CHOICES

AAEA
Agricultural & Applied Economics Association

Volume 35. Quarter 3

# The Path Forward: U.S. Consumer and Food Retail Responses to COVID-19

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*JEL Classifications: D19, P46, D90, H31*
*Keywords: Consumer behavior, Economic downturn, Lockdowns, Retail, Uncertainty*

“Judgment under uncertainty systematically departs from the conventional definition of rationality” (Kahneman and Smith, 2002).

The recovery from the global pandemic and economic crisis will be prolonged and erratic (Lahart, 2020). Six months into the COVID-19 crisis, countries around the world are experiencing the symptoms of a social and political economic recession, characterized by heightened economic uncertainty. To make sense of market outcomes, it is critical to understand consumer behavior in times of significant shocks to the financial system. This article provides insights into the effect of COVID-19 on consumer behavior by exploring essential questions, with implications for the food retailing sector, such as whether consumers under a pandemic are “rational” and what the “new normalcy” in post-pandemic consumer behavior and retail will look like. I employ market and media reports that present the timeliest information, along with evidence from behavioral economics and the emerging economic literature, to addresses these questions. We hope to serve as a jumping-off point for debate and future research into the impact of COVID-19 on consumer behavior.

## What Will the “New Normalcy” Look like?

At the end of April 2020, the U.S. economy recorded its worst first quarter since the 2008 recession (Casselman, 2020). As the pandemic unfolded, businesses closed or operated at lower capacity, jobs disappeared, and workers took time off or quit. The economic downturn spawned by a health crisis will be the deepest on record for the global economy for over 100 years (Goodman, 2020), with recovery limited by continued anxiety under uncertainty.

Shopping behavior has been influenced through two mechanisms: internal influences (e.g., fear of contagion or scarcity) and external influences (e.g., shelter-in-place orders, market conditions) (Hawkins and Mothersbaugh, 2010). Behavior shifts will remain as long as uncertainty about the pandemic remains. Without a definite pandemic end, new behaviors could potentially turn into habits. Part of these shifts appeared before the pandemic (e.g., online shopping), with the outbreak simply amplifying existing trends. The transition to this new equilibrium can be described by three stages: impact, adjustment, and “new norm.”

### *First Stage: Impact of a Shock (Coronavirus Pandemic—Lockdown Period)*

#### *Lockdown Restrictions and Consumer Spending*

***Market reactions.*** Stock price reactions appeared even before COVID-19 was declared a global pandemic on March 11. As the COVID-19 impact dispersed worldwide by collapsing financial markets, changes in shopping behavior were more notorious, especially following the shutdown. Grocery and credit card spending sharply increased (+50%) for the period from February 26 to March 11, followed by a decrease in overall spending after March. Nonetheless, grocery spending remained higher relative to earlier in 2020 (+7.5%) (Baker et al., 2020). Spending increase was associated with an increase in perceived uncertainty and stockpiling medical and food supplies during the fever period (Dietrich et al., 2020). As a result, returns of food and staple retailing performed well relative to other sectors, such as consumer services, that had poor performance during these months (Ramelli and Wagner, 2020).

***What triggered shocks to the market?*** Some highlight that the shutdown was, in essence, a supply shock with possible spillovers to the demand side (Guerrieri et al., 2020). This is supported by the fact that the change in spending on restaurants and retail was more substantial in states with shelter-in-place orders. (Baker et al., 2020). Others stress that the pandemic also affected demand directly because of the health risk of going to public spaces (Eichenbaum, Rebelo, and Trabandt, 2020). This is supported by survey evidence indicating that the majority of consumers opposed the reopening of restaurants and nonessential businesses as they have concerns about future contagion (Newmyer, 2020).

### *Shopping Behavior*

Consumer concerns shifted (from health to finances and relationships) when shelter-in-place orders, travel restrictions, and curfews were put into effect (Petersen, 2020). As consumer concerns shifted, priorities and behavior also changed.

***Purchase deferral.*** Consumers delayed purchases of nonessential goods and services such as traveling, eating out, and recreation. Fewer purchases of big-ticket items (e.g., electronics, home appliances, furniture, vehicles, house, vacations) were made this year compared to the previous year by all consumers but especially by high-income and younger (below 40) consumers (Koşar, Smith, and Klaauw, 2020).

***Self-efficiency (producing).*** Due to social distancing and the economic downturn, more time was spent at home, decreasing the opportunity cost of cooking and cleaning. This resulted in a surge in demand for cleaning products and basic food product forms, such as flour, to prepare staple foods (Deas, 2020).

***Spending, savings, and uncertainty.*** The majority of households do not expect to make large purchases, especially vacations, in the near future (Dietrich et al., 2020; Koşar, Smith, and Klaauw, 2020). Consistently, higher projected savings were correlated with greater perceived uncertainty during this period (Dietrich et al., 2020).

***Panic buying and stockpiling.*** Panic spending distorted usual consumption patterns and created market distortions. At the beginning of quarantine, stockpiling behavior was observed through excess demand for toilet paper, shelf-stable food items (frozen, canned, and dried foods; snacks; and beverages) and cleaning products, which translated into stock out at the grocery store (Terlep, 2020). During a black swan event such as an earthquake, large households and households with a middle-aged or older household wife are likely to engage in panic buying (Hori and Iwamoto, 2014).

***Reasoning.*** Stockpiling behavior can be explained by a dual-process theory of thought (Kahneman, 2011). Purchasing excess in-home food inventory can be used as a self-insurance mechanism to guarantee future consumption during uncertainty (i.e., rational and logical, or *slow*, thinking). Stockpiling can also be a consequence of irrational panic buying (i.e., emotion-driven and intuitive, or *fast*, thinking). Panic shopping was essentially triggered by people imitating what others do in anticipation of shortages (i.e., herd mentality), perceived scarcity, loss aversion, and mistrusts in market institutions (Hauser, 2020; Lufkin, 2020; Whitehead, 2020; Gupta and Gentry, 2019).

***Consequences.*** Inventory accumulations resulted in limited stock availability of popular items at the store. Demand-side scarcity could have affected food prices and brand loyalty, especially during lockdown, when bars and restaurants were shuttered.

### *Food Retailing and Demand*

***Online retailing.*** Social distance measures, including limited operation hours for stores, have influenced where and how people shop during the pandemic. This has expanded the e-commerce industry (e.g., online food retailing and food delivery services). The shift from in-store to online shopping might be a reason why credit card spending did not decrease during the economic downturn (Baker et al., 2020).

## *Second Stage: Adaptation (reopening and recession period)*

***Monetary and fiscal policy.*** To reduce borrowing costs, the Federal Reserve lowered interest rates; however, corporate debt and cash holding continued to be essential factors explaining stock returns (Ramelli, and Wagner, 2020). This is expected given that fiscal policies are far from effective in the presence of uncertainty around the pandemic (Guerrieri et al., 2020). To save jobs and bail out some companies, the U.S. Senate approved a substantial relief package at the end of March, which included loans for small businesses with the condition that they maintain employment levels.

***Is a recession next?*** Beginning in May, the reopening was announced, but not all states began reopening their economies, wary of a surge in new cases. Based on estimates cited in press reports at the time of writing, it might take more than a year for a vaccine to be available (Gallagher, 2020). As the lockdown restrictions relax, the recovery of the market is limited by the fear of more outbreaks and, and despite policy efforts, a recession seems unavoidable.

### *Economic Downturn and Spending*

***Economic projections.*** GDP is projected to decline by 6%–60% (Bachman, 2020; Barro, Ursúa, and Weng, 2020; Mulligan, 2020). Likewise, real consumer total spending is expected to decrease by 4.7% in 2020 (Bachman, 2020) and the unemployment rate to reach 32%, surpassing the Great Recession peak of 25% (Faria-e-Castro, 2020). Because part of the shock to consumption originates in disruption to consumption itself, spending is expected to fall even more than income, with a drop of 15%–19% in the second quarter of 2020 (Muellbauer, 2020).

***Consumer spending and economic uncertainty.*** Generally, an increase in employment uncertainty would affect mainly low-income households who would decrease spending. An increase in income uncertainty would affect mostly high-income households (e.g., nonessential business owners and smaller landlords), who would increase rather than decrease consumption due to market uncertainty (Deaton and Muellbauer, 1980).

### Shopping Behavior

The financial distress associated with unemployment might have a detrimental effect on consumers' mental and physical health (French and Davalos, 2011). Consumers' perceptions and decisions would not only be affected by economic stability but also the potential pandemic effects on wellbeing and mental health due to the lockdown (Hamermesh, 2020; Petersen, 2020). Therefore, a belief in the rationality of humans and organizations *amid economic* crisis is unrealistic (Ariely, 2009).

***Consumer expectations.*** Widespread pessimism about the economy in light of the outbreak was reflected in consumers' expectations for declining economic activity and rising inflation (Knotek et al., 2020). How optimistic or pessimistic consumers feel regarding the recovery of the economy can affect future decisions:

***Spending.*** According to a survey conducted in April 2020, households expecting more considerable income losses (lower-income and younger families) were more likely to report a decrease in total expenditure in the future. Interestingly, households expecting large shocks to financial wealth (wealthy and middle-age households) were neither more nor less likely to report future spending changes.

***Plans.*** Expecting greater income and wealth shocks were, in general, associated with a higher likelihood of upward adjustments of projected household debt outstanding by the end of 2020, retirement age, and desired working hours (Hanspal, Weber, and Wohlfart, 2020).

***Self-efficiency (producing).*** High unemployment rates during recessions could maintain or further promote food preparation (Aguiar and Hurst, 2005; Beatty and Senauer, 2013; Birkeland, 2014), which could be used as a self-efficiency tactic to lessen the recession effects. Cooking at home could affect the diet quality of a family during an economic contraction through food budget planning and more time at home due to unemployment (Ásgeirsdóttir et al., 2016).

***Will consumers become less loyal?*** Brand loyalty could have been affected by external cues, such as empty grocery shelves for popular items and social distancing restrictions that prevented some purchases (e.g., traveling, dining out) during quarantine as well as company exits from the market due to recession. Likewise, it could have been influenced by internal cues such as alterations of consumer needs and motivations due to the outbreak (e.g., anti-bacterial soap) and deliberate delay of purchases (e.g., big-ticket items).

### Food Retailing and Demand

***Local retailers.*** While online grocery shopping will supply the basics, local shopping will provide fresh and local goods, especially to those consumers who value convenience (more than low prices at major retailers), want to support the local economy (smaller and local stores and restaurants within communities), and consumers who prefer to avoid hot spot areas for the virus.

***Online retailing.*** Thousands of stores affected by the recession will permanently close as the e-commerce shift dominates the market and expands delivery services. Firms will need to rethink their marketing to remain viable (Ariely, 2009; Piercy, Cravens, and Lane, 2010). Retail firms will start implementing and promoting alternative shopping channels, including online shopping, as well as innovating their marketing in order to influence the new wave of consumers.

## Third Stage: New Normal (post-COVID economic recovery)

Previous pandemics were followed by several decades with depressed investment opportunities, possibly due to heightened desires to save or rebuilding of depleted wealth (Jordà, Singh, and Taylor, 2020). The economic recovery will slowly increase investment and spending and will welcome the new normalcy.

### Shopping Behavior

While some shopping patterns emerged before the pandemic, such as online shopping, others emerged because of it, such as online services (e.g., health and wellness-related services) (Petersen, 2020). Whether they persist in the long term will depend on several factors, including the continued presence of the contextual cues, how much the context reverts, and how fast consumers emerge—economically and emotionally—from the outbreak crisis. The following are some new food shopping trends that arose due to the pandemic:

***Consumer concerns about food safety.*** About half of consumers reported avoiding products from China due to the pandemic (Dietrich et al., 2020). Consumers will seek "risk-free" products, especially those shoppers who unconsciously have carried out the negative association, particularly with respect to cleaning products, antiseptics, and imported products.

***Emphasis on the supply chain.*** Future shoppers will be more interested in understanding the supply chain—from farm to factory to distribution—and will be willing to pay more for products with high-quality assurances and verifiable safety standards (Leggett, 2020).

***Local food.*** Promoting the local origin of products and informing consumers about food safety measures, for instance, in food delivery (CPG FMCG & Retail, 2020;

Leichenko, 2020) are some directions retail companies can take to assuage consumer concerns about safety standards.

### *Food Retailing and Demand*

After the Great Recession, companies implemented more analytics, metrics, and online marketing, including social media in business-to-business marketing (Rollins, Nickell, and Ennis, 2014). Larger retailers would play a significant role in meeting new market trends during the economic recovery.

***Online shopping and grocery automation.*** To respond to the switch from in-store to a pick-up and delivery model, major grocers will improve online grocery with technology, including the use of robots and artificial intelligence to improve store operations, offer fast home delivery, and expand store pick up. Big-box retailers (e.g., Walmart) are currently playing a significant role and enabling technologies that create high convenience in retailing (Meyersohn, 2020).

***Building brand loyalty.*** Firms that adopted proactive marketing during the recession will have an advantage over competitors during this period (Srinivasan, Rangaswamy, and Lilien, 2005). As online advertising (e.g., food delivery advertising) and data analytics grows (Leichenko, 2020), building and maintaining brand loyalty will be a challenge, especially for food companies that rely on large distributors to sell their products (e.g., Amazon).

***New consumer segment.*** As more people work from home, convenience meals (easy to cook or ready to eat meals) and food delivery services might increase popularity. Foodservice establishments with sanitary environments will also become popular (Richtel, 2020), as this group seeks work and meeting spaces.

## Summary

The coronavirus pandemic has modified individuals' behavior in many ways influencing the marketplace and challenging the retail food sector. This article provides insights into the effect of COVID-19 on consumer behavior by exploring essential questions, with implications for the food retail, that current research has not yet discussed.

***Are consumers rational under an unprecedented health crisis?*** During COVID-19, consumer behavior was not singularly the result of rational (slow) thinking nor emotion-driven (fast) thinking. At the beginning of the pandemic, fast thinking was dominant, resulting in impulsive shopping behavior such as panic buying and hoarding. As the crisis unfolded, slow thinking was more evident, inducing more conscious decisions, as such households started to make financial adjustments based on their economic expectations.

***What will post-COVID-19 consumer behavior and retail look like?*** The new norm in consumer behavior will likely be characterized by more considerable popularity of trends that existed pre-COVID-19, such as online shopping, as well as the adoption of new behaviors that emerged due to the pandemic, such as demand for local food and food safety attributes. As a result, there will be a growth of technology-driven online retailing and developments in the food value chain regarding safety standards.

## For More Information

Aguiar, M., and E. Hurst. 2005. "Consumption versus Expenditure." *Journal of Political Economy* 113: 919–948.

Ariely, D. 2009. "The End of Rational Economics." *Harvard Business Review* 87: 78–84.

Ásgeirsdóttir, T.L., H. Corman, K. Noonan, and N.E. Reichman. 2016. "Lifecycle Effects of a Recession on Health Behaviors: Boom, Bust, and Recovery in Iceland." *Economics & Human Biology* 20: 90–107.

Bachman, D. 2020. "United States Economic Forecast 1st Quarter 2020." Deloitte. Available online: https://www2.deloitte.com/us/en/insights/economy/us-economic-forecast/united-states-outlook-analysis.html?nc=1.

Baker, S.R., R.A. Farrokhnia, S. Meyer, M. Pagel, and C. Yannelis. 2020. "How Does Household Spending Respond to an Epidemic? Consumption during the 2020 COVID-19 Pandemic." NBER Working Paper 26949.

Barro, R.J., J.F. Ursúa, and J. Weng. 2020. "The Coronavirus and the Great Influenza Pandemic: Lessons from the "Spanish Flu" for the Coronavirus's Potential Effects on Mortality and Economic Activity." NBER Working Paper 26866.

Beatty, T.K., and B. Senauer. 2013. "The New Normal? U.S. Food Expenditure Patterns and the Changing Structure of Food Retailing." *American Journal of Agricultural Economics* 95: 318–324.

Birkeland, K. 2014. “Eating in: Employment and Home Production during the Great Recession.” *Applied Economics Letters* 21: 771–775.

Casselman, B. 2020, April 29. “Worst Economy in a Decade. What’s Next? ‘Worst in Our Lifetime.’” *New York Times.*

CPG FMCG & Retail. 2020. “COVID-19 Concerns Are a Likely Tipping Point for Local Growth.” *Nielsen*. Available online: https://www.nielsen.com/us/en/insights/article/2020/covid-19-concerns-are-a-likely-tipping-point-for-local-brand-growth/.

Deas, S. 2020. “COVID-19: Aussie Pandemic Pantries Packed for Months.” *Nielsen*. Available online: https://www.nielsen.com/au/en/insights/article/2020/covid-19-aussie-pandemic-pantries-packed-for-months/.

Deaton, A., and J. Muellbauer. 1980. *Economics and Consumer Behavior*. Cambridge, UK: Cambridge University Press.

Dietrich, A., K. Keuster, G.J. Müller, and R. Schoenle. 2020. “News and Uncertainty about COVID-19: Survey Evidence and Short-Run Economic Impact.” Working paper, Federal Reserve Bank of Cleveland.

Eichenbaum, M.S., S. Rebelo, and M. Trabandt. 2020. “The Macroeconomics of Epidemics.” NBER Working Paper 26882.

Faria-e-Castro, M. 2020, March 24. “Back-of-the-Envelope Estimates of Next Quarter’s Unemployment Rate.” St. Louis: Federal Reserve Bank of St. Louis, On the Economy Blog.

French, M.T., and M.E. Davalos. 2011. “This Recession Is Wearing Me Out! Health-Related Quality of Life and Economic Downturns.” *Journal of Mental Health Policy and Economics* 14: 61–72.

Gallagher, J. 2020. “Coronavirus: When Will the Outbreak End and Life Get Back to Normal?” *BBC*. Available online: https://www.bbc.com/news/health-51963486.

Goodman, P.S. 2020, April 1. “Why the Global Recession Could Last a Long Time.” *New York Times.*

Guerrieri, V., G. Lorenzoni, L. Straub, and I. Werning. 2020. “Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages?” NBER Working Paper 26918.

Gupta, S., and J.W. Gentry. 2019. “‘Should I Buy, Hoard, or Hide?’-Consumers’ Responses to Perceived Scarcity.” *International Review of Retail, Distribution and Consumer Research* 29: 178–197.

Hamermesh, D.S. 2020. “Lock-Downs, Loneliness and Life Satisfaction.” NBER Working Paper 27018.

Hanspal, T., A. Weber, and J. Wohlfart. 2020. “Income and Wealth Shocks and Expectations during the COVID-19 Pandemic.” CEBI Working Paper 13/20.

Hauser, M. 2020. “Barren Shelves: COVID-19 and Panic Buying of Food.” *CGIAR*. Available online: https://www.cgiar.org/news-events/news/barren-shelves-covid-19-and-panic-buying-of-food/.

Hawkins, D.I., and D.L. Mothersbaugh. 2010. *Consumer Behavior: Building Marketing Strategy.* Boston, MA: McGraw-Hill Irwin.

Hori, M., and K. Iwamoto. 2014. “The Run on Daily Foods and Goods after the 2011 Tohoku Earthquake: A Fact Finding Analysis Based on Homescan Data.” *Japanese Political Economy* 40: 69–113.

Jordà, Ò., S.R. Singh, and A.M. Taylor. 2020. “Longer-Run Economic Consequences of Pandemics.” NBER Working Paper 26934.

Kahneman, D. 2011. *Thinking, Fast and Slow*. New York, NY: Macmillan.

Kahneman, D., and V. Smith. 2002. “Foundations of Behavioral and Experimental Economics.” *Nobel Prize in Economics Documents* 1: 7.

Knotek, E.S. II, R. Schoenle, A. Dietrich, K. Kuester, G. Müller, K.O.R. Myrseth, and M. Weber. 2020, April 17. “Consumers and COVID-19: A Real-Time Survey.” Cleveland, OH: Federal Reserve Bank of Cleveland, Economic Commentary.

Koşar, G., K. Smith, and W.V.D. Klaauw. 2020, May 7. *Amid the COVID-19 Outbreak, Consumers Temper Spending Outlook*. New York, NY: Federal Reserve Bank of New York, Liberty Street Economics.

Lahart, J. 2020, March 7. “The Virus Aftermath Won’t Be Like a Hurricane.” *Wall Street Journal.*

Leggett, R. 2020. “Quality and Efficacy May Beat Out Price Sensitivities Amid Coronavirus Concerns.” *Nielsen*. Available online: https://www.nielsen.com/sg/en/insights/article/2020/quality-and-efficacy-may-beat-out-price-sensitivities-amid-coronavirus-concerns/.

Leichenko, J. 2020, May 3. “Food Delivery Advertising amid the Coronavirus Pandemic.” *Kantar*. Available online: https://www.kantar.com/Inspiration/Coronavirus/Food-delivery-advertising-amid-the-coronavirus-pandemic.

Lufkin, B. 2020, March 4. “Coronavirus: The Psychology of Panic Buying.” *BBC*. Available online: https://www.bbc.com/worklife/article/20200304-coronavirus-covid-19-update-why-people-are-stockpiling.

Meyersohn, N. 2020, April 7. “Grocery Stores Turn to Robots during the Coronavirus.” *CNN*. Available online: https://edition.cnn.com/2020/04/07/business/grocery-stores-robots-automation/index.html.

Muellbauer, J. 2020, April 11. “The Coronavirus Pandemic and U.S. Consumption.” *Vox EU.* Available online: https://voxeu.org/article/coronavirus-pandemic-and-us-consumption.

Mulligan, C.B. 2020. “Economic Activity and the Value of Medical Innovation during a Pandemic.” NBER Working Paper 27060.

Newmyer, T. 2020, May 5. “The Finance 202: American Consumers Aren’t Ready to Shop Again, Even as States Reopen.” *Washington Post*.

Petersen, A. 2020, April 26. “Your Video Therapist Will See You Now; Sessions Have Gone Virtual amid the Coronavirus Pandemic, Raising New Challenges.” *Wall Street Journal.*

Piercy, N.F., D.W. Cravens, and N. Lane. 2010. “Marketing out of the Recession: Recovery Is Coming, but Things Will Never Be the Same Again.” *Marketing Review* 10:3-23.

Ramelli, S., and A.F. Wagner. 2020. “Feverish Stock Price Reactions to COVID-19.” Swiss Finance Institute Research Paper 20-12.

Richtel, M. 2020, May 4. “The Pandemic May Mean the End of the Open-Floor Office.” *New York Times*.

Rollins, M., D. Nickell, and J. Ennis. 2014. “The Impact of Economic Downturns on Marketing.” *Journal of Business Research* 67: 2727–2731.

Srinivasan, R., A. Rangaswamy, and G.L. Lilien. 2005. “Turning Adversity into Advantage: Does Proactive Marketing during a Recession Pay Off?” *International Journal of Research in Marketing* 22: 109–125.

Terlep, S. 2020, May 7. “Why Clorox Wipes Are Still So Hard to Find; Shortage Isn’t Improving; ‘Within 30-45 Minutes They’re Gone.” *Wall Street Journal.*

Whitehead, K. 2020, February 25. “Why Hong Kong Panic Buying Happened: Herd Mentality, the Media, Overreaction and Distrust.” *South China Morning Post*.

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**Acknowledgments:** I am grateful for constructive comments and suggestions from Greg Colson and Carlos Caro.