High frequency US data tracker
Index, with 0 = lowest observed value and 100 = highest observed value, Jan 1 2020 to present

Source: WWPA, EIA, AISI, EEI, AAR, Redbook, TSA.gov, Apple, Smith Travel, MBA, ThinkNum, JPMAM. March 25, 2021.

Contents

• High frequency recovery summary, national level (above)
• Credit and debit card spending: nationwide spending; social distancing spending; close-up look at oil, airlines, restaurants and lodging; growth in e-commerce
• Additional national data: US/NYC travel tracker, hotel occupancy rates, mortgage applications, manufacturing activity, shipping, demand for crude oil and floating storage, rail traffic for consumer goods, Weekly Economic Index
• Lockdown and mobility data: US vs UK lockdown stringency index; office utilization rates; changes in movement for retail, restaurants, transit and workplaces in the US, Europe and Asia
Credit and debit card spending trends

Here’s our new analysis on the US consumer based on select internal Chase transaction data. On a national level, consumer spending in our credit and debit card data is up roughly 10% vs 2019 (first chart). However, this aggregation includes a lot of e-commerce. When narrowing the focus to consumer transactions that took place with “cards present”, the y/y decline in spending is larger.

We’re also interested specifically in discretionary “social distancing spending” (SDS). For our purposes, we define SDS as “card present” transactions for retail, lodging, restaurants, rental cars, ride hailing/taxis/limos, amusement parks, tourist attractions, theaters, night clubs and other recreational services. In other words, discretionary spending that requires people to go someplace and not buy from home. In our dataset, card-present SDS represented around one third of all consumer spending in 2019. The SDS decline in 2020 was even sharper than the decline in total spending, since the latter includes food, healthcare, gasoline, recurring payments and other non-discretionary items.

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2 Our data may not be representative of national spending trends. While it is based on a large number of cardholders, we have not normalized the data for age, gender, income or other factor differences vs the national average.
Oil, airlines, restaurants and lodging

Oil spending, all transactions
Spending change vs 2019, 7 day smoothing

Airline spending, all transactions
Spending change vs 2019, 7 day smoothing

National credit and debit card spending trends
Spending change vs 2019, 7 day smoothing

Lodging spending, all transactions
Spending change vs 2019, 7 day smoothing

E-commerce monitor

Lingering consumer preferences for e-commerce after the pandemic is over may be one of its more lasting legacies, with implications for a wide range of sectors and industries.

**All spending e-commerce shares**
Share of total spending via e-commerce, 7 day smoothing

![Graph showing all spending e-commerce shares](image)


**Retail spending e-commerce shares**
Share of total spending via e-commerce

![Graph showing retail spending e-commerce shares](image)


**Healthcare/Pharmacy spending e-commerce shares**
Share of total spending via e-commerce

![Graph showing healthcare/Pharmacy spending e-commerce shares](image)


**Supermarket spending e-commerce shares**
Share of total spending via e-commerce

![Graph showing supermarket spending e-commerce shares](image)


**Wholesale/Discount clubs spending e-commerce shares**
Share of total spending via e-commerce

![Graph showing wholesale/Discount clubs spending e-commerce shares](image)


**Restaurant spending e-commerce shares**
Share of total spending via e-commerce

![Graph showing restaurant spending e-commerce shares](image)

Nationwide consumer, mobility and manufacturing trackers

**US retail sales**
- % change vs 2019, weekly data

<table>
<thead>
<tr>
<th>Month</th>
<th>Discount store sales</th>
<th>Department store sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan '20</td>
<td>0%</td>
<td>-60%</td>
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<tr>
<td>Mar '20</td>
<td>10%</td>
<td>-50%</td>
</tr>
<tr>
<td>May '20</td>
<td>20%</td>
<td>-40%</td>
</tr>
<tr>
<td>Jul '20</td>
<td>30%</td>
<td>-30%</td>
</tr>
<tr>
<td>Sep '20</td>
<td>40%</td>
<td>-20%</td>
</tr>
<tr>
<td>Nov '20</td>
<td>50%</td>
<td>-10%</td>
</tr>
<tr>
<td>Jan '21</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>Mar '21</td>
<td>70%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Redbook Research. March 20, 2021

**New business applications filed with the IRS**
- % of 2019 level, weekly data

<table>
<thead>
<tr>
<th>Month</th>
<th>2019 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan '20</td>
<td>100%</td>
</tr>
<tr>
<td>Mar '20</td>
<td>80%</td>
</tr>
<tr>
<td>May '20</td>
<td>60%</td>
</tr>
<tr>
<td>Jul '20</td>
<td>40%</td>
</tr>
<tr>
<td>Sep '20</td>
<td>20%</td>
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<tr>
<td>Nov '20</td>
<td>0%</td>
</tr>
<tr>
<td>Jan '21</td>
<td>125%</td>
</tr>
<tr>
<td>Mar '21</td>
<td>150%</td>
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**United States and New York City travel tracker**
- % decline from pre-COVID baseline level, daily data

<table>
<thead>
<tr>
<th>Month</th>
<th>Apple driving directions</th>
<th>NYC bridge and tunnel congestion</th>
<th>TSA checkpoint travelers</th>
<th>NYC Subway riders</th>
</tr>
</thead>
<tbody>
<tr>
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<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
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<td>Aug '20</td>
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<td>40%</td>
<td>40%</td>
<td>40%</td>
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<tr>
<td>Oct '20</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Dec '20</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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</tr>
<tr>
<td>Feb '21</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: NYC MTA, TSA, Apple. March 25, 2021

**US hotel occupancy rate**
- Weekly data

<table>
<thead>
<tr>
<th>Month</th>
<th>2019 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan '20</td>
<td>50%</td>
</tr>
<tr>
<td>Mar '20</td>
<td>30%</td>
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<tr>
<td>May '20</td>
<td>10%</td>
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<tr>
<td>Jul '20</td>
<td>0%</td>
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<tr>
<td>Sep '20</td>
<td>10%</td>
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<tr>
<td>Nov '20</td>
<td>20%</td>
</tr>
<tr>
<td>Jan '21</td>
<td>30%</td>
</tr>
<tr>
<td>Mar '21</td>
<td>40%</td>
</tr>
</tbody>
</table>

Source: STR. March 13, 2021

**US mortgage applications for purchases of single-family homes**
- % change vs 2019, weekly data

<table>
<thead>
<tr>
<th>Month</th>
<th>2019 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan '20</td>
<td>50%</td>
</tr>
<tr>
<td>Mar '20</td>
<td>40%</td>
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<tr>
<td>May '20</td>
<td>30%</td>
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<tr>
<td>Jul '20</td>
<td>20%</td>
</tr>
<tr>
<td>Sep '20</td>
<td>10%</td>
</tr>
<tr>
<td>Nov '20</td>
<td>0%</td>
</tr>
<tr>
<td>Jan '21</td>
<td>10%</td>
</tr>
<tr>
<td>Mar '21</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Mortgage Bankers Association. March 19, 2021
**Estimated % change since 2019 in US GDP growth based on Weekly Economic Index conditions**


**US high frequency manufacturing tracker % change vs 2019, weekly data**


**Baltic exchange dry index vs industrial commodity prices, Index level**


**US demand for petroleum products vs global crude oil floating storage, % of 2019 level, weekly data**

Source: EIA, Vortexa LTD. March 19, 2021

**US railroad traffic % change vs 2019, weekly data**

Source: Association of American Railroads. March 20, 2021
Lockdowns, mobility and office utilization data

**Lockdown stringency index: US vs Europe**
Index, 100 = highest level of lockdown strictness

![Graph showing US vs Europe lockdown stringency index from Feb '20 to Mar '21.](image)


**Google vs Apple transit mobility trends**
% change since January 2020 baseline

![Graph showing Google vs Apple transit mobility trends from Mar '20 to Mar '21.](image)


**Regional mobility data: US vs Europe**
% change from baseline: retail, restaurants, transit & workplace

![Graph showing regional mobility data for US vs Europe from Feb '20 to Mar '21.](image)

Source: Google, JPMAM. March 19, 2021. 7 day avgs.

**Office utilization rates by metro area**
Based on keycard/fob data

![Graph showing office utilization rates by metro area from Mar 17, 2021.](image)


**International mobility data**

**Regional mobility data: Europe**
% change from baseline: retail, restaurants, transit & workplace

![Graph showing regional mobility data for Europe from Feb '20 to Mar '21.](image)

Source: Google, JPMAM. March 19, 2021. 7 day avgs.

**Regional mobility data: Asia**
% change from baseline: retail, restaurants, transit & workplace

![Graph showing regional mobility data for Asia from Feb '20 to Mar '21.](image)

Source: Google, JPMAM. March 19, 2021. 7 day avgs.
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