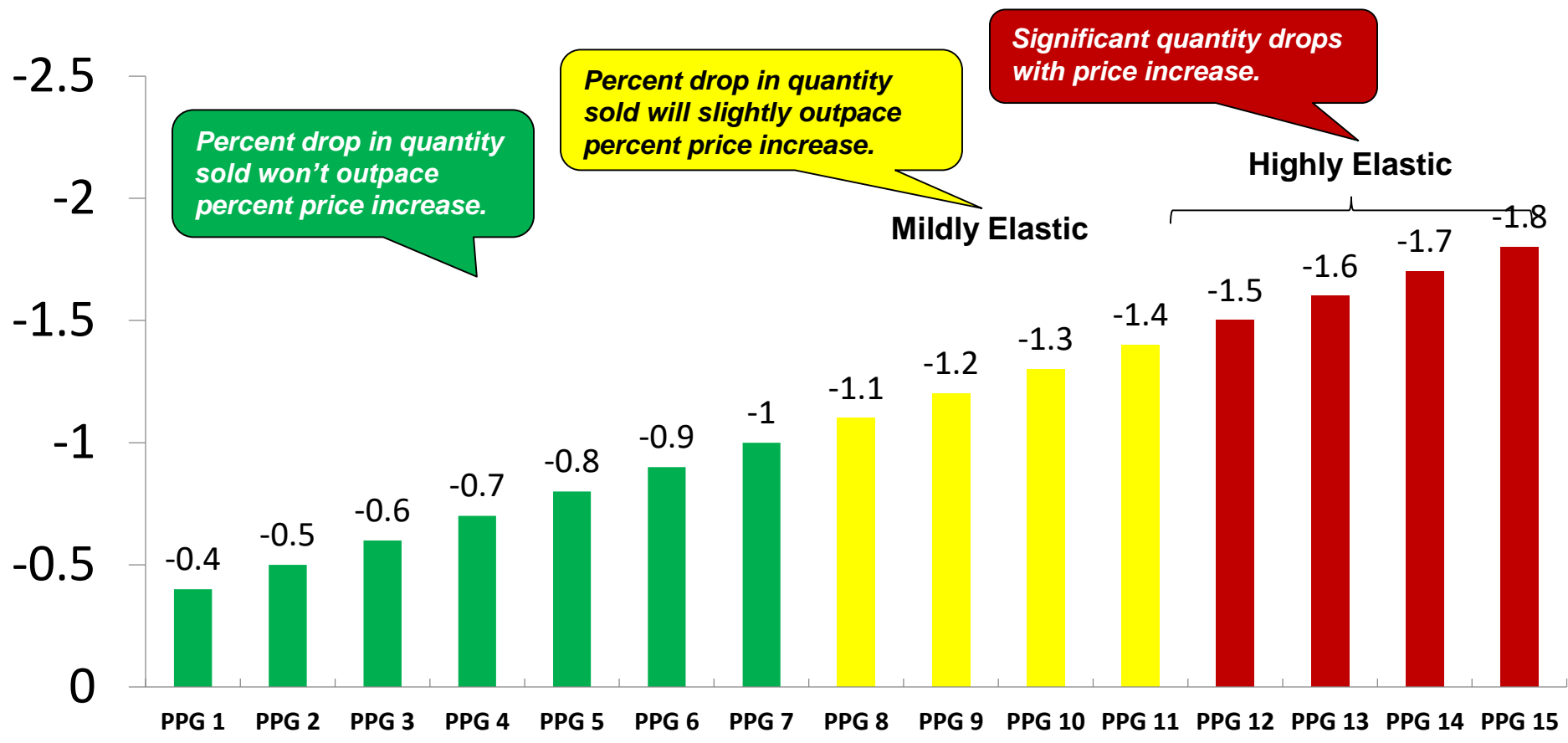
Price Increase + High Elasticity =
Negative Units and **Negative Dollars**

Price Decrease + Low Elasticity =
Positive Units and **Negative Dollars**

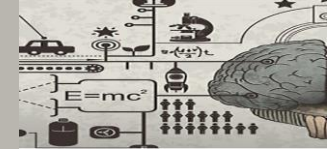
Price Decrease + High Elasticity =
Positive Units and **Positive Dollars**



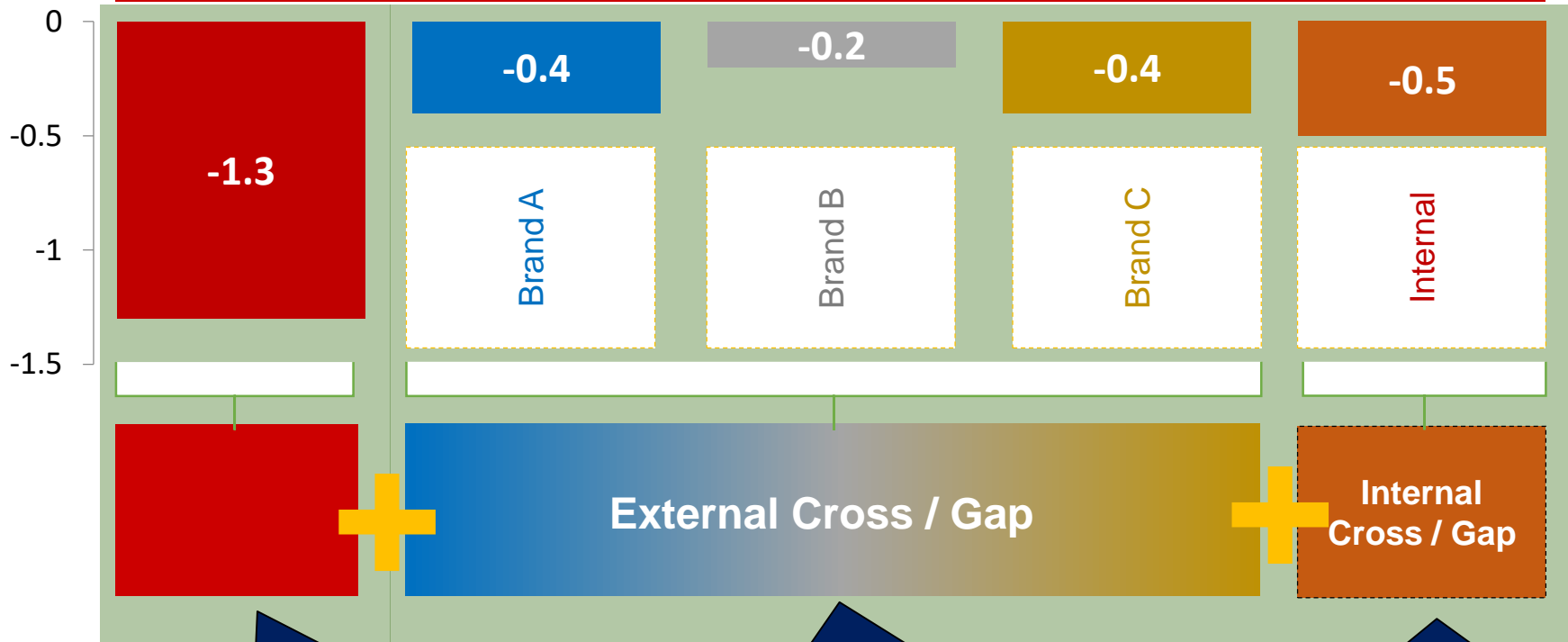
How Do I Compare My Elasticities by PPG?



$$\text{Price Elasticity} = \frac{\% \Delta \text{ Qty}}{\% \Delta \text{ Price}}$$



Item X total everyday price elasticity -2.8



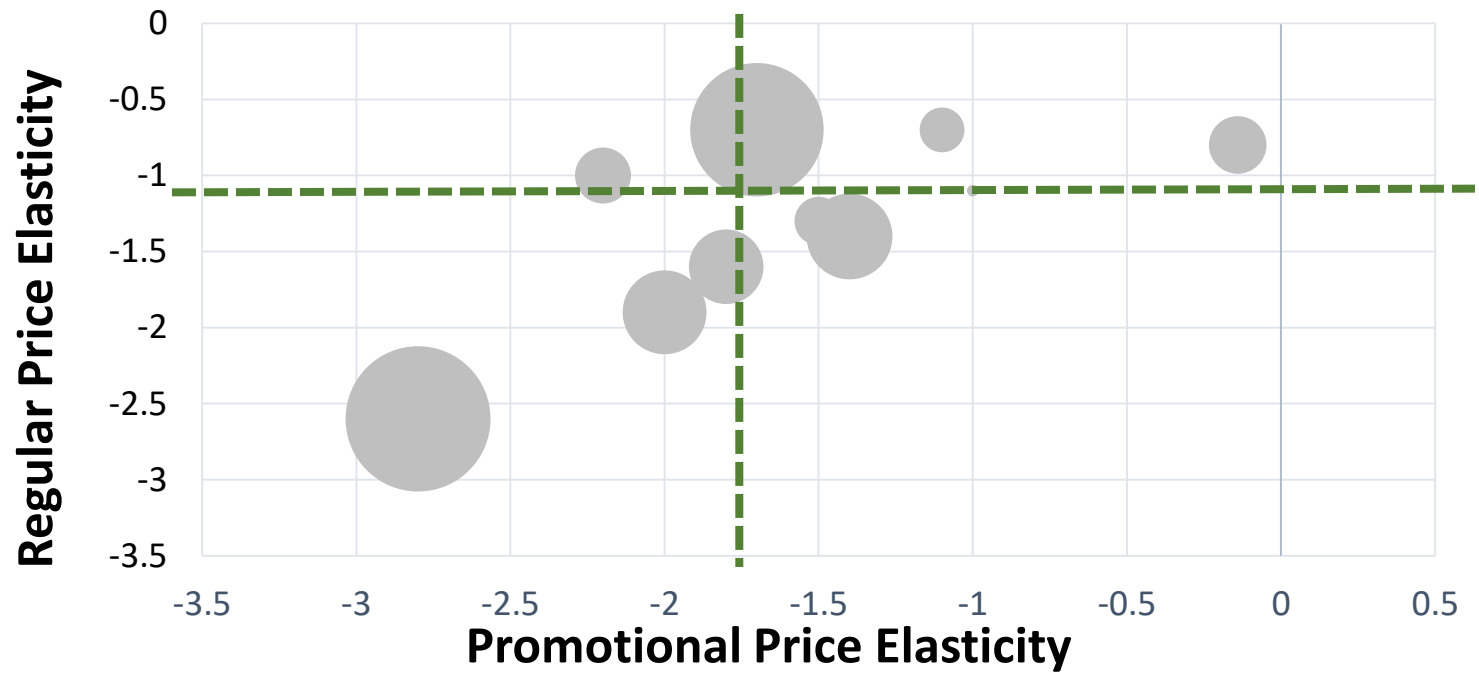
“Self” elasticity is the measure of what happens to Item X’s volume when Item X’s price changes.

“External Cross” elasticity indicates the amount of volume going to external or out-of-portfolio competitors due to a price increase on Item X.

“Internal Cross” elasticity indicates the amount of volume going to *internal*, in-portfolio competitors due to a price increase on Item X.



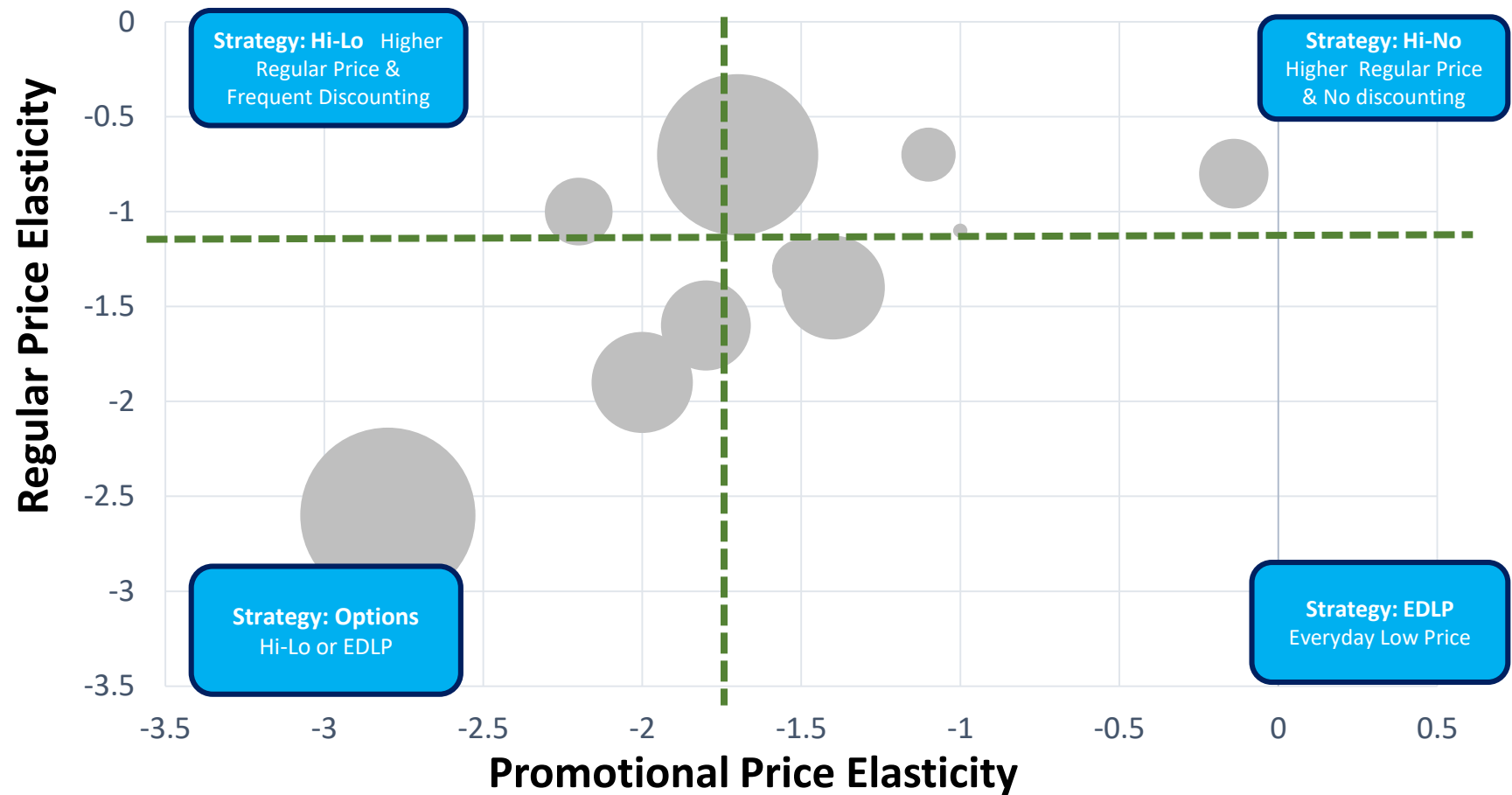
Pricing Strategy



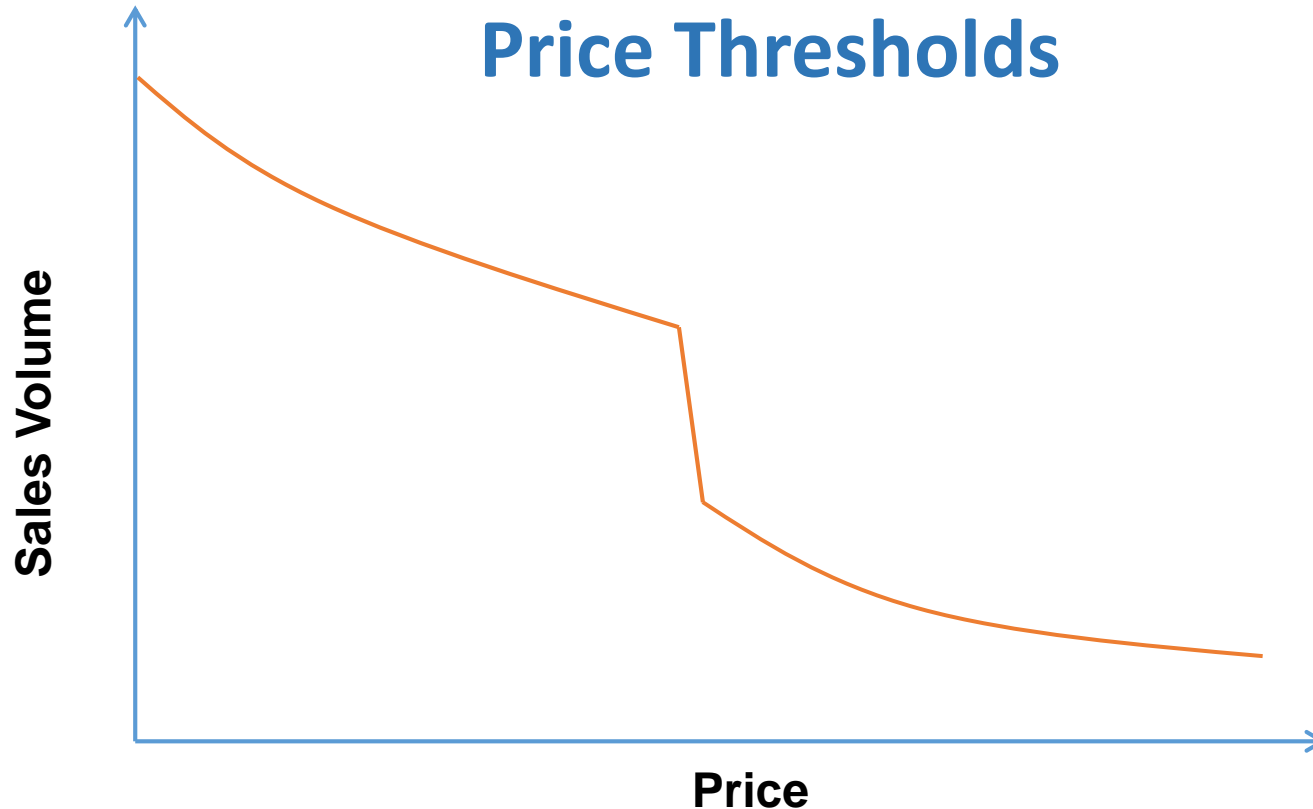
- High Everyday Price Elasticity:** Consumers are sensitive to regular price changes
- Low Everyday Price Elasticity:** Consumers are not as sensitive to regular price changes
- High Promo Price Elasticity:** Consumers are sensitive to promotion prices/discounts
- Low Promo Price Elasticity:** Consumers are not as sensitive to promotion prices/discounts



Pricing Strategy

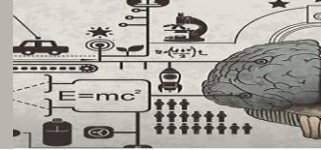


Bubble size denotes volume

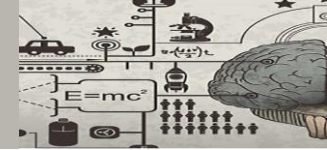


Threshold Price: The specific price point beyond which sales change

- In addition to everyday price elasticities, price thresholds can be used to understand *additional* unit sales loss



Scenario: Is there a way to **increase manufacturer revenue** by optimizing price?



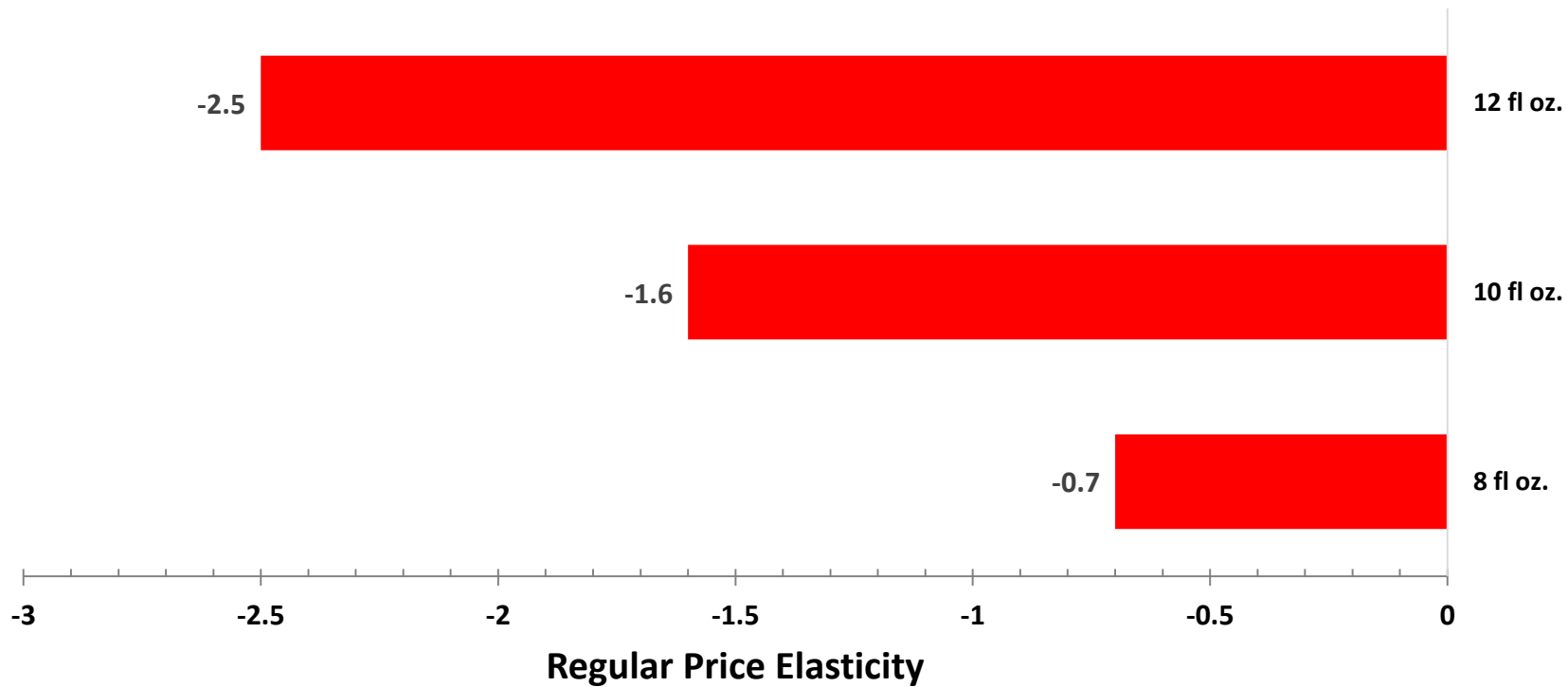
Background

We are supporting a major manufacturer that competes in the *craft* bottled water segment. We are going to evaluate their product: ***ch2O**nvolved*, a non-GMO, organic, 12oz bottle – at one of their largest customers.



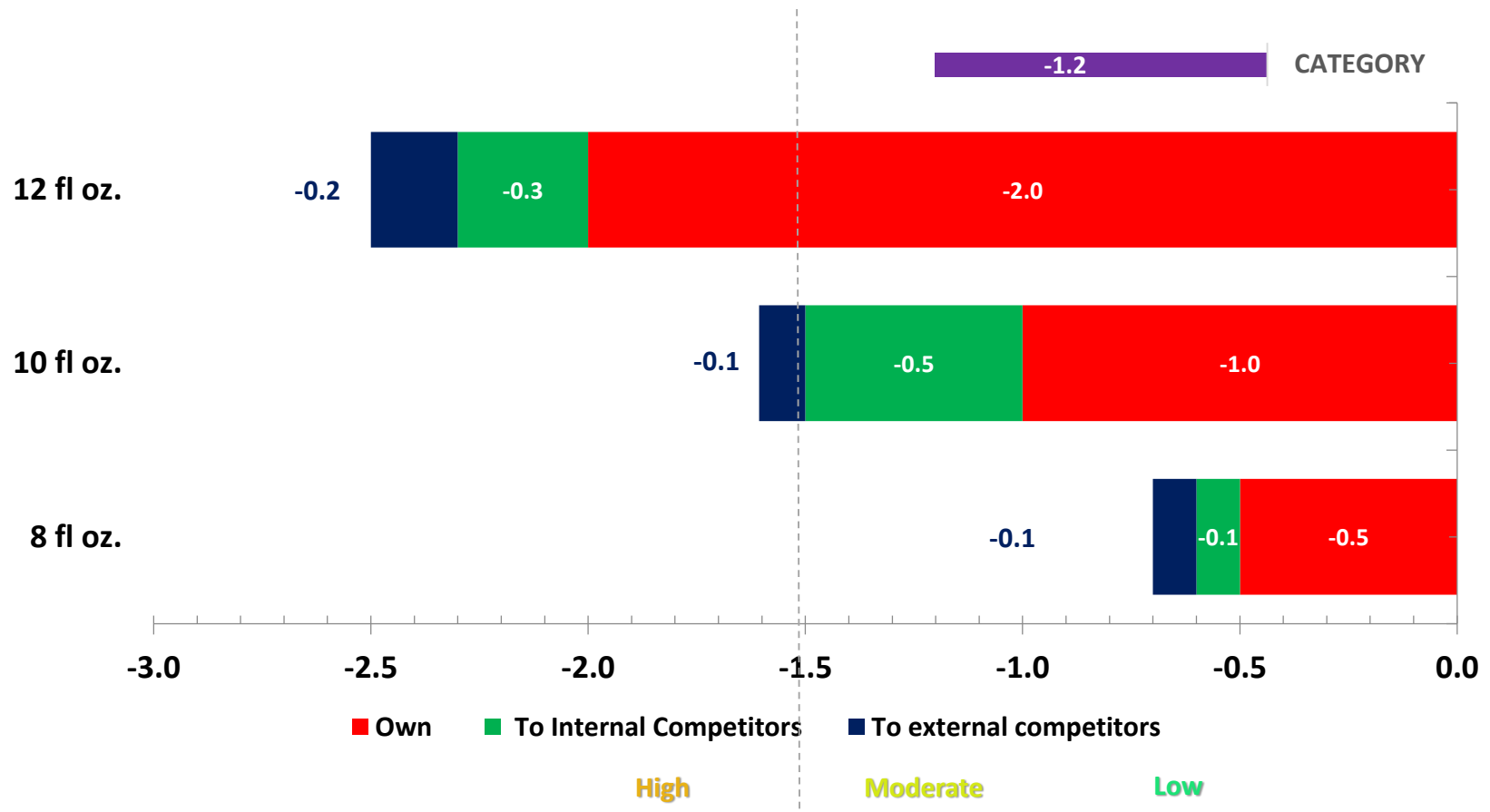


What is my Regular Price Elasticity?





How Elastic are my products on Regular Price?



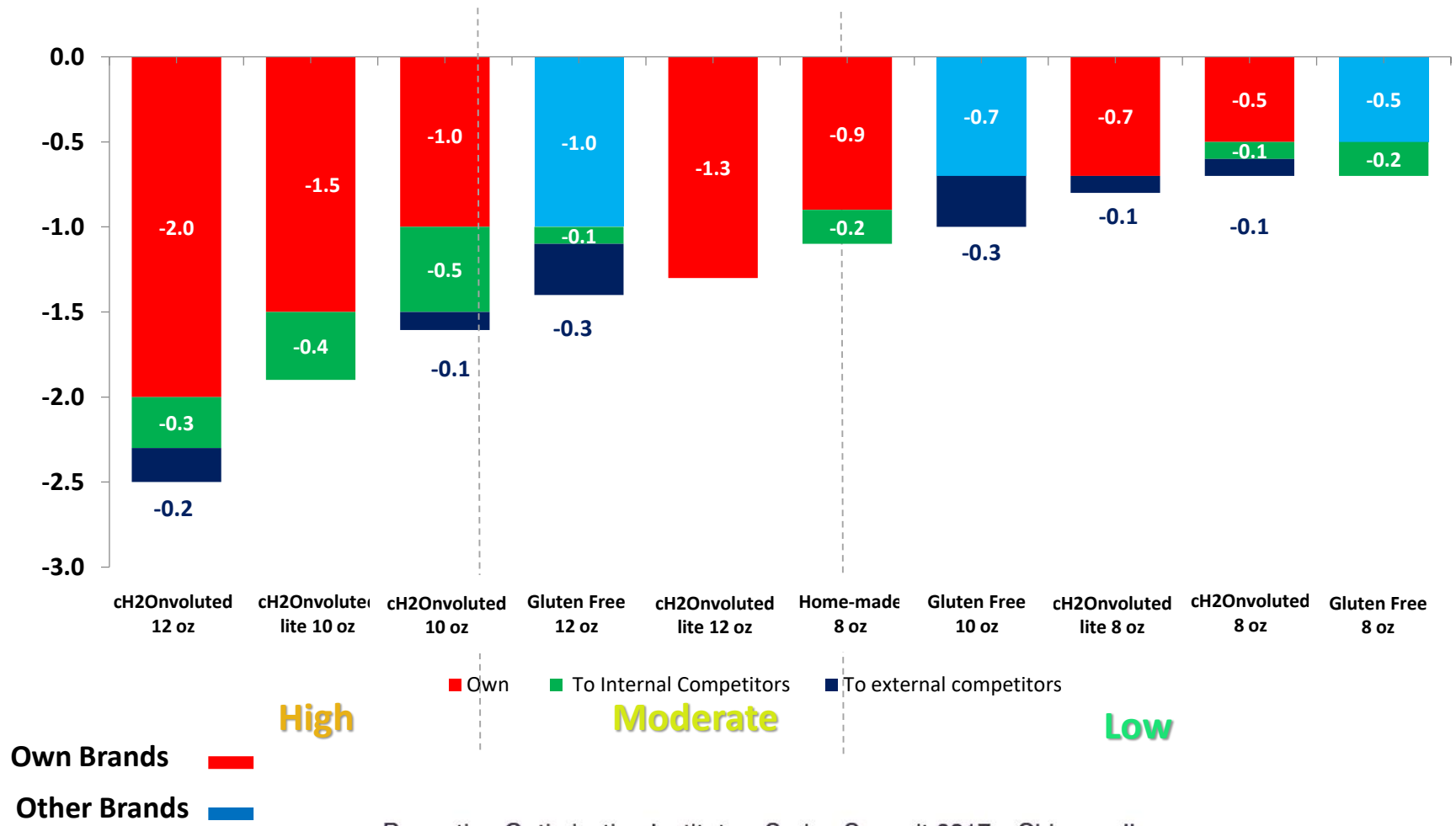


What products do I interact with?

Size	External Competitors	Elast.	Internal Competitors	Elast.
8 fl oz.	Gluten-Free Water 8 fl oz.	-0.1	cH2O nvoluted lite 8 fl oz.	-0.1
10 fl oz.	Gluten-Free Water 10 fl oz.	-0.1	cH2O nvoluted lite 10 fl oz.	-0.5
12 fl oz.	Gluten-Free Water 12 fl oz.	-0.2	cH2O nvoluted lite 12 fl oz.	-0.1
			Homemade Water 12 fl oz.	-0.2

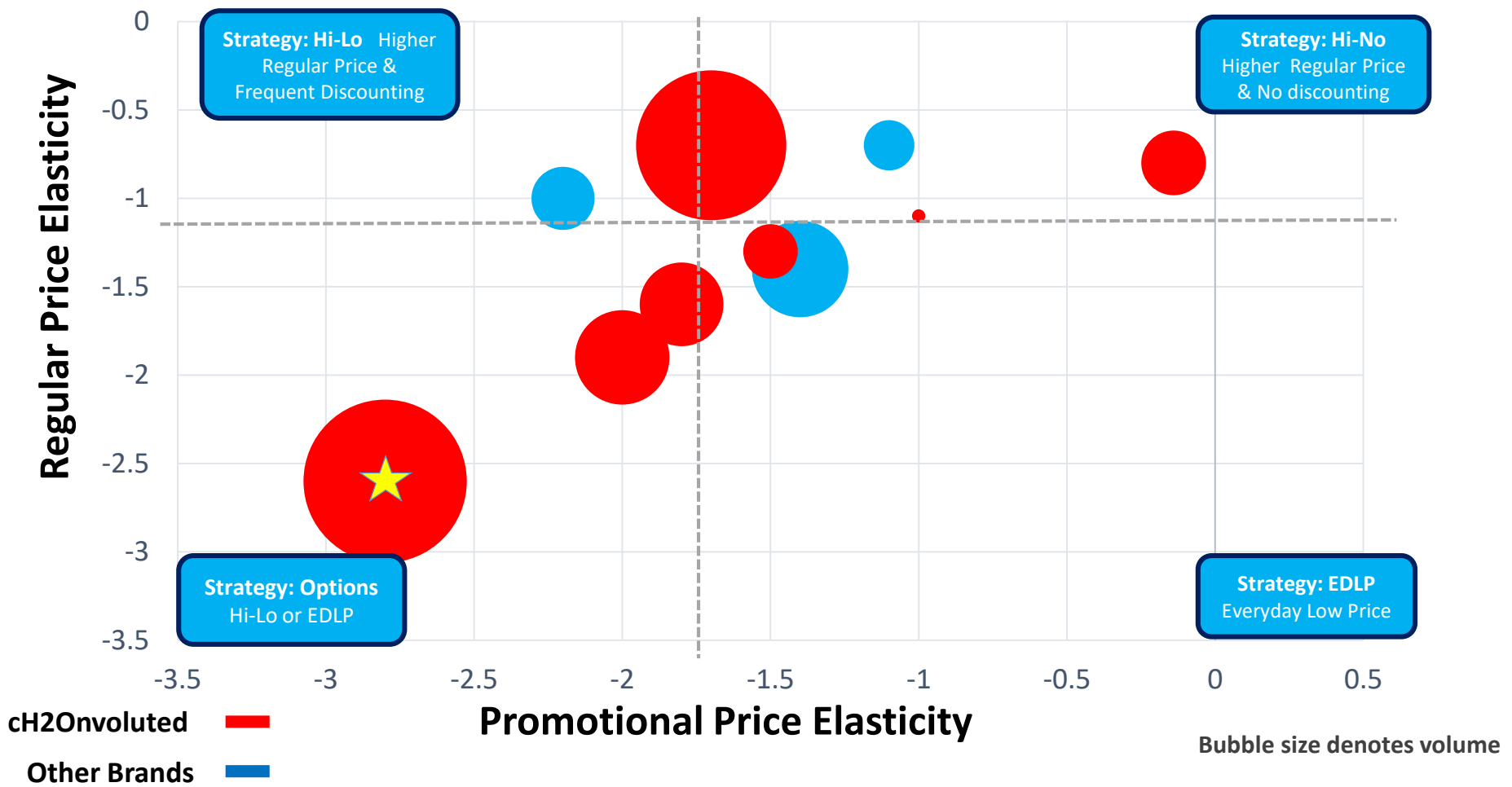


Competitive Landscape



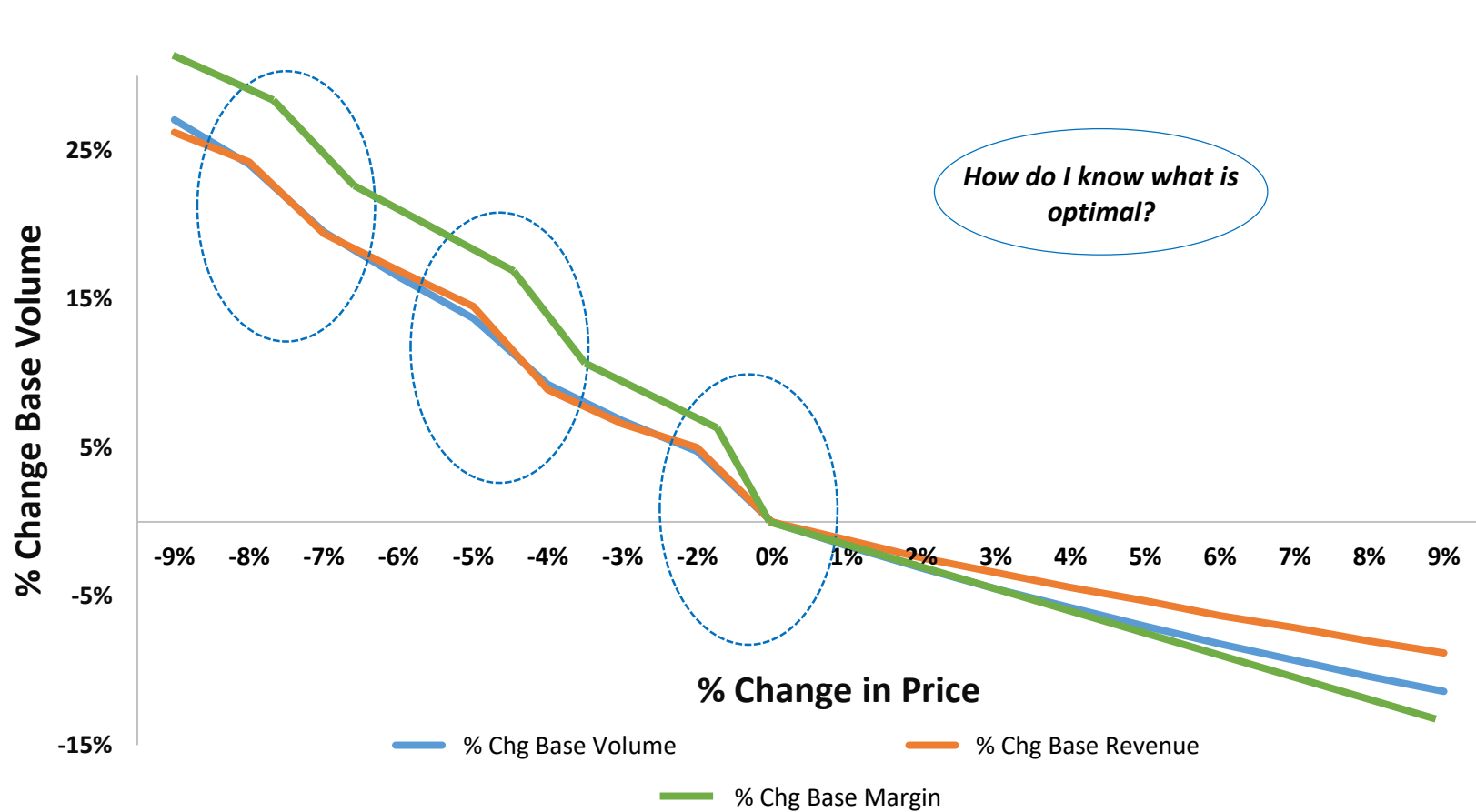


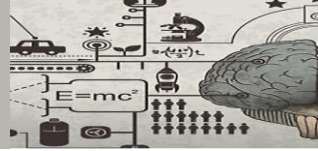
Pricing Strategy





Evaluating the Impact and Identifying Price Thresholds





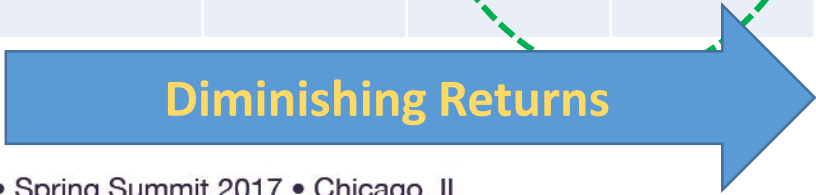
Price and Promo Strategy (Scenarios)

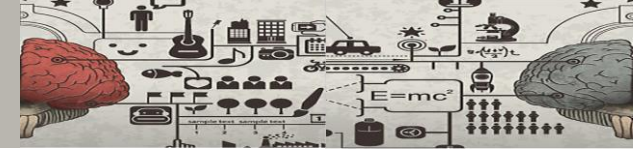
	Current Scenario	Scenario 1 -2% Price Change	Scenario 2 -2% Price Change	Scenario 3 -5% Price Change	Scenario 4 -5% Price Change	Scenario 5 -8% Price Change	Scenario 6 -8% Price Change
Regular Price	\$3.55	\$3.48	\$3.48	\$3.37	\$3.37	\$3.27	\$3.27
Promo Price	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10
Competitive Response	N/A	Does not follow	Follows	Does not follow	Follows	Does not follow	Follows



Recommendation

	Current Scenario	Scenario 1 -2% Price Change	Scenario 2 -2% Price Change	Scenario 3 -5% Price Change	Scenario 4 -5% Price Change	Scenario 5 -8% Price Change	Scenario 6 -8% Price Change
MFR Volume	345,510	362,785	369,333	383,881	387,763	394,454	396,854
MFR Revenue	\$1.23M	\$1.3M	\$1.31M	\$1.41M	\$1.45M	\$1.5M	\$1.54M
Competitive Response	N/A	Does not follow	Follows	Does not follow	Follows	Does not follow	Follows
Margin	\$615	\$650	\$655	\$705	\$725	\$750	\$770





Next Steps – Combining Art with Science

Build promo plan

- discount depth and promo price may change
- may hit / not hit old promo price thresholds

Check constraints

- can optimal scenario be implemented? -
- are assumptions realist?

Check competition

- how will price gaps change?
- are assumptions realistic?

Consider marketing mix

- does optimal scenario fit strategy?

Consider economic conditions

- any variables not present in analysis?

If executed, measure success

- did consumer respond as forecasted?
- did demand change due to regular price?
- was financial growth positive?

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THANKS!

