

Sustainable Market Share Index™

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Sustainable Market Share Index™: Executive Summary

We reviewed consumer purchasing of sustainability-marketed products in 36 CPG categories comprising ~40% of the total CPG market* (\$). Our findings are:

- Sustainability-marketed products **delivered 54.7% of CPG market growth** (2015-2019) despite representing only 16.1% share of the category(\$) in 2019, up +2.4 pts vs. 2015 (Pgs. 5,6). Sustainability-marketed products **grew 7.1x faster** than products not marketed as sustainable (Pg. 7).
- Sustainability marketed products continue to **grow despite the COVID-19 pandemic** (Pgs. 10-12). In 2020, brands have begun to include carbon labeling on their packages (Pg. 13)
- The market share of sustainability-marketed products aligns along a continuum based on perceived category functionality or efficacy (Pg. 15). Even in categories with low shares, shares of sustainability-marketed products increased.
- **Green Chemistry** formulations are growing share and **contributing differentially** to category growth (Pgs. 17-21).
- Sustainability-marketed branded products enjoy a **significant price premium of 39.5%**** vs. their conventionally-marketed branded counterparts, with a widening premium of +5.3 pts vs. 2014 (Pgs. 23-26).
- Upper income, millennials, college-educated and urban consumers are more likely to buy sustainability-marketed products. In addition, Middle Income, Baby Boomers and Gen Xers contribute a significant percent of sustainable sales (Pgs. 28-31).
- Sustainability marketed products enjoy **stronger shares online** vs. in-store (Pgs. 33,34).

*Excluding alcohol and tobacco. **Weighted by \$ Sustainable Sales of categories examined

Sustainable Market Share Index™: Research Questions

Consumer packaged goods (CPG) companies are responding to changing generational expectations, including for more sustainable product offerings, yet understanding of sustainable purchasing trends is limited.

The NYU Stern Center for Sustainable Business partnered with IRI, who provided the data pro bono, to assess the following:

1. Have purchases of sustainable products increased over time?
2. Have sustainable purchases been impacted by COVID-19?
3. Are there specific product categories for which the purchases of more sustainable product options out- or under-perform less sustainable alternatives?
4. Are green chemistry products outperforming conventional formulations?
5. What is the impact of price on purchases of sustainable products?
6. What is the demographic profile of the sustainable purchaser?
7. How have sustainable products fared in e-commerce?

Note: This study represents an updated and significantly expanded review of consumer purchasing first presented in March 2019.

CSB Sustainable Market Share Index: Research Question 1

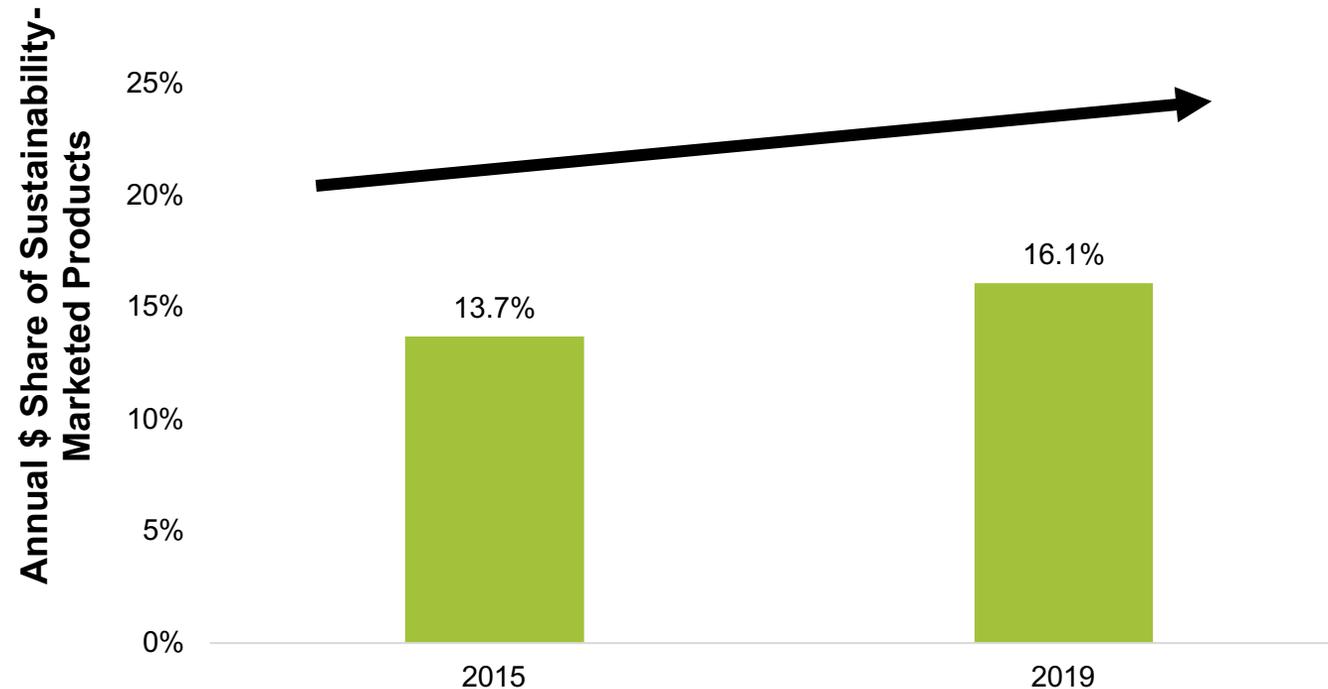
Research Question 1: Have purchases of sustainable products increased over time?

Research Result: Not only are sustainability-marketed products growing but they also are contributing to a disproportionate share of the CPG category growth.



Sustainable Market Share Index™: Sustainable Market Share

Across all categories studied, sustainability-marketed products account for 16.1%* share of market (\$) in 2019, up from 13.7%* in 2015.

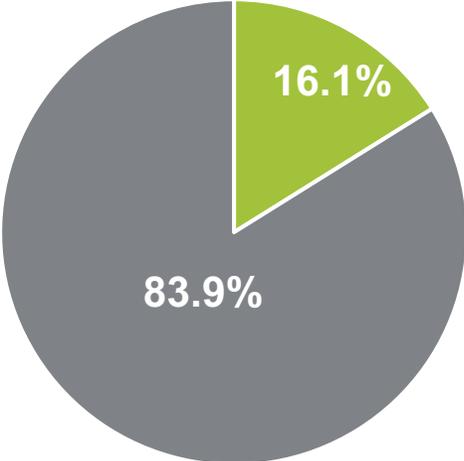


* Shares updated due to CSB & IRI re-categorizations; based on 36 categories examined

Sustainable Market Share Index™: Contribution to Growth

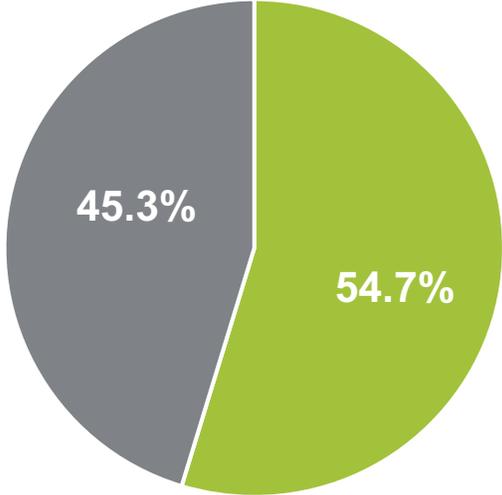
Despite the fact that sustainability-marketed products are 16.1%* of the market, they delivered 54.7% of the CPG market growth (2015-2019).

\$ Share of Market (2019)



- Sustainability-marketed products
- Conventionally-marketed products

\$ Share of Market Growth (2015-2019)



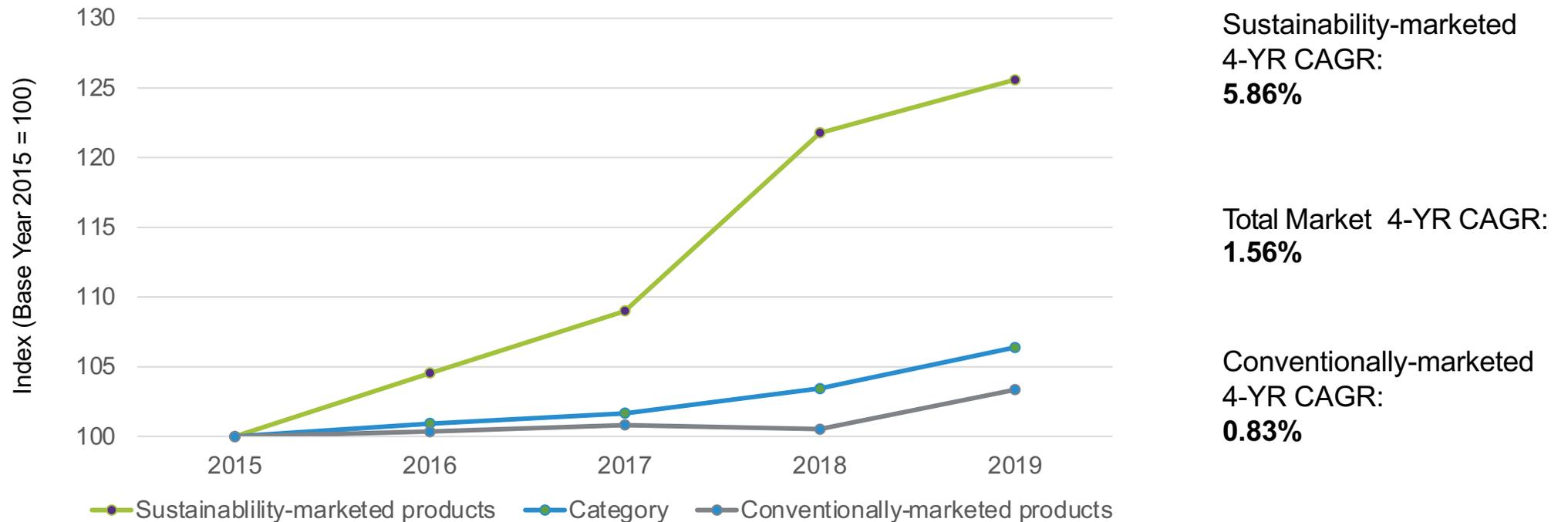
- Sustainability-marketed products
- Conventionally-marketed products

* Shares updated due to CSB & IRI re-categorizations; based on 36 categories examined



Sustainable Market Share Index™: Growth Rate

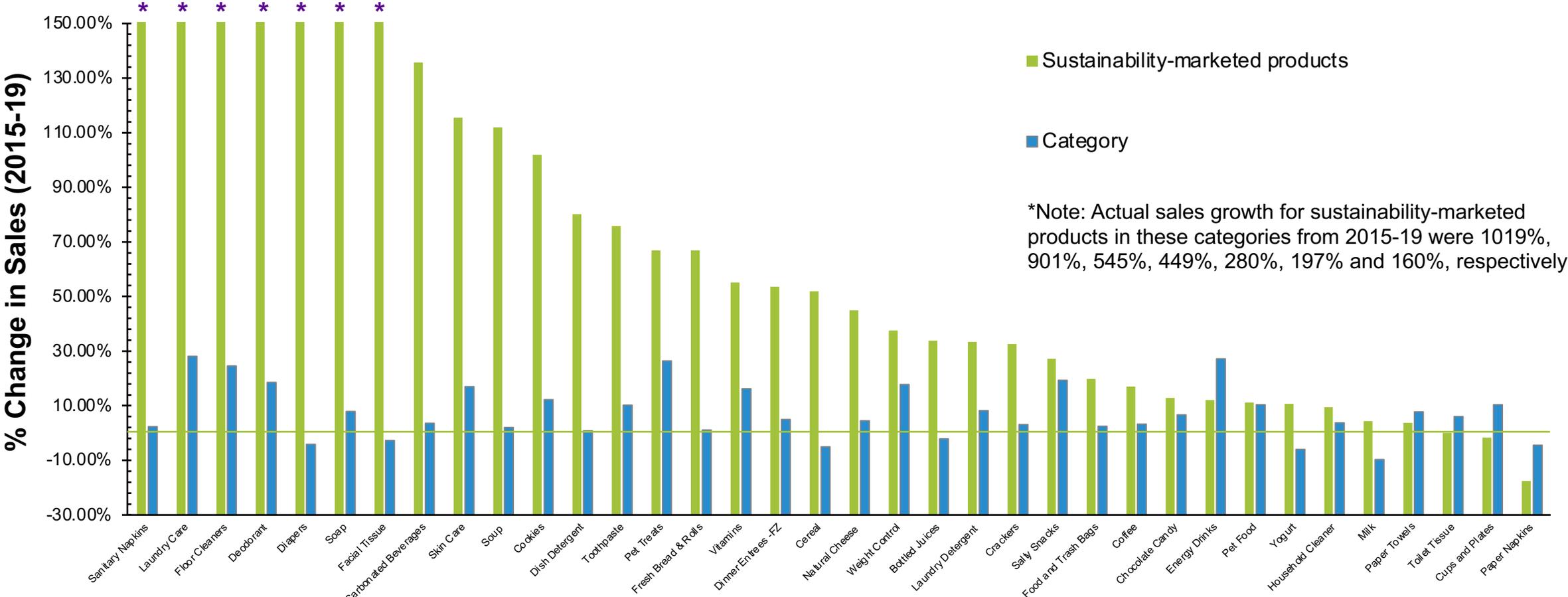
Sustainability-marketed products grew 7.1x faster than conventionally-marketed products, and 3.8x faster than the CPG market.



Note: Based on 36 categories examined

Sustainable Market Share Index™: Category Performance

In ~90% of individual product categories, the growth of sustainability-marketed products outpaced the growth of their respective categories.



* Paper towels, cups and plates, toilet tissue and paper napkins lost share to private label. Because we did not have visibility into private label to ascertain if there were claims regarding sustainability, we had to assume they were not marketed as sustainable. So, in fact, if private labels were making claims of sustainability (as we have observed they do on shelf), these categories may not have seen share decline of sustainability-marketed products.

CSB Sustainable Market Share Index: Research Question 2

Research Question 2: Have sustainable purchases been impacted by COVID-19?

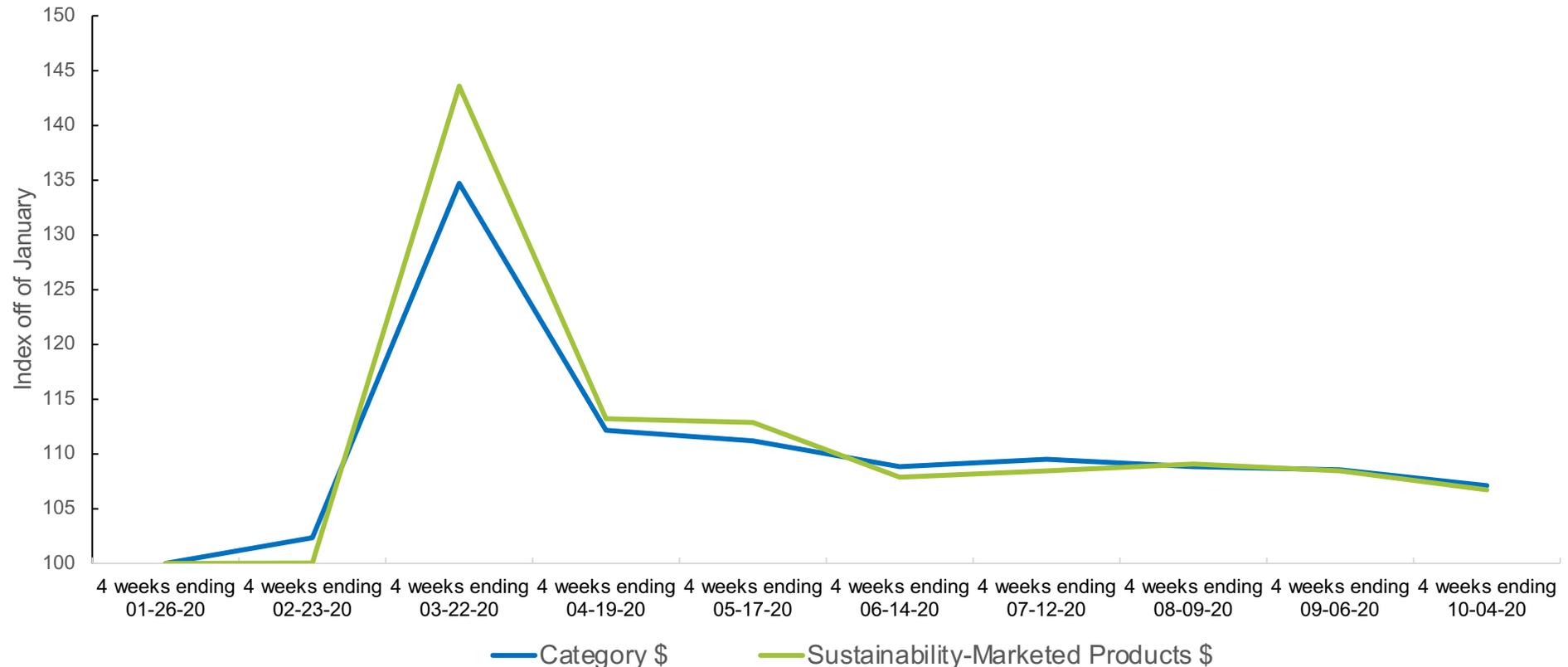
Research Result: Purchases of sustainability marketed products continue to grow in the face of the pandemic.



Sustainable Market Share Index™: 2020 Dollar Sales

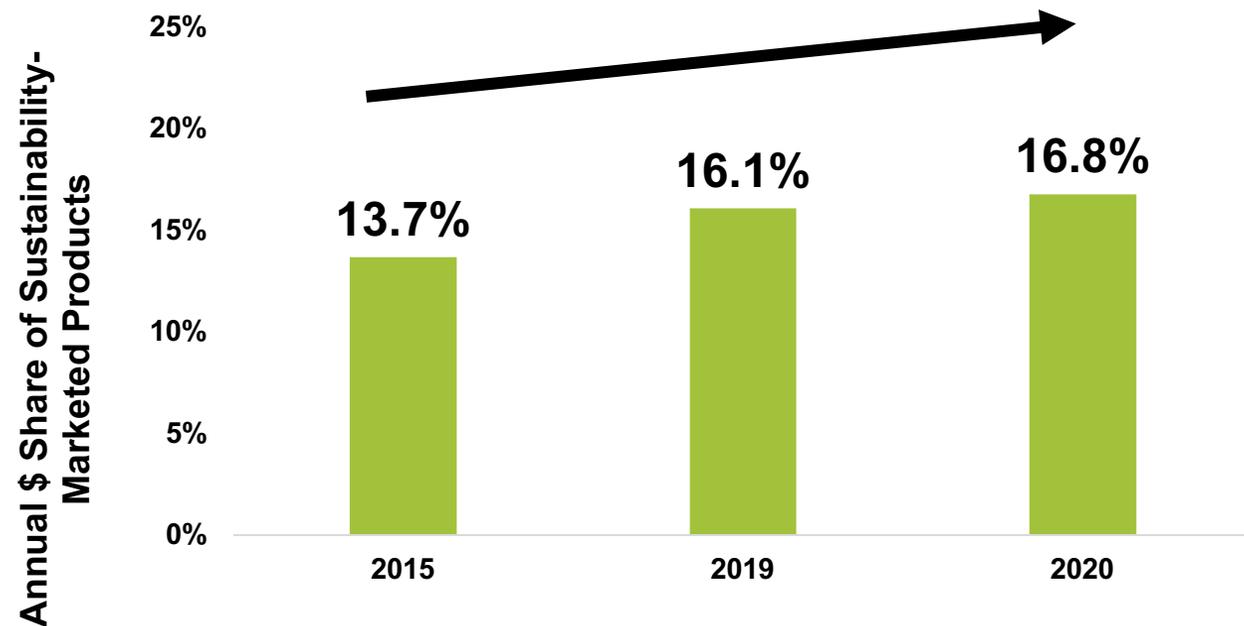
Sustainability-marketed products and total category sales grew significantly and similarly, with the greatest consumption increase occurring in March

Sustainability-Marketed Products and Total Category \$ Volume by Month: 36 categories examined



Sustainable Market Share Index™ : 2020 Market Share

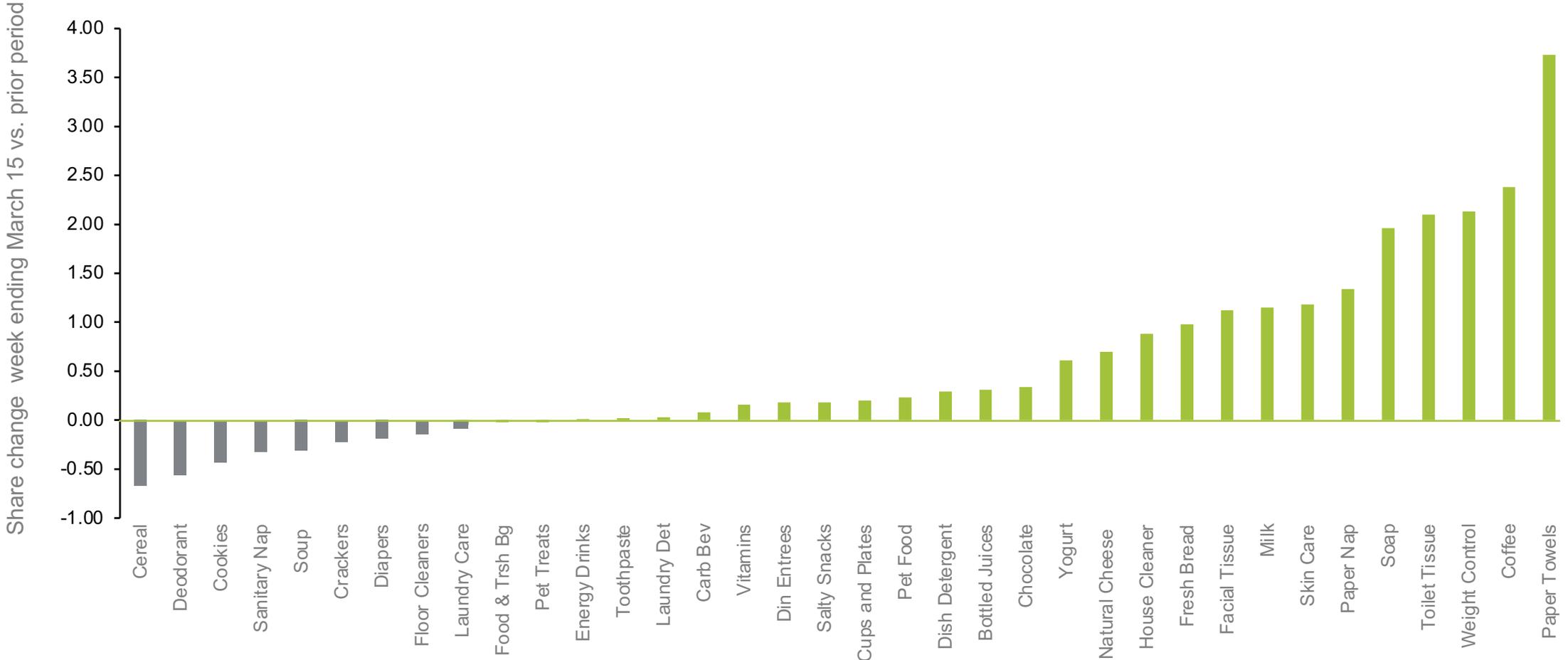
Sustainability-marketed products now account for 16.8% of purchases



36 categories examined

Sustainable Market Share Index™: March 15 share performance

Paper goods, skincare and food items drove the greatest week to week share increases (week ending March 15 vs prior week).



Sustainable Market Share Index™ : 2020 Carbon Labeling



➔ **+\$1.3B***

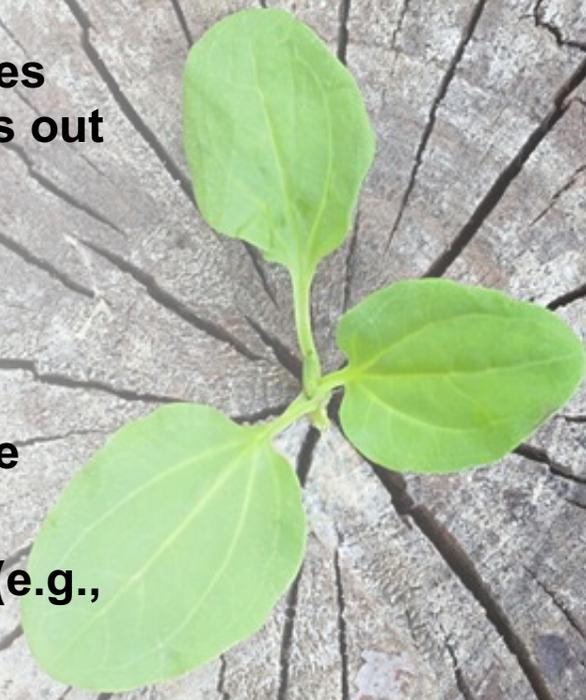
- Not included in earlier share statements
- 36 categories examined

CSB Sustainable Market Share Index: Research Question 3

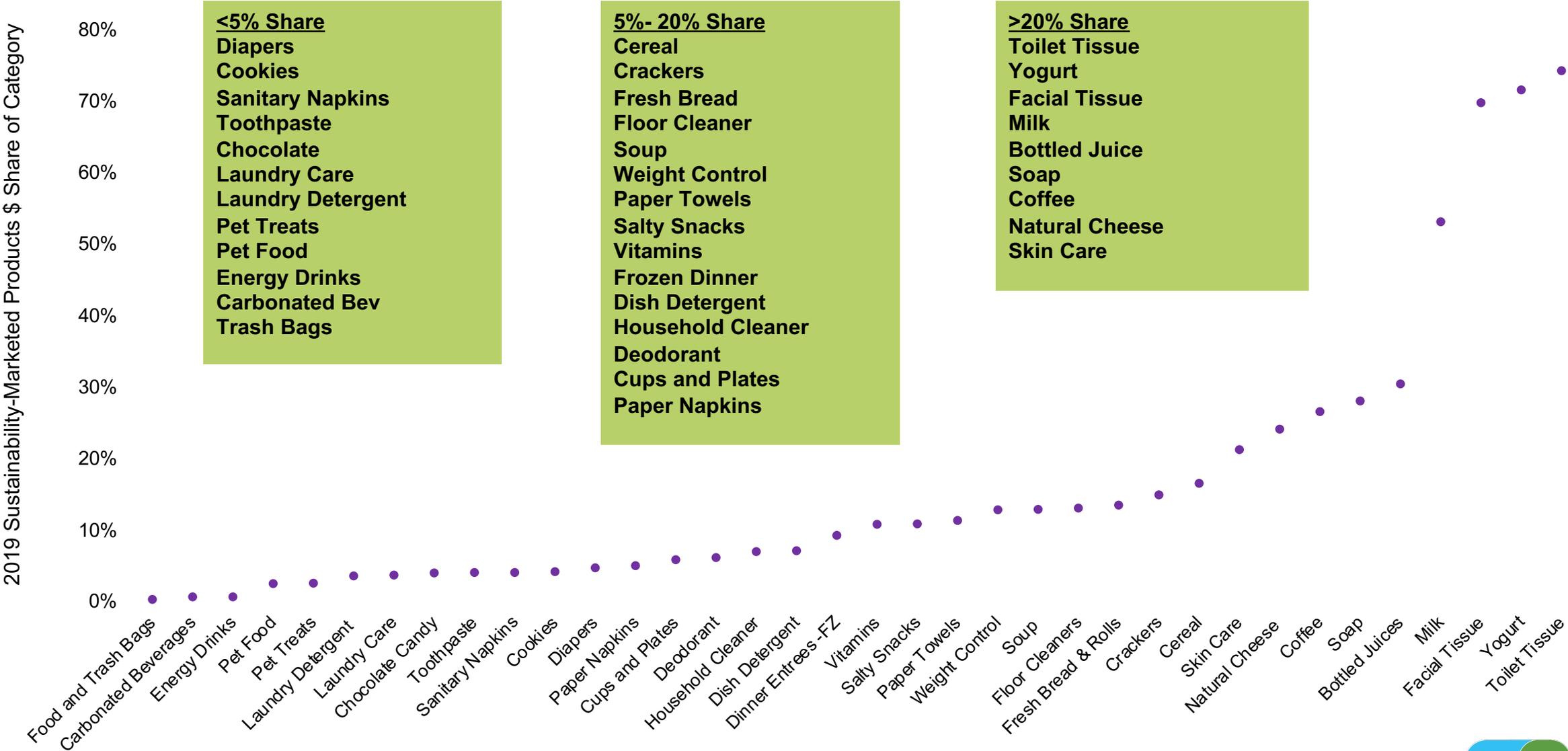
Research Question 3: Are there specific product categories where the purchases of more sustainable product options out or underperform less sustainable alternatives?

Research Result:

- **Yes. Categories that demand high functionality (e.g., detergent) do not have a large percentage of sustainable purchases, but nevertheless experienced share growth.**
- **Conversely, categories with low functionality demands (e.g., dairy) have higher category consumption.**



Sustainable Market Share Index™: Shares of Sustainable Products



CSB Sustainable Market Share Index: Research Question 4

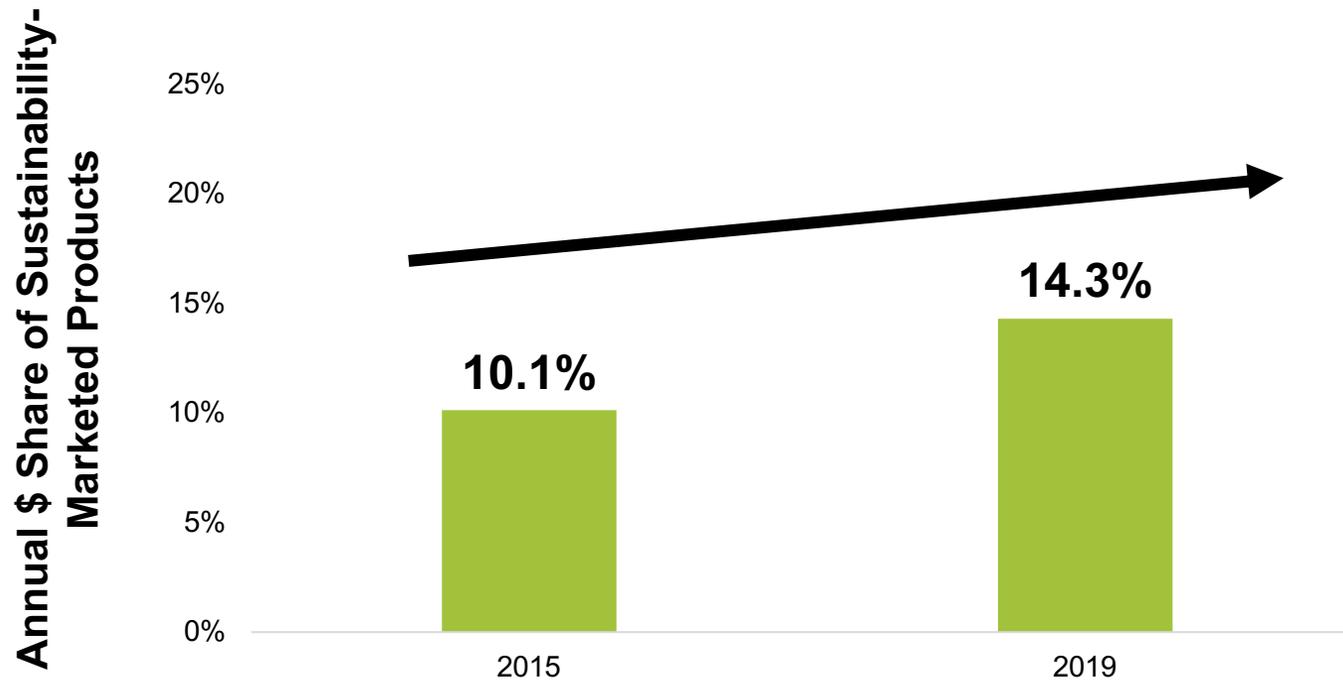
Research Question 4: Are green chemistry products outperforming conventional formulations?

Research Result: Not only are green chemistry products growing but they also are contributing to a disproportionate share of the category growth



Green Chemistry Council: Market Share 2015-2019

Across 10 categories studied*, green chemistry-marketed products account for 14.3% share of market (\$) in 2019, up from 10.1% in 2015.

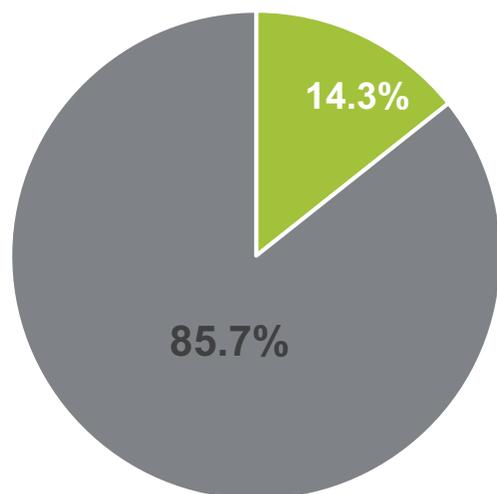


Categories that include green chemistry formulated products

Green Chemistry Council: Contribution to Growth 2015-2019

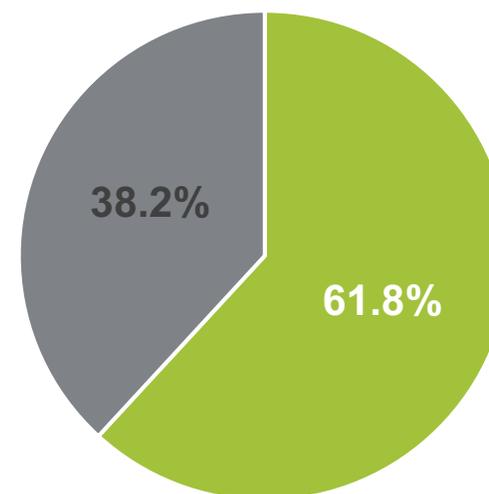
Green Chemistry-marketed products are 14.3% of the market and delivered 62% of the categories market growth (2015-2019).

\$ Share of Market
(2019)



- Sustainability-marketed products
- Conventionally-marketed products

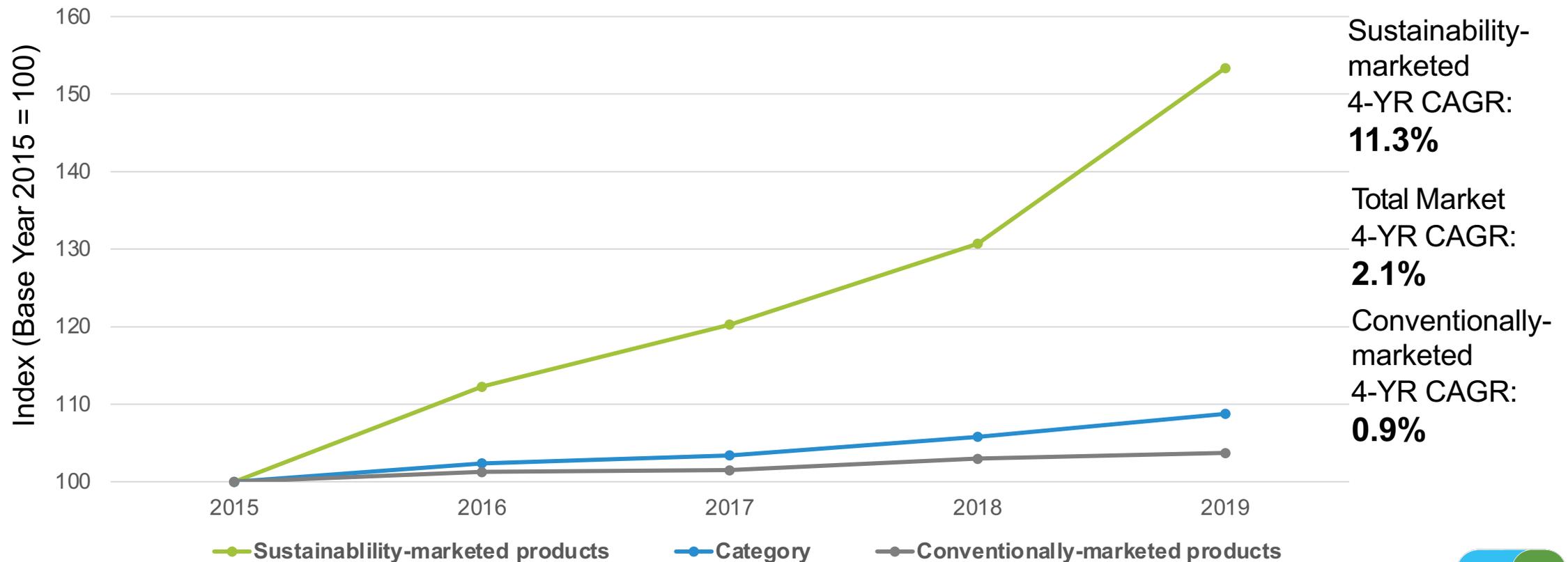
\$ Share of Market Growth
(2015-2019)



- Sustainability-marketed products
- Conventionally-marketed products

Green Chemistry Council: Growth Rate 2015-2019

From 2015-2019, Green Chemistry-marketed products grew 12.6 times faster than their conventional counterparts, and 5.4 times faster than the market.



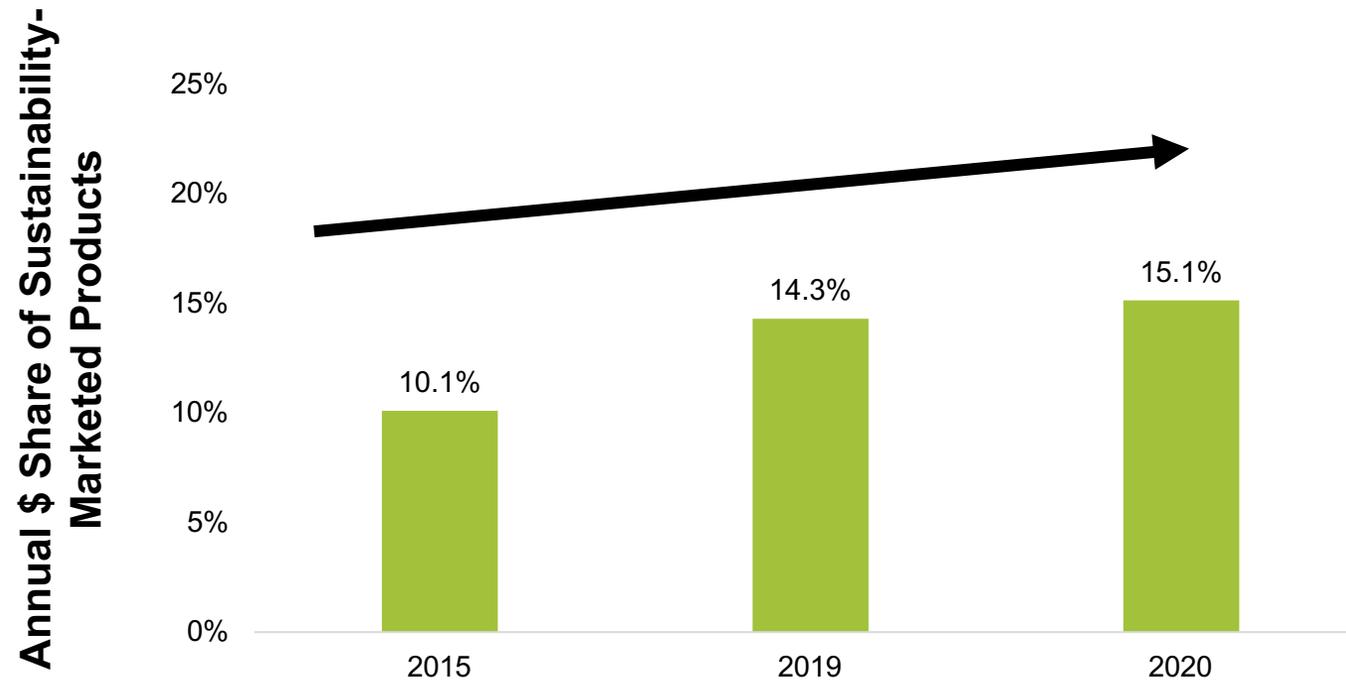
Green Chemistry Council: Top Sustainable Messages by Category

| Claim | Share of Average Annual Dollar Sales of Sustainability-Marketed Products 2015-2019 |
|--------------------------|--|
| Pool Chemicals | |
| Organic | 55% |
| Non-Toxic | 55% |
| Soap | |
| Phthalate Free | 68% |
| Paraben Free | 63% |
| Skincare | |
| Paraben Free | 61% |
| Phthalate Free | 54% |
| Household Cleaner | |
| Plant Based | 29% |
| Biodegradable | 23% |
| Floor Cleaner | |
| Plant Based | 22% |
| Natural | 22% |

| Claim | Share of Average Annual Dollar Sales of Sustainability-Marketed Products 2015-2019 |
|--------------------------|--|
| Dish Detergent | |
| USDA Bio Based | 31% |
| Biodegradable | 25% |
| Laundry Detergent | |
| Plant Based | 86% |
| USDA Bio Based | 44% |
| Suntan | |
| PABA Free | 46% |
| Reef Friendly & Safe | 45% |
| Auto Wax | |
| Silicone Free | 97% |
| Petroleum Distillates | 97% |
| Pavement Deicing | |
| Salt | 81% |
| Natural | 36% |

Green Chemistry Council: Market Share 2020

Green Chemistry-marketed products continue to climb in 2020, despite the pandemic



CSB Sustainable Market Share Index: Research Question 5

Research Question 5: What is the impact of price on purchases of sustainable products?

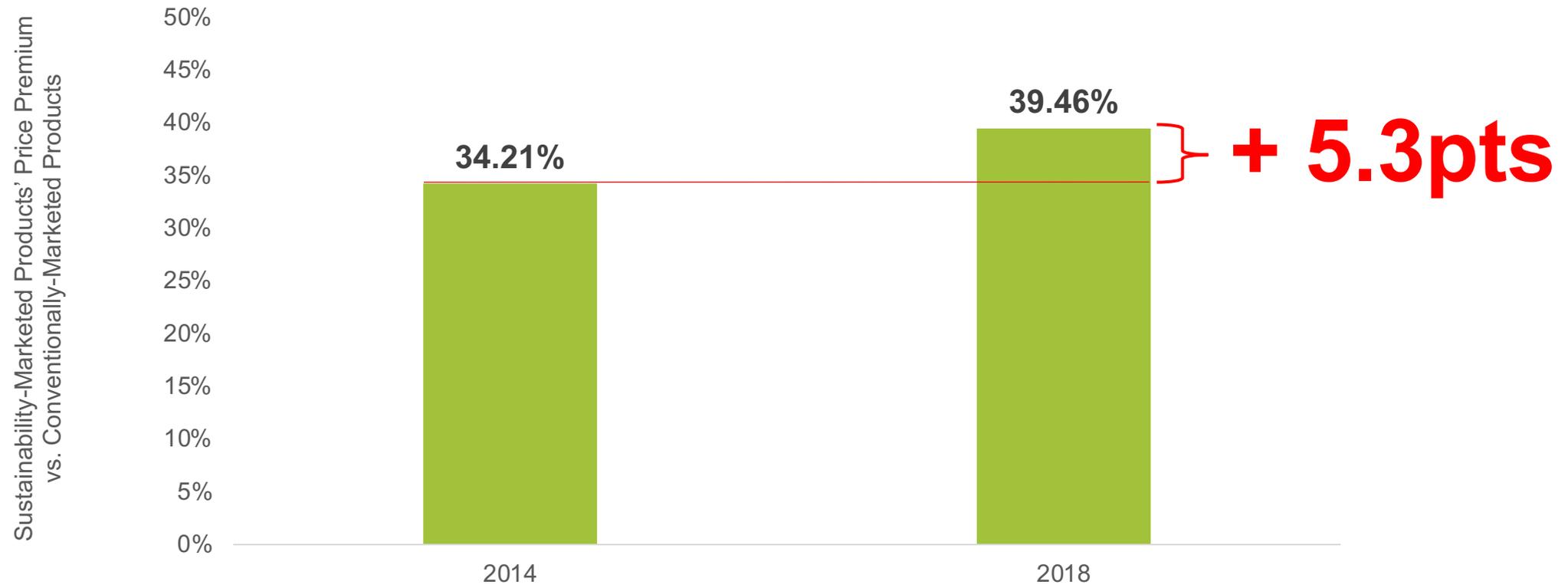
Research Result: Despite significant price premiums, sustainability-marketed products grew far faster than the conventionally branded players and had lower price sensitivity in 2/3rds of the categories examined.



^{*} Analysis conducted was among branded players and excluded store brand/private label; based on 36 categories examined

Sustainable Market Share Index™: Price Premium

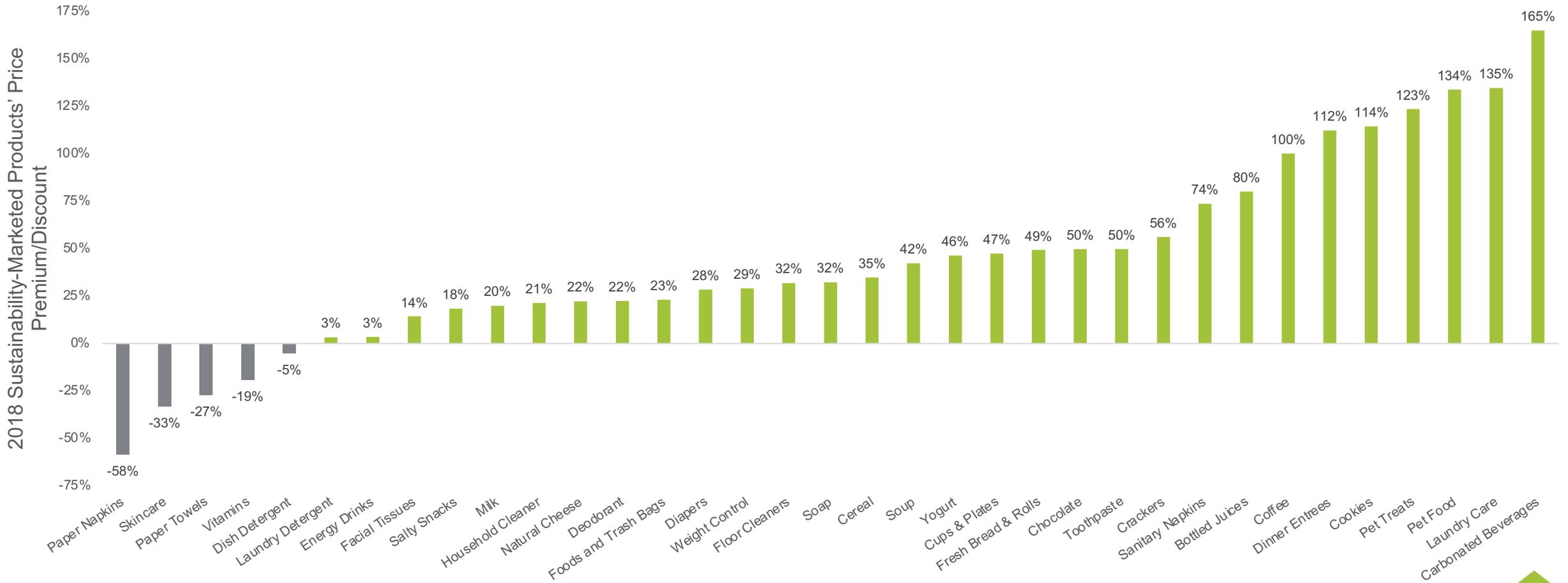
Sustainability-marketed products enjoyed a sizeable price premium at **39%*** over conventionally-marketed products, and increased **+5.3 pts** since 2014



*Weighted by \$ Sustainable Sales of categories examined; analysis excluded store brand/private label

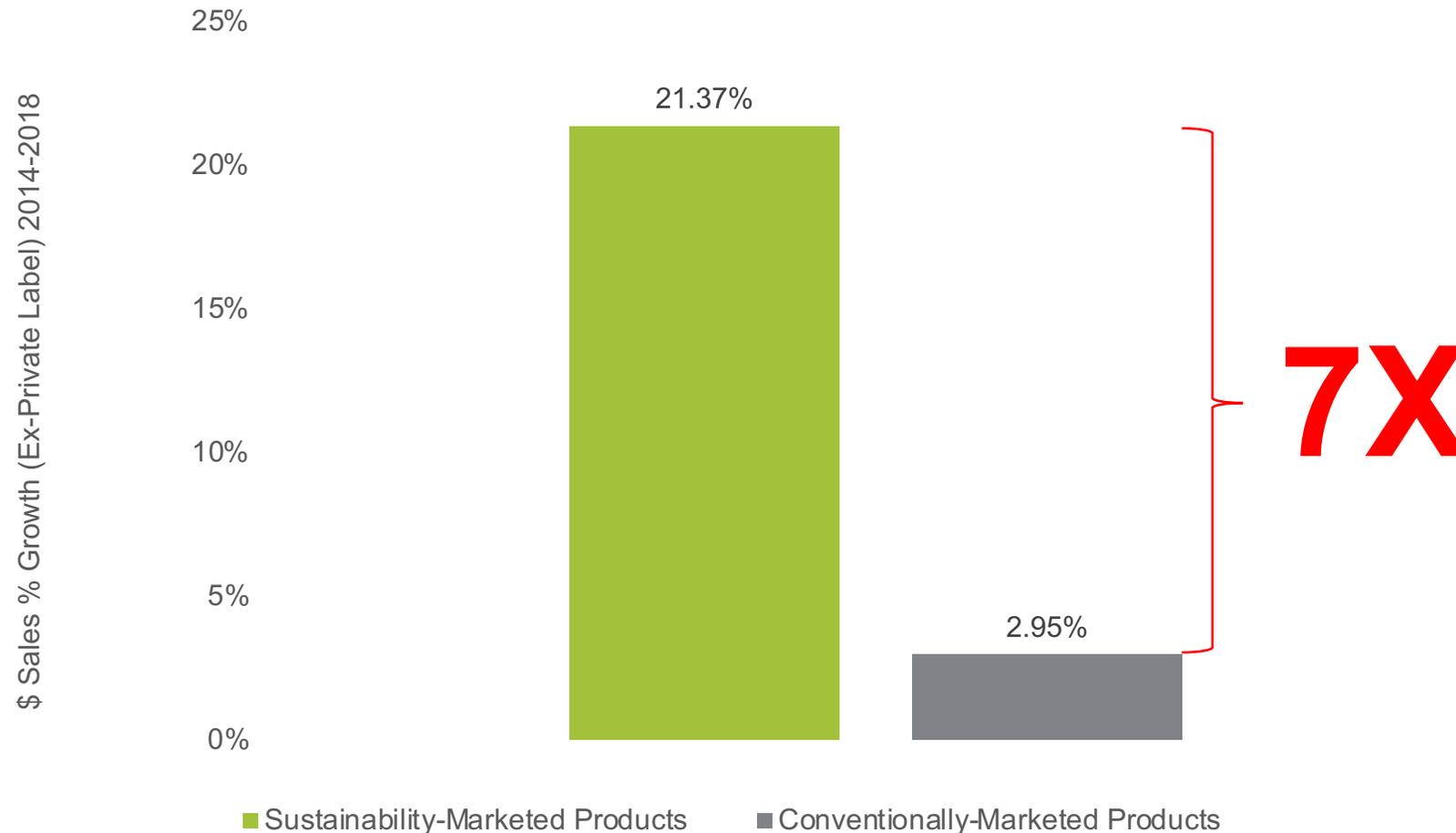
Sustainable Market Share Index™: Price Premium by Category

Price premiums ranged from 3% to over 150%. Only a few categories had a price discount vs. conventionally-marketed products.



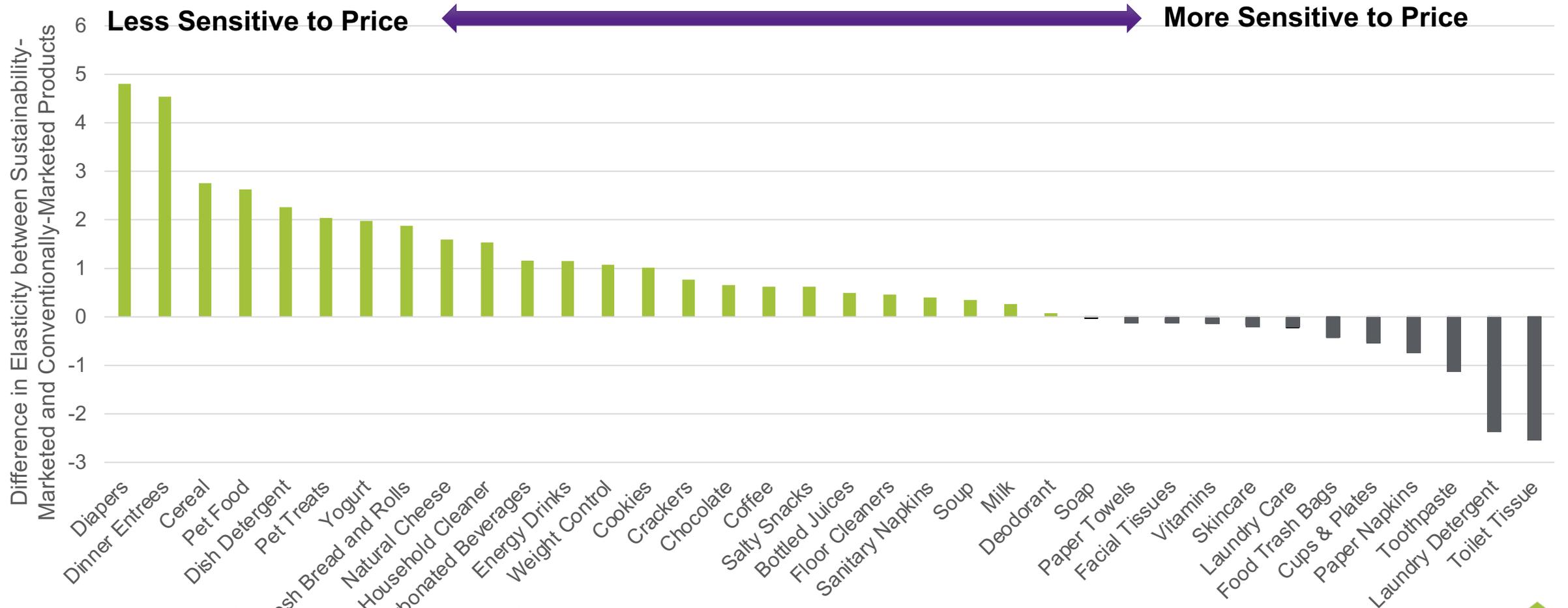
Sustainable Market Share Index™: Growth of Sustainable Branded Players

Among branded players, sustainability-marketed products grew over 7x faster than conventionally-marketed products, indicating consumers' willingness to pay higher prices.



Sustainable Market Share Index™: Price Sensitivity

Sustainability-marketed products had lower price sensitivity in most categories studied: Food categories had the greatest price leverage.



Price sensitivity is the % change in volume due to a 1% change in price.

CSB Sustainable Market Share Index: Research Question 6

Research Question 6: What is the demographic profile of the sustainable purchaser*?

Research Result:

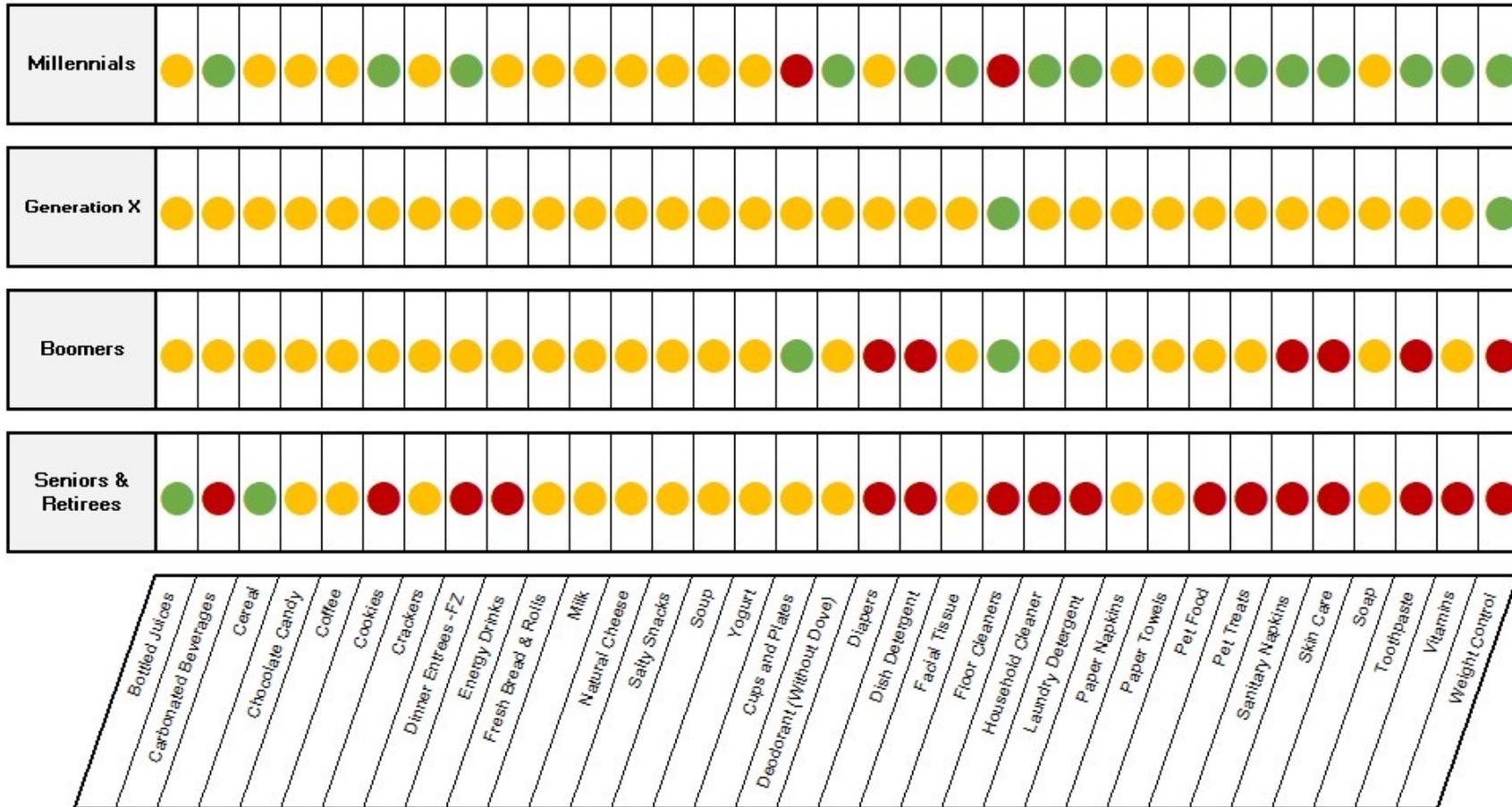
- **Millennials, upper income, college-educated and more urban cohorts are more likely to buy sustainability-marketed products.**
- **Baby Boomers, Gen Xers, upper and middle income, college educated and urban cohorts account for the bulk of the sustainable dollars spent.**



Analysis conducted using IRI HH panel data; based on 35 categories examined

Sustainable Market Share Index™: Generational Cohorts

The younger the household, the more likely they were to buy sustainability-marketed products. However, most sustainability-marketed product purchases came from Gen X and Boomers.



| Total CPG Sustainable Sales Composition | |
|---|-----|
| Millennials | 25% |
| Generation X | 32% |
| Boomers | 33% |
| Seniors & Retirees | 10% |

- Index 120+
- Index 80-120
- Index <80

Chart read as: Millennials purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HHs.

Sustainable Market Share Index™: Income Tiers

The higher the household income, the more likely they were to buy sustainability-marketed products. Upper/middle income made up the highest percent of sustainability-marketed product dollars spent.



Chart read as: Upper Income Households purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HHs.

Sustainable Market Share Index™: Urbanicity

The more urban the residence, the more likely the purchases of sustainability-marketed products. County A accounted for just under half of the total CPG sustainability-marketed dollars spent.



Chart read as: County A purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HH's.

CSB Sustainable Market Share Index: Question 7

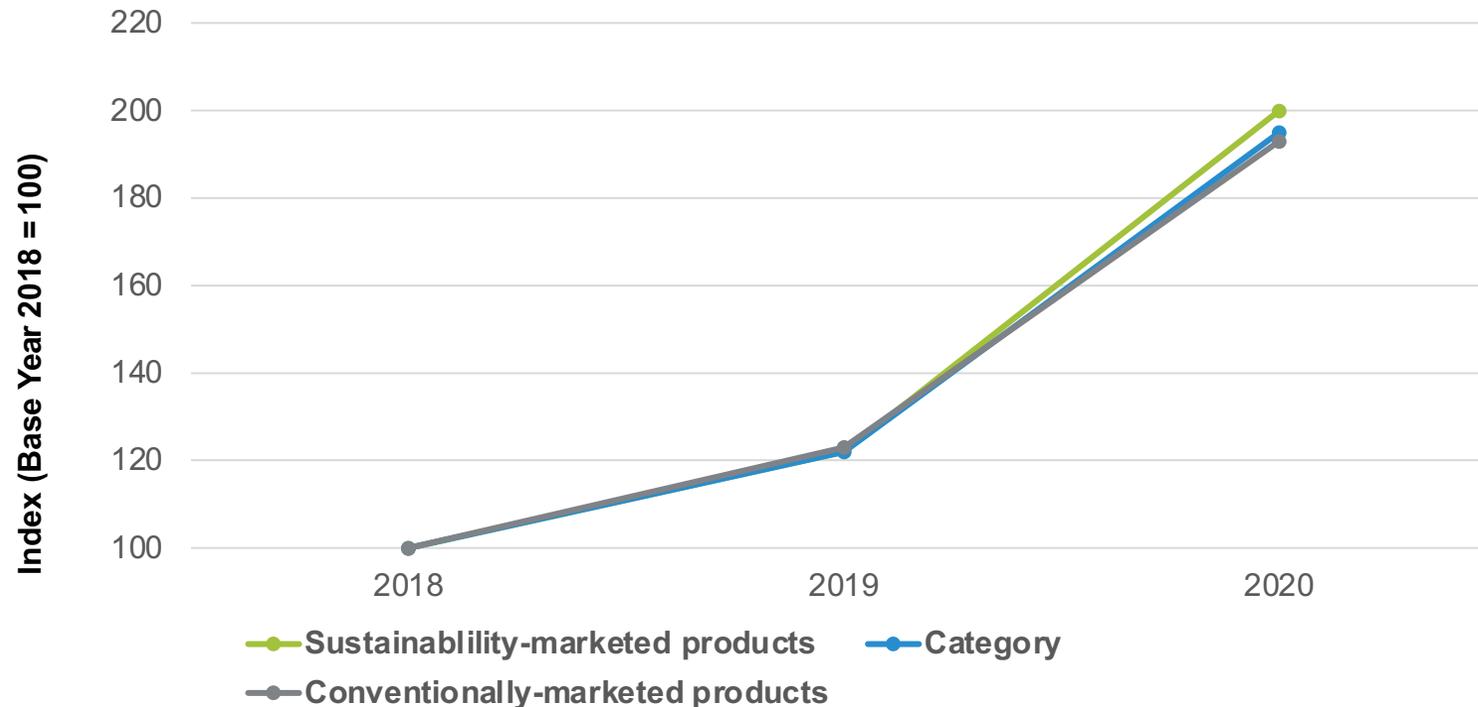
QUESTION 7: How have sustainable products fared in e-commerce?

Research Result: Products marketed as sustainable have outperformed conventionally marketed products in e-commerce. Moreover, sustainability marketed products perform better online vs. in store



Sustainable Market Share Index™: E-commerce performance

Sustainability-marketed products grew slightly faster than both the category and conventional products



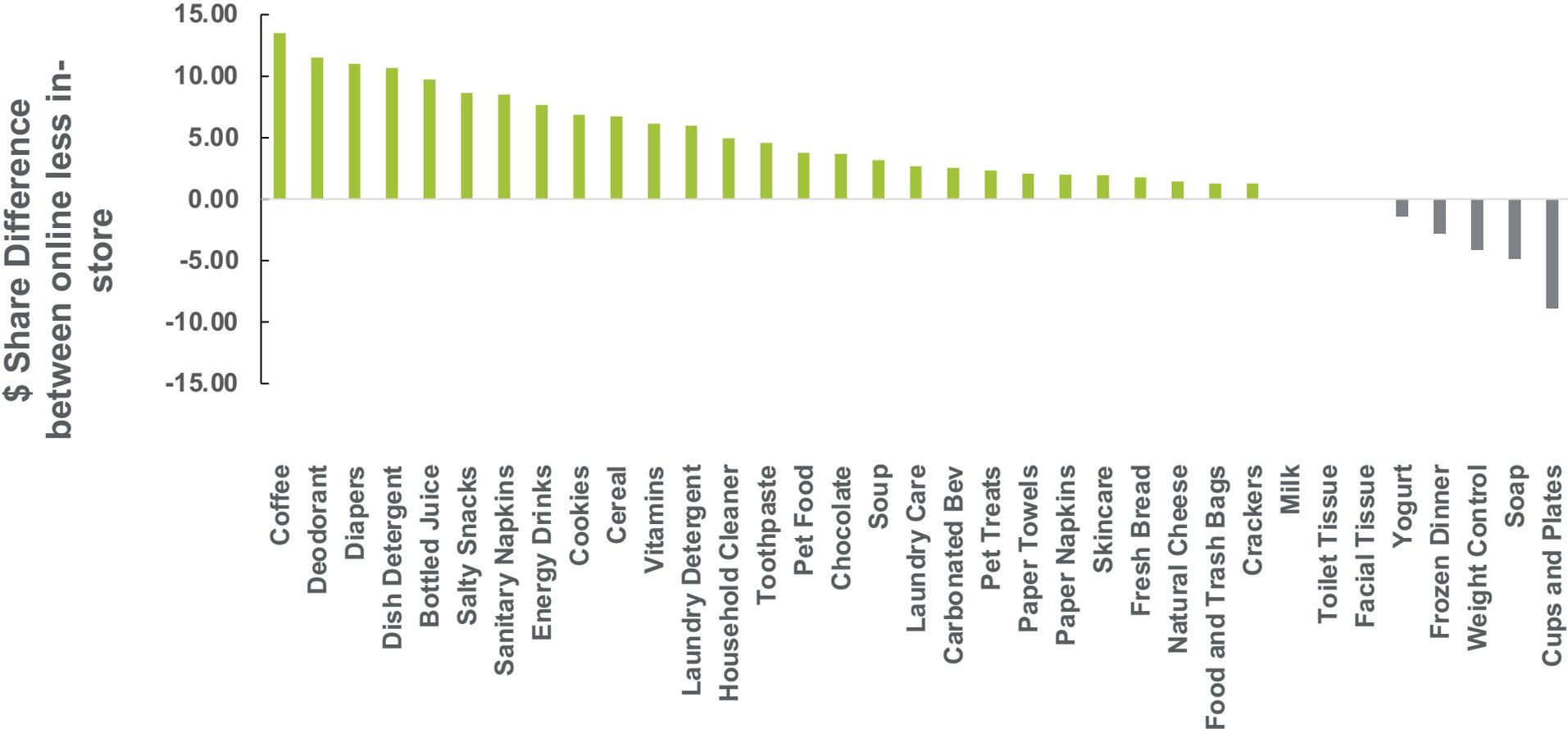
Sustainability-marketed
2-YR CAGR: 42%
2020 vs 2019: +65%

Total Market
2-YR CAGR: 40%
2020 vs 2019: 59%

Conventionally-marketed
2-YR CAGR: 39%
2020 vs. 2019: 57%

Sustainable Market Share Index™ : Share Differences Online vs. In store

In 3/4ths of the categories examined, shares of sustainable products are stronger online than in-store



About the NYU Stern Center for Sustainable Business

The NYU Stern Center for Sustainable Business was founded on the principle that sustainable business is good business; delivering better financial results while protecting the planet and its people. We aim to help current and future business leaders embrace proactive and innovative mainstreaming of sustainability, resulting in competitive advantage and resiliency for their companies as well as a positive impact for society.

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Appendix

Methodology

Data

- IRI Point of Sale, HH panel, and e-market insights data in all measured channels in U.S. excluding alcohol and tobacco

Selection Criteria

- 36 categories examined held the largest dollar volume; in a few cases, smaller categories were included to ensure fair representation of all major CPG segments
- 73,293 products reviewed; products with 0.00 dollar share of category were not considered unless identified as organic.
- Due to lack of visibility into private label product claims, private label was not included as sustainability-marketed, with the exception of organic private label in the food categories.

Sustainability-Marketed Products Determination

- Identified all skus for each category marketed as sustainable with on-package communication, e.g. 3rd party certification (e.g. USDA Organic), containing organic ingredients, no phosphates, no phthalates, etc.
- Sustainability determination focused on the product itself, not the recyclability of the package.
- A very conservative approach was adopted. For example, the following was not considered sustainable:
 - Natural with no other sustainable identification
 - Recyclable packaging

Other Assumptions/Information

- Products that were deemed sustainability-marketed in 2018 were considered sustainability-marketed in 2015. This likely depressed the growth numbers in the earlier years.
- We made no attempt to assess if products marketed as sustainable were, in fact, sustainable. Instead, we focused on whether the marketing of a product as sustainable would drive purchase.

All estimates and analysis in this paper based on Information Resources Inc., data are by the authors and not by Information Resources, Inc.