Key takeaways

- The share of online retail spending (as compared to brick and mortar (B&M)) rose over the pandemic as social restrictions made in-person B&M spending difficult. However, even though the pandemic-era restrictions have lifted, the online share has not declined.
- Bank of America aggregated and anonymized card data shows that the rise in online spending occurs across both income levels and generations, which poses big challenges for physical retail - our measures of spending in malls and in central business districts (CBDs) show that spending remains very weak in these areas.
- B&M retailers are responding to these challenges by offering better in-person services, as well as embracing customers who browse in store but buy online. But these strategies have their limits and may ultimately require fewer and smaller stores. So B&M retail spaces will need to continue to think creatively, including by taking advantage of the demand for services.

The rise of online retail in the US

The pandemic has had many lasting impacts on the economy, including the consumer shift towards spending more online and less in brick-and-mortar (B&M) retail locations. Exhibit 1 shows that in 2019, prior to the pandemic, around 20% of the total value of Bank of America aggregated and anonymized credit and debit card data on retail spending was online (card not present).

Exhibit 1: Share of online in total retail spending in Bank of America credit and debit card data and the pandemic US Stringency Index (%) as social distancing and other restrictions were applied over the pandemic, the share on retail spending done online increased significantly.

Source: Bank of America internal data, Thomas Hale, Noam Angrist, Rafael Goldszmidt, Beatriz Kira, Anna Petherick, Toby Phillips, Samuel Webster, Emily Cameron-Blake, Laura Hallas, Saptarshi Majumdar, and Helen Tatlow (2021). “A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker).” The stringency index combines nine measures of pandemic impacts: school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closures of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements, and international travel controls. A higher value of the index indicates more restrictive policy.

1 In Bank of America card data where a card was not present, we categorize as online. Card not present is largely online but could include purchases made over the phone. B&M retail means retail purchases as the store.
The Stringency Index, produced by the Oxford COVID-19 Government Response Tracker project, is a useful guide in gauging when pandemic restrictions were at their most severe and when they were eased in the US. And the online share in retail spending by US households largely follows the movements in this index, with a jump in online spending when social distancing, working from home and other mandates came into effect in early 2020. But interestingly, as pandemic-era restrictions have eased over 2022 and 2023, there has not been a notable drop in the online share of retail spending, which stood at around 27% in the first half of 2023.

Is this continuance of online retail spending due to a particular income or demographic cohort? Our data suggests that it is not. Exhibit 2 shows that the share of online spending remains well above 2019 levels across all income cohorts. And perhaps more surprisingly, there is not much sign of a drop down to 2019 levels across any age generation (Exhibit 3). The largest rise in the share of online spending was among millennials, but even older generations saw a significant increase.

Some categories of spending are likely more amenable to online purchasing than others, but Exhibit 4 suggests that this change in consumer behavior is broadly based. The biggest jump in online retail spending across select categories is in clothing, which may suggest consumers are increasingly less concerned about physically seeing and trying on clothing before buying.

### Exhibit 2: Share of online in total retail spending in Bank of America credit and debit card data by income (%)
The share of online spending remains higher than pre-pandemic levels across incomes

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2022</th>
<th>2023 (to June 17th)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT $50K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50-125K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GT $125K</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bank of America internal data

### Exhibit 3: Share of online in total retail spending in Bank of America credit and debit card data by generation (%)
The share of online spending is up and appears sticky across all generations

<table>
<thead>
<tr>
<th>Generation</th>
<th>2019</th>
<th>2022</th>
<th>2023 (to June 17th)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby Boomers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditionalists</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bank of America internal data

### Exhibit 4: Change in the share of online spending in Bank of America credit and debit card data by selected retail category between average in 2019 and January-May 2023 (monthly percentage points)
There is a broadly based rise in online spending across spending categories

<table>
<thead>
<tr>
<th>Category</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Vehicle</td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
</tr>
<tr>
<td>Grocery</td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td></td>
</tr>
<tr>
<td>General Merchandise</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td>Food Services</td>
<td></td>
</tr>
<tr>
<td>Total Retail</td>
<td></td>
</tr>
</tbody>
</table>

Source: Bank of America internal data. 2023 is average for January-May 2023. Card spending on motor vehicles will largely reflect parts and services, not
The challenge for physical retail

With no obvious sign that the share of online retail spending will return to pre-pandemic levels, this poses challenges for certain geographies as well as traditional retailers.

Geographically, of the 25 metropolitan statistical areas (MSAs) we consider, we find some tendency for southern MSAs to have a lower share of online retail spending (Exhibit 5). On the other hand, some cities in the Northeast and West, such as Philadelphia, New York, Seattle and Portland, have some of the highest online shares. Conversely, some MSAs that have seen the strongest growth in B&M physical retail spending in 2023 compared to 2019, are the ones with the lower shares of spending online.

Exhibit 5: Share of online in total retail spending in Bank of America credit and debit card data by MSA, January-May 2023 average (monthly, %)
Some MSAs have a higher share on online spending than others

Exhibit 6: Change in B&M retail spending per household, January-May 2023 compared to January-May 2019 (monthly, %)
MSAs with lower online shares have seen some of the fastest growth in B&M spending

However, examining Bank of America internal data, we also highlight two particular areas of weakness. The first of these is B&M spending in shopping malls for which we constructed an aggregate total spending series for 120 B&M retailers largely found in malls throughout the US. The series includes department stores, shoe stores, athletic sportswear and equipment, some furniture/home goods, jewelry, and luxury.

Exhibit 7 shows that according to our malls series, spending is still a significant way below where it was over the first five months of 2019 (in dollar terms) – much weaker than total B&M retail spending over this period. Across the 25 MSAs we looked at, those with stronger B&M retail spending tend to have stronger malls spending, as one would expect. But in almost all MSAs, mall spending is down from four years earlier.
Exhibit 7: % change January-May 2023 compared to January-May 2019 in B&M spending per household in total retail and in Malls
Our measure of spending in malls is well down from 2019 levels.

Exhibit 8: B&M Malls spending per household versus total B&M retail spending, by MSA (% change January-May 2023 compared to January-May 2019)
Those MSAs with stronger total B&M retail spending tend to have stronger malls spending, as one would expect.

Source: Bank of America internal data.

The second area of weakness is around downtown areas in cities. In these areas the rise in remote and hybrid work models is compounding the impact of increasing online spending. Our measure of B&M retail spending in central business districts (CBDs) looks at spending in the zip codes where there is a high density of office workers. As Exhibit 9 shows, spending in the CBDs we cover remains relatively weak compared to the overall US. In CBDs in New York, Boston and San Francisco, spending has not recovered to the pre-pandemic level.

Exhibit 9: B&M retail spending per household in the US and specific Central Business Districts* (monthly, January 2020=100)
B&M retail spending in CBD’s remains significantly weaker than the US overall experience.

Source: Bank of America internal data. Note: CBD series represents selected zip codes in Atlanta, Boston, Dallas, Houston, New York, San Francisco. 2023 data to May.

What comes next?
Economists often make poor forecasters, but we can be sure that people get older each year. Because the tendency to shop online is highest among the younger generations, as they age and make up an increasing proportion of consumers, it seems likely that the share of online spending will continue to rise due to these demographics. The migration of younger people from
the North to the South (see The Great Migration Continues) could also raise the online share of retail spending in some southern MSAs over time.

Technological developments may also favor online spending. Augmented reality and virtual reality experiences could lessen the gap between buying some items online and seeing them in person, in a store. Perhaps artificial intelligence may also become adept at picking out things that look good on you.

**What’s the solution for B&M retail?**

As online retail continues to take market share, retailers have been trying to differentiate themselves by offering better in-person services. Personal shoppers, alterations and in-store events have been successful in driving traffic. Additionally, services like pick up in store or ship to store help customers receive the item faster than buying online and avoid shipping fees.

Many customers also like to browse and try on in stores and later purchase the items online, so having stores helps attract and retain these shoppers. Some stores are even being set up as showrooms with one size of each item in stock and purchases are later shipped to the customer from a distribution center.

These are strategies that retailers have used to try to defend share, but the demographic trends towards more online spending continue to pose a real threat to the longer-term traffic patterns.

Interestingly, a new trend that has been gaining steam is traditionally online-only retailers opening B&M stores. Many brands have exhausted their ability to attract new customers purely online, through things like social media and search engines. Instead, they find that opening a store in a visible, high traffic shopping location can often be more powerful way to attract new customers.

However, there are limits to these strategies. Most digital retailers hope to have 20-50 of these relatively small foot-print stores, not 800 (which was the standard before online retail begin its rapid ascent in popularity.) The locations are also often in city centers or close to suburban strip centers, with most eschewing malls as a prime destination. While these stores are typically very profitable and help grow a brand’s popularity, the small number of them may do little to offset the broader pressures on mall retailers in the coming years.

So the trend in the rise of online spending continues to pose real questions for B&M retail, including malls and central business districts. But there may be opportunities in the future too. Online work and shopping can disconnect people from society and contribute to a rise in anxiety and loneliness (see A path to better workplace mental health for related discussion in this area). As a result, locations that used to focus on selling ‘things,’ may increasingly find demand for facilitating socialization, connections and services. This will require creative thinking and innovation but can help make an important contribution to peoples’ wellbeing and quality of life.
Methodology

Selected Bank of America transaction data is used to inform the macroeconomic views expressed in this report and should be considered in the context of other economic indicators and publicly available information. In certain instances, the data may provide directional and/or predictive value. The data used is not comprehensive; it is based on **aggregated and anonymized** selections of Bank of America data and may reflect a degree of selection bias and limitations on the data available.

Any payments data represents aggregated spend from US Retail, Preferred, Small Business and Wealth Management clients with a deposit account or credit card. Aggregated spend include total credit card, debit card, ACH, wires, bill pay, business/peer-to-peer, cash and checks.

Any **Small Business** payments data represents aggregate spend from Small Business clients with a deposit account or a Small Business credit card. Payroll payments data include channels such as ACH (automated clearing house), bill pay, checks and wire. Bank of America per Small Business client data represents activity spending from active Small Business clients with a deposit account or a Small Business credit card and at least one transaction in each month. Small businesses in this report include business clients within Bank of America and generally defined as under $5mm in annual sales revenue.

Unless otherwise stated, data is not adjusted for seasonality, processing days or portfolio changes, and may be subject to periodic revisions.

The differences between the total and per household card spending growth rate can be explained by the following reasons:

1. Overall total card spending growth is partially boosted by the growth in the number of active cardholders in our sample. This could be due to an increasing customer base or inactive customers using their cards more frequently.

2. Per household card spending growth only looks at households that complete at least five transactions with Bank of America cards in the month. Per household spending growth isolates impacts from a changing sample size, which could be unrelated to underlying economic momentum, and potential spending volatility from less active users.

3. Overall total card spending includes small business card spending while per household card spending does not.

4. Differences due to using processing dates (total card spending) versus transaction date (per household card spending).

5. Other differences including household formations due to young adults moving in and out of their parent’s houses during COVID.

Any household consumer deposit data based on Bank of America internal data is derived by anonymizing and aggregating data from Bank of America consumer deposit accounts in the US and analyzing that data at a highly aggregated level. Whenever median household savings and checking balances are quoted, the data is based on a fixed cohort of households that had a consumer deposit account (checking and/or savings account) for all months from January 2019 through the most current month of data shown.

Bank of America credit/debit card spending **per household** includes spending from active US households only. Only consumer card holders making a minimum of five transactions a month are included in the dataset. Spending from corporate cards are excluded. Data regarding merchants who receive payments are identified and classified by the Merchant Categorization Code (MCC) defined by financial services companies. The data are mapped using proprietary methods from the MCCs to the North American Industry Classification System (NAICS), which is also used by the Census Bureau, in order to classify spending data by subsector. Spending data may also be classified by other proprietary methods not using MCCs.

Generations, if discussed, are defined as follows:

6. Traditionalists: pre-1946
Any reference to card spending per household on gasoline include all purchases at gasoline stations and might include purchases of non-gas items.

The aggregate total spending series for malls includes 120 B&M retailers includes largely found in malls throughout the US. The series includes department stores, shoe stores, athletic sportswear and equipment, some furniture/home goods, jewelry and luxury.

Additional information about the methodology used to aggregate the data is available upon request.

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Disclosures

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