BCG

COVID-19 CONSUMER SENTIMENT SNAPSHOT #9

MAY 11, 2020: A LIGHTHOUSE TO NAVIGATE THE NEW REALITY

By Lara Koslow, Mark Abraham, Jean Lee, and Lauren Taylor

HOW SHOULD WE RECAPTURE consumer demand in the post-lockdown period? Which stores should we reopen? Where should we invest in marketing?

Businesses make millions of decisions in response to these and many other questions every week. Cumulatively, their decisions will affect the shape of the rebound and help determine the winners and losers within it.

At BCG, we constantly encounter questions like the ones above as we advise our clients. Unfortunately, traditional time-series-based customer demand forecasting is impractical in this unprecedented environment. So instead, companies are turning to an array of high-frequency indicators that, taken together and integrated with their internal data, provide the latest pulse on where demand and supply are headed.

In this week's snapshot, we look beyond consumer sentiment to other data sources, leading indicators, and models, and we explore how they, in combination with sen-

timent, can deliver powerful insights that are critical to creating advantage in the COVID-19 recovery and the new reality.

A Note on Our Approach: A Lighthouse to Navigate the New Reality

Our team of data scientists, engineers, and consultants has built an AI platform for decision support and scenario planning during COVID-19 called BCG Lighthouse— and we used it to develop the insights that appear in this article. By bringing together epidemiological models, consumer data (credit card spend, mobility, sentiment, and the like), micro- and macroeconomic indicators (such as unemployment claims, job listings, and government measures), information on health care system capacity, and digital leading indicators (web traffic, search, and social media trends), BCG Lighthouse gives companies a foundation for building simple, rapid decision-making dashboards to help them make tough choices. Although this platform does not obviate the need to build custom solutions

to deal with a company's specific situation, it can dramatically shorten the time needed to design and build them. Most importantly, it enables leaders and teams to act quickly on data-driven analytical insights rather than relying on gut-based decisions in the face of tremendous uncertainty—or delaying decisions altogether.

The capability is most powerful when it incorporates data from a broad range of parameters. But trying to make sense of so many signals can be a disconcerting challenge for leaders who must rapidly make important decisions. In our experience, it is important to arm executives not only with the right customized dashboards but also with a go-to recovery index that captures a multiplicity of data in a single easy-to-understand number that they can compare across markets at a granular level. With this in mind, we have developed the Consumer Activity Index (CAI), which captures underlying trends in consumer mobility and spending data, along with economic indicators such as unemployment, in a single metric available by geography (down to the county or market level). Businesses can use this score to decide which markets to

focus on when allocating inventory, reopening stores, or investing scarce dollars in media and promotions.
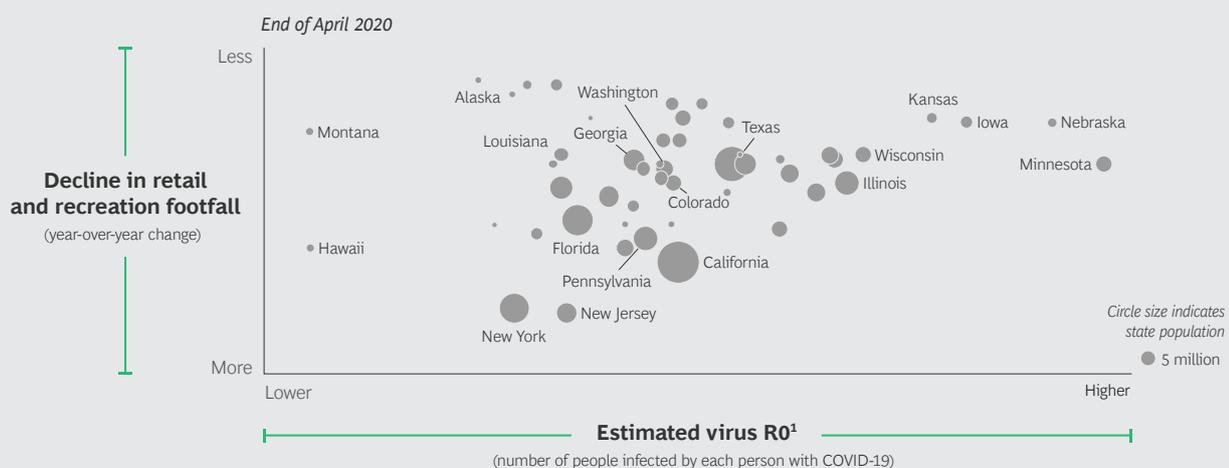
At the same time, businesses need to consider underlying trends and build a de-averaged understanding of the data. On-the-ground trends differ widely across geographies. (See Exhibit 1.) Some states (such as New York and New Jersey) have seen recent levels of footfall traffic drop by close to two-thirds, while mobility in others (such as Alaska, Kansas, and Iowa) is close to what it was last year. Another important variable is the virus contagion rate—a measure of how many other people each COVID-19-infected person is likely to infect. In some states, this rate is twice as high as it is in others. Monitoring these types of real-time trends can enable companies to consider an appropriate range of scenarios regarding how consumer activity could evolve in specific geographies.

Insights from the Lighthouse

Working with the BCG Lighthouse platform, we have performed a number of deep dives in specific areas of the econo-

US

ExHiBit 1 | Estimated Contagion Rates and Mobility Differ Widely Across the US

End of April 2020

Less

Decline in retail and recreation footfall
(year-over-year change)

More

Lower   Higher

Estimated virus R0[1]
(number of people infected by each person with COVID-19)

Alaska   Washington   Kansas   Iowa   Nebraska
Montana   Louisiana   Georgia   Texas   Wisconsin   Minnesota
Colorado   Illinois
Hawaii   Florida   California
Pennsylvania
New Jersey
New York

Circle size indicates state population
● 5 million

Sources: Footfall numbers are based on Foursquare Factual data; estimated infection rate is calculated on the basis of local and state case reports; BCG analysis.
[1]R0 (basic reproduction number) is the number of new infections estimated to be generated from a single case of the virus.
The COVID-19 situation is rapidly evolving, on a daily basis. This represents one scenario based on discrete data from one point in time. It is not intended as a prediction or forecast about duration of lockdown; peak of viral infections; efficacy of government or health care responses to the virus; or other health or societal impacts, and does not represent an "official BCG view." It is also not does not constitute medical, legal or safety advice, and is not an endorsement or recommendation of a particular response.

my. In each case, these efforts have yielded illuminating insights. In this article, we will focus on inquiries into five such areas: grocery retailers, restaurants, travel, automotive, and fashion retailers.

Grocery Retailers

In our work with grocery retailers and consumer goods manufacturers, we have found that monitoring changes in credit card spending, stated intention to spend, and changes in web traffic and online search trends, when done in combination, can shed light on the leading indicators of demand. (See Exhibit 2.) Changes in web traffic and searches presage spending trends by a week or so, and sentiment signals can help researchers understand the extent to which these changes are likely extend beyond that period.

As the example of consumer behavior in the retail grocery segment shows, looking at overall sales trends is not sufficient. After a massive spike, overall grocery sales in many markets have reverted to levels seen earlier in the year. (See Exhibit 3.) Underlying that trend, however, is the fact that

consumers have significantly cut back on the number of trips they make, likely to avoid frequent interactions with others due to COVID-19, but have increased the total transaction size for each trip. For grocers, this change in consumer behavior has profound implications for assortment decisions, and it raises new challenges for the marketers of impulse add-on items.
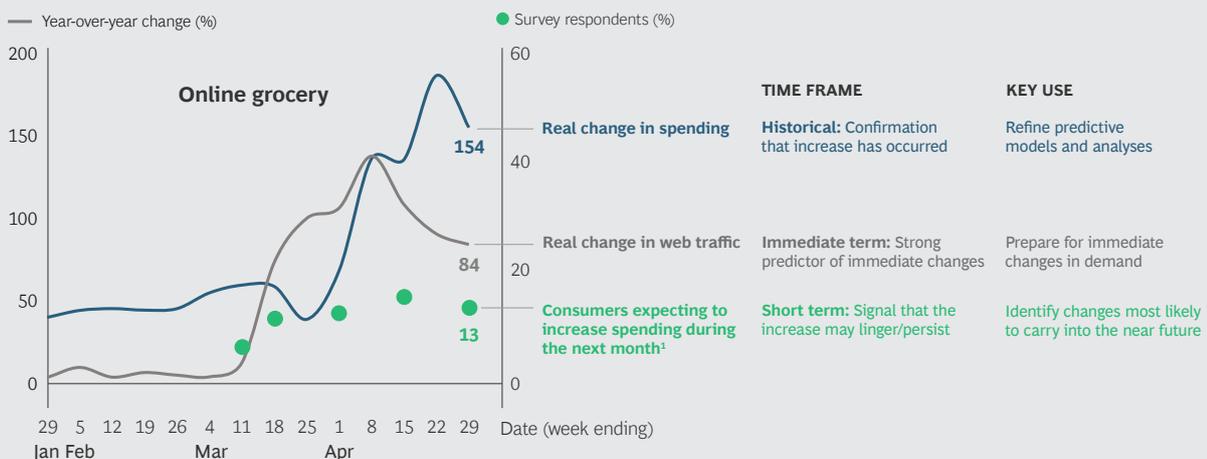
De-averaging trends is an important analytical step—in the retail grocery business and in other consumer-focused industry segments as well.

Restaurants

Following an initial period of sharply declining sales across the US restaurant industry, as a result of lockdowns, declines now appear to be leveling off. Nevertheless, we see significant variation in performance across the industry: quick-service (that is, fast-food) restaurants are performing better than average, and casual-dining restaurants are performing worse than average—no surprise, given that dine-in has been shut down. (See Exhibit 4.) In terms of specific cuisines, pizza chains are enjoying

US – GROCERY DEEP DIVE

EXHIBIT 2 | Data for Real Spending, Forward-Looking Sentiment, and Web Searches Trend Closely but Are Most Valuable When Assessed Together

|	TIME FRAME	KEY USE
Real change in spending	**Historical:** Confirmation that increase has occurred	Refine predictive models and analyses
Real change in web traffic	**Immediate term:** Strong predictor of immediate changes	Prepare for immediate changes in demand
Consumers expecting to increase spending during the next month[1]	**Short term:** Signal that the increase may linger/persist	Identify changes most likely to carry into the near future

Sources: SimilarWeb (www.similarweb.com); Earnest Research, May 6, 2020; BCG COVID-19 Consumer Sentiment Survey, April 24–27, 2020 (N = 2,783 US), unweighted, representative within ±3% of census demographics; BCG analysis.
Note: Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other).
[1]Survey question text: "In the next month, how do you expect your online spend for the following types of products to change, relative to your spend in-store (Packaged food, Fresh food)?"

US – GROCERY DEEP DIVE

Exhibit 3 | The Grocery Sales Spike from Initial Panic Buying Was Temporary, but Some Changes in Consumer Shopping Behaviors Have Persisted
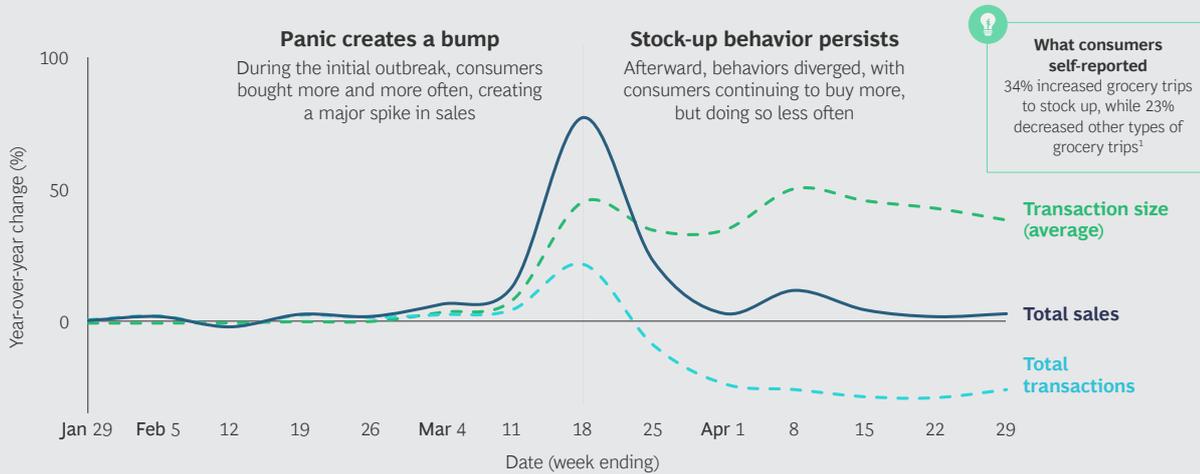
Sources: Earnest Research, May 6, 2020; BCG COVID-19 Consumer Sentiment Survey, April 24–27, 2020 (N = 2,783 US), unweighted, representative within ±3% of census demographics; BCG analysis.
Note: Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other).
[1] 34% is the net percentage of respondents who are likely to increase grocery shopping trips "to stock up" (calculated as the difference between the percentage who are likely to increase and the percentage who are likely to decrease); 23% is the average percentage of respondents who said they are somewhat or a lot less likely to grocery-shop for any reason other than "to stock up" (calculated as the difference between the percentage likely to decrease and the percentage likely to increase). Survey question text: "How have your grocery shopping habits changed for each of the following types of trips?

US – RESTAURANT DEEP DIVE

Exhibit 4 | COVID-19's Impact on Sales in the Restaurant Industry Is Variable
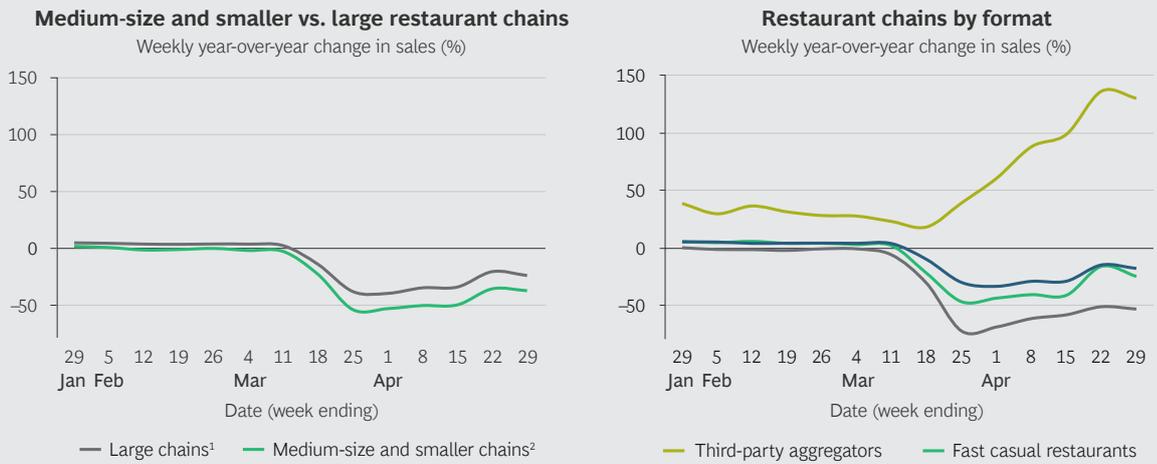
Sources: BCG Gamma; Earnest Research, May, 6, 2020; BCG analysis.
Note: Indices are the weighted average year-over-year change in sales of restaurants with available data in each category (weighted by 2018 systemwide sales). Large/small chains are defined as restaurants with over/under $1 billion in systemwide sales during 2018, according to Technomic. Casual-dining restaurants (for example, Olive Garden and Outback) N = 18; fast casual restaurants (for example, Chipotle and Panera Bread) N = 15; quick-service restaurants (for example, McDonalds and Subway) N = 24; third-party aggregators (for example, DoorDash, Uber Eats, Grubhub, and Seamless) N = 8. Data based on consumer credit card/debit card/checking account activity from Earnest Research (tracked responses exclude cash/other).
[1] Large chains include restaurants such as McDonald's, Chipotle, and Applebee's.
[2] Medium-size and smaller chains include restaurants such as Shake Shack, Moe's Southwest Grill, and Bahama Breeze.

growth of 13%, while sales at family-style restaurants and cafés are down 55% to 75%.

Third-party delivery aggregators, such as DoorDash, Uber Eats, Grubhub, and Seamless, have substantially exceeded their baseline growth, as many restaurants now rely on them to reach customers at home. Going forward, restaurants must secure their top line with rapid changes in their menu offerings and must innovate new channel and service options to meet changing customer needs.

Many companies were already advancing their digital agendas, and the quick shift to lockdown during the recent crisis has highlighted the importance of moving quickly—particularly in the restaurant industry. We conducted a regression across 35 large restaurant chains and 23 factors to understand what was driving differences in recent performance across brands. Digital transaction penetration was the most important predictor of stronger performance during the crisis—and was nearly twice as important as the COVID-19 exposure variable. (See Exhibit 5.) Companies that accelerated their digital and off-premises agen-

da before the crisis are being rewarded. It is increasingly important for restaurants to accelerate their digital demand generation and encourage customers to develop sticky habits during the crisis that will benefit them in the subsequent recovery.
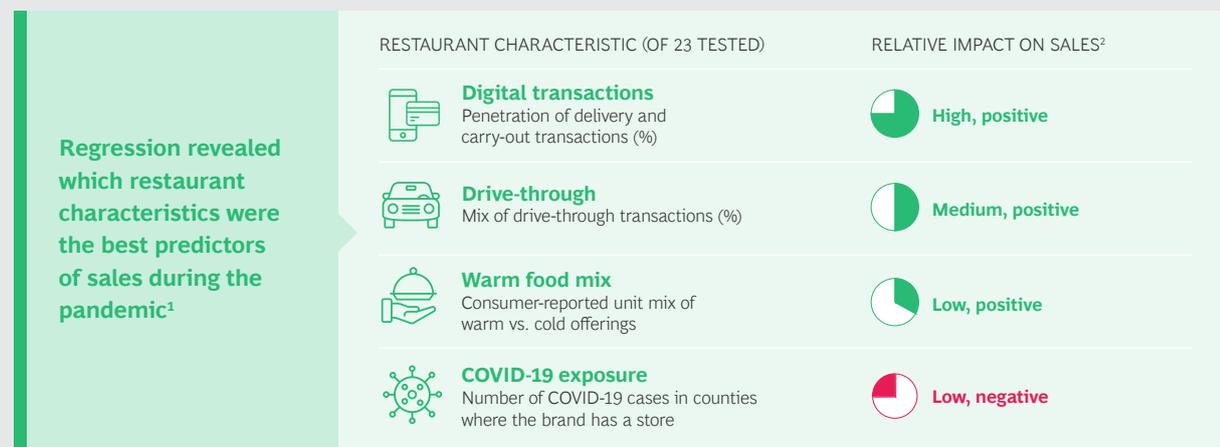
Consumer sentiment data indicates that restaurants oriented toward younger audiences are likely to recover more speedily, given that Gen-Zers are the cohort least concerned about catching the virus at a restaurant, and given that a substantial majority (74%) of them believe that they will revert to their normal spending levels at restaurants once the virus is under control. (See Exhibit 6.)

Travel

The travel sector is currently enduring dark days because of COVID-19. In terms of overall weekly sales based on credit card spending (which reflects future bookings), the results for airlines, cruise lines, and hotels look quite similar, with total sales plummeting 80% to 90% across all three. In reality, however, each industry is feeling different effects. For example, hotels experi-

US – RESTAURANT DEEP DIVE

EXHIBIT 5 | Digital Transaction Share Is the Most Important Characteristic for Predicting Restaurant Performance During Lockdown

Regression revealed which restaurant characteristics were the best predictors of sales during the pandemic[1]

RESTAURANT CHARACTERISTIC (OF 23 TESTED)

Digital transactions
Penetration of delivery and carry-out transactions (%)

Drive-through
Mix of drive-through transactions (%)

Warm food mix
Consumer-reported unit mix of warm vs. cold offerings

COVID-19 exposure
Number of COVID-19 cases in counties where the brand has a store

RELATIVE IMPACT ON SALES[2]

High, positive

Medium, positive

Low, positive

Low, negative

Sources: BCG Restaurant Survey 2019; Johns Hopkins; AggData; Earnest Research; BCG analysis.
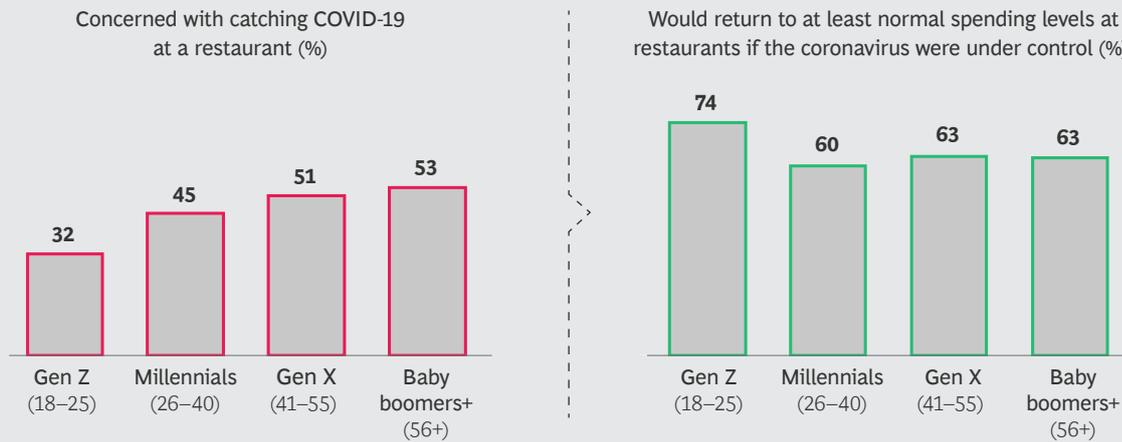**Note:** COVID-19 exposure is a weighted incidence of COVID-19 cases per 10,000 people in a population, built bottom-up, by county, for each brand's footprint.
[1]Regression of year-over-year change in transactions against the baseline (December/January 2019– 2020) as of March 25, 2020. Tests covered 35 (typically larger) chains, where data was available.
[2]Standardized coefficients: digital transactions 0.61; drive-through 0.47; warm food mix 0.40; COVID-19 Exposure –0.31.

EXHIBIT 6 | Younger Consumers Are Less Concerned About Catching COVID-19 at a Restaurant, and They Expect to Return to Normal Spending Faster

Concerned with catching COVID-19 at a restaurant (%)

Would return to at least normal spending levels at restaurants if the coronavirus were under control (%)

	Concerned with catching COVID-19 at a restaurant (%)					Would return to at least normal spending levels (%)			
	Gen Z (18–25)	Millennials (26–40)	Gen X (41–55)	Baby boomers+ (56+)		Gen Z (18–25)	Millennials (26–40)	Gen X (41–55)	Baby boomers+ (56+)
	32	45	51	53		74	60	63	63

Source: BCG COVID-19 Consumer Sentiment Survey, April 24–27, 2020 (N = 2,783 US), unweighted, representative within ±3% of census demographics.
Note: Survey question text: "You mentioned you would be concerned about going to a restaurant. What part of the experience concerns you?" and "If the coronavirus were to be under control in 3 months, what do you think your spending eating out at restaurants would be like at that point?"

enced a bigger decline in number of unique customers —down to just 15% of what it was in 2019—than did cruise lines, which retained 27% of their 2019 baseline. However, hotels actually saw a year-over-year increase in average transaction size to 140%, while cruises suffered a decline to 67% of last year's average transaction size. In combination, these factors' impact on total sales looks similar despite the disparity in their underlying drivers. (See Exhibit 7.)

The path toward recovery will probably also look a bit different for each of these sectors. For example, the trend line for hotels suggests that they may be able to rely more on transaction size, at least initially, while cruises may be starting to see a recovery in unique customers. (See Exhibit 8.) It is important to note, however, that most companies in the sector currently permit fully refundable credit card bookings, meaning that consumers may be booking today across the airline, hotel, and cruise subsectors in the hope that they will feel comfortable traveling at the planned trip date; but what the follow-through on bookings will look like as we head out of lockdown remains to be seen. Undoubtedly the state of the coronavirus itself will strongly

influence consumers' ultimate decisions about leisure travel.

Automotive

The automotive sector, too, has experienced an overall decline in sales, but the size of that decline differs significantly from one subsector to another. (See Exhibit 9.) For example, we see car rentals and rideshare suffering year-over-year declines of more than 80%, likely because of consumers' concern about catching the virus from these sources; in our April 24–27 survey, 32% of consumers reported having such concerns about rideshare.[1] We see automotive services (defined as independent automotive parts and services providers) and expected spending on automobiles declining, too, probably owing both to immediate constraints (such as fewer people leaving their homes and venturing out on the road during lockdowns) and to longer-term financial concerns (more than three-quarters of US consumers believe that a recession is coming). Car manufacturers and dealers could use this as an opportunity to win consumers back to automotive ownership—especially in younger and urban demographics, where rideshare has captured

EXHIBIT 7 | Travel Sales Plummeted Overall as a Result of COVID-19, but the Underlying Drivers Vary by Category

Year-over-year travel sales are down by 80% to 90% across the board...

Sales indexed to prior year (2019 value = 100)

Date (week ending)

— Airlines   — Cruise lines   — Hotels

...But the data shows opposing transaction size trends in hotels vs. cruise lines

April 29, 2020 data indexed to 2019 (2019 value = 100)

	Unique customers	Transactions per customer	Average transaction size
Hotels	15	91	140
Cruise	27	95	67
Air	14	92	85

● < 85   ● ≥ 85, < 100   ● ≥100

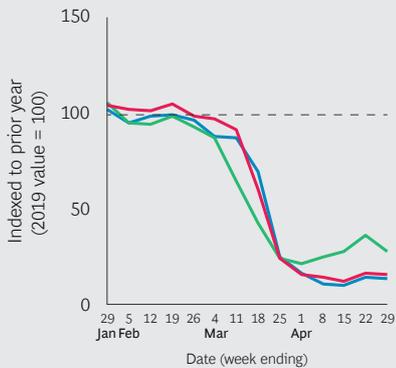**Sources:** Earnest Research, May 6, 2020; BCG analysis.
Note: Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other). Unique customers in the data sample were 28,677 for airlines, 1,890 for cruise lines, and 28,478 for hotels on January 29, 2020, and 4,505 for airlines, 555 for cruise lines, and 5,573 for hotels on April 29, 2020.

EXHIBIT 8 | Unique Customers and Transactions per Customer Declined Similarly Across Travel Categories, but Transaction Size Changes Varied Widely

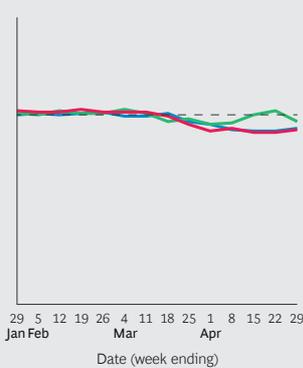**Unique customers**
All categories are well below the prior year

Transactions per customer
All categories are seeing a slight drop

Average transaction size
Hotels are seeing larger transactions, while cruise lines are lowering prices

Date (week ending)

— Airlines   — Cruise lines   — Hotels

Sources: Earnest Research, May 6, 2020, BCG analysis.
Note: Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other). Unique customers in the data sample were 28,677 for airlines, 1,890 for cruise lines, and 28,478 for hotels on January 29, 2020, and 4,505 for airlines, 555 for cruise lines, and 5,573 for hotels on April 29, 2020.

EXHIBIT 9 | Spending on Car Rentals, Rideshare, and Automotive Services Have Decreased, but Rentals and Rideshare Show the Largest Declines
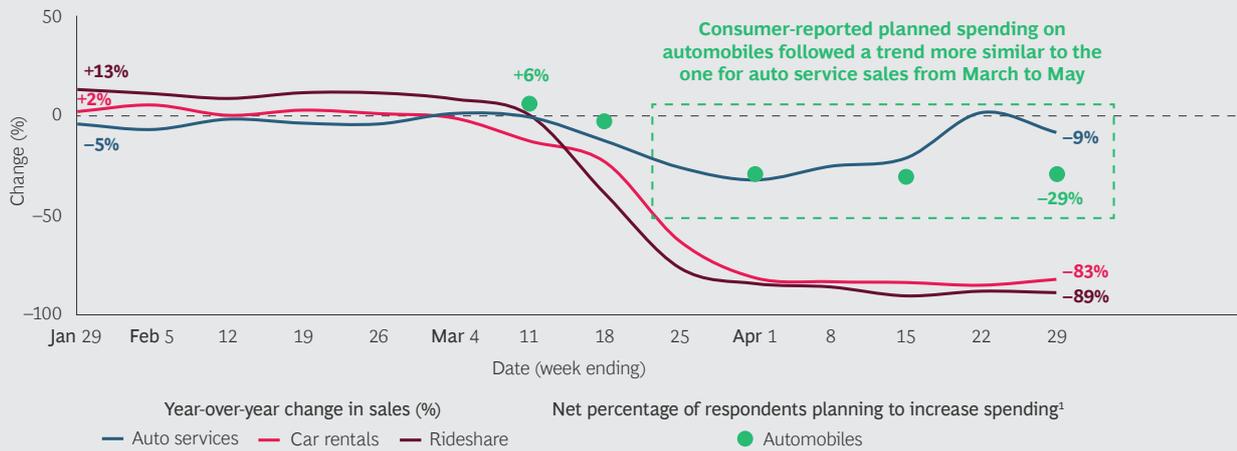
Sources: Earnest Research, May 6, 2020; BCG COVID-19 Consumer Sentiment Survey, March 6–9, 2020 (N = 3,465), March 13–16, 2020 (N = 2,417), March 27–30, 2020 (N = 2,944), April 10–13, 2020 (N = 2,960), and April 24–27, 2020 (N = 2,783), unweighted, representative within ±3% of US census); BCG analysis.
Note: Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other). Auto services excludes merchants (such as Tesla) for which data on car sales cannot be separated from data on auto services.
[1]"Net percentage of respondents planning to increase spending" is the difference between the percentage of respondents who plan to spend more and the percentage of respondents who plan to spend less over the specified time interval. Survey question text: "How do you expect your spend to change in the next 6 months across the following areas?"

significant share of transportation dollars. On the other hand, rideshare providers will need to adopt measures to address consumers' concerns about virus transmission—such as requiring all riders and drivers to wear masks, as Lyft and Uber now do in some markets, including the US —and hope that these suffice to win back share.[2]

Fashion Retailers

The crisis has also heavily hit apparel and department stores. The precise impact varies significantly by category, however, with sales of essential accessories such as glasses down less than 10% in April, thanks to healthy online sales, while sales of luxury items such as handbags and jewelry are down by two-thirds or more. (See Exhibit 10.) Despite the severe overall declines, the new shape of consumption offers opportunities for brands in categories such as athleisure to find and serve pockets of demand among consumers who are spending significantly more time at home.
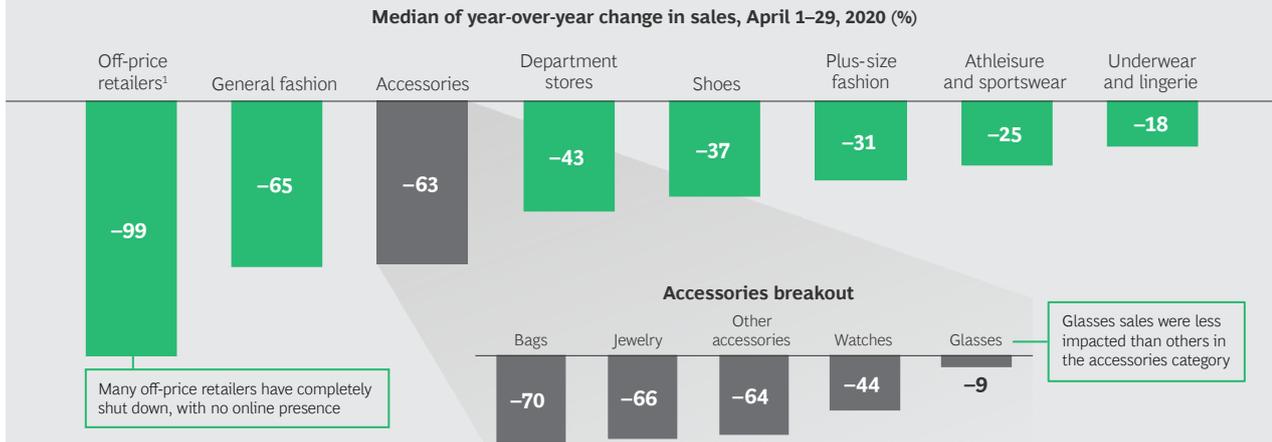
What Trends Will Prove to Be Long-Lasting?

It is instructive to map long-term category trends against short-term COVID-19 impacts. (See Exhibit 11.) The current crisis has accelerated trends that were already underway, such as the rise of Amazon and of organic foods and the decline of department stores. Before the crisis, the biggest barrier to increased penetration in online grocery shopping was consumer diffidence about giving it a try: consumers who shopped for groceries online once were highly likely to do so again. Because the pandemic has forced a large portion of the population to take the plunge in ordering groceries online for the first time, it has enabled the segment to skip years ahead in the pending channel mix shift.

But COVID-19 has interrupted and hampered other trends, such as the ongoing shift toward rideshare. Some of these shifts will prove to be temporary blips while others may have lasting effects. For example, if

EXHIBIT 10 | Athleisure, Lingerie, and Shoe Retailers are Suffering Less, While Off-Price Retailers are Suffering Most
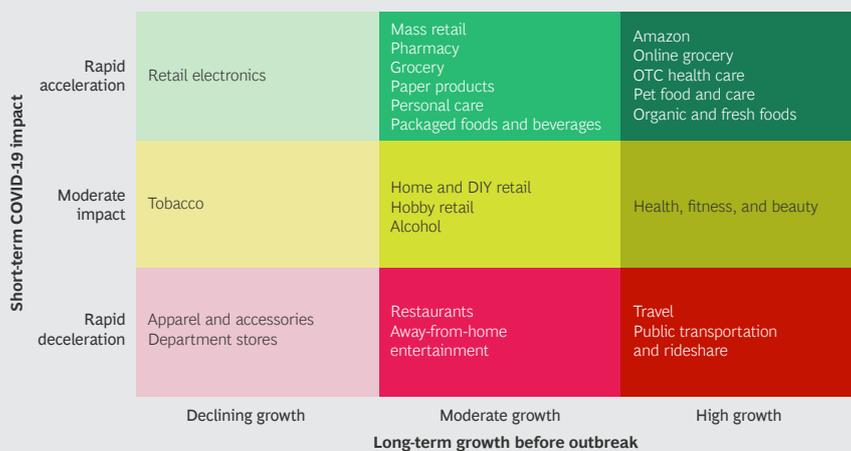
Median of year-over-year change in sales, April 1–29, 2020 (%)

Off-price retailers[1]	General fashion	Accessories	Department stores	Shoes	Plus-size fashion	Athleisure and sportswear	Underwear and lingerie
−99	−65	−63	−43	−37	−31	−25	−18

Many off-price retailers have completely shut down, with no online presence

Accessories breakout

Bags	Jewelry	Other accessories	Watches	Glasses
−70	−66	−64	−44	−9

Glasses sales were less impacted than others in the accessories category

Sources: Earnest Research, May 6, 2020; BCG analysis.
Note: Median of the year-over-year percentage change in sales is for the weeks from April 1 to April 29, 2020. Merchant-level year-over-year percentage change is calculated as the average of weekly year-over-year change for the weeks from April 1 to April 29, 2020. Spending data is based on consumer credit card/debit card/checking account activity from a panel of US consumers from Earnest Research (tracked responses exclude cash/other).
[1]Off-price retailers (for example, Marshalls) sell discounted out-of-season merchandise.

EXHIBIT 11 | The Pandemic Has Exacerbated Some Pre-COVID-19 Trends and Moderated Others

Short-term COVID-19 impact	Declining growth	Moderate growth	High growth
Rapid acceleration	Retail electronics	Mass retail, Pharmacy, Grocery, Paper products, Personal care, Packaged foods and beverages	Amazon, Online grocery, OTC health care, Pet food and care, Organic and fresh foods
Moderate impact	Tobacco	Home and DIY retail, Hobby retail, Alcohol	Health, fitness, and beauty
Rapid deceleration	Apparel and accessories, Department stores	Restaurants, Away-from-home entertainment	Travel, Public transportation and rideshare

Long-term growth before outbreak

Source: BCG Gamma and BCG Henderson Institute analysis.
Note: Based on credit card and IRI data from the US for March 2020 vs. compound annual growth rate from January 2016 to January 2020 in same categories.

consumers' fear of catching the virus through rideshare fades as the spread of new cases of the virus diminishes, the majority of consumers are likely to resume rideshare, but a portion may in the meantime become accustomed to driving their own cars and may find the experience more satisfying for some or all trips. In still other areas, tectonic shifts in consumer habits may be underway. Faced with mandated gym closures, consumers have found ways to engage with their trainers in community workouts on YouTube and through online yoga classes. Some of them have invested in home gyms or tried new sports such as running for the first time, and some of these behaviors may prove sticky.

Looking Ahead

As we look toward recovery, we think it is imperative that clients take the time now to develop a lighthouse of demand indicators to inform their scenario modeling and business decisions—one that leverages high-frequency data and future predictors rather than following the prior practice of focusing on historical results as the best predictor of the future. Historical results will not be sufficient in such a disrupted world, and one where advanced, data-science techniques are available. Moreover, during major crises—especially ones of extended duration, as opposed to single-event shocks—consumer behaviors and needs may change in the short or longer term. Whether the changes in demand re-

flect newfound drivers of choice (for example, sanitation and hygiene emerging as critical decision criteria and potential differentiators), meaningful pivots in lifestyles and habits (for example, potlucks at home replacing Friday night dinners out), or major shifts in supply (depending on what businesses survive this challenging time), both the size and the shape of demand are likely to look quite different throughout the recovery and beyond. Only by continuously monitoring a wide variety of high-frequency indicators to bring insights to light and by rapidly adjusting their decisions on the basis of what they learn will companies be able to successfully navigate the new reality.

Our next Snapshot will look at current and potentially persistent consumer sentiment and spending shifts in the travel and tourism sector, including airlines, hotels, cruise lines, and gaming—arguably the sector that COVID-19 has most negatively affected.

NOTES
1. The source of the percentages noted in this paragraph is BCG US Consumer Sentiment Survey April 24–27, 2020, N = 2,783.
2. Sara Ashley O'Brien, "Uber will soon require drivers and riders to wear face coverings in the US," CNN.com, Sunday May 3, 2020. Coral Murphy, "Lyft requires drivers, riders to wear face coverings, avoid using the passenger seat," *USA Today,* May 8, 2020.

About BCG Lighthouse

BCG Lighthouse is an AI platform that enables rapid decision-making on the basis of short-term sensing of high-frequency indicators and medium-term scenario planning. It integrates real-time consumer and market-level data with BCG's proprietary models and company-specific internal data. Data and models include Consumer Activity Index (CAI), epidemiological models, online and mobile behavior (web traffic, search, social media trends, and footfall) and consumer data (for example, sentiment, credit card spending, and unemployment data). Data sources are available for 180 countries.

About the Research

BCG's COVID-19 Consumer Sentiment Snapshot series is based on data drawn from an online survey of consumers that is conducted every one to two weeks across multiple countries worldwide. Each Snapshot highlights a selection of insights from a comprehensive ongoing study that BCG provides to clients. The survey is produced by the authors, who are members of BCG's Center for Customer Insight (CCI), in partnership with coding and sampling provider Dynata, the world's largest first-party data and insights platform. The goal of the research is to provide our clients and businesses around the world with periodic barometer readings of COVID-19-related consumer sentiment and actual and anticipated consumer

behavior and spending to inform critical crisis triage activities, as well as rebound planning and decision making. The research does not prompt consumers about the virus when asking many of the key questions, including questions about spending changes in the next six months, in order to avoid biasing the results. A team composed of BCG consultants and experts from CCI completes the survey analytics.

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