The COVID-19 impact on Consumption in Real Time and High Definition A Big Data BBVA Research Project

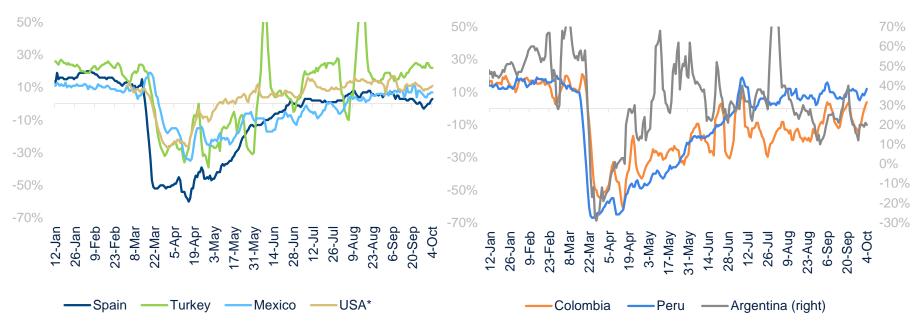
Monthly presentation

October 9th, 2020

Growth rates trends diverged during September. October started with a better performance. Turkey continued outperforming

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

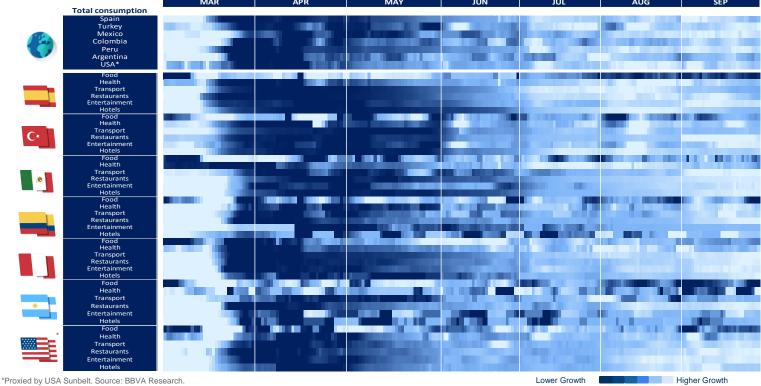
(Total consumption by card, % YoY, 7D cumulative)



Source: BBVA Research. * Proxied by USA Sunbelt

Consumption Diffusion Heat Map: consumption dynamics in September improved in Turkey, Mexico and Peru

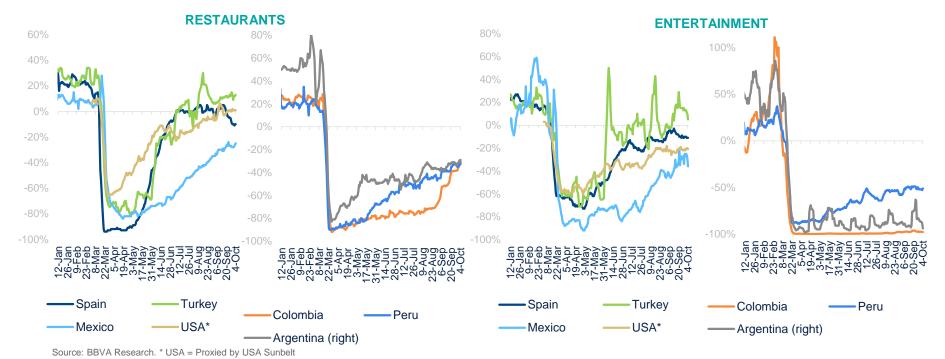
BBVA RESEARCH BIG DATA CONSUMPTION HEAT MAP (YoY, 7D cumulative)



The recovery is uneven across sectors and countries. Restaurants and entertainment expenditure continued stagnant in Latam countries

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

(Consumption by card, % YoY, 7D cumulative)



Technology matters: the gap between e-commerce and physical purchases remained, but it started to correct in the case of Colombia.

BBVA RESEARCH BIG DATA CONSUMPTION INDICES: PHYSICAL VS ONLINE

(Total consumption by Point of Sales. % YoY, 7D cumulative. Pie chart reflects the proportion of online and physical purchases in 2019)

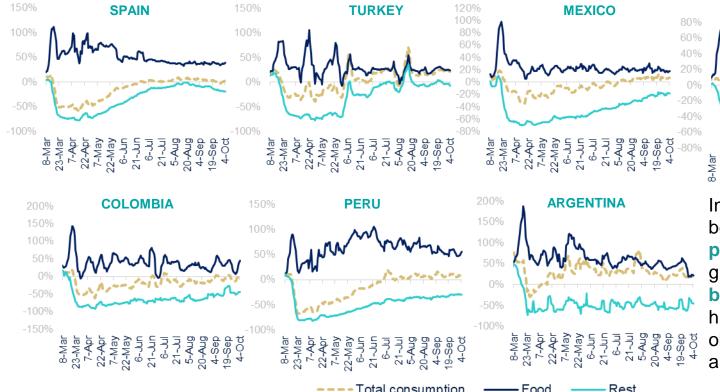


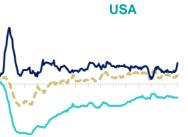
—Physical —Online

Source: BBVA Research.* In the case of Spain, the online series considers non physical data, which includes online purchases, as well as purchases done by call, mobile phone using apps, by postal code or online suscriptions. ** USA = Proxied by USA Sunbelt.

Food expenditure continued outperforming in Spain and Mexico

BBVA RESEARCH BIG DATA CONSUMPTION INDICES: SERVICES VS GOODS (% YoY, 7D cumulative)





In every country, it has been observed a significant peak on food spending given a mass provisioning behavior. The most recent highest growth rates are observed in Spain, Peru and Colombia.

Source: BBVA Research. * USA = Proxied by USA Sunbelt

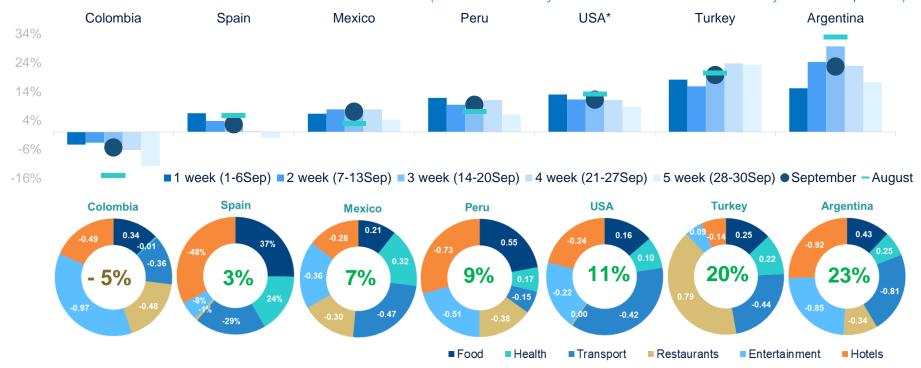
Total consumption

Food

Rest

Recovering trends kept in most of the countries during September compared with August

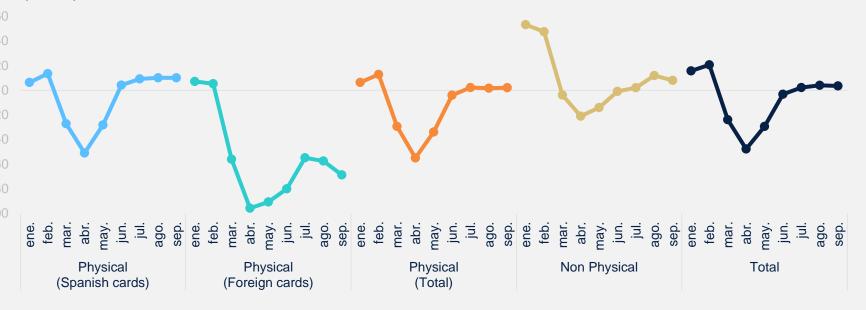
BBVA RESEARCH BIG DATA CONSUMPTION INDICES: TOTAL CONSUMPTION EVOLUTION IN SEPTEMBER AND SECTORIAL DISTRIBUTION* DURING THE MONTH (Bar chart: % YoY by week and month. Pie chart: % YoY by sector in September)



^{*}It should be take into account there are other categories of consumption not considered in the pie chart, so the total consumption is not equal to the average of the components of the chart Source: BBVA Research. * USA = Proxied by USA Sunbelt

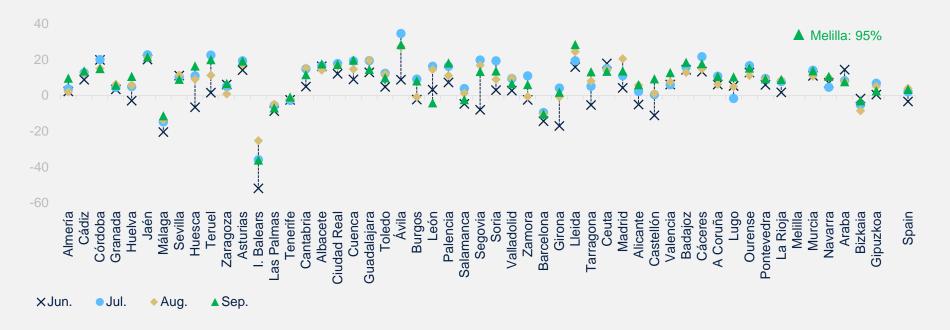
Spain. Card spending increased by 3.5% yoy in September driven by the sustained growth of purchases with Spanish cards, which offset the reduction in transactions by foreign cards

YERALY CHANGE OF AVERAGE EXPENDITURE BY NATIONALITY AND POS TYPE (YoY %)



Spain. By provinces, card spending increased in 44 provinces in September and decreased in 8, with Baleares as the most stagnant one

YERALY CHANGE OF TOTAL AVERAGE EXPENDITURE BY PROVINCE (YoY %)

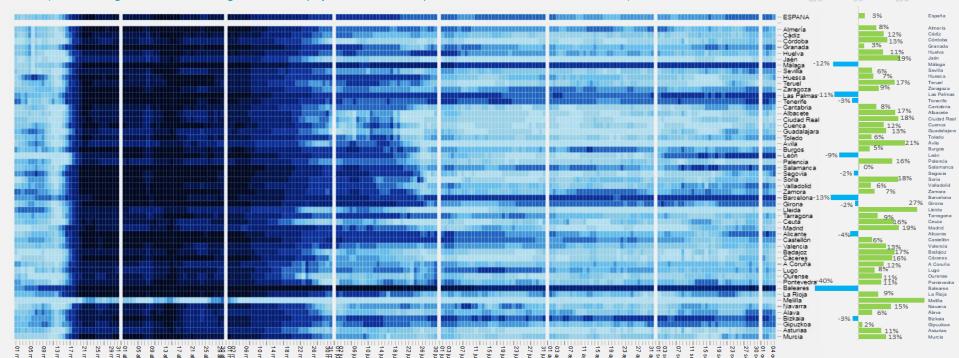


Spain. The impact of the new Covid-19 outbreak in consumption is quite different from the one observed in March/April 28 SEP - 4 OCT

SPAIN: TOTAL AVERAGE WEEKLY EXPENDITURE BY PROVINCE*

(Considering national and foreign cards and physical and online purchases . % YoY, 7D cumulative)

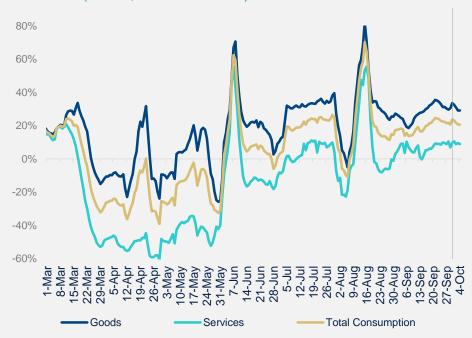
28 SEP – 4 OCT EXPENDITURE (% YOY)



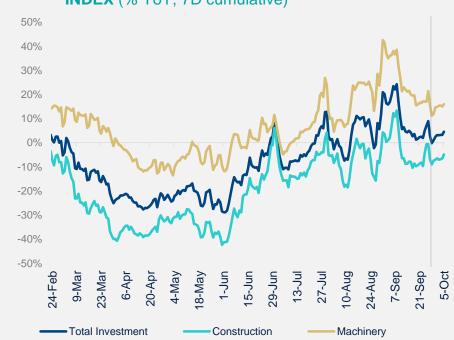
Series are coloured according to the history of each series. The darker blue represents the upper 90% percentile and the lighter one represents the lower 10% percentile. Expenditure by BBVA client and other Spanish cards registered in TPV BBVA

Turkey. Robust consumption evolution and some moderation on Investment after the calendar effects adjustment

TURKEY: GARANTI BBVA BIG DATA CONSUMPTION ITEMS (% YOY, 7D CUMULATIVE)



TURKEY: GARANTI BIG DATA DAILY INVESTMENT INDEX (% YoY, 7D cumulative)

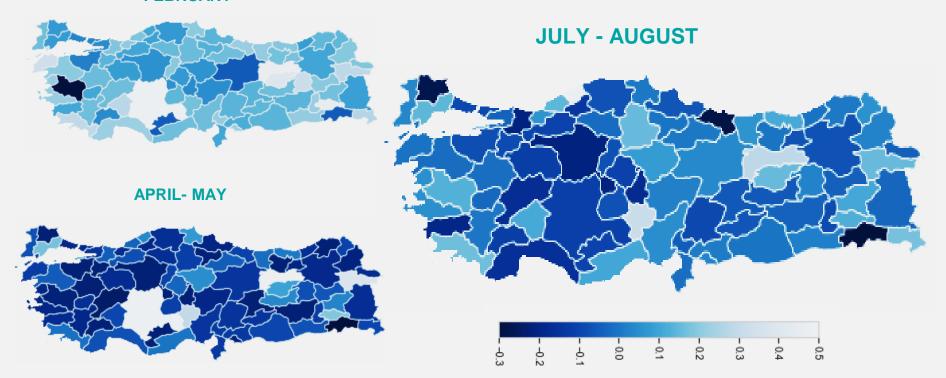


Source: BBVA Research Turkey

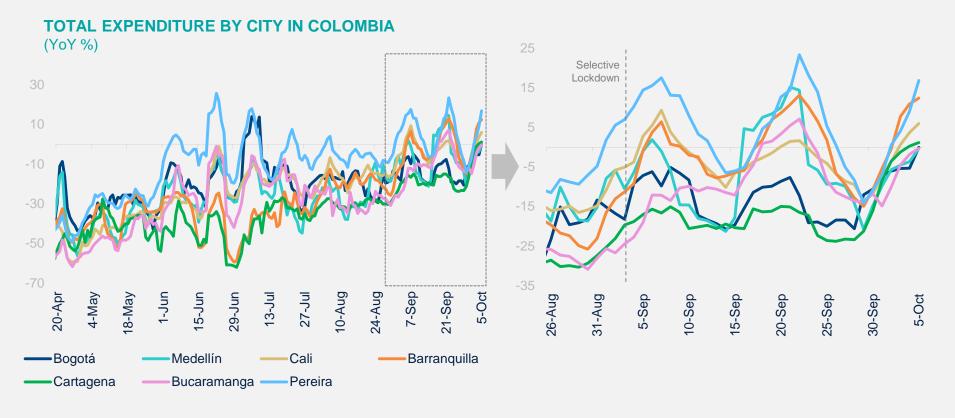
Turkey. Consumption evolution by region. Better performance during the summer compared with April and May, but there's still room for improvement

TURKEY: GARANTI BBVA BIG DATA CONSUMPTION BY REGION (% YOY)

FEBRUARY



Colombia. Consumption dynamics by city shows the recovery pace. Significant improvement in Bogota and Cartagena during the last week





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