U.S. COVID-19 ECONOMIC UPDATE WITH NIELSEN:

Consumer Indicators Signal Implications for the Economy

April 2020

prevedere 1

prevedere 11

U.S. COVID-19 ECONOMIC UPDATE WITH NIELSEN: Consumer Indicators Signal Implications for the Economy

Data updated: April 21, 2020

COVID-19 has posed the fastest and largest shift in consumer behavior ever. The global pandemic has shaken the global market, causing monumental disruption like nothing we've seen before.

This report, in partnership with Nielsen, sets out to provide valuable insight into the future consumer by dissecting past and current behaviors. By better understanding how economic shock impacts consumer intentions and actions, companies can better plan for what's next.

Read on for compelling commentary and perspective to use in planning for the remainder of 2020 and beyond from Andrew Duguay, Prevedere Chief Economist, and Nicole Collida Davis, Nielsen SVP & US Brand Effectiveness Lead.



Andrew Duguay, Prevedere Chief Economist

Andrew is Chief Economist for Prevedere, a predictive analytics company that helps provides business leaders a real-time insight into their company's future performance. Prior to his role at Prevedere, Andrew was a Senior Economist at ITR Economics. Andrew's commentary and expertise have been featured in NPR, Reuters, and other publications.



Nicole Collida Davis, Nielsen SVP & US Brand Effectiveness Lead

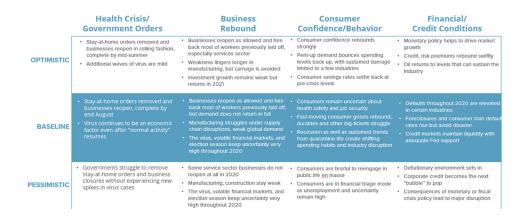
Nicole leads the Brand Effectiveness Sales team at Nielsen, where she is responsible for creating differentiated value in the marketplace by measuring evolving consumer patterns, and more of what matters to her clients. She currently stands on the front lines for Nielsen as the company showcases solutions that connect online and offline performance, uncover blind spots, shape smarter markets, and enable growth.

U.S. 2020 Macroeconomic Baseline Scenario

When considering the second half of 2020, and even into 2021, it's important to factor in a period of elevated uncertainty which is going to impact the consumer in many ways.

We don't know exactly how consumers are going to react in the next six to 12 months coming out of this downturn. We do know that the unemployment rate is rising and that jobless claims over the last few weeks have topped the multimillions in new applications every single week. However, we also know that over 80% of these new jobless claims are considered temporary jobs.

Prevedere has created a baseline scenario (in blue) and is using it to guide customers who are asking what the consumer will look like in the new economic environment. To be comprehensive, we've also considered a high side and a low side to our scenario, optimistic and pessimistic sides.



When we look at the baseline, our general assumption is that the economy and the consumer are not going to come out of this crisis the same way they went in. This is partly because of the rapid economic impacts related to layoffs and jobless claims. And even after considering the Federal Reserve monetary stimulus packages to help bolster the economy in the near term, in a relatively short period, when all this shakes out, we expect to see businesses reopen. However, it is unfortunately improbable that the country will regain all lost jobs.

THOMAS STREET

Baseline Assumption

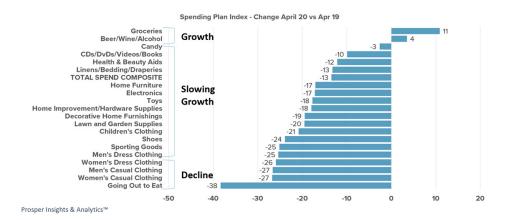
When we look at the baseline, our general assumption is that the economy and the consumer are not going to come out of this crisis the same way they went in. This is partly because of the rapid economic impacts related to layoffs and jobless claims. And even after considering the Federal Reserve monetary stimulus packages to help bolster the economy in the near term, in a relatively short period, when all this shakes out, we expect to see businesses reopen. However, it is unfortunately improbable that the country will regain all lost jobs.

Another important aspect of this crisis is the consumer psyche. We'll look at early signals from consumer sentiment surveys to see how consumers are viewing this crisis compared to previous crises.

When considering the baseline scenario, it's essential to realize that this crisis is first and foremost a health crisis, with recovery depending on the COVID-19 infections subsiding for business to resume. We have examples from countries primarily in Europe to model and measure the US recovery most accurately. We might be past the peak number of new COVID-19 cases, but that's really only the beginning. The practice of social distancing is going to be part of our everyday lives for months on end, even after businesses start to open. This is a consumer psychological consideration that should be considered in any discourse on economic conditions moving into the second half of the year.

Consumers and Economic Shock

Part of our baseline scenario relies on monitoring many different metrics around consumer financial health as well as consumer mental health coming out of this this crisis and looking into the second half of the year. Some of the early signals are coming from consumer sentiment surveys. This is valuable for learning how consumers are feeling and thinking about today versus a year ago.



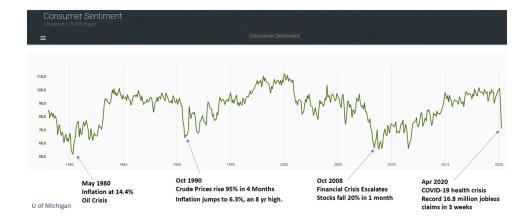
This chart above reveals that consumers are thinking more conservatively, and they are thinking of spending less in many areas. Even considering the temperament, there are still some winners—grocery stores and consumer staples. According to Prosper Insights & Analytics' Spending Plan Index, consumers are thinking, even over the next six months, that they're going to be stuck at home more. Therefore, grocery spending is likely to increase, as well as the essential beer wine and alcohol category.

In other areas, consumers are thinking about slowing down their spending but are not yet signaling a year-over-year decline for many of these categories. However, pre-crisis growth rates that were previously elevated when employment was at record lows and wages were rising, are now going to slow in many of these categories.



The categories that are most impacted now are affected by the sheltering in place order. There isn't a need to buy apparel. And going out to eat, even if you wanted to, isn't an option. These impacts are enormous compared to not only a year ago, but to even just a few months ago, back when we were looking at this health crisis from the outside looking in.

For solidified economic reasons, this is a shock, and we should compare this shock to previous shocks in US economic history dating back through history. Using consumer sentiment data from the University of Michigan, we can look back at a few cases where we saw a very steep decline in consumer sentiment in a single one- or two-month period, as has happened with this April 2020 COVID-19 crisis. The current pandemic has pushed consumer sentiment from 20-year highs down to the lowest levels we've seen since coming out of the last recession back in 2008 to 2010. That is significant to industry and business a cross sectors and o ceans alike.



The most recent comparable to April 2020 is in 2008 with the financial crisis when stocks fell 20% in one month, and we saw consumer sentiment fall to near-record lows. However, each of these crises has a different cause. But what we're looking at is how the consumer reacts to each crisis. For example, the May 1980 and even the October 1990 crises were driven by a rapid increase in oil prices. Whereas today we're seeing the opposite, even seeing negative prices on oil, which would have been just unfathomable just a few months ago. In all of these examples, consumer sentiment fell very swiftly even after long periods of above-average consumer sentiment.



Looking at October 1990, consumer sentiment was elevated through the latter half of the 1980s, and then it fell sharply in 1990. The recovery followed swiftly, but it wasn't sustained. There was a lot more volatility in consumer sentiments and consumer attitudes after Oct 1990 than before. The economic influences and impacts affected people's spending habits for many months or even years after the initial crisis. This data shows that these crises can make people much more conservative. Nobody likes to file for unemployment, even if they know that their job loss is temporary. It's a new and damaging experience, it brings with it many considerations in terms of what they're going to spend future dollars on. From this perspective, we see that consumer attitudes don't recover quickly from severe economic shocks.

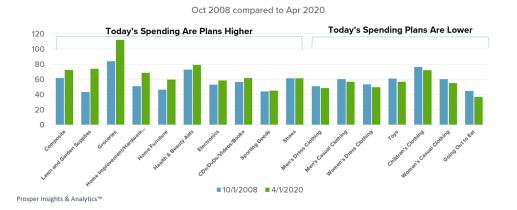
Consumer Purchase Intentions

This begs us to consider that we might be looking at a different consumer mindset over the coming year. Even if the health crisis is gone, and we have a vaccine for COVID-19, a negative psychological response is expected. It's with this kind of recession-minded consumer from 2008 when the stock market fell 20% that we're making comparisons to consumers in the most recent survey.



PREVEDERE The State of the U.S. Economy: April 2020





Consumers overall are still not as pessimistic as they were in October 2008 as shown by the composite indicator with the green line being above the blue line. But there are areas where today's spending plans are even lower than in 2008 and people are thinking about cutting back on things like apparel or toys and particularly going out to eat.

The interesting consideration is that these questions are posed at spending plans over the next six months. It's not necessarily what you're spending on now when businesses remain closed, but what your spending plan is going to be over the next six months. What this tells us is that a lot of consumers are thinking recessionminded—they're thinking about drastically cutting back or decelerating their spending plans in many different a reas over the next six months, e ven though most people are expecting that these shelter in place policies are lifted in the next month or two.

Looking ahead to the second half of the year, we need to consider that heading into the holiday shopping season, even as those businesses deemed essential start to compete with those non-essential businesses again, we're likely going to see more conservative spending from consumers.

Consumer Behavior is Driving Change

Because of elevated uncertainty and an unknown future, there's a new consumer that's emerged which has Nielsen considering it to be a totally new era of consumer behavior. One thing is certain, no one is untouched by COVID-19. In some way, everyone has been impacted by this pandemic.

Consumers have experienced a lot of uncertainties—long lines, long waits for fulfillment, out of stocks, and not just on their favorite products, but on a lot of the staples needed to fill pantries. There's no doubt that more than any other sector, retail has been affected. Whether it's online or offline, retailers have been hit hard and their response to this unprecedented demand has really changed consumer behavior. It's easy to feel like in these times there are more questions than answers. It's pretty hard to predict the unknown and even many of our experts are stunned.

Historically, when we think about measuring consumer behavior and how it relates to consumer consumption, we see certain trends that are fairly consistent. For example, consumption easily correlates to gross domestic product over time. COVID-19 has introduced a completely new element and a level of uncertainty. We're having to approach everything differently than we ever have before. All these forces are driving monumental disruption that we must consider as we analyze the early impacts of COVID-19 and how to plan post pandemic.



U.S. Faced Disruptive Forces In-store and Online

The first disruptive force is pandemic pantry loading. In the month of March, consumers added an incremental \$18.8 billion to the CPG industry.

It's true that consumers are buying more because they're also using more since they're staying in their homes. However, 8.2 billion of those dollars are due directly to pantry loading. This is a behavior change in which consumers are stockpiling product to ensure that they don't run out in their homes.



Source: Nielsen analytics, Total US xAOC Week Ending 3/21/2020; Nielsen Total U.S. ecommerce measurement powered by Rakuten Intelligence

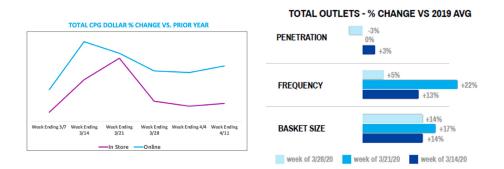
The second disruptive factor is a surge in online orders. Just in the month of March alone, online CPG orders grew by 60%. 37% of that growth was driven by completely new households to CPG online purchasing or to significantly increased purchase frequency in the CPG space.

These just start to show us some of the factors that differentiate the position that we're in as an economy and as a CPG industry today, as compared to some of the things that we experienced in the 2008 Great Recession.

prevedere 11

Sales Trends Consistent and Aligned to Consumer Behavior

These numbers are staggering and it's clear that they'll shape our future. Both online and offline volume moved fairly similarly through these COVID-19 times.



Source: Nielsen Total US xAOC; Nielsen Ecommerce measurement powered by Rakuten Intelligence; Nielsen Homescan Panel

As penetration and frequency were maxed online early in the month of March, we saw a shift of consumers back into offline channels, or in-store shopping behavior. No matter whether it was online or offline, the week ending March 21st really demonstrated a peak in total buying behavior across all channels.

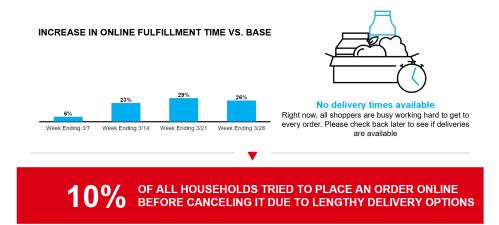
Consumers not only increased the frequency of purchases, but they increased their basket sizes as well. In fact, for the week ending March 21st basket sizes on average were up 17% for consumers. And to add a little color to that, it's pretty interesting when you think about the number of categories consumers purchased.

During that same week ending March 21st, consumers purchased on average from four more categories than they did in any other pre-COVID times. The stockpiling behavior that occurred here was clear. As a result, fulfillments have been pushed to their maximum and in many ways beyond their maximum.

Online Sales Pushed to Its Limits

When we think about online fulfillment specifically, we saw that consumers' time to fulfillment increased by almost 30% during that same week ending March 21st. This is not even including the consumers that couldn't get delivery; couldn't get anything from Amazon or Instacart. Speaking of those companies, we know that they were not pushed beyond their limits.

Shipt and Instacart were working hard to staff up in response to the demand. Amazon had to temporarily suspend non-essential delivery so they could ensure that they were getting essential items to consumers that were in need. Even so, 10% of consumers had to cancel their orders online because of lengthy delivery options. That doesn't even include the consumers that couldn't get a click and collect or a delivery spot in their online orders. Both sales data and consumer behavior are painting a picture of a really changed consumer. This idea of a new era of consumer behavior is absolutely prominent.

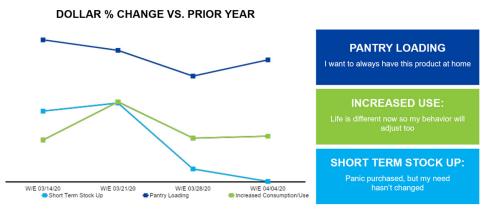


Source: Nielsen E-commerce measurement powered by Rakuten Intelligence; Nielsen Homescan Omnibus Survey, April 2020

Three Distinct Product Groups Emerging

Consumers are shopping with health and safety in mind first and foremost. They're simply trying to avoid the virus and avoid germs. But in addition to that, consumers are responding differently to things like store closures for non-essential items and shelter in place orders across most, if not all, states. This tells us that measuring your total commerce in this new era of consumer behavior is more important than ever before.

This consumer behavior is also brought to light three distinct product groups. Looking at Nielsen sales volume across all measured channels for the month of March, even this early in analyzing behavior, we can see some unique behaviors emerging.



Source: Nielsen E-commerce measurement powered by Rakuten Intelligence; Nielsen Homescan Omnibus Survey, April 2020

The first is pantry loading, and this is quite simply categories like household cleaners, of course toilet paper, but also dried beans, canned beans, and different products like that. This is consumers telling themselves that they will always need this product in their home, and they want to ensure that they will not run out.



Consumption may be increasing a small amount but more than anything there's a safety factor here where consumers want to make sure they've got these particular types of products in their house.

The second distinct group is increased usage. This is consumers recognizing that their life is different now and their behavior is adjusting alongside of it. These categories include things like frozen pizza, baking products, and beer and wine. We know consumers are using more and they're increasing their purchases of these products to reflect that behavior.

The third group is short-term stock up, also known as panic buying. This is defined best by the category of rubbing alcohol. You couldn't visit a store in early March without seeing massive out of stocks in the rubbing alcohol/bandages areas of the store. These are areas where consumers panicked and purchased but have not increased their usage in any way.

And then finally, we're starting to see a fourth group emerge, and it's quite interesting. It's do it yourself. This group is all the services that many consumers have the luxury of paying for, like haircuts or manicures, but are now unavailable. We're seeing those categories start to skyrocket with things like hair clippers, electric shavers, and nail polish, separating themselves as their own group of behavior.

All of these behaviors will impact volume and it's important to understand when you can anticipate changes in this behavior, and how you can help plan for this demand that consumers have. If you think about the difference between increased consumption and pantry loading, what you can expect is a change in how consumers will engage with that category over time.

Categories that are classified as increased consumption are going to see some tailwinds. Consumers have expanded their consumption and are also increasing their purchases in these categories. Whereas categories that have been panic bought or pantry loaded are going to see lower than expected volumes sooner than categories that have those tailwinds of increased usage.

Conclusion

What you can see is that there are some spending categories in which consumers are spending about the same as they were back during the Great Recession of 2008-2009. There are many areas where today's spending plans are still higher. For example, when you think about groceries, home improvement, and lawn and garden supplies, consumers are still generally thinking about spending more money than they were back during the 2008-2009 recession.

While consumer sentiment isn't quite as low today as it was in 2008, there are areas where consumers are already thinking of cutting back, even more so than in 2008. Hard-hit sectors like clothing, toys, going out to eat, and others, have been targeted. There is no single historical event we can look to when seeking insights into future scenario planning.

If we know anything, we know that the future remains a bit uncertain. Globally, consumers are telling us that their behavior has and will continue to change, from a working at home perspective, to travel and grocery shopping. Consumers expect these changes to last at least four or more months into the future, and we know that is going to impact global business significantly.

Embracing this new era of behavior also requires a new approach to measurement. If you approach measurement analysis differently, it will allow you to move with agility in solving for today, to move with speed, and with an organization-wide effect to plan for tomorrow. And then ultimately, to start to prepare for the future.

Regarding the uncertainty of the economic headwinds that we're facing and how consumer behavior may change and impact volume down the road, it's essential to get a line of sight into those things today so that you are prepared when these changes come.



WATCH: The Full U.S. Economic Outlook Recording



Click here to gain access to the full recording>>



prevedere 11

ABOUT THE NIELSEN CONNECT PARTNER NETWORK



Nielsen's Connect Partner Network is the first and largest curated community of partners for the retail and CPG industry. The network has been instrumental in driving business value for both Nielsen clients and connected partners by enabling them to easily find one another and collaborate within an open and secure data ecosystem...removing the most common and burdensome barriers to connecting applications and data sets at scale. Using Nielsen data as the "connective tissue", the Connect Partner Network aids in faster

development of innovative solutions between Nielsen, our clients, and our network partners, while also helping clients and partners harness more efficient and accurate analytics that drive better industry results from all angles.

Through the Connect Partner Network, a client's Nielsen data and Prevedere's real-time external insights engine, which analyzes millions of global economic and consumer behavior leading indicators, can be used to develop highly accurate and predictive sales models of many fast-moving consumer goods (FMCG) categories.

ABOUT NIELSEN

Nielsen Holdings plc (NYSE: NLSN) is a global performance management company that provides a comprehensive understanding of what consumers watch and buy. Nielsen's Watch segment provides media and advertising clients with Nielsen Total Audience measurement services for all devices on which content — video, audio and text — is consumed. The Buy segment offers consumer packaged goods manufacturers and retailers the industry's only global view of retail performance measurement. By integrating information from its Watch and Buy segments and other data sources, Nielsen also provides its clients with analytics that help improve performance. Nielsen, an S&P 500 company, has operations in over 100 countries, covering more than 90% of the world's population. For more information, visit www.nielsen.com.



Complimentary COVID-19 Economic Outlook Weekly



In the wake of the COVID-19 pandemic, it is now more important than ever to have access to trusted data and expert economic analysis to help guide strategic decision making and business planning. To meet this need, Prevedere is unveiling its Economic Outlook Weekly report, with a complimentary package focused on COVID-19.

There is no charge for access to leading indicators as they matter updated weekly.

Complimentary COVID-19 Economic Outlook Weekly includes:

- Macro view of COVID-19 global economic impact
- Key leading indicators to watch
- Regular economist presentations offered as information becomes available
- Weekly updates sent to your inbox

Click here to gain access to the COVID-19 Economic Outlook Weekly>>

Prevedere Prevedere is a predictive analytics software company that delivers insights into future business outcomes based on current economic trends. Our predictive economic intelligence offerings help executives see what lies ahead for their business and solve for upcoming risks and opportunities. Prevedere's SaaS solutions apply the power of machine learning and predictive modeling to millions of indicators of global economic and consumer activity. Prevedere customers include Fortune 500 industry leaders in retail, manufacturing, and consumer packaged goods. To learn more, visit www.prevedere.com or follow @Prevedere on Twitter.

prevedere

TO LEARN MORE, VISIT: PREVEDERE.COM