DataScienceSeed MeetUp

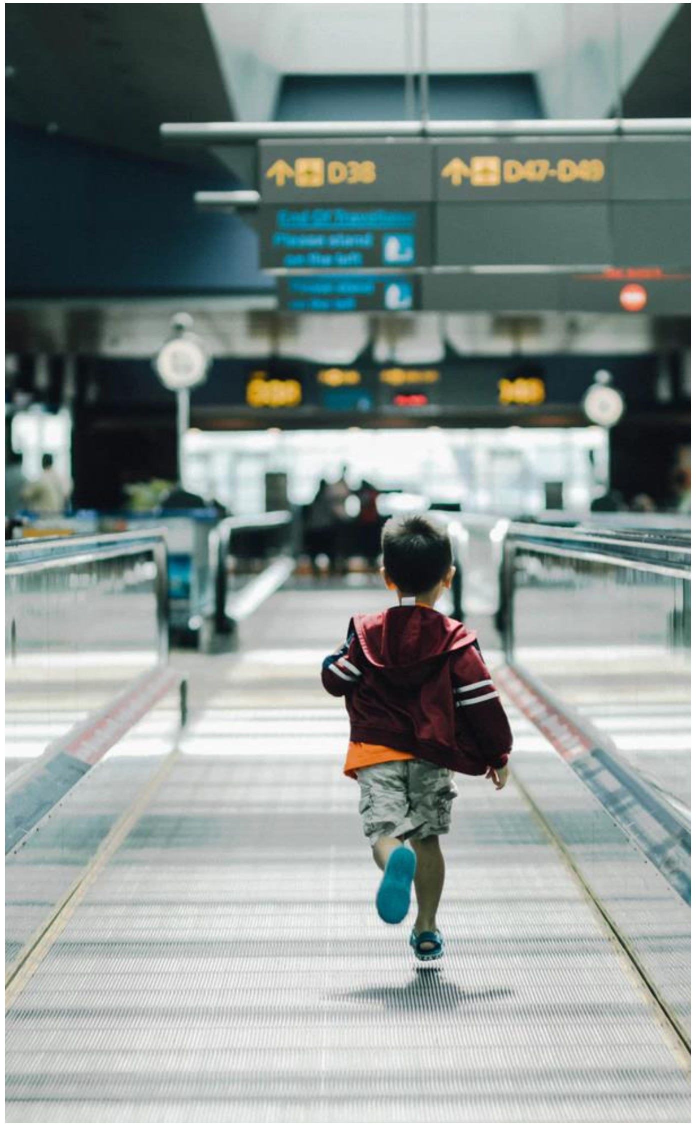
Touristic demand post COVID-19

Anna Codispoti

May 13th, 2020

What are we going to talk about…

- COVID-19 outbreak and consequences
- Similar events in the past
- Modelling impacts on demand
- The Shock component: short term impact
- Foreseen changes in travel behavior



COVID-19 outbreak

Crisis type

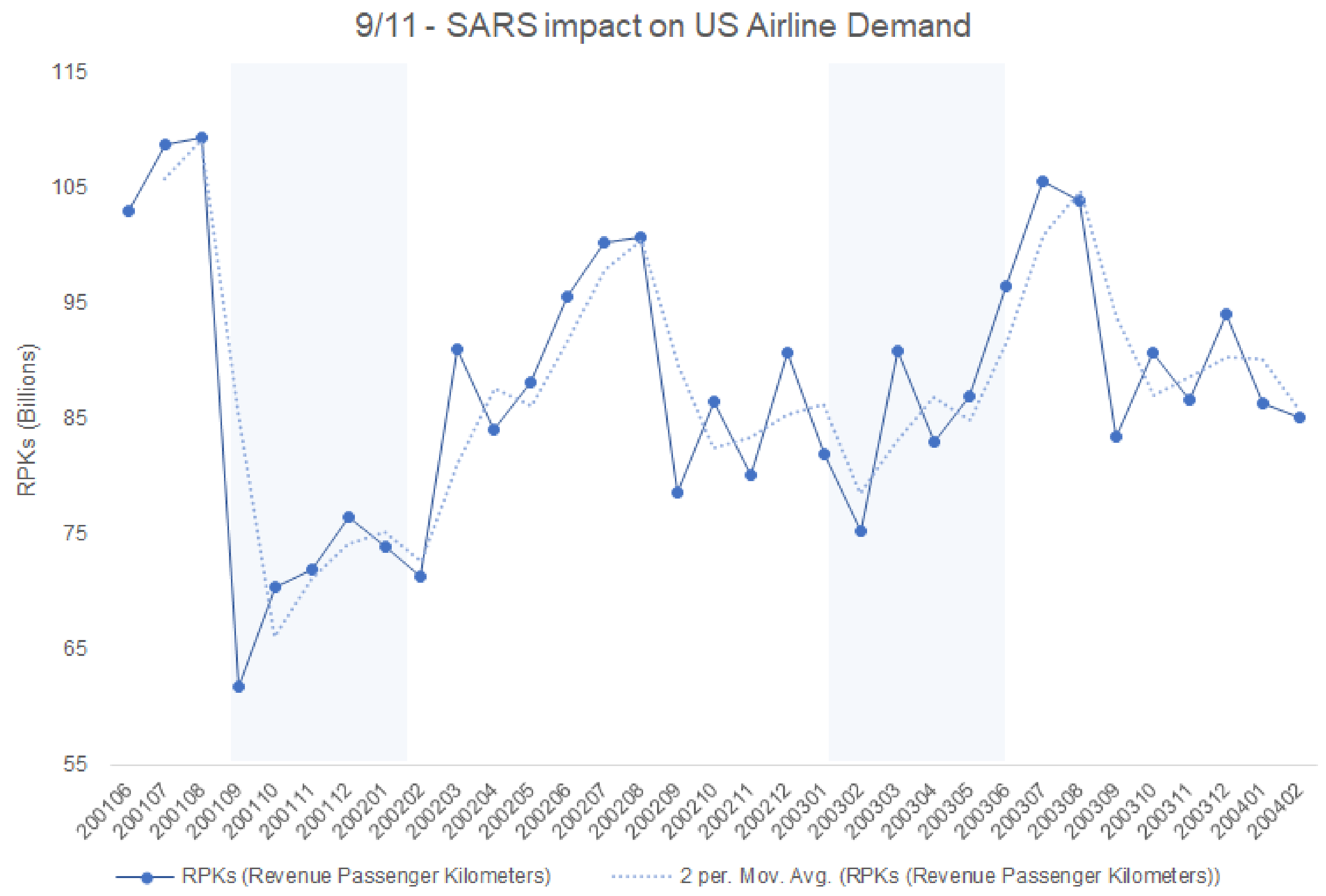
Health crisis, which has generated an economic one as well

Geographic boundaries

Global and fast evolving, also due to the virus high infection rate

Time boundaries

Prolonged in, not clear when it will finish and if it might be cyclical



Reference events in the past

9/11 (2001)

Unprecedent terrorist-related event, affected international travel demand worldwide and radically changed security and flying policies in travelling

SARS (2003)

First pandemic of the 21st century with a core between March 2003 and June 2003 , health crisis strongly connected to the travel industry with Asian tourism industry had been the one most impacted

Source: BUREAU OF TRANSPORTATION STATISTICS, total passenger flights, domestic and international

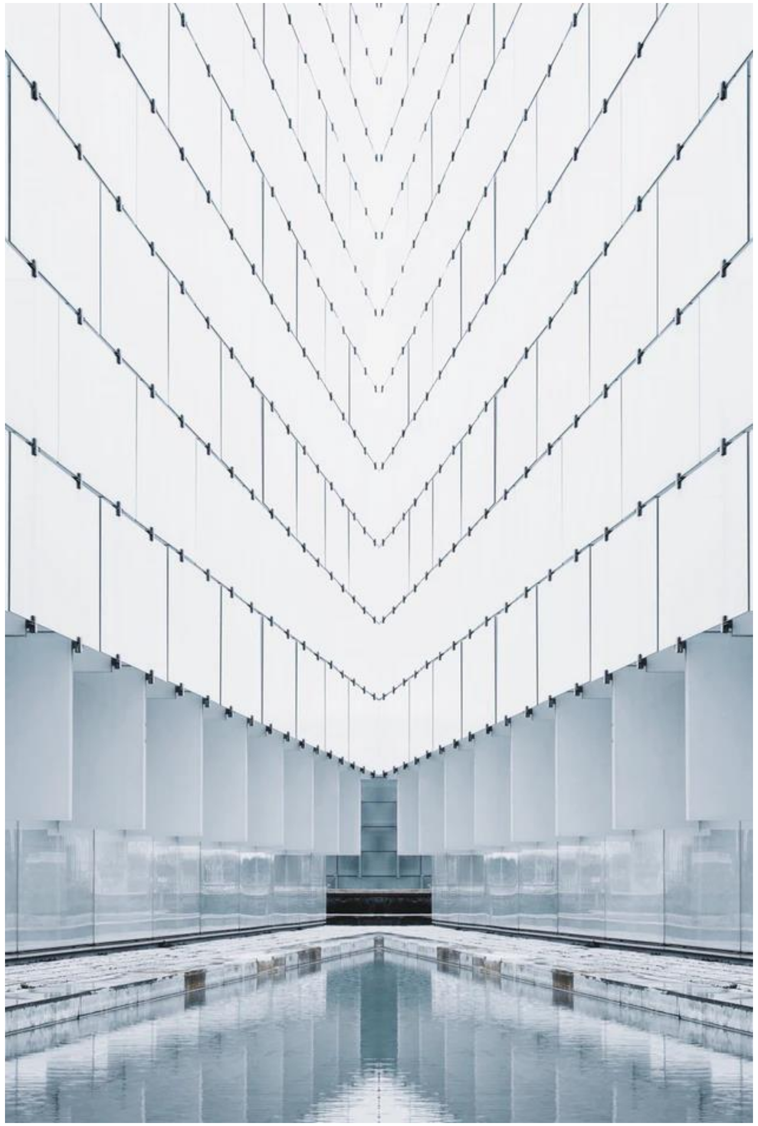
Shock and fear

Shock

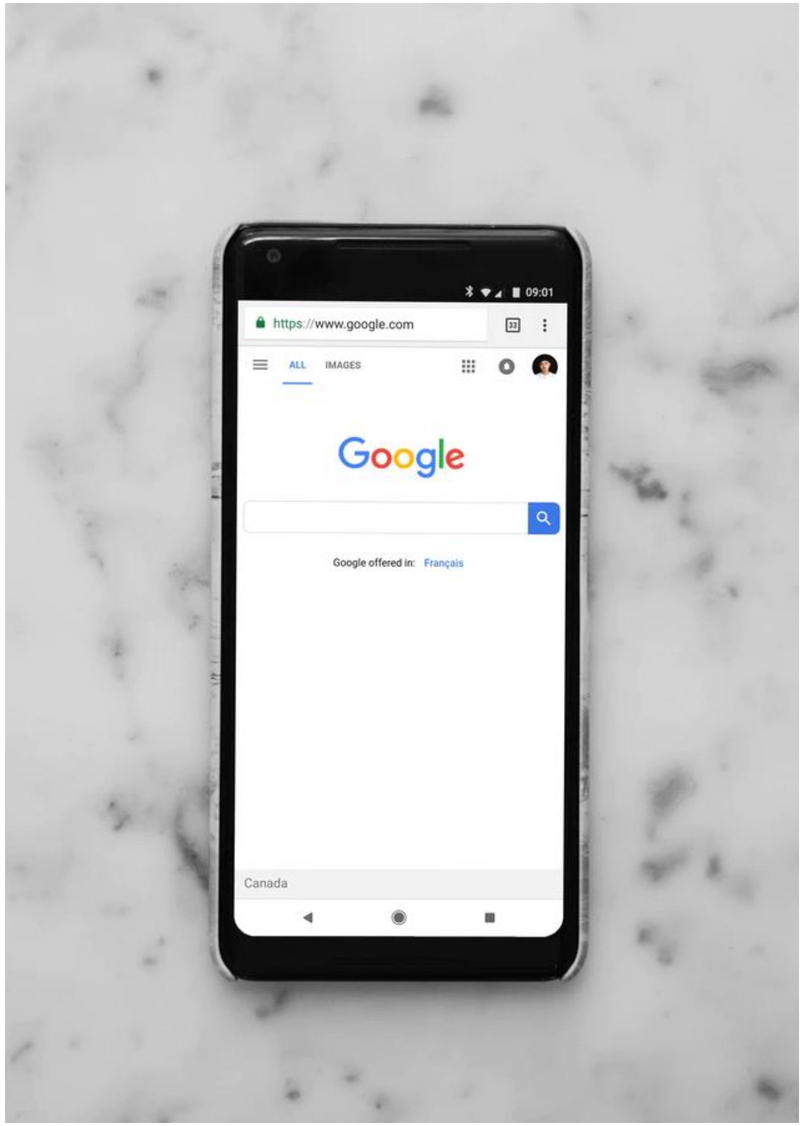
Immediate effect, representing the resistance to travel connected to the concern of having logistic or health problems due to the presence of Covid-19, thus it is a direct function of the pandemic presence

Fear

Long lasting resistance to travel, relates with travel anxiety and perceived unhealthiness of specific touristic venues as a result of the current media impact, assessable ex-post or via consumer sentiment surveys



Source: Comparing the Impact of the September 11th Terrorist Attacks on International Airline Demand, H. Ito and D. Lee



Exploring Shock term: Online searches

KPI to be analyzed

Quantitative measure of how much consumers are starting to dream again their next destination, Discovery and Research stages of the travel decision making funnel, by mitigating as much as possible external influences.

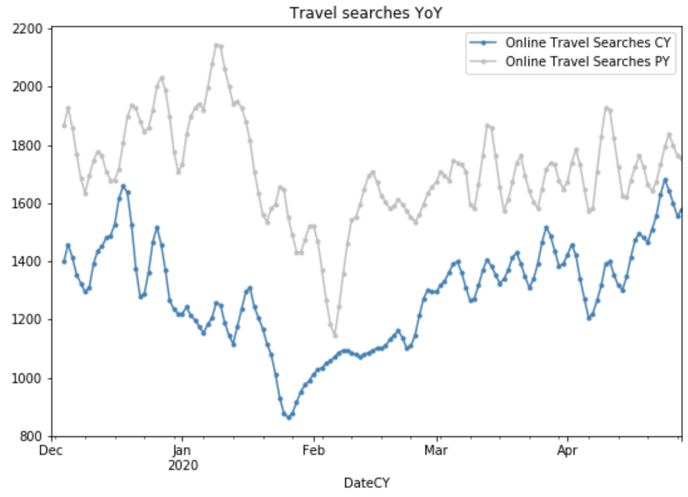
Online searches

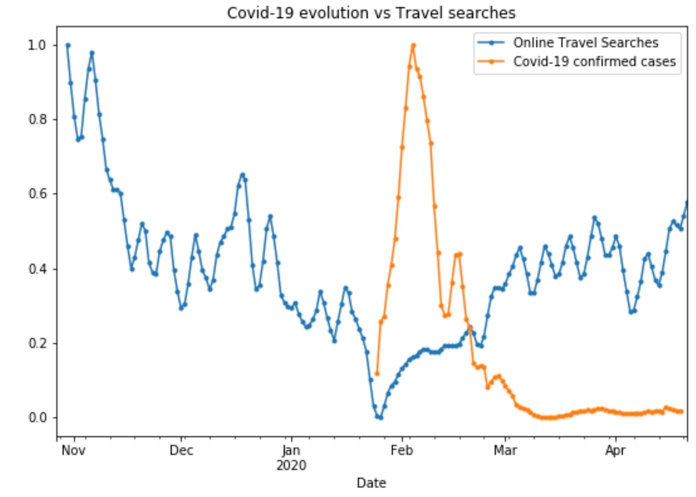
Good representation of the willingness to travel, 65% of the leisure travelers begin researching online before deciding where or how they are willing to travel, search engines representing the 61% of the sources of inspiration.

Source: The 2014 Traveler's Road To Decision, Think with Google

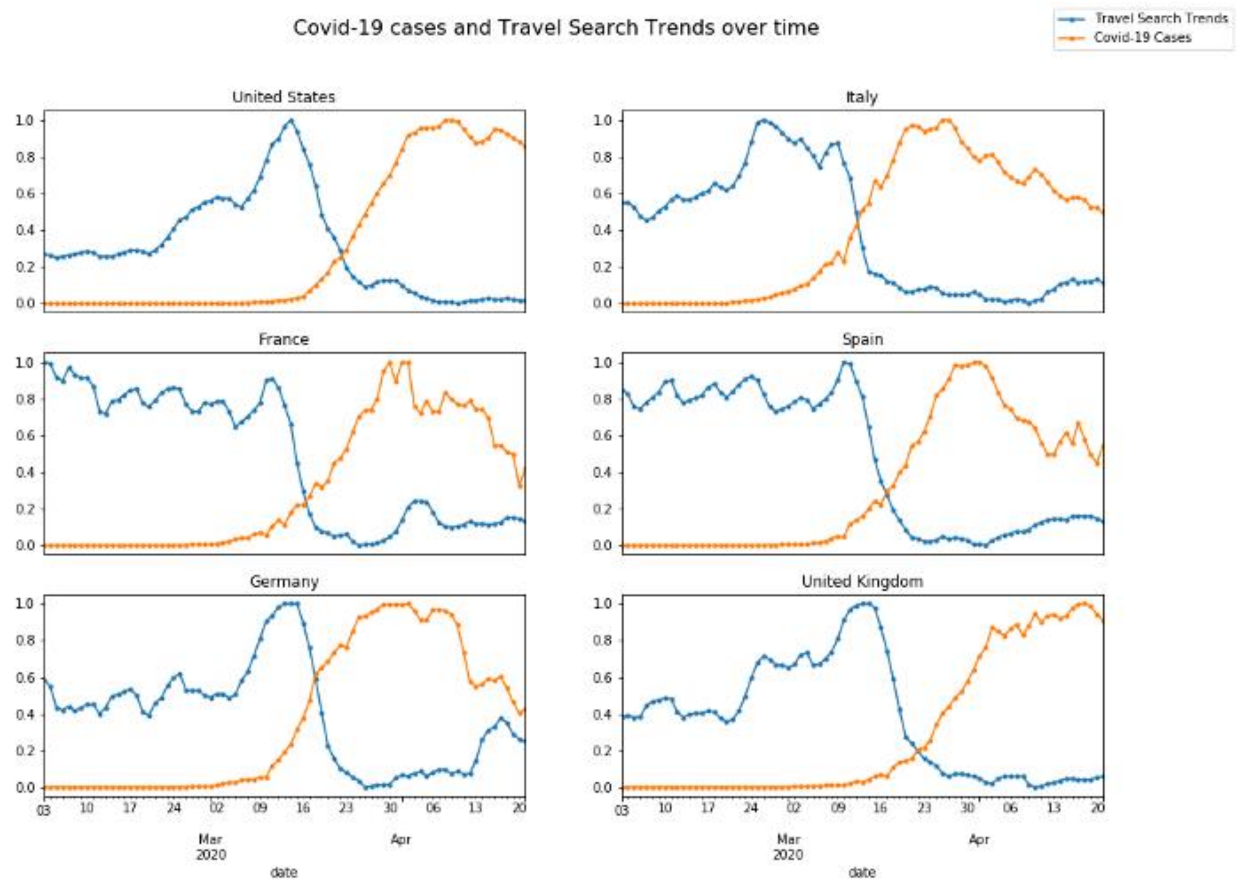
The Chinese Case

- First cases in December 2019, global media focus from early January 2020
- Travel (旅行) searches drop during the month of January from an average **-20%** YoY of the December month to a **-36%** YoY during the month of January and a **-27%** YoY during February, peak months for the epidemic evolution
- Recovery of the travel interest from March on, when the COVID-19 disease started being controlled and limited





Upper: Comparison between 旅行 searches from Baidu index in the time frame from 2019-Dec-1 and 2020-Apr-30 and 2018-Dec-1 and 2019-Apr-30
Lower: Comparison between 旅行 searches from Baidu index in the time frame from 2019-Oct-27 and 2020-Apr-22 and daily COVID-19 confirmed cases



COVID-19 vs travel searches

- YoY drop in the travel interest from mid March on, ranging from a -20% in Germany to a -56% in Italy and a -60% in France
- Steady decrease of the interest in travel as the COVID-19 confirmed cases curve increases before reaching the peak
- Slight recovery of the travel interest as the daily confirmed cases curve slows down

Google trends vs daily confirmed cases from [Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)]

Willingness to travel

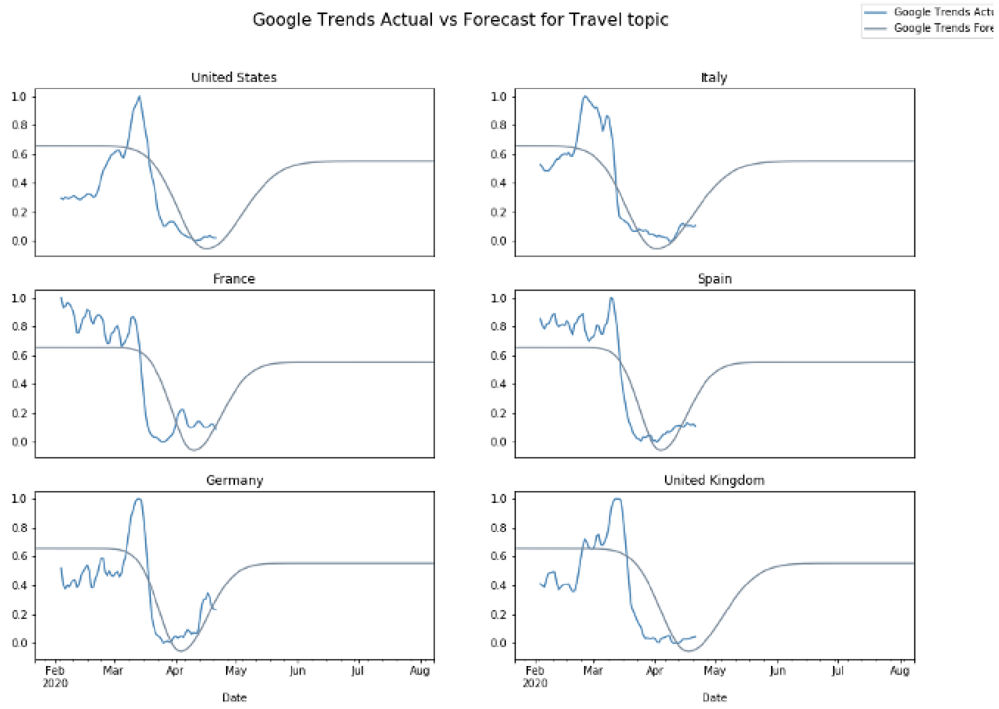
Input and model

Daily COVID-19 confirmed cases and number of overall confirmed cases at a specific date

Ridge regression model, using 80% of data for testing and 20% for validation

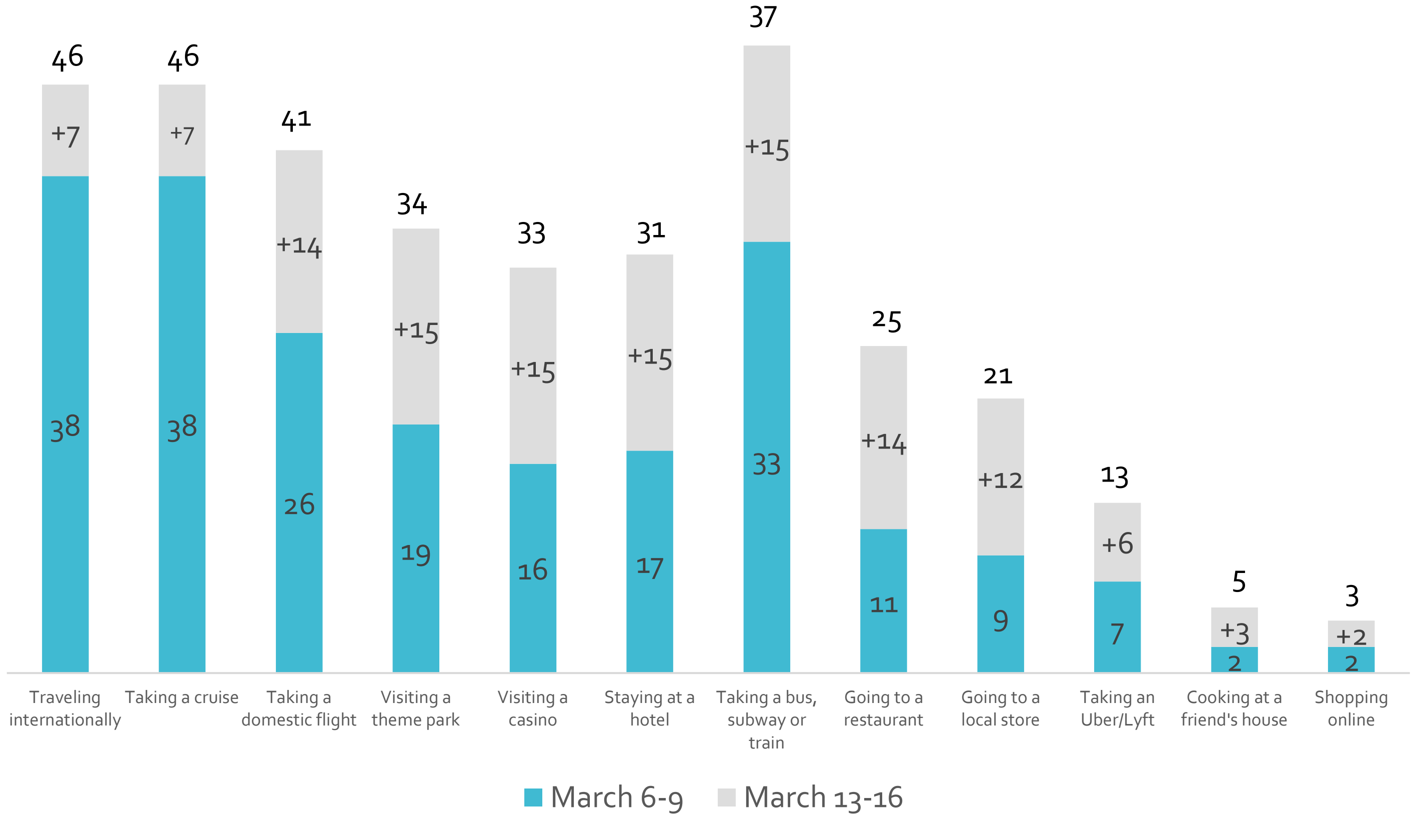
Results

Forecasted recovery in willingness to travel between the months of May and July, with different speed in recovery between the different countries, but lower levels of interest than before the spread of COVID-19 in the short term



Forecast of Google searches for the Travel topic as a function of the COVID-19 daily confirmed cases and total confirmed cases to date

Concern About Travel and Everyday Activities Is Growing in the US



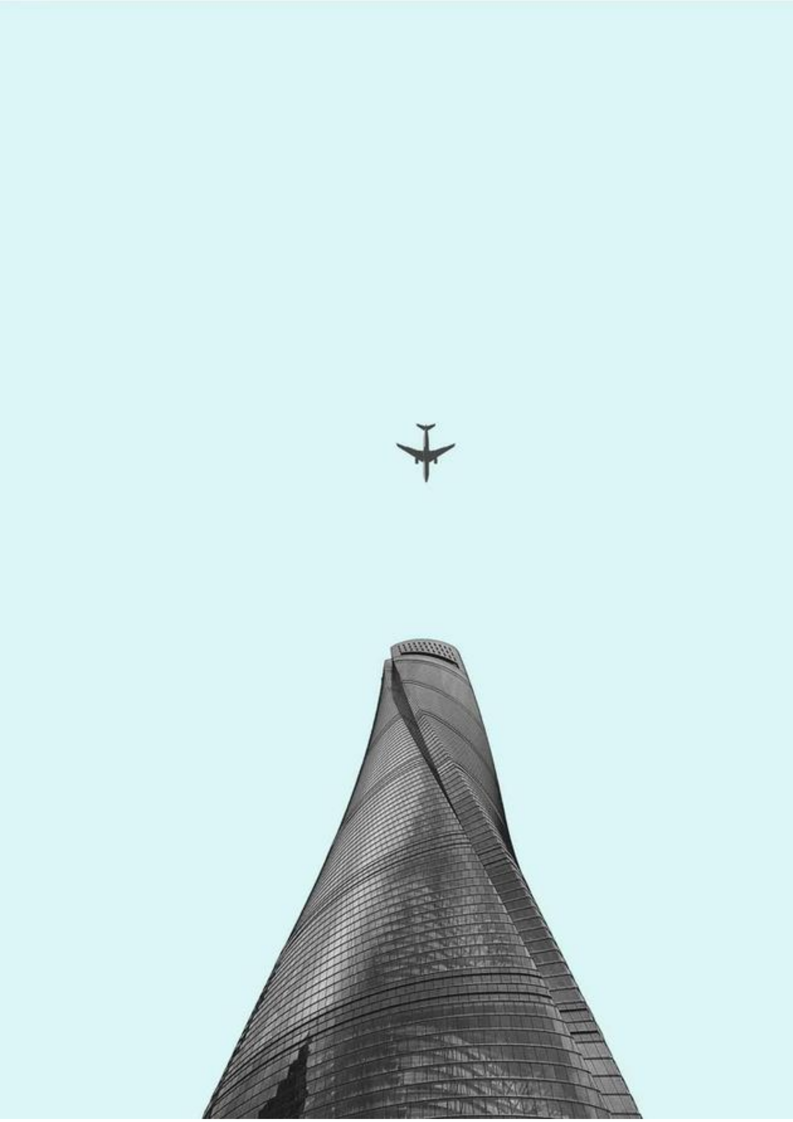
Fear term analysis: consumer reseaches

- BCG Consumer sentiment analyses highlights significant post COVID-19 threats for travel industry
- 38% of the respondents see travel and taking a cruise or domestic flight as risky activities
- Visiting theme parks, casinos, hotels and taking a bus or a train resulted as being concerning as well
- Respondents expect to spend on average -26% on activities that require travel and engagement in a group environment

Source: BCG COVID-19 Consumer Sentiment Survey, US Wave 1, March 6-9 2020 and US Wave 2. March 13-16 2020

Chinese research: next trip planning

- 80% of consumers pays attention to promotional advertisements, 10% is booking their next trip
- 16% will travel in May, 45% between June and August and a significant share of 14% in October for national holidays
- 90% national travels with 24% city tours, domestic travels at short (43%) and long (23%) distances
- Top 3 destinations are Yunnan (17%), Hainan (15%) and Shanghai (14%)



Source: Shangyexinzhi, 15 discoveries and to-be-launched trips: Report on the investigation of the willingness of Chinese to travel

Italy case

- 57% of interviewees states that they will not travel in the short term
- 32% will prefer short distance and short breaks of 2 or 3 days
- 20% stated that they will be ready to travel as soon as the health emergency will be contained
- 15% concerned of having disposable income to travel

Source: Confturismo-Confcommercio survey in collaboration with Swg

Thank you!

https://www.linkedin.com/in/annacodispoti/

https://medium.com/@c.annapalmer.a

anna.codispoti@icloud.com