IRI STRATEGIC ANALYTICS

REVENUE GROWTH MANAGEMENT CONCEPTS DEMYSTIFIED

OCTOBER 21ST, 2022

IRi
Growth delivered.

Strategic Analytics Offerings & Solutions

Demand Forecasting & Trendspotting
- AI/ML-Enabled Demand Forecasting Platform
- *AI/ML-Enabled TrendSpotting with machineVantage*

Revenue Management
- Opportunity Alerts and Predictors
- Price and Trade Advantage
- Business Value Drivers
- Segmented Pricing
- Price-Pack Architecture
- *E-commerce Pricing and Promotion*

Trade Effectiveness
- Trade Strategy
- Promotion Planner
- Trade Management and Spend Optimization
- *AI-Enabled Promotion Planner*

Liquid Intelligence
- Custom Client-Proprietary Analytic Applications

PREDICTIVE & PRESCRIPTIVE ANALYTICS

Growth Opportunities
- Demand-Side Due Diligence
- Growth Opportunities / Strategy
- Brand Value Optimization
- Omnichannel Strategies

Retail Price & Promotion
- Price Intelligence
- *Price Setting*
- Promotions Optimization
- *AI-Enabled Promotion Optimization*

In-Store Execution Effectiveness
- Assortment Optimization
- Shopper-Centric Assortment Optimization
- Assortment: Opportunity Alerts & Predictors
- Space and Aisle Optimization
- Innovation Incrementality
- Out-of-Stock Analytics
- *E-commerce Assortment*

Spend Allocation
- Optimization of Spend Across Shopper Marketing, Pricing, Promotion and Advertising
- Optimization Across Retail Media and Retail Shopper Marketing / Promotion Spend

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It all starts with IRI's POS modeling approach is a proprietary store level data, which is an industry standard for price and trade analytics

BASE PRICE RESPONSE

- Base price elasticity measures the response to changes in everyday price
- We separately quantify promotions, category trends, holidays, seasonality & competitive price points
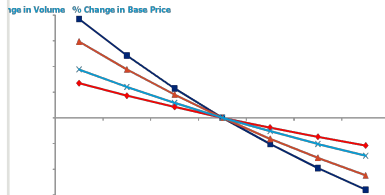

PROMOTION RESPONSE

- Promoted price elasticity measures the short-term volume gain from temporary price reductions (TPRs)
- Measure the impact of features, displays, F&D and hot price points.
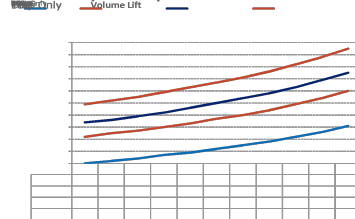
CROSS EFFECTS

- Cross elasticity is the direct impact of competitive price changes on sales
- Cross-elasticity analysis is done to react to competitive price changes

Base Price Elasticity:
14oz
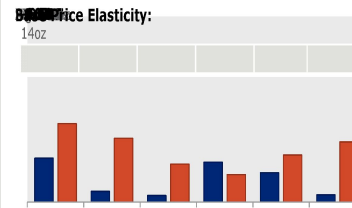
GAPS & THRESHOLDS

- Store level models examine how changes in gaps to competitor pricing impact sales. Models codify sales impacts of crossing specific price points beyond price elasticity

Significant Price Threshold @ $19.99
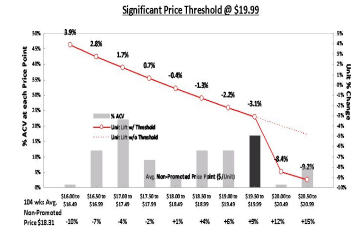
- IRI proprietary Liquid Modeling Platform can efficiently estimate price & trade models at scale
- Models are built at the individual store level & rolled up to releasable IRI geographies
- Store level ACV data allows IRI's solutions to pin-point price risk and trade opportunities for actionability

Consider All Factors When Looking At Price Management

Checklist for price management:

1. *Own Price Elasticity*

2. *Competitor Cross Elasticity*

3. *Competitive Price Gaps*

4. *Price Thresholds*

5. *Merchandising*

Questions regarding price management:

1. *How Does my Elasticity Compare to the Category Average? Relevant Competitors? Within my Portfolio?*

2. *What Competitive Products Do We Interact with on Price? What is the Strength of that Interaction? How Much Price Risk is Mitigated if Competition Follows My Pricing Action?*

3. *Are There Price Gap Thresholds at Which My Consumer Response to Price Accelerates? What Marketplace ACV is at Risk of Crossing Price Point Thresholds or Gap with a Pricing Action?*

4. *Are There Price Point Thresholds at Which My Consumer Response to Price Accelerates? Are they worth protecting?*

5. *Which merchandising conditions and promotional discounts drive the strongest lifts for key brands and sizes. How does this compare to portfolio alternatives? Does ths facilitate a breakeven trade spend for the organization?*

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Own Base Price is Just One Factor in Effective Price Management

Price and Promotion Models incorporate a comprehensive set of volume drivers.

Base Price Effects of Competitors

Base Price for Target Items

Base Price and Price Gap Thresholds

Brand/item Volume

Trade Promotion Activity

Competitive Trade activity

Other Drivers
(Distribution depth & breadth, seasonality, holidays, etc.)

Impact of Price Changes Requires Comprehensive Analysis

When price is raised for Consumer-Packaged Good products, consumers have several options. They can:

1. Continue to buy it
2. Switch to a different size in the brand
3. Switch to a competing product
4. Purchase less frequently
5. Leave the category
6. Leave the channel

Unit Sales

Leave the segment,
leave the category,
Buy less frequent

Same Brand,
Other Size

Other
Competitors
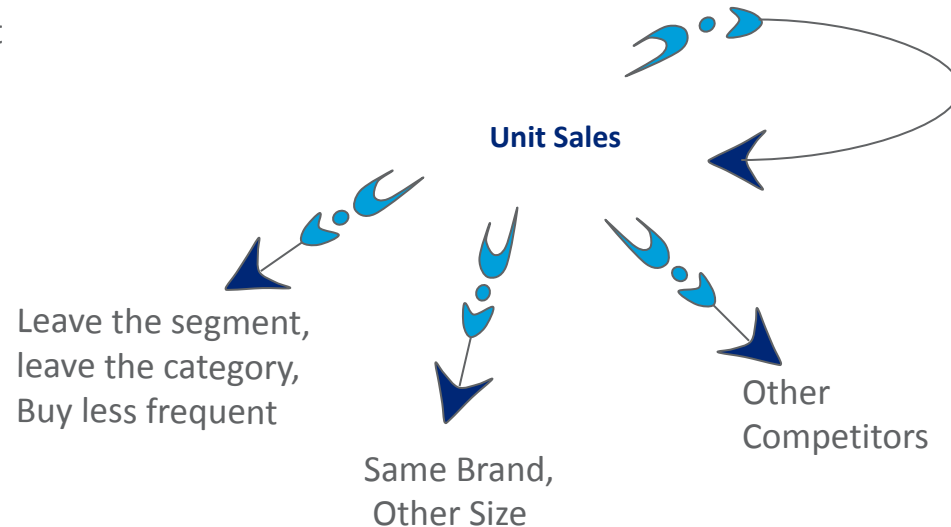
Price elasticity quantifies the impact of a price change, and can be leveraged to manage pricing and profit risk

Volume

-0.15
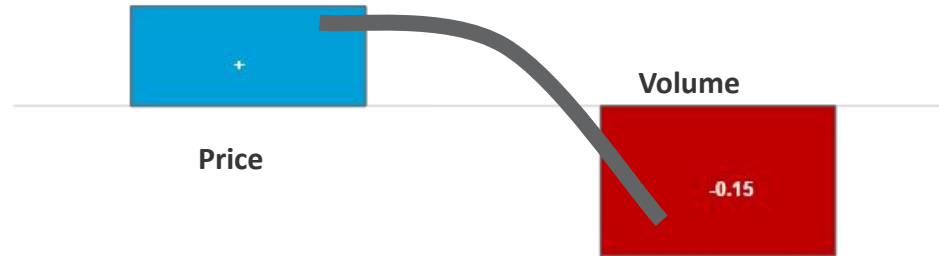
Price

$$\text{Price Elasticity} = \frac{\text{\% Change in Sales}}{\text{\% Change in Price}} \qquad \frac{-15\%}{+10\%} \quad = \quad \frac{-1.5}{\text{Coefficient}}$$

Magnitude of Elasticity Coefficient	Rule of Thumb
< -2.0	Highly Elastic
-1.71 to -1.99	Elastic
-1.00 to -1.70	Moderately Elastic
-0.51 to -0.99	Inelastic
> -0.50	Highly Inelastic

Sensitivity to Change in Base Price

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Concept Review: *Elastic vs. Inelastic*

For illustration purposes only

Price Sensitive → ← ← Highly Elastic | Elastic | Moderately Elastic | Inelastic | Highly Inelastic → → Price Insensitive

-2.0   -1.7   -1.0   -0.5

What factors could influence elasticity?

ELASTIC	**INELASTIC**
• Heavily promoted	• Strong brand equity
• Strong branded competitors	• Premium product
• More commoditized	• Need driven
• Expandable consumption categories (e.g., snacks)	• New categories

Family Size and Lunch Packs in Walmart face the greatest volume risks when taking a base price increase

Base/Actual Price Elasticity

	Food	Walmart	Conv
Total Pretzels	**-1.32**	**-1.24**	**-1.18**
Pretzels	**-1.28**	**-1.35**	**-1.22**
Family Size	-1.25	-1.80	-0.81
Gluten Free	-1.63	-0.95	
Lunch Packs	-1.53	-2.00	
Pieces	-1.30	-0.99	-0.83
Specialty	-1.12	-0.93	-1.50

Note: Modeling Period is 104 weeks ending April 07, 2019.

What does this mean?

Volume Impact on a 10% Price Increase

	Food	Walmart	Conv
Total Pretzels	**-11.8%**	**-11.2%**	**-10.6%**
Pretzels	**-11.5%**	**-12.1%**	**-10.9%**
Family Size	-11.3%	-15.8%	-7.5%
Gluten Free	-14.4%	-8.6%	
Lunch Packs	-13.6%	-17.4%	
Pieces	-11.6%	-9.0%	-7.6%
Specialty	-10.2%	-8.4%	-13.3%

-2.0	-1.7		-1.0	-0.5	
Highly Elastic	*Elastic*	*Moderately Elastic*	*Inelastic*	**Highly Inelastic**	

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Understanding price sensitivity will help marketers understand pricing risk.

- Changes in price affect products differently due to different dynamics in the marketplace. Those dynamics can be intrinsic (pertaining to the product itself) and/or extrinsic (outside of the product).

- Base price is perhaps the most vital marketing variable to drive both sales <u>and profits</u>.

- Price elasticity is a measure of sensitivity. It is the mathematical relationship between price change and sales. It helps calculate the expected trade off of taking price and volume risk.

- All price increases can be expected to reduce sales volumes!   Therefore, the price elasticity value is always negative.

- The farther away from zero the elasticity value is, the more elastic the product is which means:
  - the greater the % <u>decline</u> in sales expected with a price increase and
  - the greater the % <u>increase</u> in sales expected with a price decrease.
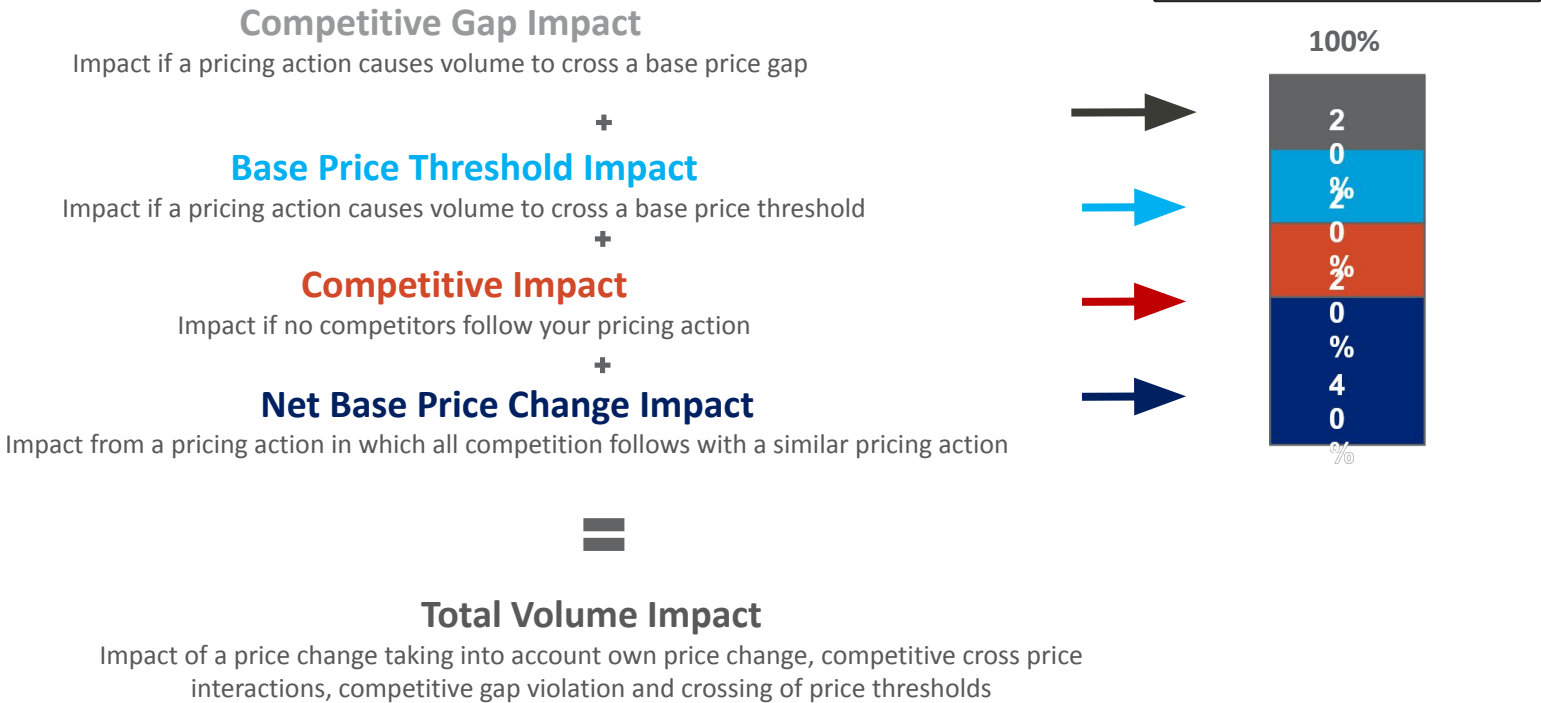
Meta-Analysis determines known drivers of consumer driven price sensitivity

Volume "sensitivity" or Elasticity

Brand/Product Attribute | More elastic | Less elastic

←   →

Brand/Product Attribute	More elastic			Less elastic
Differentiation	Low		High	
Emotional Need/Benefit		Few		Many
Brand Equity	Low		High	
Loyalty	Low	High		
Purchase Frequency		Low		High
Level of Involvement		Low		High
Advertising Investment		Low		High
Competitors	Many		Few	
Trade Promotion	High		Low	

> Generally, Elasticities Are Relatively Stable Over 12-18 Months Unless Major Changes Occur in the Category (Innovation, functional benefits, etc.)

Understanding the driving factors of pricing risk will allow clients to strategically manage their portfolio.

Decomposition of Pricing Risk (Illustration)

Total Volume Impact

Competitive Gap Impact

Impact if a pricing action causes volume to cross a base price gap

+

Base Price Threshold Impact

Impact if a pricing action causes volume to cross a base price threshold

+

Competitive Impact

Impact if no competitors follow your pricing action

+

Net Base Price Change Impact

Impact from a pricing action in which all competition follows with a similar pricing action

=

100%

20%

20%

20%

40%

Total Volume Impact

Impact of a price change taking into account own price change, competitive cross price interactions, competitive gap violation and crossing of price thresholds

The majority of pricing risk comes from own price impacts, with competitive interactions a secondary, but still important, component of risk

Base Price Risk Decomposition by Major Product
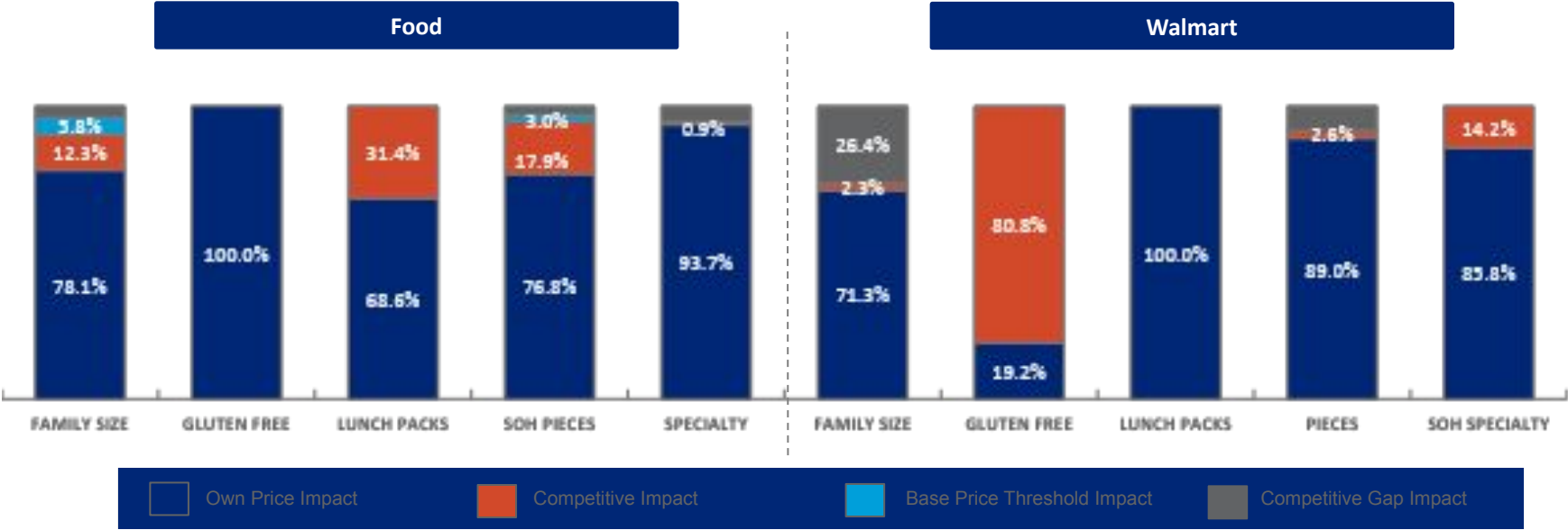
Note: Percentages reflecting share of total base price impact and competitive impact is based on 10% price increase. Modeling Period is 104 weeks ending April 07, 2019. Risk is calculated based on L13 week price distributions.

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Competitor Cross Effects: How They Work

Competitor price changes have an impact

$$\text{Cross Elasticity} \; = \; \frac{\text{\% Change in Target Item's Sales}}{\text{\% Change in Competitive Item's Price}}$$
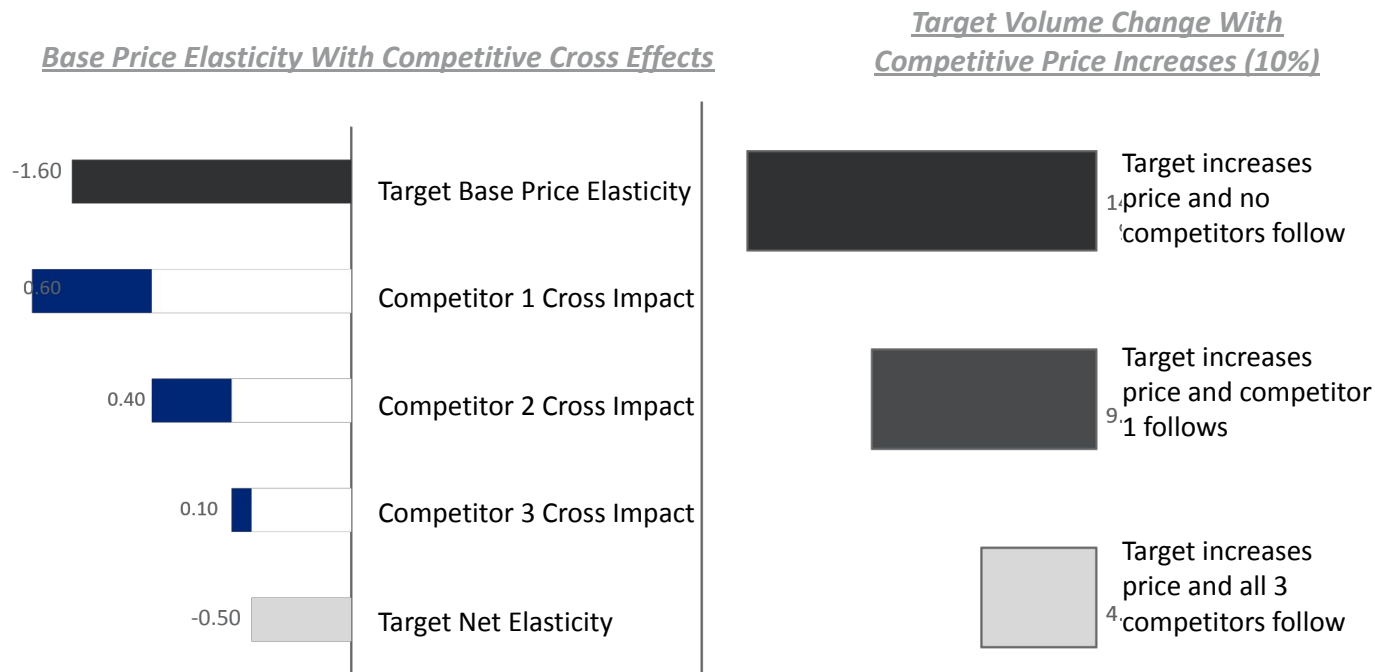
Example: Competitor raises an item's price by 10%. As a result, your item's sales increase by 2%

$$\frac{\text{Target}}{\text{Competitor}} \quad = \quad \frac{+2\%}{+10\%} \quad = \quad \boxed{\begin{array}{c}\text{Elasticity}\\[4pt] +0.2\end{array}}$$

Note: Cross-elasticities are asymmetric. The impact of Brand X's price on Competitor Y sales is not the same as the impact of Competitor Y price on Brand X sales.

Putting base and cross price elasticity together: what is impact if no, some, or all competitors follow pricing actions

Base Price Elasticity With Competitive Cross Effects

Target Volume Change With Competitive Price Increases (10%)

Value	Category
-1.60	Target Base Price Elasticity
0.60	Competitor 1 Cross Impact
0.40	Competitor 2 Cross Impact
0.10	Competitor 3 Cross Impact
-0.50	Target Net Elasticity

Target increases price and no competitors follow

Target increases price and competitor 1 follows

Target increases price and all 3 competitors follow

Rule of Thumb: If the sum of Cross Elasticities is Greater than 35% of a Product's Base Price Elasticity, It operates in a High Competitive Pricing Environment

Strength of competitive interactions as a whole can be used to understand the ramifications of leading or following on pricing actions

Base price elasticity components & considerations
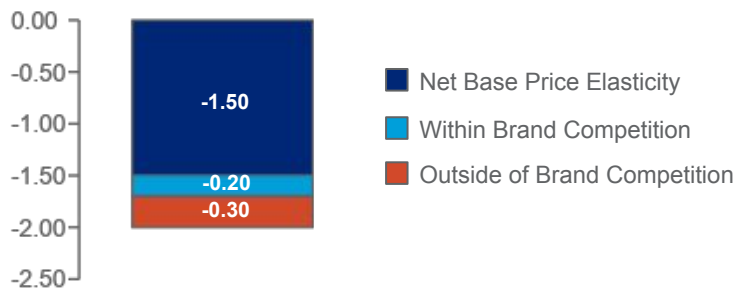
Relative Importance of Competitors	> 35%	20% – 35%	< 20%
Competitive Grade	Strong	Medium	Weak

If competitive interaction is "strong", this implies that the brand needs-watch for competitive pricing actions as they have a strong impact on own volume.

If competitive interactions are "weak", the manufacturer controls their own pricing destiny, as the majority of sales impacts will be determined by their pricing action and not the competitors response.

PRICE ELASTICITY DECOMPOSITION: LEAD VS. FOLLOW (NET)

Consumers abandoning the category / waiting for promo / buying different at chain / reducing consumption

	NET ELASTICITY -0.23
BASE PRICE ELASTICITY -1.02	**CROSS ELASTICITY -0.79**

INTERNAL CANNIBALIZATION -0.33

Shoppers switching to other products in our portfolio

EXTERNAL CANNIBALIZATION -0.46

Competitors Reaction

Consumers staying in the category and choosing other options

Premium Loaf Bread Unit Sales

Leave the segment, leave the category, Buy less frequent

Same Brand, Other Size

Other Competitors

External competition is relatively low, but where higher (Lunch Packs in Food) it is recommended to follow when increasing base price

Snyder's: Components of Base Price Elasticity

	Food					Walmart					Conv		
Importance of external price competition	7%	0%	27%	17%	1%	2%	12%	0%	3%	14%	0%	0%	0%
Importance of all price competition	13%	0%	29%	18%	1%	3%	75%	0%	3%	14%	0%	0%	0%

Values are weighted by Joint Distribution, Calculation: Competitive Cross Elasticity / Own Base Price Elasticity
Note: Modeling Period is 104 weeks ending April 07, 2019

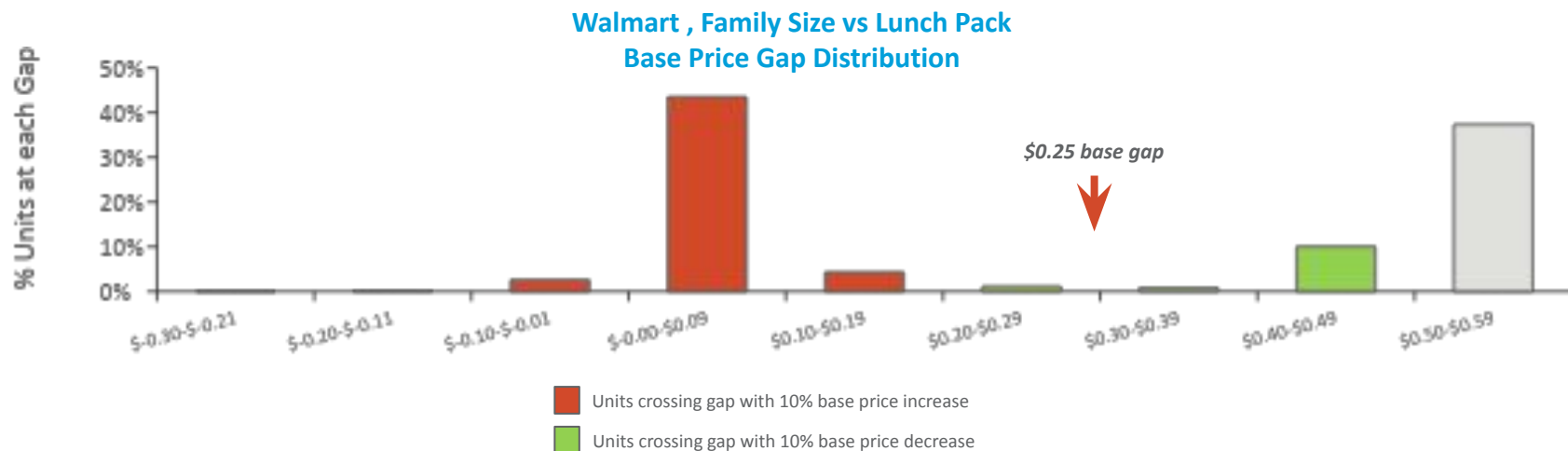| Relative Importance of Competitors	> 35%	20% – 35%	< 20%
Competitive Grade	High	Medium	Low

Significant Base Price Gaps - What are They?

A base price gap is the difference in base price between the target item and a competitive item. A negative gap indicates that the target item is priced lower than the competitive item.

Gap = Target Item Price - Competitor Item Price
Gap = $1.59 - $2.39= -$0.80

Target Item
$1.59

Competitive Item
$2.39
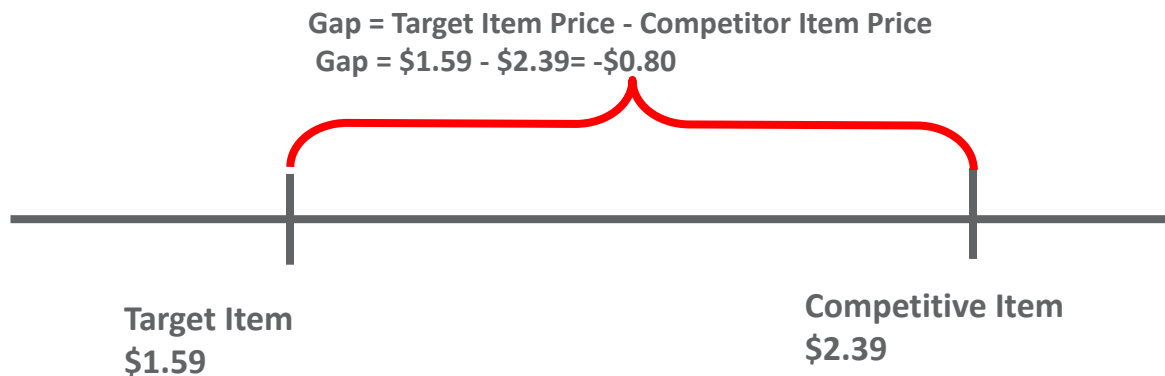
Significant Price Gap Thresholds indicate that an additional change in sales is realized when this gap is crossed. In this example increasing the gap beyond the significant threshold yield an increase in volume as the target item becomes priced increasingly less than the competitive item; decreasing the gap beyond the significant gap threshold yields a decrease in volume for the target.

Be extremely cautious of stores pricing Family Size over the $0.25 gap to Rold Gold Family Size, as they will see a -8.7% loss

**Walmart , Family Size vs Lunch Pack
Base Price Gap Distribution**

$0.25 base gap

- Units crossing gap with 10% base price increase
- Units crossing gap with 10% base price decrease

Channel	Product	Competitive Product	Current Gap	Gap Threshold	Gap Impact	% Units at Risk	Net Impact*	
							Risk	Opportunity
Walmart	**Family Size**	**Lunch Pack**	**$0.39**	**$0.25**	**-8.7%**	**50.3%**	**-4.4%**	**1.0%**
	Family Size	Flavored	$0.40	$0.25	-2.4%	54.0%	-1.3%	0.3%
	Pieces	Flavored	$0.43	$0.25	-5.5%	15.1%	-0.8%	3.6%

*Net Impact is calculated based on units crossing the gap with a 10% price increase/decrease
Note: Modeling Period is 104 weeks ending April 07, 2019. Distribution is 13 weeks ending April 07, 2019.

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Questions regarding price management:

4. *Are There Price Point Thresholds at Which My Consumer Response to Price Accelerates? Are they worth protecting?*

What Are Price Thresholds?

- Typically, price elasticity (base and promoted) is depicted as a smooth constant relationship between price and volume

Constant Price Impact

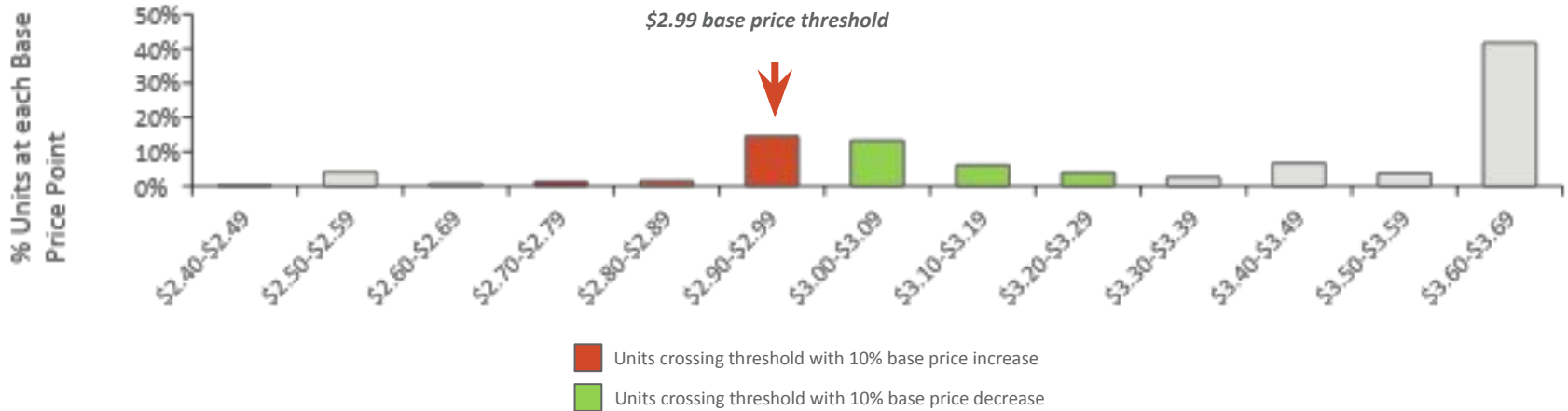As price increases, sales decline at a constant rate
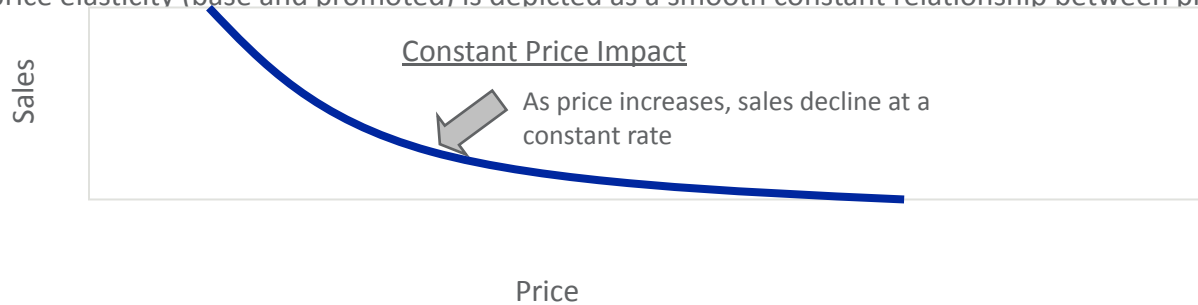
Sales

Price

- In reality, the curve exhibits threshold points at which the change in sales is much more pronounced
- Thresholds work both ways:
  - Sales decline at a faster rate when threshold is passed by increasing price
  - Sales increase at a faster rate when threshold is passed by decreasing price

Non-Constant Price Impact

As price passes threshold, sales decline at an accelerated rate

Sales
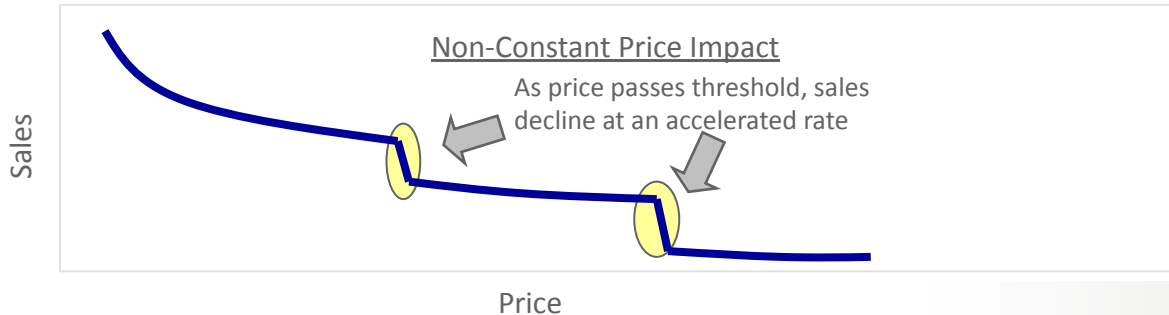
Price

Only two thresholds exist for products, and managing base price back down to these thresholds will yield minimal (1% and 0.2%) reward

TUS Food, Family Size : Base Price Distribution

$2.99 base price threshold

🟥 Units crossing threshold with 10% base price increase

🟩 Units crossing threshold with 10% base price decrease

Channel	Product	Current Base Price	Base Price Threshold	Threshold Impact	% Units at Risk	Net Impact*	
						Risk	**Opportunity**
TUS Food	**Family Size**	**$3.43**	**$2.99**	**-4.2%**	**17.3%**	**-0.7%**	**1.0%**
	Pieces	$3.66	$3.49	-2.4%	11.7%	-0.3%	0.2%

*Net Impact is calculated based on units crossing the threshold with a 10% price increase/decrease
Note: Modeling Period is 104 weeks ending April 07, 2019. Distribution is 13 weeks ending April 07, 2019.

Shift all 5oz Enrobed volume in Convenience below the $2.49 promoted threshold to take advantage of a 22% unit impact

TUS Conv, 5oz Enrobed: Promoted Price Distribution

$2.49 promoted price threshold

■ Units crossing threshold with 10% promoted price increase

■ Units crossing threshold with 10% promoted price decrease

Channel	Product	Current Promoted Price	Promoted Price Threshold	Threshold Impact	% Units at Risk	Net Impact*	
						Risk	Opportunity
TUS Conv	Enrobed	$2.49	$2.49	22.2%	56%	12.5%	6.2%

*Net Impact is calculated based on units crossing the threshold with a 10% price increase/decrease
Note: Modeling Period is 104 weeks ending April 07, 2019. Distribution is 13 weeks ending April 07, 2019.

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Questions regarding price management:

5. Which *merchandising conditions* and promotional discounts drive the strongest lifts for key brands and sizes. How does this compare to portfolio alternatives? Does ths facilitate a breakeven trade spend for the organization?

The decomposition of merchandising effects need to be considered in total to understand their full impacts to sales & ROIs

Example of Promotional Lifts
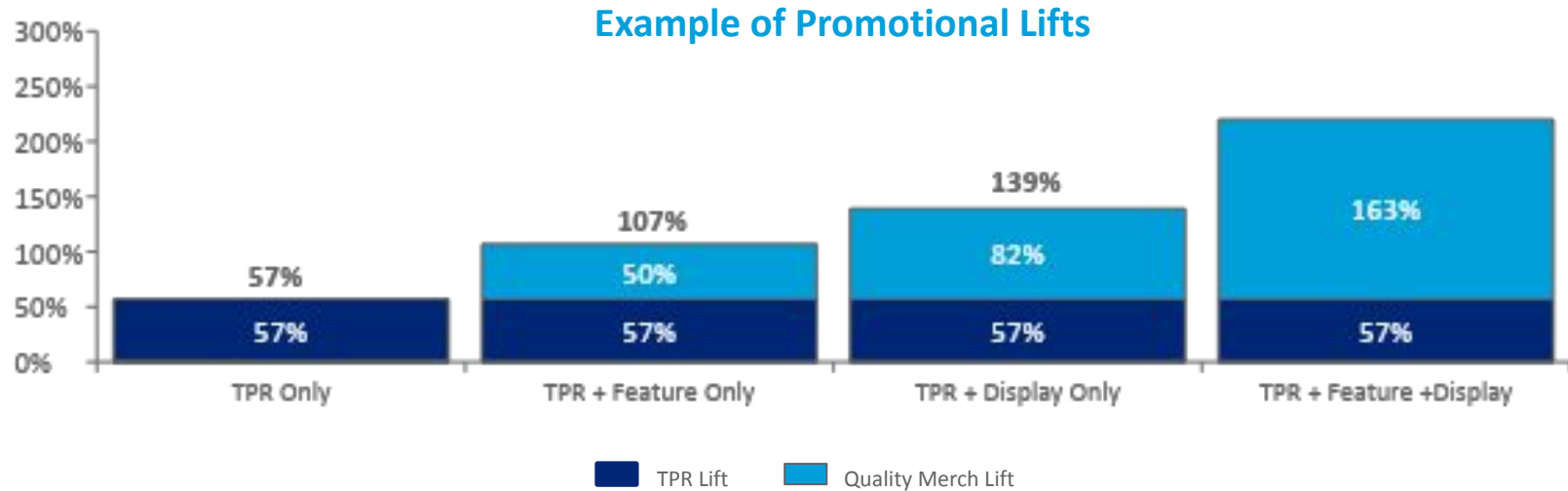
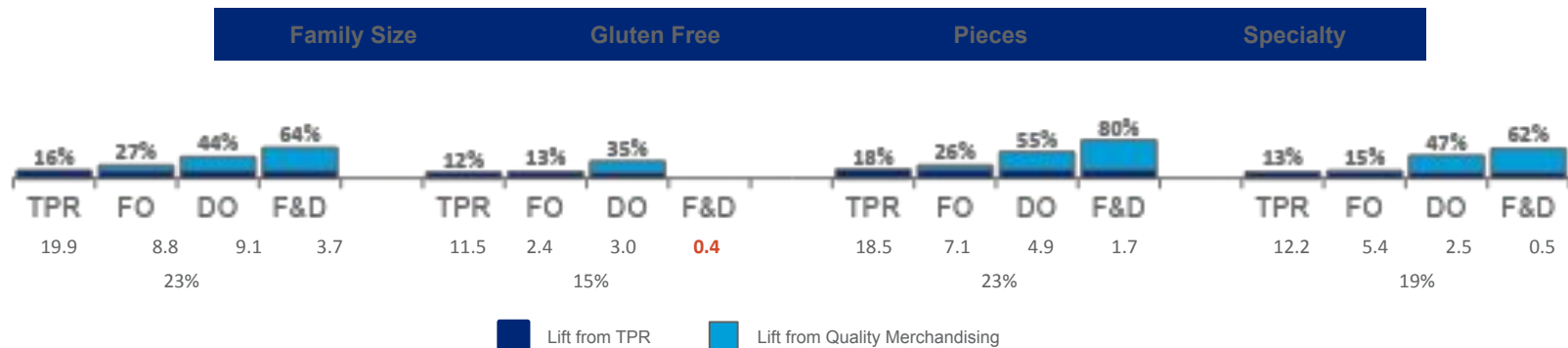**TPR Lift** + **Quality Merchandising Lift** = Total Lift

Understanding the various components of merchandising lifts will allow for strategic management of promotional strategy across retailers and the portfolio.

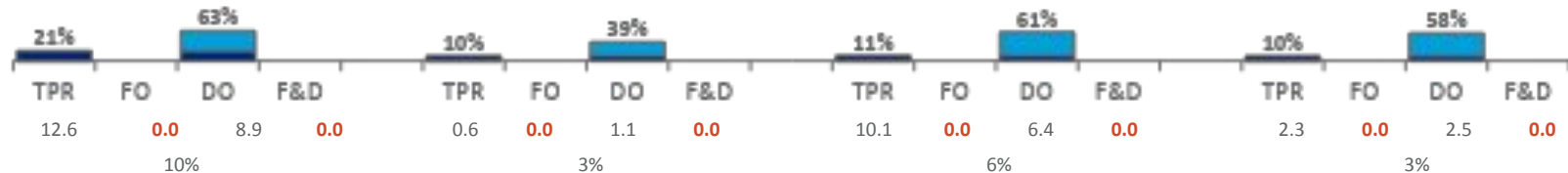*Note*: *Lifts shown are examples.*

Display activity drives significantly higher lifts than feature in TUS Food; consider shifting support to the more effective tactic to drive high lifts

Merchandising Lifts with 10% Price Discount

TUS Food

	Family Size	Gluten Free	Pieces	Specialty

	TPR	FO	DO	F&D		TPR	FO	DO	F&D		TPR	FO	DO	F&D		TPR	FO	DO	F&D
Lift %	16%	27%	44%	64%		12%	13%	35%			18%	26%	55%	80%		13%	15%	47%	62%
Weeks of Support	19.9	8.8	9.1	3.7		11.5	2.4	3.0	0.4		18.5	7.1	4.9	1.7		12.2	5.4	2.5	0.5
Depth of Disc.	23%					15%					23%					19%			

■ Lift from TPR   ■ Lift from Quality Merchandising

Walmart

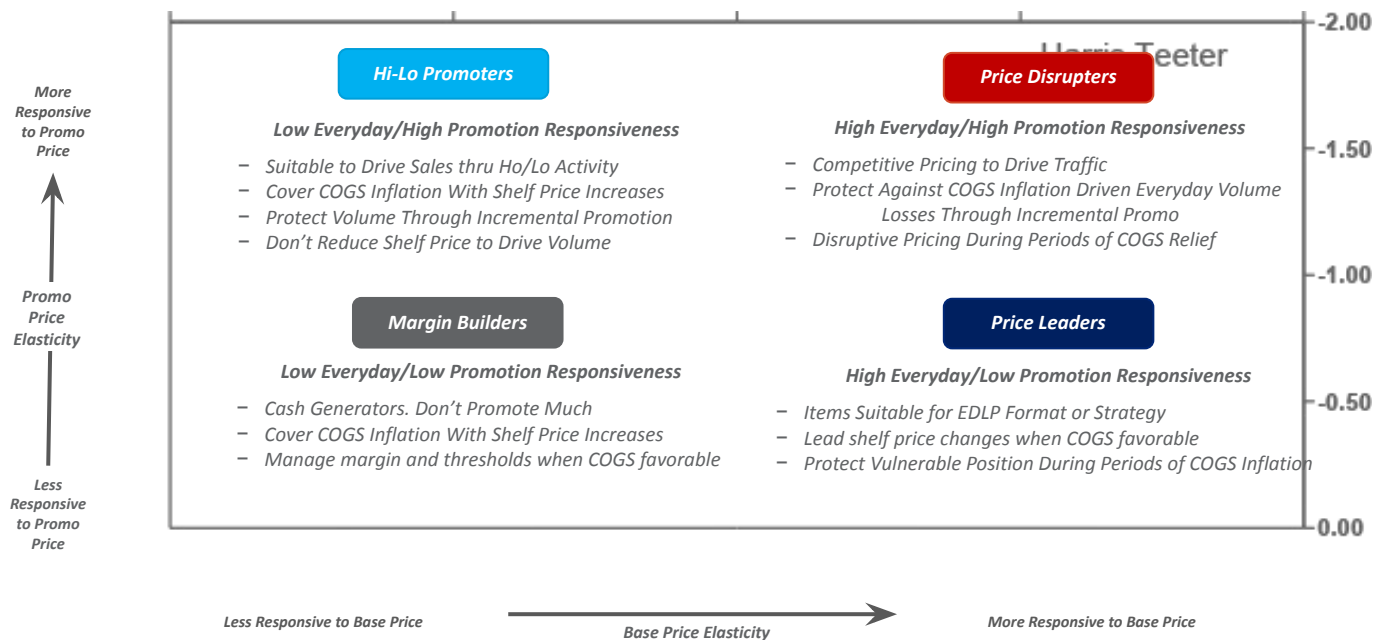		TPR	FO	DO	F&D		TPR	FO	DO	F&D		TPR	FO	DO	F&D		TPR	FO	DO	F&D
Lift %	21%		63%			10%		39%			11%		61%			10%		58%	
Weeks of Support	12.6	0.0	8.9	0.0		0.6	0.0	1.1	0.0		10.1	0.0	6.4	0.0		2.3	0.0	2.5	0.0
Depth of Disc.	10%					3%					6%					3%			

TPR = Temp Price Reduction, FO = Feature Activity (no display), DO = Display Activity (no feature), F&D = Feature & Display Activity

Note: Where lifts are based upon less than 1 week of support, use lifts cautiously; lifts for WOS <0.5 not shown.

We can obtain valuable insights about a brand's price personality from the price responsiveness map

Identifying the proper price management format

More Responsive to Promo Price

↑

Promo Price Elasticity

Less Responsive to Promo Price

Hi-Lo Promoters

Low Everyday/High Promotion Responsiveness

- Suitable to Drive Sales thru Ho/Lo Activity
- Cover COGS Inflation With Shelf Price Increases
- Protect Volume Through Incremental Promotion
- Don't Reduce Shelf Price to Drive Volume

Price Disrupters

Harris Teeter

High Everyday/High Promotion Responsiveness

- Competitive Pricing to Drive Traffic
- Protect Against COGS Inflation Driven Everyday Volume Losses Through Incremental Promo
- Disruptive Pricing During Periods of COGS Relief

Margin Builders

Low Everyday/Low Promotion Responsiveness

- Cash Generators. Don't Promote Much
- Cover COGS Inflation With Shelf Price Increases
- Manage margin and thresholds when COGS favorable

Price Leaders

High Everyday/Low Promotion Responsiveness

- Items Suitable for EDLP Format or Strategy
- Lead shelf price changes when COGS favorable
- Protect Vulnerable Position During Periods of COGS Inflation

-2.00

-1.50

-1.00

-0.50

0.00

Less Responsive to Base Price → **Base Price Elasticity** → **More Responsive to Base Price**

Some categories are less responsive to price such as high velocity categories like eggs and milk, but are not the "price disruptors" like breakfast meats, sports drinks & rfg juice/drinks

Price Responsiveness Landscape: Category Averages
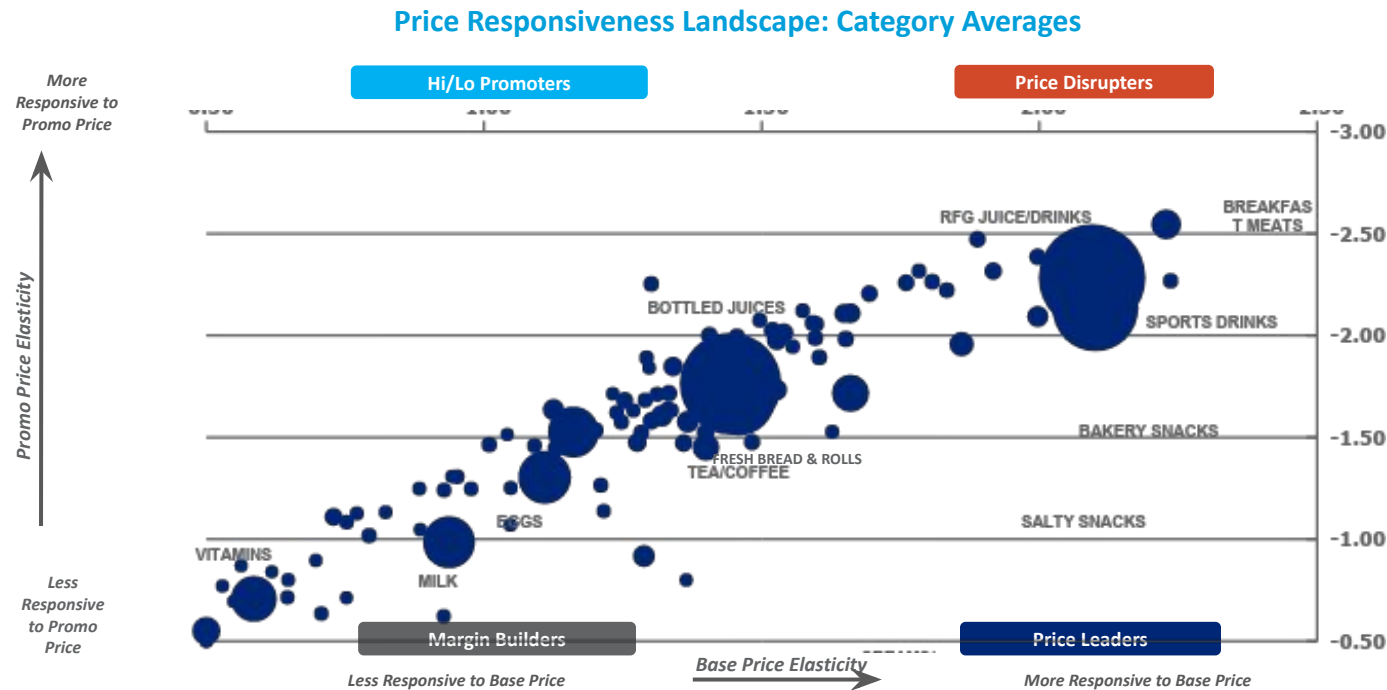
Note: Axes cross at weighted average across modeled categories across TUS Food,. Bubble size represents volume sales. Modeling period is 52 weeks ending calendar year end 2017

How To Calculate Volume Impacts based on Base Price and Elasticity

- Elasticity can be used to estimate the impact of price changes on your volume, units or dollars.
- The elasticities we have are the 'functional form' elasticities. That means the calculation is as follows:

$$\% \text{ Volume Impact} = \left(1+ \frac{\text{New Base Price}}{\text{Current Base Price}}\right)^{\text{Elasticity}} - 1$$

Excel Example

	Value
Current Base Price	$2.79
New Base Price	$2.99
Elasticity	-1.2
Volume Impact	-8.0%
Volume Impact	1+(D4/D3)^D5-1

- Elasticities **don't** assume competition is also pricing.
- This calculation can be adjusted to account for crossing a threshold or compromising a competitive price gap. Reach out to the RGM Team for more information on this topic.

Interpreting cross-coefficients

Competitor price changes have an impact on your product's sales by contributing recovery volume or mitigating your pricing action. Cross-elasticities are asymmetric. The impact of Brand X's price on Competitor Y sales is not the same as the impact of Competitor Y price on Brand X sales (use the modeled cross elasticities or XPEs).

How cross-coefficients work

$$\text{Effect on Target Brand} = \left(\frac{\text{New Base Price}}{\text{Old Base Price}} \right)^{\text{Cross-effect coefficient}}$$

For Example

The **base price** cross-coefficient is **0.35.** These are positive as they represent a mitigation of the elasticity risk
The **promoted price** cross-coefficient is **0.87**

A 10% increase in our competitor's BASE PRICE would yield a **3.4% increase** in our volume $((1+.10)^{0.35})-1 = 3.4\%$

A 10% temporary price cut by our competitor would yield an **8.8% decrease** in our volume $((1-.10)^{0.87})-1 = -8.8\%$

Consider All Factors When Looking At Price Management

Checklist for price management:

1. *Own Price Elasticity*

2. *Competitor Cross Elasticity*

3. *Price Thresholds*

4. *Competitive Price Gaps*

5. *Merchandising*

Questions regarding price management:

5. Which *merchandising conditions* and promotional discounts drive the strongest lifts for key brands and sizes. How does this compare to portfolio alternatives? Does ths facilitate a breakeven trade spend for the organization?

Glossary of Terms

- **Item Distribution**
  - Measures the impact due to changes in the availability of a product in the store
  - Number of Items (number of items scanned for the given week in a given store – overall depth)

- **ACV Distribution**
  - Measures the impact due to changes in the availability of a product in the store
  - Distribution %ACV - the number of stores that carry the product – overall breadth

- **Base Price**
  - Reflects volume change due to changes in everyday (base) shelf price.

- **Distribution Points**
  - Measures the impact due to changes in the availability of a product in the store
  - Volume is driven by two main components: Distribution %ACV (the number of stores that carry the product – overall breadth) and Number of Items (number of items scanned for the given week in a given store – overall depth)

- **Base Price Gap**
  - Reflects volume change of the product being analyzed due to crossing model determined competitive gap thresholds with other products

- **Base Price Threshold**
  - Reflects volume change of the product being analyzed due to crossing model determined price point thresholds

- **Competition**
  - Reflects volume change due to changes in the price or promotion of items outside of the definition of the product(s) being analyzed

- **Cannibalization**
  - Reflects volume change due to changes in the price or promotion of items within the definition of the product(s) being analyzed

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Glossary of Terms

- **Display Only**
  - Reflects volume change due to changes in amount or effectiveness of Display support.
  - Reflects changes in number of stores, frequency, duration, number of items on display, location and/or mix of items on display (high vs. low-volume).
  - Breaks down into Display Only without Discount and Display Only with Discount

- **Feature Only**
  - Reflects volume change due to changes in Feature Ad support.
  - Reflects changes in the number of stores, frequency, duration, number of items in the ad, and/or mix of items in the ad (high-volume vs. low-volume).
  - Breaks down into Feature Only without Discount and Feature Only with Discount

- **Feature & Display**
  - Reflects volume change due to changes in the amount of simultaneous support of feature and display.
  - Shows changes in the number of stores, frequency, duration, number of items on display and feature, and/or mix of items on display and feature (high-volume vs. low-volume).
  - Breaks down into Feature & Display without Discount and Feature & Display with Discount

- **Temp Price Reduction**
  - Reflects volume change due to changes in the level of price discount when a product is neither featured nor displayed

- **Special Pack**
  - Reflects volume change due to sales of a product designated as "special pack" or "Bonus Pack" versus their corresponding regular pack.

THANK YOU!

For More Information, Contact Us…

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1 *Top Priorities*

Grocery / Walmart / Region BU / RMA		
1. Own Price	3. Price Gap Compliance	5. Promotion
2. Competition	4. Price Point Thresholds	6. Promotion Optimization

When determining the RGM priorities for a PPG in a specific geography, we use the following rules by price & promotion diagnostics to determine the close-in risk and opportunities.

Own Price: Elasticity impacts in relation to other potential priorities are the largest driver of potential upside opportunities or downside sales risks. Use the "*Base Price Elasticity, No Competition Follows*" to quantify this priority.

Competition: The magnitudes of *General Pricing Interactions* or *Cross Elasticities* aid in determining the competitive pricing environment for a product. If the difference between leading and following on a pricing action is greater than 35-40% then managing Competition could be a top priority for this PPG in this geography.

Price Gap Compliance: To understand the sales impacts associated with *Competitive Price Gaps* one must consider the distribution of volume selling in *compliance (vs violating)* the identified price gap, the *magnitude of additional impact* and the amount of *ACV the two products share*. Any of these can inflate or deflate this as a potential priority.

Price Point Thresholds: *Price Cliffs* are points along the pricing continuum where consumer react disproportionately stronger to price changes that cross these thresholds. Price point distributions aid in determining relevance of these in the priority setting process, based on the immediate relevance of these incremental sales drivers / risks.

Promotion: For this priority promotional investments should be compared to *everyday price maintenance options* (i.e. investments in a lower EDLP, Gap Compliance, Price Threshold Protection, etc.).

Promotion Optimization: *Promotional Optimization* should be a priority for PPG/geo combinations that have stronger promotional response where trade productivity can be enhanced with the *identification of the most responsive customers, vehicles, price points/depth of discount, etc.*

Contact Information

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ABOUT IRI

IRI is a leader in delivering powerful market and shopper information, predictive analysis and the foresight that leads to action. We go beyond the data to ignite extraordinary growth for our clients in the CPG, retail and over-the-counter healthcare industries by pinpointing what matters and illuminating how it can impact their businesses across sales and marketing. Move your business forward at **IRIworldwide.com.**

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Establish an analytic foundation that drives strategies and powers analytic capabilities for the organization

Foundational Insights to Drive RGM Strategy
Price & Trade Liquid Modeling

Capabilities
Foundational analytics that provides accurate measur
of consumer response to price and trade changes

Distinctiveness
- **Powered by Liquid Modeling**
- **Speed and scale to analyze entire categories**
- **Store level granularity**
- **Built from custom product groupings**

Impact
Price and trade planning and executional improvements can drive 10%+ efficiency gains
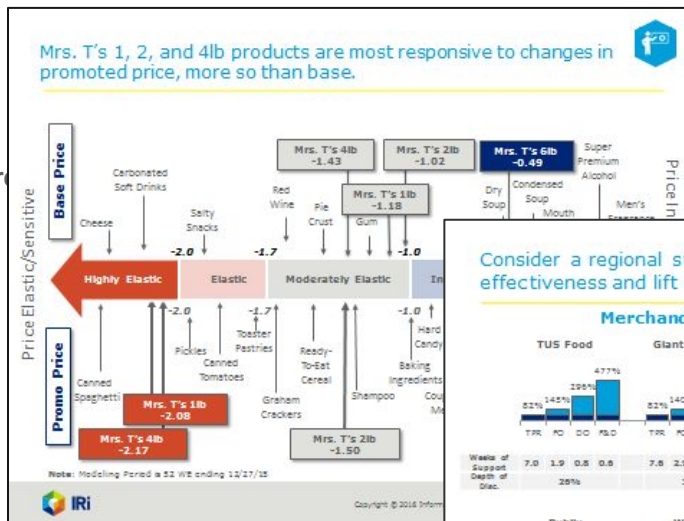
Simulation capabilities will be available via IRI's Price & Promotion Impact Calculator allowing for infinite war-gaming of in-market scenarios

- IRI will also provide with price & trade simulation capabilities. These will take the form of a simple Excel-based impact calculator capable of simulating price & trade impacts by changing price & quality merchandising execution levels.

Values						
	BASE PRICE ELASTICITY	NET BASE PRICE ELASTICITY	PROMO PRICE ELASTICITY	FEATURE LIFT	DISPLAY LIFT	FEATURE & DISPLAY LIFT
	-1.21	-1.08	-2.65	36%	64%	152%
PRICE CHANGE	BASE PRICE VOL IMPACT	NET BASE PRICE VOL IMPACT	PROMO PRICE VOL IMPACT	FEATURE LIFT	DISPLAY LIFT	FEATURE & DISPLAY LIFT
30%	-27%	-25%	-50%	-32%	-18%	26%
25%	-24%	-21%	-45%	-25%	-9%	40%
20%	-20%	-18%	-38%	-16%	1%	56%
15%	-16%	-14%	-31%	-6%	13%	74%
10%	-11%	-10%	-22%	6%	27%	96%
5%	-6%	-5%	-12%	20%	44%	122%
0%	0%	0%	0%	36%	64%	152%
-5%	6%	6%	15%	56%	88%	189%
-10%	14%	12%	32%	80%	117%	233%
-15%	22%	19%	54%	109%	152%	288%
-20%	31%	27%	80%	146%	196%	355%
-25%	42%	37%	114%	191%	251%	440%
-30%	54%	47%	157%	250%	321%	548%
-35%	68%	60%	213%	325%	413%	688%
-40%	85%	74%	286%	426%	534%	874%
-45%	106%	91%	386%	562%	698%	1127%
-50%	131%	112%	526%	752%	926%	1478%

Volume Sales*		50,000
Expected Lift (table to left)		321%
Expected Promotion Volume		160,744
Margin (per volume)	$	1.44
Expected Profit Dollars	$	231,472
Promotion Costs	$	80,000
Promotion Profits	$	151,472
Promotional ROI Index		289

User Inputs

* Use total volume if promotion is new, use base units if \promotion is replacing an existing promotion for the week(s)/retailer(s) involved in planning.

EXAMPLE
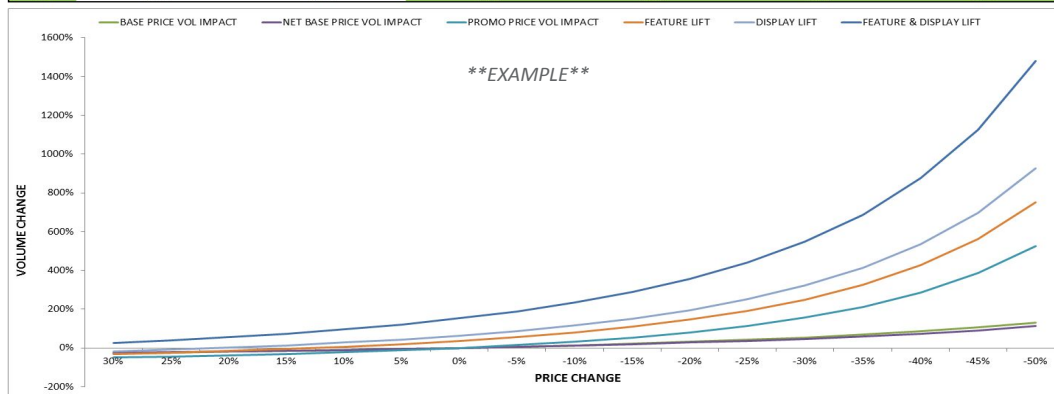
Integrated Team & Technology: Always On Solution Deployment & Unify Integration

Historical View: Business Value Drivers

Business Value Drivers to diagnose and compare historical business performance

- Interactive Dashboard to help pinpoint key growth and loss opportunities by geography and retailer
- Understand the source of dollar, volume and unit changes related to base and trade drivers or due-to's.
- Identify the impacts of competitor (cannibalistic/synergistic) price, promotion, and distribution activities on your own product and portfolio
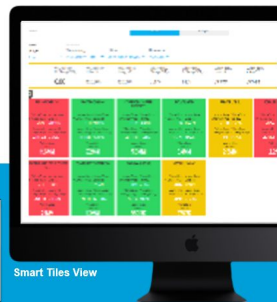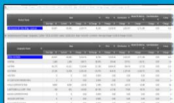
Waterfall of Performance

Detailed Source of Change

Competitive Analysis

Smart Tiles View

- Run BVD Waterfall report to identify the primary drivers of sales change.
- Run a BVD Detailed Source of Change report to identify declines.
- Run a BVD Trend report to show sales or share trends for manufacturers, brands, or packages in specific geographies.

Forward Looking: Price & Trade Advantage

Price & Trade Advantage to accurately simulate & determine impacts on volume and examine promotional diagnostics

- Simulate the volume, dollar, and profit impact of various pricing and promotion scenarios
- Analyze own and competitive impacts
- Understand retailer price compliance and key price points
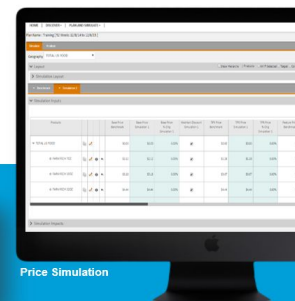- Cycle through various scenarios and compare outcomes to determine the best tactics

Store Level Price Distribution

Lift and Elasticity

Scenario Comparison

Price Simulation

- Identify non-compliant customers and convert into improvement opportunities.
- Drive trade efficiencies by eliminating subsidization beyond hot price points.
- Simple simulation functionality allows for "Size of the Prize" quantification of price & trade corrections.

Value to CSC: Easy, Scalable, Impactful Pricing & Trade Insights with customer Stories