



2020 Highlights

The beginning	<u>Pg 2</u>
Unemployment	Pg 3
Retailers	Pg 4
Hospitals	Pg 5
Stockpiling	Pg 6
Popular products	Pg 7
Air quality	Pg 8
Spending habits	Pg 9
Robinhood	Pg 10
China recovery	Pg 11

Streaming	Pg 12
US summer surge	Pg 13
Restaurants	Pg 14
Housing	Pg 15
Return to work	Pg 16
Fast fashion	Pg 17
Social media	Pg 18
Shipping	Pg 19
Air travel	Pg 20
Education apps	Pg 21

... and the latest insights (November 2020)



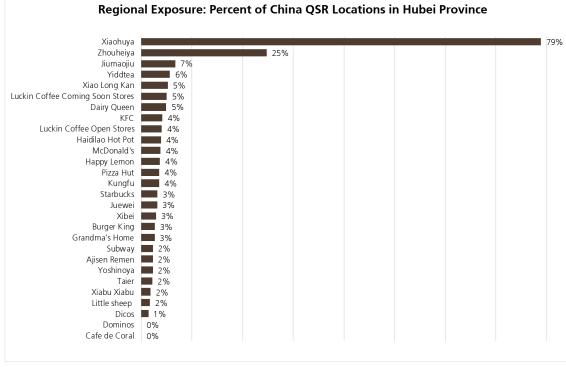


The beginning

Which businesses were most exposed during the COVID-19 pandemic in China?

In February, UBS Evidence Lab looked at what percentage of companies' China locations were in Hubei Province, where the outbreak began. Among quick-service restaurants:

- 79% of Xiaohuya's locations were in the province.
- Only 4% of KFC and McDonald's stores were there.



Source: UBS Evidence Lab



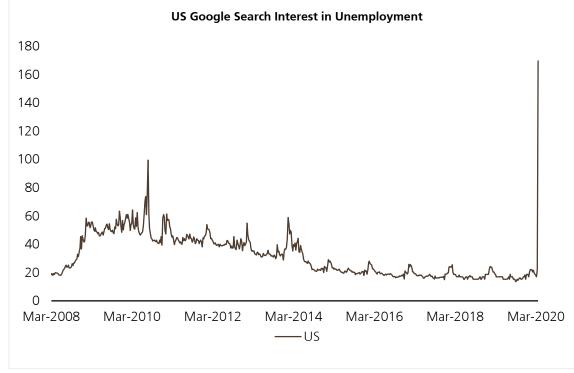


Unemployment

What did Google search interest in unemployment show?

COVID-19 led to widespread business closures and layoffs starting in mid-March.

- In the week of March 21, US Google search interest in unemployment increased by ~8x vs. the previous week.
- Initial jobless claims reached a record 3.3 million that week









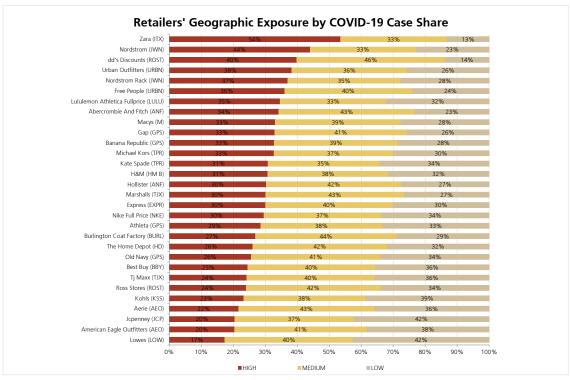
Retailers

Which retailers were most/least exposed at the beginning of the pandemic?

COVID-19 affected some parts of the US much more than others during the initial outbreak. UBS Evidence Lab looked at retailers' number of locations in areas with the highest percentage of cases.

- JCPenney and Kohl's had less exposure than Nordstrom and Macy's.
- Fewer than 25% of TJ Maxx and Ross Stores were in states with high case levels.
- Only 17% of Lowe's stores were in highexposure states vs. 26% for Home Depot.





Source: UBS Evidence Lab

Note: COVID-19 case data as of March 25; high-case states are those that account for >3% of total US cases; medium account for 1-3%: low account for <1%.

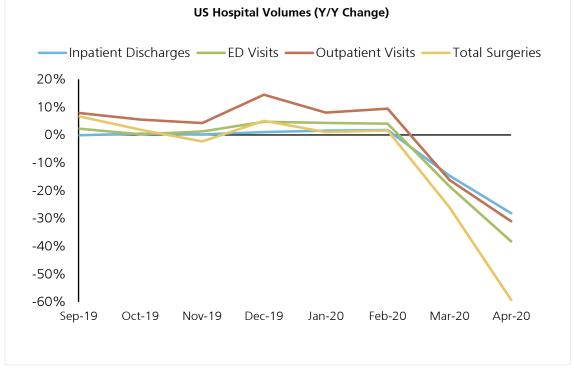


Hospitals

How did COVID-19 impact US hospital volumes in April?

UBS Evidence Lab data showed how different types of hospital visits declined.

- Average total surgeries fell 59% year-over-year in April vs. 26% in March.
- Emergency Department visits were down 38% y/y in April vs. 18% in March.
- Average inpatient discharges and outpatient visits in April fell 28% and 31%, respectively (vs. 22% and 16% in March).



Source: UBS Evidence Lab, Colorado Hospital Association's Databank Program



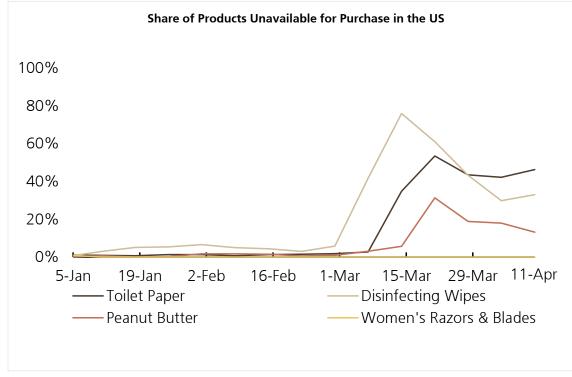


Stockpiling

Which products were unavailable on Amazon in the early days of COVID-19?

As US consumers began to stockpile essential items, UBS Evidence Lab tracked which categories on Amazon had the highest share of products unavailable for purchase.

- Toilet paper, disinfecting wipes, and peanut butter were among the categories with the most products unavailable for purchase on Amazon in the US
- Women's razors had among the fewest products unavailable for purchase.



Source: UBS Evidence Lab, Amazon.com, Inc.

Note: Share is for target category products that appear in the US top 100 of the ranking category. Products that show up as available to purchase may not ship immediately; data for the week ending April 11, 2020.



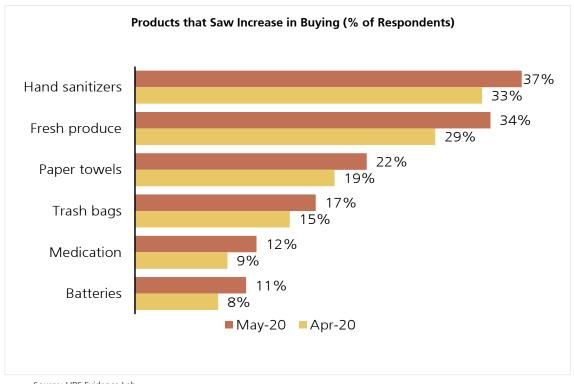


Popular products

Which products did UK consumers buy more in April and May?

UBS Evidence Lab surveyed 1,000 UK consumers about how COVID-19 had affected their shopping habits

- Hand sanitizers and fresh produce saw the greatest increase in buying in May relative to April.
- Paper towels, trash bags, medication, and batteries also saw an increase







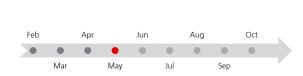


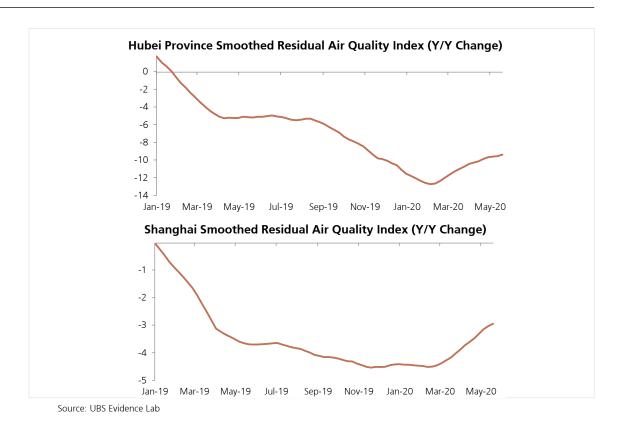
Air quality

Did COVID-19 result in cleaner air in China?

In addition to having public health consequences, air quality can be an indicator of industrial production.

- In Hubei Province and Shanghai, quality improved throughout 2019 (a lower AQI is better).
- However, it began to deteriorate in March, as COVID-19 began to ease in China.





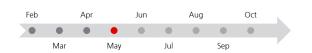


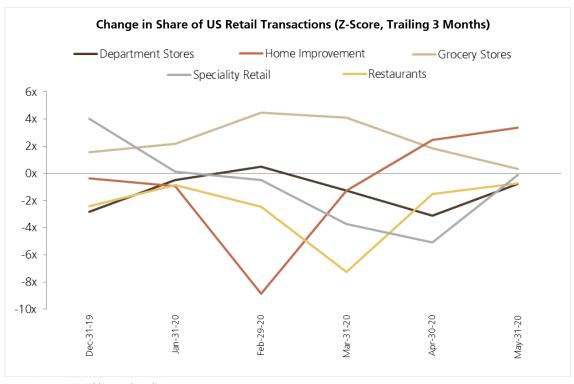
Spending habits

Where did US consumers start to spend more during the pandemic?

UBS Evidence Lab looked at data from CoinOut, which includes 140,000 active users who scan 4 million receipts per month.

- Home improvement showed the biggest increase in spending, followed by grocery stores.
- The share of discretionary retailers (restaurants, department stores, and specialty retailers) fell before recovering in May.
- Restaurants lagged in share of transactions vs. January.





Source: UBS Evidence Lab, CoinOut

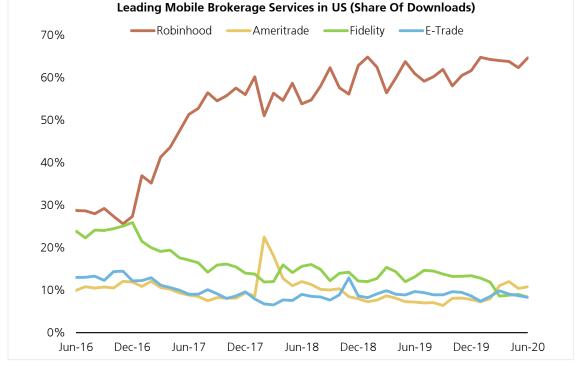


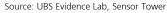
Robinhood

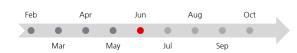
Which brokerage apps became more popular?

UBS Evidence Lab monitored brokerage app downloads to identify whether online trading was becoming more popular.

- Robinhood accounted for the lion's share of brokerage app downloads, having exceeded 50% in 2017 and 60% in 2019
- Fidelity and E-Trade have lost share since 2016.









China recovery

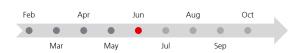
How quickly did China ride-on-demand usage return to pre-pandemic levels?

As China reopened, UBS Evidence Lab tracked usage of ride-on-demand apps.

- Ride-on-demand app usage recovered to pre-COVID-19 levels in late June.
- It was up more than 5x from the lows seen in late February/early March.



Source: UBS Evidence Lab, QuestMobile



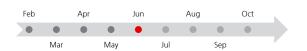


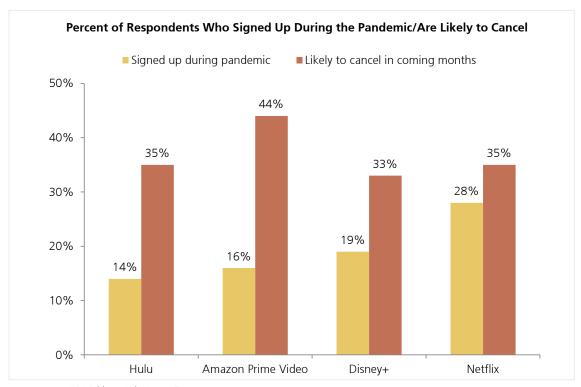
Streaming

Which services did US consumers sign up for during the first few months of COVID-19?

UBS Evidence Lab surveyed 2,000 US consumers about their use of streaming media services.

- 19% of Disney+ subscribers signed up between the beginning of the pandemic and the end of June, compared with 28% for Netflix.
- Among these subscribers, intention to cancel in the coming months was lowest for Disney+ (33%), with Netflix and Hulu tied for a close second (35%).





Source: UBS Evidence Lab, Sensor Tower

Note: Data as of June 2020.

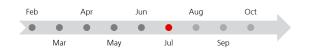


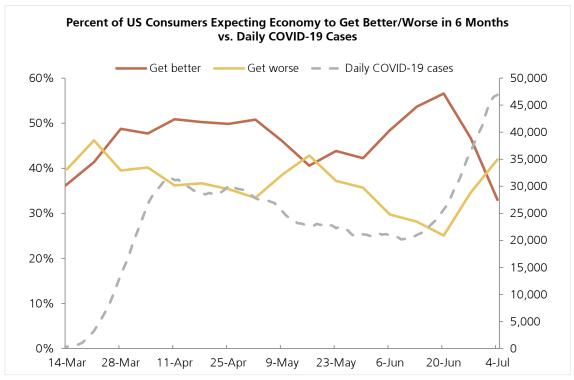
US summer surge

How did the summer surge in COVID-19 cases affect US consumers' economic outlook?

UBS Evidence Lab leveraged data from a survey of 5-10K US consumers per week on COVID-19-related issues.

- Consumer sentiment about the US economy took a negative turn as COVID-19 cases surged in late June and early July.
- The share who expected the economy to get worse in the next 6 months rose to 42% from 25% 2 weeks earlier.
- Those expecting an improvement dropped to 33% from 57%.





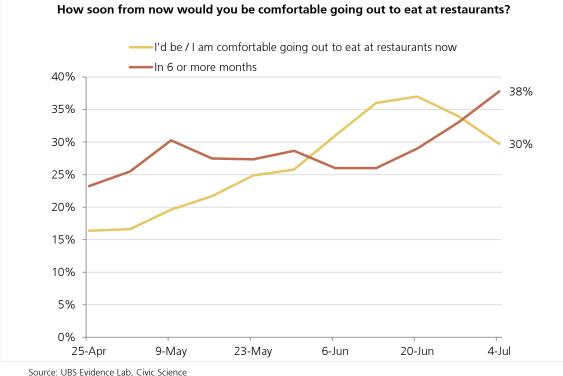
Source: UBS Evidence Lab, Civic Science, Johns Hopkins University Note: Daily cases are calculated as a 7-day rolling average.

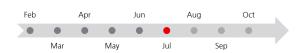


Restaurants

Did US consumers become less willing to go to restaurants?

- In early July, 38% of consumers said they would not be comfortable eating at restaurants for at least 6 months, while 30% said they were comfortable now
- This was a sharp change from 2 weeks earlier, when the respective shares were 29% and 37%.





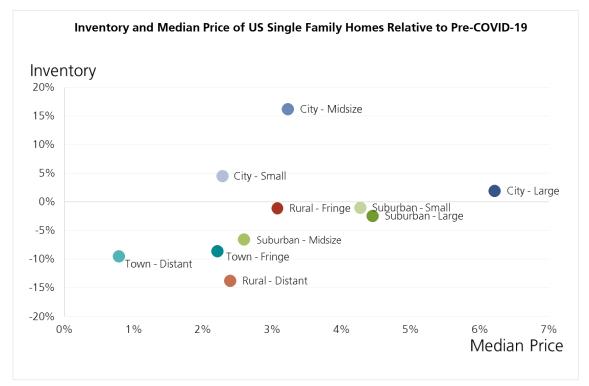


Housing

Did the US housing market show signs of urban flight?

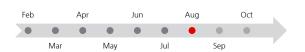
UBS Evidence Lab looked at inventory and prices of single-family homes in cities, suburbs, and outlying areas

- Cities saw an increase in inventory in the months after the pandemic began.
- In contrast, inventory declined in suburbs, towns, and rural areas.





Note: Values presented as the median value of Top 10 CBSA for the percent change from the Pre-COVID lockdown value registered in the week of March 26.



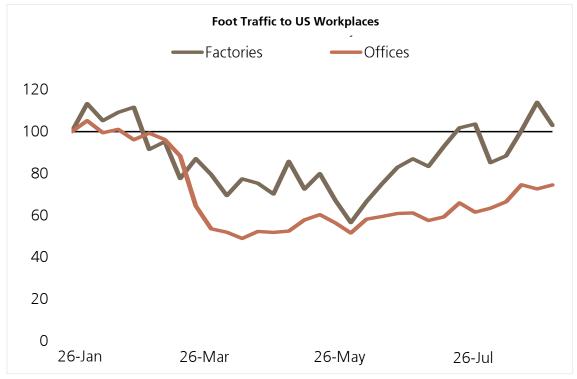


Return to work

When did people start to return to workplaces?

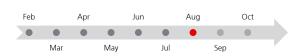
Factories and offices saw a drop in foot traffic in March as COVID-19 cases started to rise in the US.

- By August, foot traffic to factories had recovered to pre-pandemic levels.
- Foot traffic to offices has also been rising, but at a slower pace.



Source: UBS Evidence Lab

Note: Data indexed to January 2020



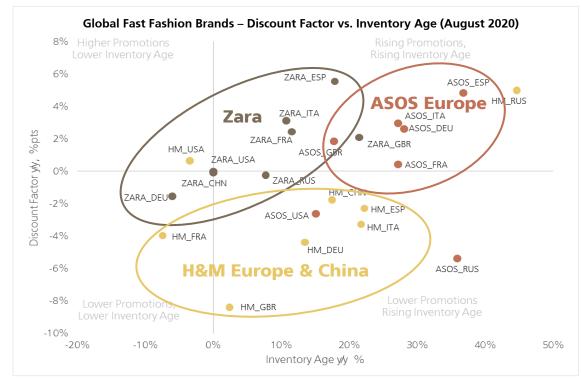


Fast fashion

Which fast fashion retail brands discounted to clear inventory during the back-to-school season?

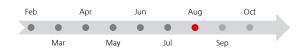
UBS Evidence Lab tracked price strategy in the global fashion and sportswear sectors.

- Several global fast fashion brands saw their inventory age rise y/y in August.
- During this period, ASOS and Zara raised promotions in many markets in Europe, while H&M kept promotions below last year's level in Europe and China.



Source: UBS Evidence Lab

Note: Discount factor is discount breadth x discount depth



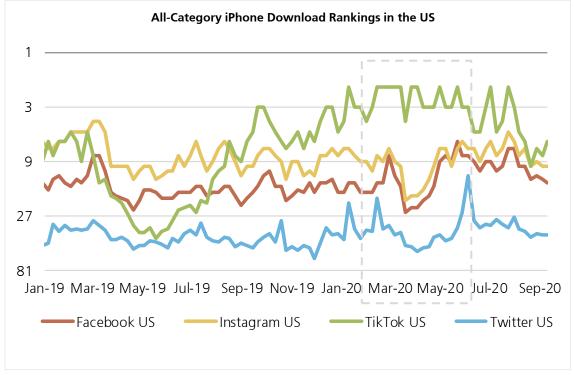


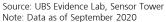
Social media

Which social media platforms have become more popular in 2020??

As US consumers quarantined during COVID-19 shutdowns, their social media use increased marginally relative to other app categories.

- The increase was concentrated in one app: TikTok became the #2 app across all categories in the US
- Rankings for Facebook, Instagram, and Twitter dipped and then recovered.







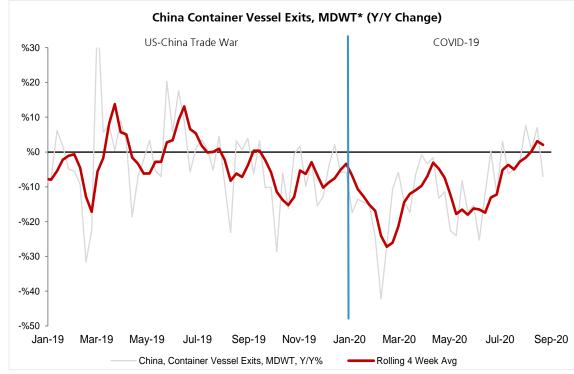


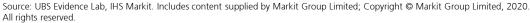
Shipping

How have China exports been trending?

UBS Evidence Lab monitors maritime trade across the globe via real-time AIS data on 17,200+ container, dry bulk, and liquid tanker ships.

- Container shipments from China recovered during the summer.
- The y/y change in MDWT* (rolling 4-week average) turned positive in September after being as low as -14% in early summer.





^{*} Modified Dead Weight Ton (MDWT) is a proprietary measurement of the weight of cargo onboard a vessel.



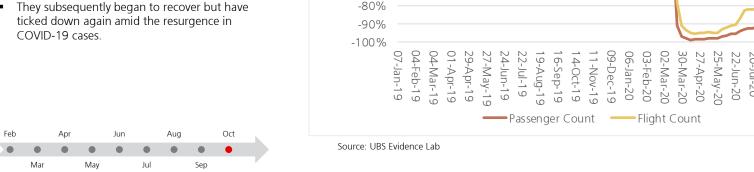


Air travel

How has COVID-19 affected international flight arrivals to the US?

UBS Evidence Lab tracks flight counts, passenger counts, and average wait times for international flight arrivals to the US.

- The number of international passengers and flights arriving in the US were down 98% and 95% y/y in April.
- ticked down again amid the resurgence in COVID-19 cases.





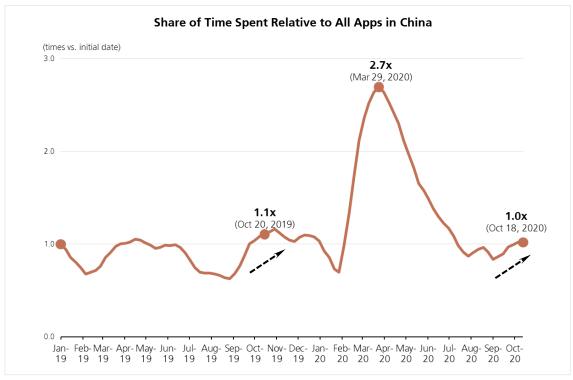


Education apps

Did students in China reengage with digital education at the start of the new school year?

Schools in China reopened at the beginning of the fall term in the first week of September.

- Students use education apps more often when a new term starts. Time spent on these apps has been rising steadily since early September.
- In October, it was similar to where it was at the same time last year, i.e., before the pandemic.



Source: UBS Evidence Lab, QuestMobile

Note: Indexed to initial date of Jan 6, 2019; data as of Oct 18, 2020





Latest insights

November 2020

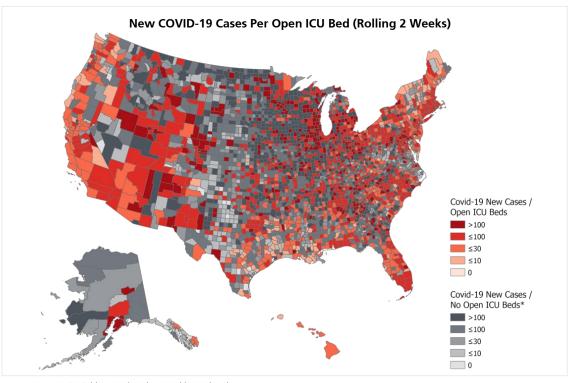




ICU capacity

How are new COVID-19 cases trending relative to ICU capacity in the US?

- States in the Midwest and West have the highest number of new COVID-19 cases per open ICU bed
- The Northeast has the lowest number of new cases per open ICU bed, but there has been an uptick in Maine and Connecticut.



Source: UBS Evidence Lab, Johns Hopkins University
Note: Data as of November 11, 2020. *Illustrates the number of COVID-19 cases (rolling 2 weeks) in counties that have either ICU bed overcapacity, no hospitals or hospitals with no reported ICU beds.



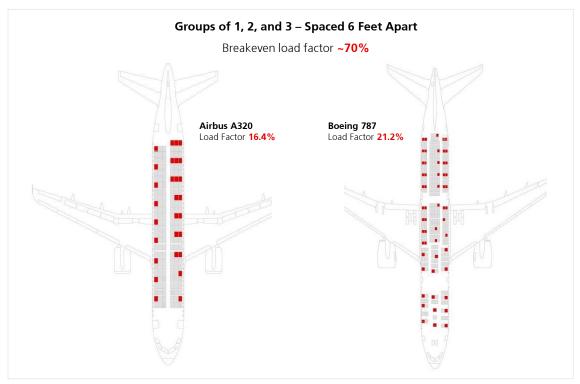
Airlines

Can airlines conform to social-distancing and still be profitable?

With governments reimposing restrictions amid a surge in COVID-19 cases, UBS Evidence Lab shows how social-distancing measures could affect aircraft load factors (the percentage of seats occupied).

In a scenario in which groups of 1, 2, and 3 people traveling together are spaced 6 feet apart:

- The load factor for an Airbus A320 narrow-body plane would be 16%.
- The load factor for a Boeing 787 wide-body plane would be 21%.
- Both are well below the breakeven load factor of ~70%.



Source: UBS Evidence Lab

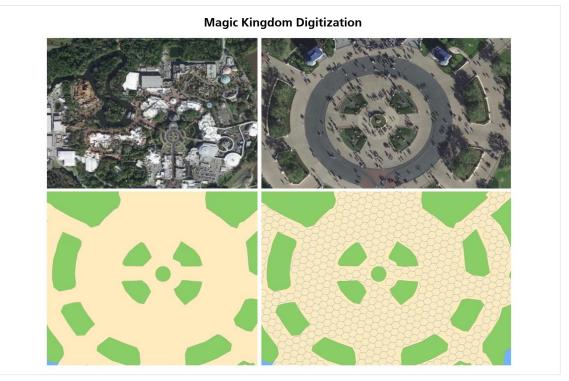


Theme parks

What is it like to visit Disney World during the pandemic?

After pandemic-driven shutdowns, Disney World parks reopened with social-distancing restrictions in place.

- Using geospatial techniques, UBS Evidence Lab modelled how many visitors the Magic Kingdom can accommodate under different socialdistancing scenarios.
- Based on the CDC-recommended social distance of 6 feet between groups, the park can accommodate ~28k visitors per day.
- Before the pandemic, it averaged about 60k visitors per day and reached 80-100k during peak times.



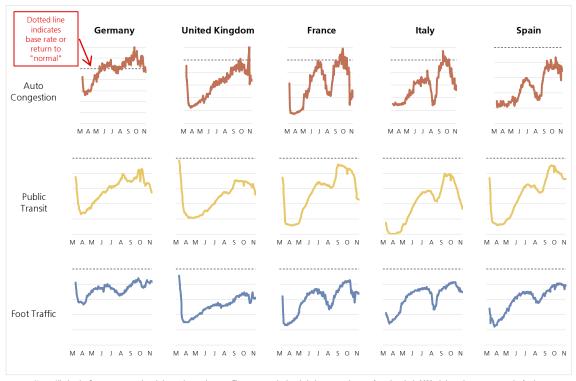
Source: UBS Evidence Lab



Europe mobility

How is mobility trending in Europe?

- Mobility is falling in Europe as cases rise and countries reimpose lockdowns.
- France and Italy have seen the steepest declines in all three metrics.
- Foot traffic to workplaces is relatively resilient in Germany, the UK and Spain.



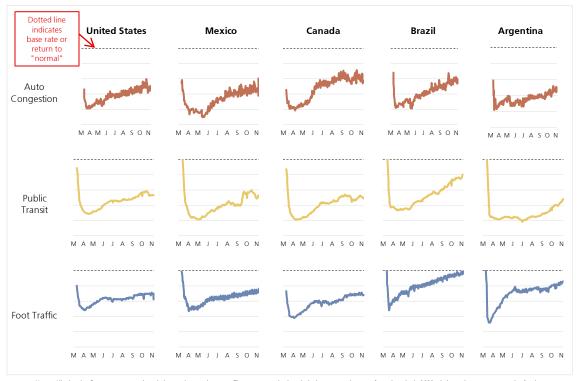
Notes: All migration figures are measured as relative metrics vs. a base rate. The auto congestion base is the base congestion score for a given day in 2020 relative to the average congestion for the comparable day in 2019, public transit data is indexed to the value registered on January 15; foot traffic data is indexed to the baseline median value for the corresponding day of the week during the 5-week period Jan 3-feb 6, 2020. For public transit, population-weighted country figures were derived from baseline city figures. The data is further normalized to remove weekends and several key holidays (country by country), which create abnormal trends in the data. Relative auto congestion is presented as a percent difference from 100%. Please see downloadable asset for the full methodology or underlying data. Source: UBS Evidence Lab. Tom/Tom. Moovic, Google LIC "Google COVID-19 Community Mobilist Reports" Accessed: November 15, 2020. Data as of November 13, 2020.



Americas mobility

How is mobility trending in the Americas?

- Mobility in the Americas has been more resilient than in Europe.
- US mobility has declined slightly.
- Use of public transit has declined in Mexico and levelled off in Canada.
- Brazil has seen the strongest overall recovery, with foot traffic to workplaces back to pre-pandemic levels.



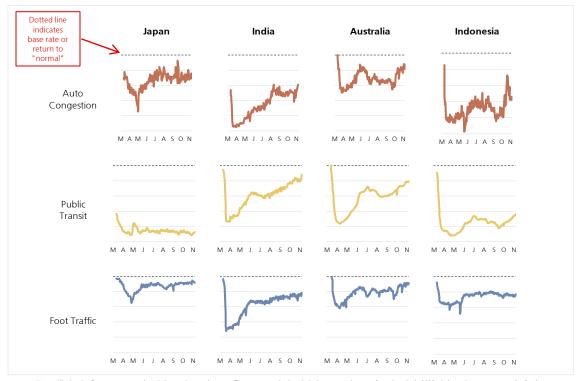
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APAC mobility

How is mobility trending in APAC?

- Mobility in Japan has been relatively steady in recent weeks.
- India and Australia have seen notable increases in traffic congestion and public transit.
- Congestion in Indonesia is down sharply.
- Foot traffic to workplaces remains relatively steady.



Notes: All migration figures are measured as relative metrics vs. a base rate. The auto congestion base is the base congestion score for a given day in 2020 relative to the average congestion for the comparable day in 2019, public transit data is indexed to the value registered on January 15, foot traffic data is indexed to the baseline median value for the corresponding day of the week during the 5-week period Jan 3-feb 6, 2020. For public transit, population-weighted country figures were derived from baseline city figures. The data is further normalized to remove weekends and several key holidays (country by country), which create abnormal trends in the data. Relative auto congestion is presented as a percent difference from 100%. Please see downloadable asset for the full methodology or underlying data. Source: UBS Evidence Lab. Tom/Orm, Moovit, Goodle LCV "Goodle CVUP"-19 Community Mobility Reports" 4-cell November 15, 2020, Data as of November 13, 2020.



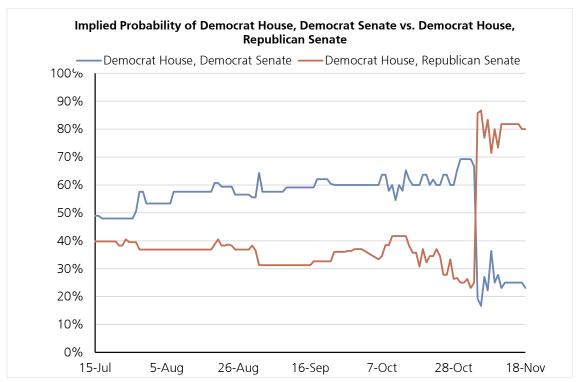
US election

Which party will control the US House and Senate next year according to betting markets?

UBS Evidence Lab looks at the likelihood of different political outcomes according to prediction markets, such as bookmakers and betting exchanges.

- The implied probabilities show an 80% chance that Democrats will retain control of the House and Republicans will keep the Senate.
- This is a sharp change from before election day, when the implied probabilities showed a ~70% chance that Democrats would control both chambers

Disclaimer: The implied probabilities presented in this analysis reflect the betting odds as set by bookmakers and betting exchanges and do not reflect the views of UBS or UBS Evidence Lab.



Source: UBS Evidence Lab

Note: Chart shows implied probability based on betting odds at leading bookmakers (the sum of implied probabilities of different outcomes often exceeds 100%, as bookmakers and exchanges charge a premium for placing bets)

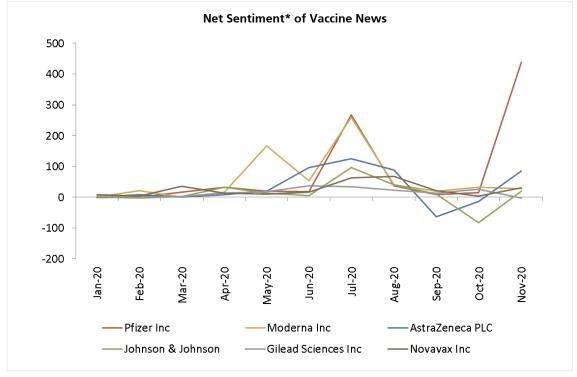


COVID-19 vaccine

Is sentiment on a vaccine becoming more positive?

UBS Evidence Lab's Deep Theme Explorer uses natural-language processing to identify mentions of terms in the news and determine the sentiment around those terms

- There have been three periods of positive sentiment around the term "vaccine" in the news this year.
- Recent sentiment about Pfizer's vaccine has been the most positive of the year.
- Both Pfizer and Moderna saw an increase in positive mentions in July.



Source: UBS Evidence Lab

Note: Data as of November 16, 2020; * Net Sentiment is defined as the number of position mentions less negative mentions



What will 2021 bring? Let's track it together.

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