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The Alpha Edison Perspective on Early Indicators of Consumer Optimism

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Early indicators of consumer optimism: forward-looking spending of both money and time as the economy reopens

People are chomping at the bit to resume social and cultural activities once they are given a green light by public health authorities.

In this issue of AE Perspectives, we apply the AE Consumer Impact Index to highlight recent trends in consumer spending of both money and time as pandemic restrictions are gradually lifted. Using proprietary data resources, we observe increased expenditures on home and garden categories, persistently exceeding last year's levels, and a more recent boost to the categories of travel gear and outdoor recreation. In addition, we see a spike in the time that consumers are spending on websites related to travel and local commerce, versus a decline in time spent on home entertainment and work / school productivity websites compared to last year.

We expect the pent-up demand for travel and recreation to persist at full force until it meets and exceeds pre-COVID levels, as people are chomping at the bit to resume social and cultural activities once they are given a green light by public health authorities. On the other hand, the return to patronizing local businesses will likely be mixed given that some consumers have adjusted their attitudes and behaviors around what is safe. We predict that high-end establishments that can provide assurances of cleanliness protocols - and which serve an affluent clientele less hard hit financially by the pandemic - will rebound relatively quickly, while many "mom and pop" services will remain shuttered or fail to return to full capacity. Further, businesses that rely on patronization by office workers may receive far less foot traffic than pre-pandemic levels, as many of those offices fail to fully reopen for in-person work.

Consumer Optimism

SIGNALS OF REBOUNDING CONSUMER CONFIDENCE

In this analysis, we examine the extent to which consumer behavior is reverting to the pre-COVID status quo as more people get vaccinated and restrictions gradually ease. We focus on behavioral data offering proprietary insight into the specific purchases consumers make online, as well as how they spend their time on other domains across the web (looking at the top 1,000 most frequently visited domains in our dataset). This enables a unique understanding of how consumers are spending both their money (deviations measured by CII-money) and their time (deviations measured by CII-time) as stimulus checks arrive and the U.S. economy opens up more broadly.

We trained our model on an entire year (March 10, 2020-21), in which the widespread effects of COVID-19 were unfolding. The date range was selected because the start marked approximately the time when pandemic precautions were initially implemented throughout most parts of the country, and the end date when another round of stimulus checks were announced by the Biden administration. Using that one-year time frame as the basis for comparison, we generated forecasts and calculated CII-money and CII-time for actual behavior during the subsequent two biweekly periods (Biweek 1: March 11 - March 24 and Biweek 2: March 25 - April 7, 2021).

CATEGORIES WITH AMAZON PURCHASING ABOVE FORECAST

Figure 1 shows Amazon categories having the most positive CII-money values, i.e., for which consumer spending is especially high relative to this time last year. Notably, the CII-money values in the categories "home & kitchen" and "patio, lawn & garden" were strongly positive, corroborating our prediction in the summer of 2020 that consumers appeared to be developing enduring domestic hobbies and locking themselves into household commitments that would encourage spending in this realm to persist long-term. In addition, high CII-money values for the categories "luggage & travel gear" and "sports & outdoors" suggest renewed interest by consumers in pursuing recreation outside the home, be it a nearby camping getaway or a bucket-list trip to an exotic destination. Increases across all of these categories from Biweek 1 to Biweek 2 may reflect the liquidity provided by stimulus checks.

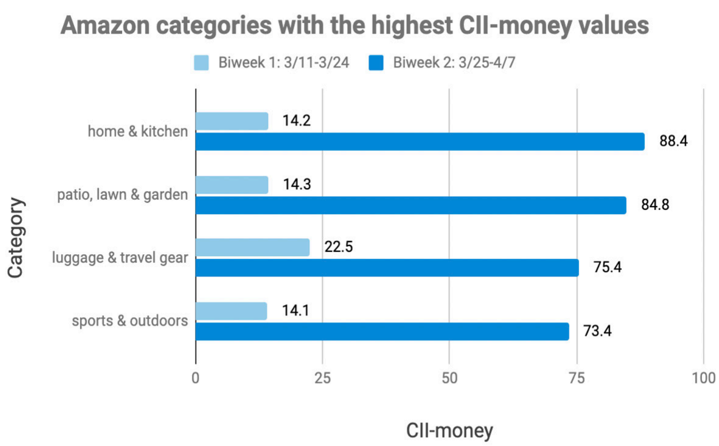

Figure 1. The categories with the highest average CII-money values across the two biweekly periods we examined spanning March 11 - April 7, 2021. Positive CII-money values indicate an increase in money spent relative to forecast.

WEB DOMAINS WITH TIME SPENT ABOVE FORECAST

Perhaps even more interesting than the way consumers are spending their money is the way they are spending their most precious resource: time. The pandemic has rendered the scarcity of time particularly salient, so how people spend it is indicative of their current priorities. When we apply the CII to explore time spent across the 1,000 most visited web domains in the DISQO data, we see where consumers are spending significantly more time online compared to last year (i.e., positive values of CII-time).

CII METHODOLOGY

In March 2020, as the full reality of the COVID-19 pandemic was setting in for many Americans, we introduced the AE Consumer Impact Index (CII) as a means of identifying behaviors that deviate from expectation. The CII methodology entails generating forecasts for consumer behavior based on historical data, taking into account both preexisting volatility and seasonality, and then assessing how often observed (actual) behaviors fall significantly outside the range of these predictions.

At the beginning of the lockdown in the spring of 2020, we noted an increase in consumer spending at bike stores as evidence for people seeking alternatives to public transit, which was being shut down in many cities and/or viewed as a vector for COVID-19 transmission. Over the summer, we then used the CII to discover an uptick in spending on domestic improvements and pets made by many people who were seemingly resigning themselves to - and making the most of - being homebound for work and leisure alike. Most recently in the fall of 2020, we detailed increases in credit reporting expenditures by consumers who perhaps fell into financial distress due to pandemic-related income losses.

The approach here differs slightly from what we previously described in that we've weighted extreme outliers more heavily to differentiate behaviors that fall further outside of the expected range. However, the interpretation is the same that positive CII values closer to 100 indicate substantially more money (or time) spent than forecast, whereas negative values closer to -100 indicate substantially less money (or time) spent than forecast; values near 0 mean that actual behavior corresponds closely with forecast.

Consumer Optimism (cont.)

The most prominent effect, consistent with the increase in luggage purchasing noted above, is a dramatic increase in time spent on travel websites relative to this time last year. Of the 20 web domains with the highest CII-time out of all 1,000 domains captured, the 10 shown in Figure 2 were travel-related. Traffic to several of the aggregators (Booking, Kayak, Priceline, and Expedia) has returned to pre-COVID levels.

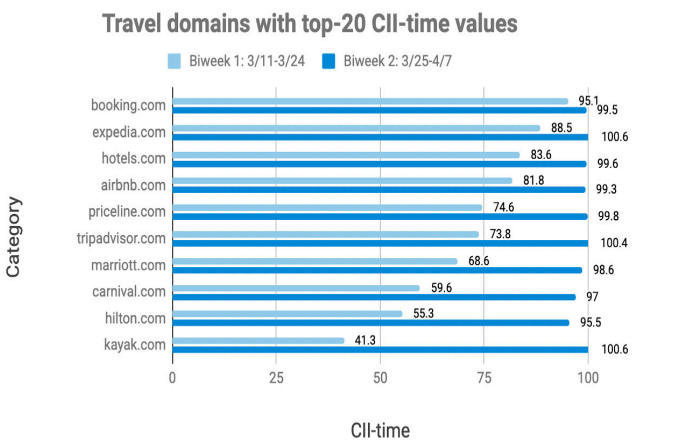

Figure 2. Travel-related web domains with highest average CII-time values across the two biweekly periods we examined spanning March 11 - April 7, 2021. All of these domains were in the top 20 out of 1,000 domains. Positive CII-time values indicate an increase in time spent relative to forecast.

An additional 5 websites specifically geared at booking air travel (CheapOair, Delta, AA, United, and Southwest) were among the 20 domains demonstrating the greatest jump in CII-time from Biweek 1 to Biweek 2. In fact, time spent on Southwest exceeds pre-COVID levels, illustrating the more rapid restoration of domestic travel as vaccinations in the U.S. ramp up, versus the ongoing stagnation in international travel. While we cannot be certain from this data whether individuals are contemplating travel for business or pleasure (we suspect the latter based on the more moderate pace of offices reopening) they seem confident that they will be able to take a trip within the foreseeable future.

Related to the increase in travel-related web browsing, we also observe a broader increase in time spent on domains that support getting out and about. The CII-time values for Yelp and Groupon are in the top 20, implying that consumers are seeking information about - as well as options to purchase - services that could require venturing out to local businesses. Either in their hometown or at a travel destination, consumers are displaying pent up demand for in-person experiences at salons, restaurants, museums, and the like.

Further, Care and Fandango were among the 20 top movers from Biweek 1 to Biweek 2. We interpret this as consumers becoming open to the idea of revisiting movie theaters, perhaps even on a date night that entails hiring someone to enter their home and watch their children. Activities that might have felt unimaginable at this time last year are now offering a light at the end of the tunnel for many cooped up consumers.

WEB DOMAINS WITH TIME SPENT BELOW FORECAST

The flip side of consumers spending more time outside the home is spending less time on all the other things that pandemic constraints had them doing in front of a computer (or phone or ipad) screen. Several of the websites with the 20 lowest CII-time values (out of 1,000) fell in the domain of home entertainment, including TV viewing (e.g., Hulu, Netflix) and gaming (e.g., Roblox).

Within this short list of poorly performing web domains, we also found several productivity tools for work (e.g., Office365) and education (e.g., KhanAcademy). Although such websites gained “popularity” - or begrudging necessity - last year as offices and schools went fully remote, many of these platforms were hastily adapted to replace in-person interactions, and consumers have grown weary with screentime that is not optimized for its COVID-19 (over) use case. This is a strong contributing factor to the apparent readiness of many people to reemerge from their digital cocoons into the wide analog world.