

The COVID-19 impact on Consumption in Real Time and High Definition

A Big Data BBVA Research Project

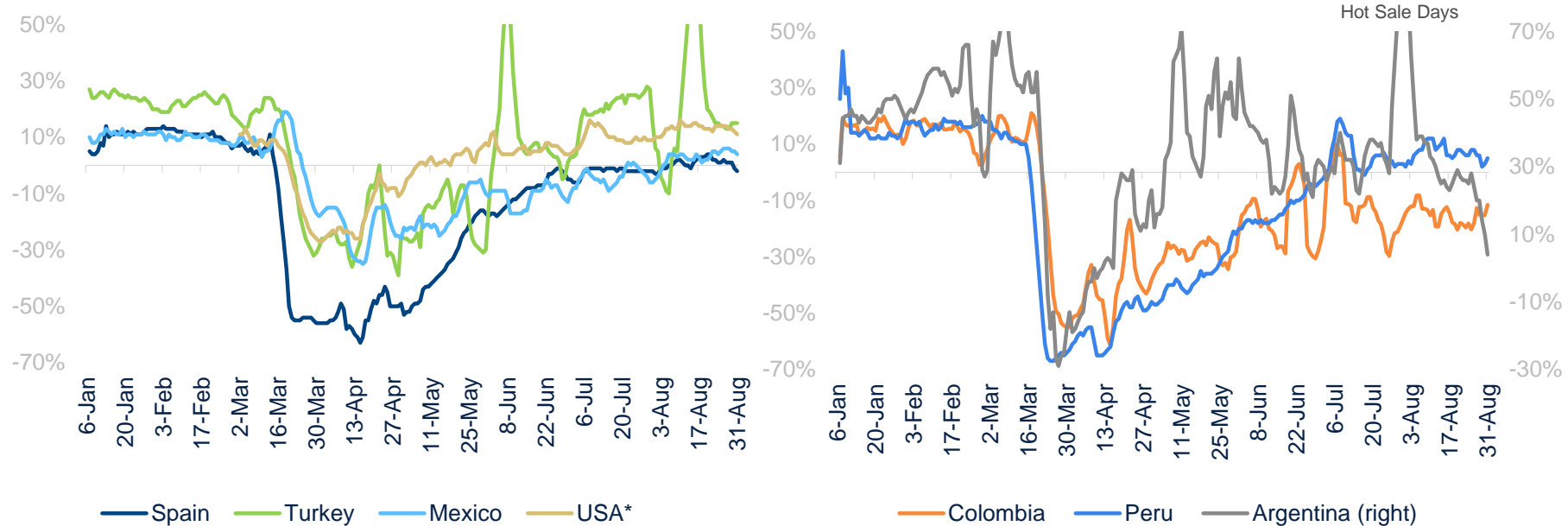
Monthly presentation

September 4th, 2020

Positive growth in USA, Turkey, Mexico and Argentina. Spain registered negative growth rates at the end of August, while Colombia continued stagnant

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

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

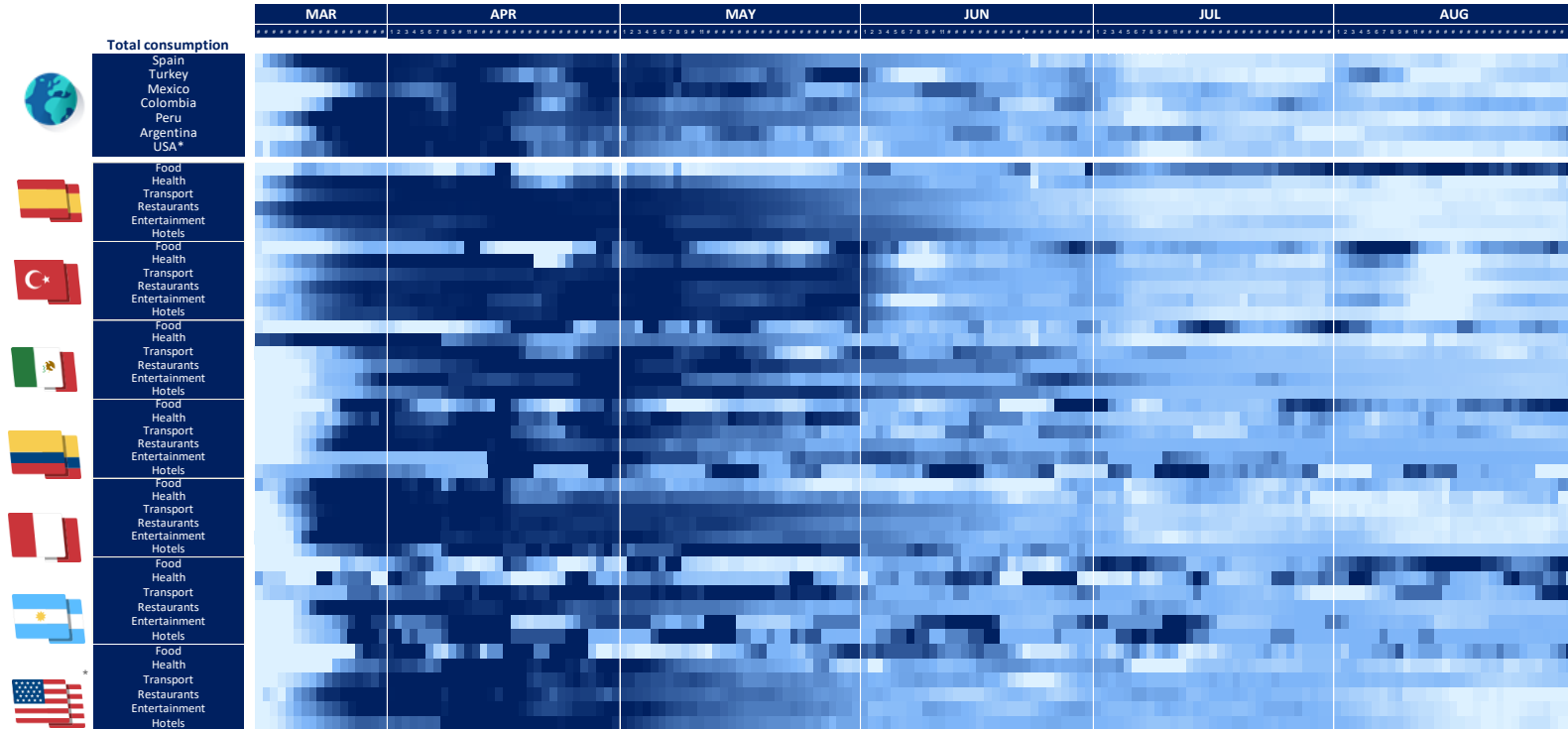


Source: BBVA Research. * Proxied by USA Sunbelt

Spending at BBVA POS by BBVA and non-BBVA customers plus spending by BBVA customers at non-BBVA POS. This data considers final expenditures, so not intermediate consumption is included. Therefore, the correspondence with national accounts household consumption is not fully equivalent. More detail about the data could be found in the following [link](#).

Consumption Diffusion Heat Map: August led some recovery by sector of activity in Peru, USA, Turkey and Spain

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



*Proxied by USA Sunbelt. Source: BBVA Research.

Lower Growth Higher Growth

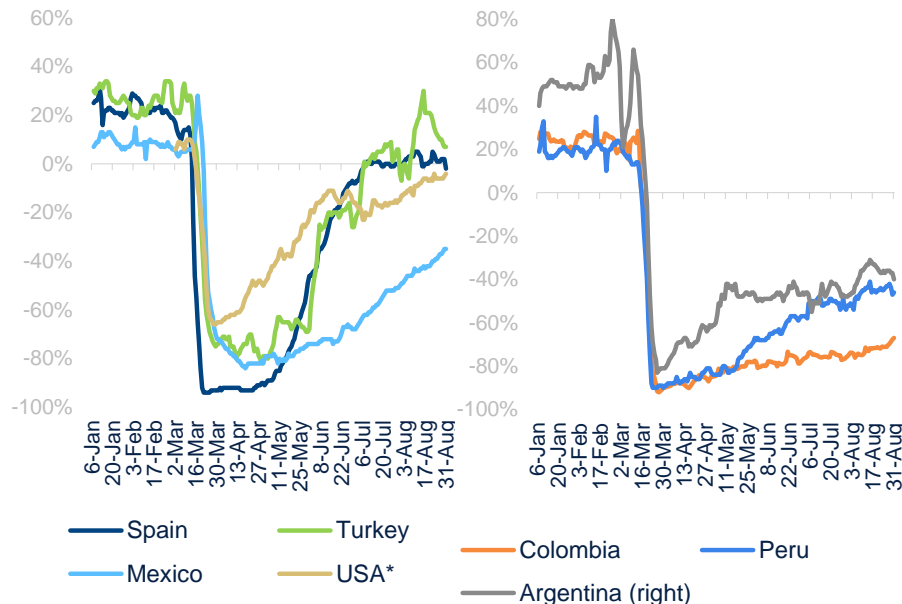
Series are coloured according to the history of each series since March 20 until the end of the series. The darker blue represents the lower 90% percentile and the lighter one represents the upper 10% percentile.

The recovery is uneven across sectors and countries. The catching up in restaurants of USA and Europe stands out...

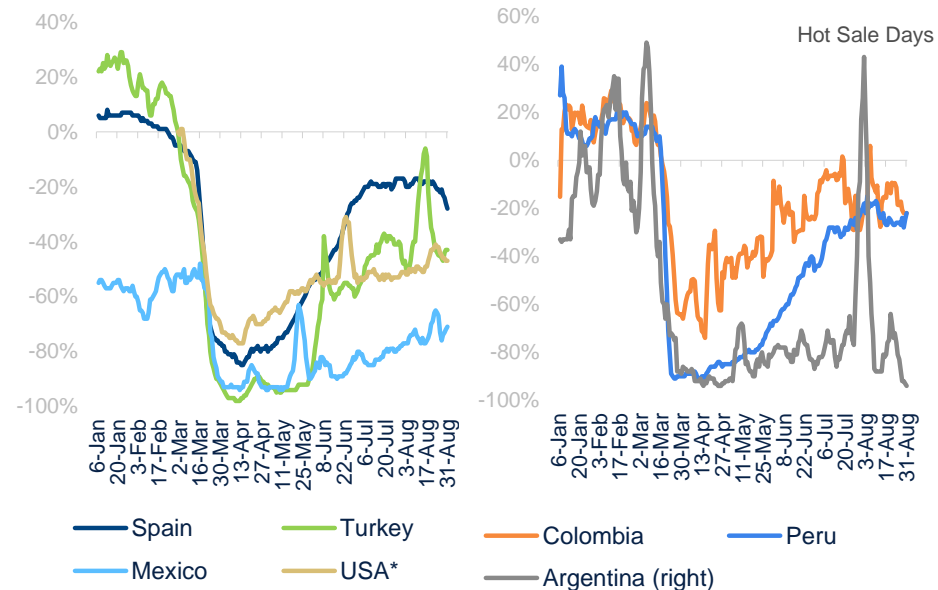
BBVA RESEARCH BIG DATA CONSUMPTION INDICES

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

RESTAURANTS



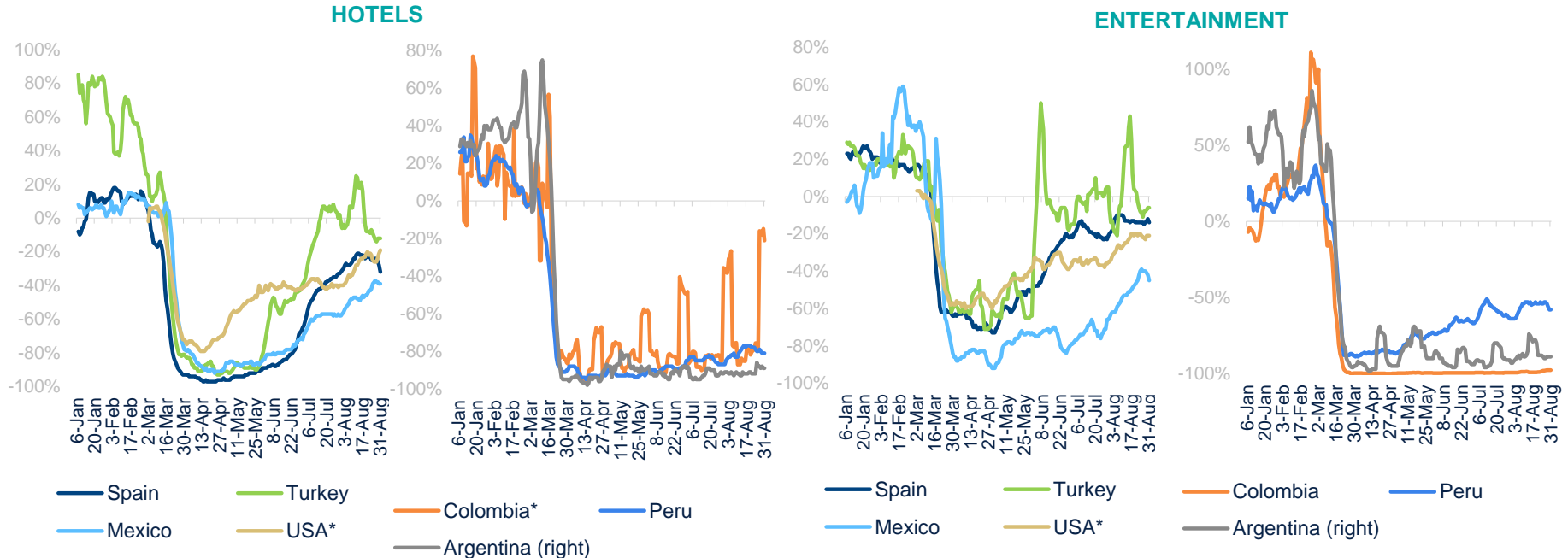
TRANSPORT



... However, it was not so clear in the case of hotels and entertainment, where growth rates are still in negative values for all countries

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

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

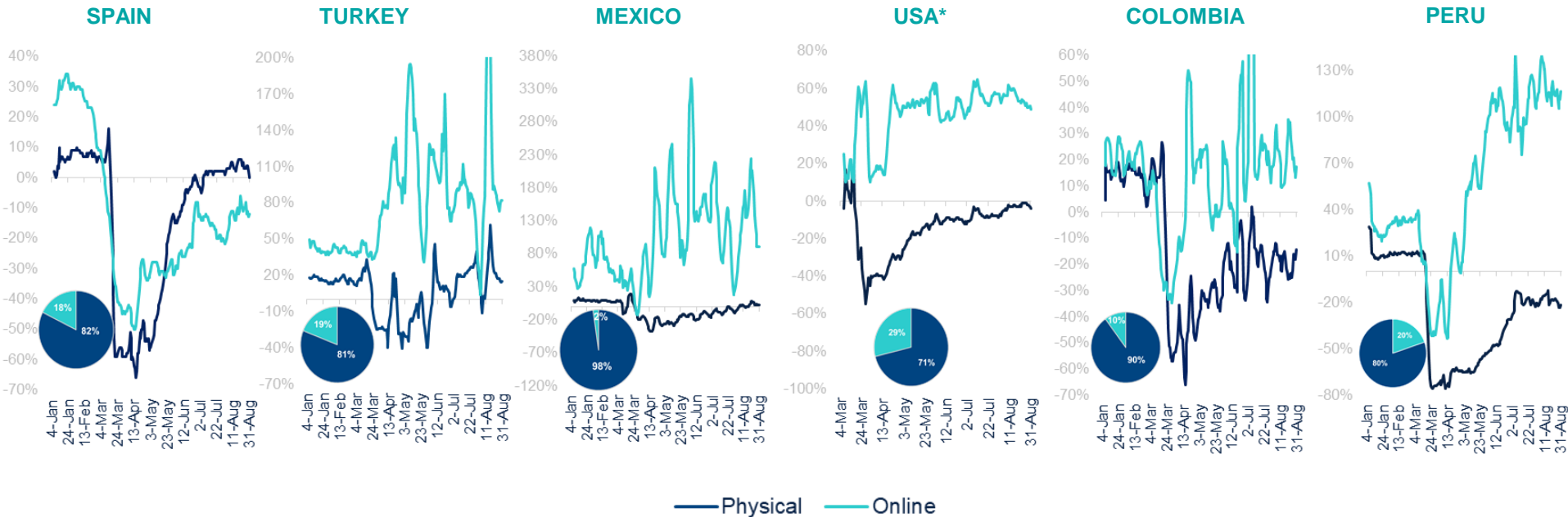


Source: BBVA Research. * USA = Proxied by USA Sunbelt. *Colombia: Monthly payments of clubs explain the volatility in the series with peaks at the end of the month

Technology matters: the gap between e-commerce growth and physical purchases remained. Online sales are increasing in all the countries, expect in Spain given the importance of travel expenditures

BBVA RESEARCH BIG DATA CONSUMPTION INDICES: PHYSICAL VS ONLINE

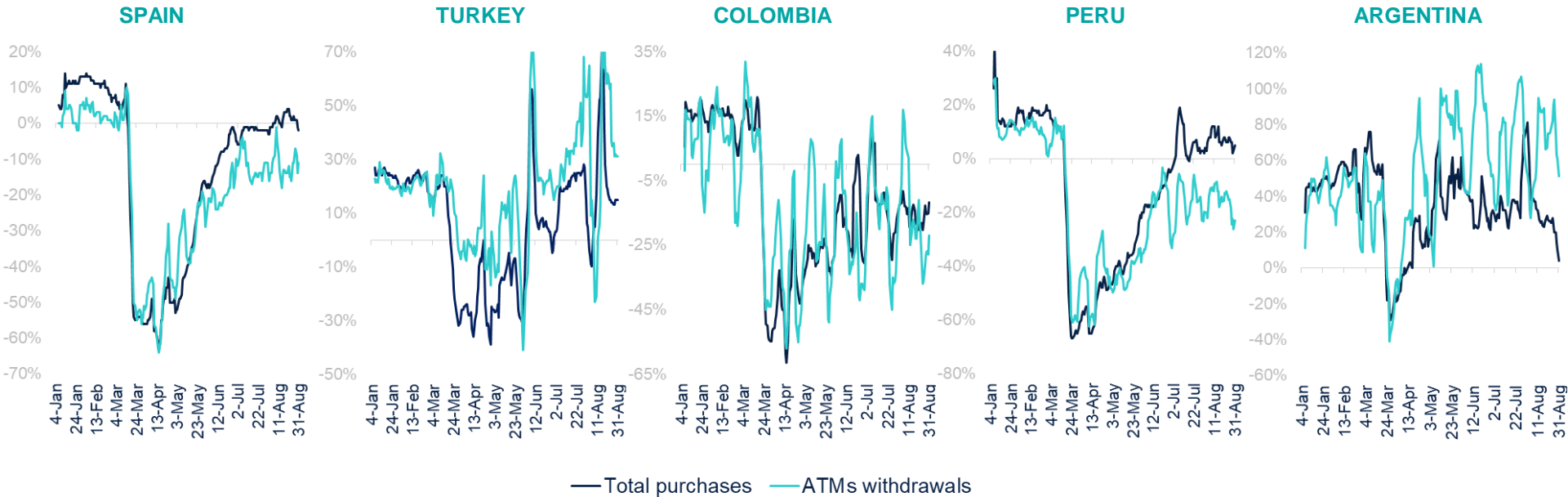
(Total consumption by Point of Sales. % YoY, 7D cumulative. Pie chart reflects the proportion of online and physical purchases in 2019)



The use of cash increased more than card payments in Turkey and Argentina. The opposite happened for Spain, Colombia and Peru

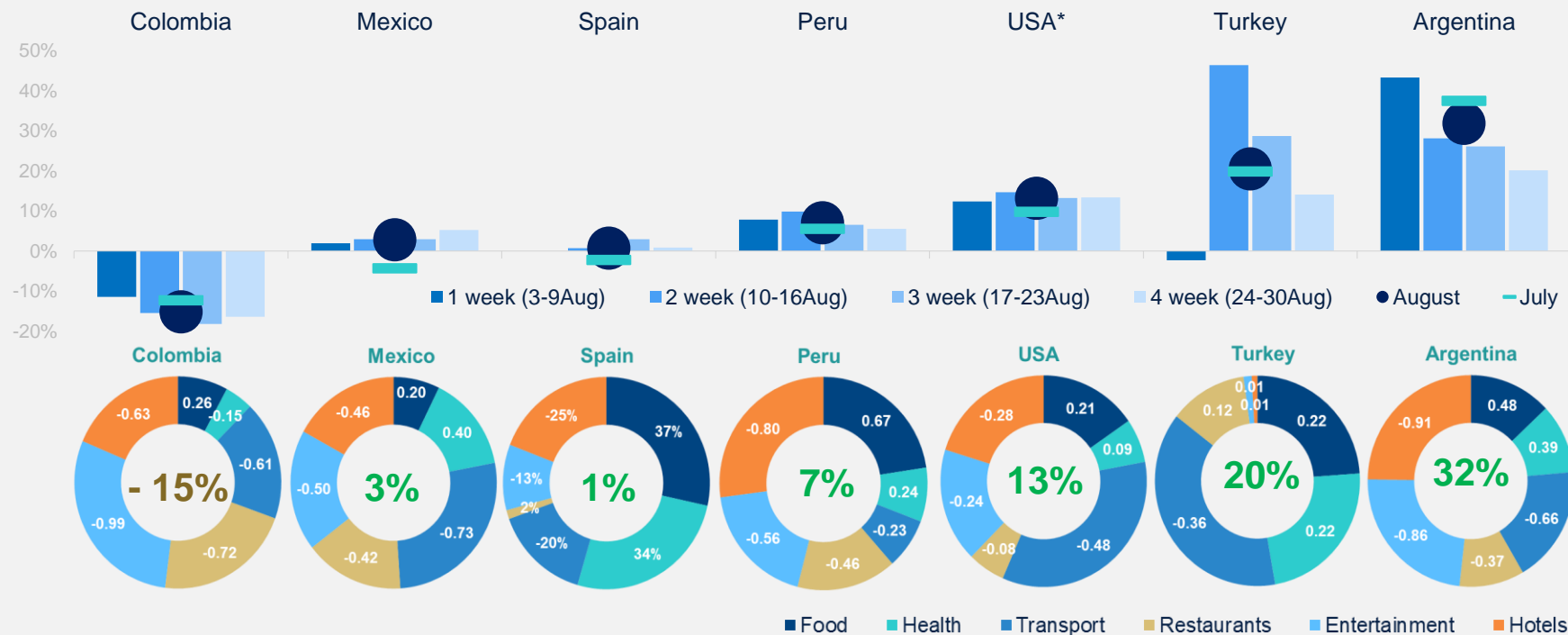
BBVA RESEARCH BIG DATA CONSUMPTION INDICES: CARD PURCHASES VS ATM WITHDRAWALS

(Total consumption by Point of Sales. % YoY, 7D cumulative)



Topic of the week: No big differences in card consumption patterns during August compared with July

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



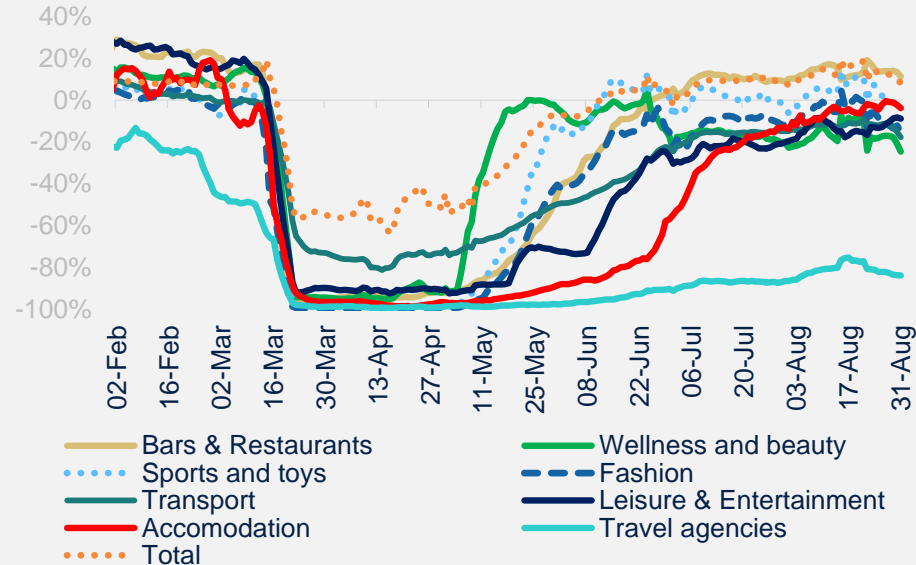
*It should be taken into account there are other categories of consumption not considered in the pie chart, so the total consumption is not equal to the average of the components of the chart

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

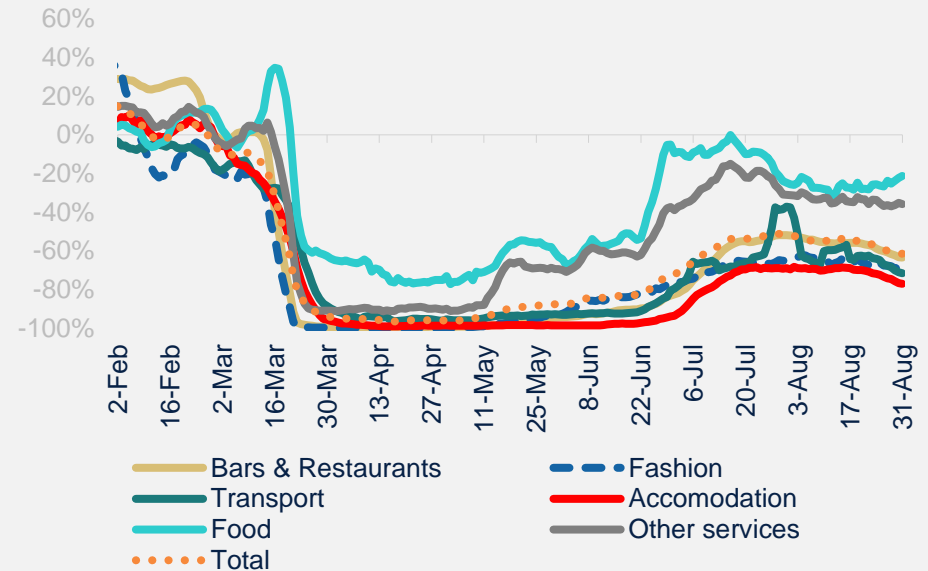
Topic of the week: Spain. The recovery slowed among national consumers. Foreign expenditure is still stagnant

SPAIN: AVERAGE EXPENDITURE BY SECTOR (% YoY, 7D cumulative)

NATIONAL



FOREIGN

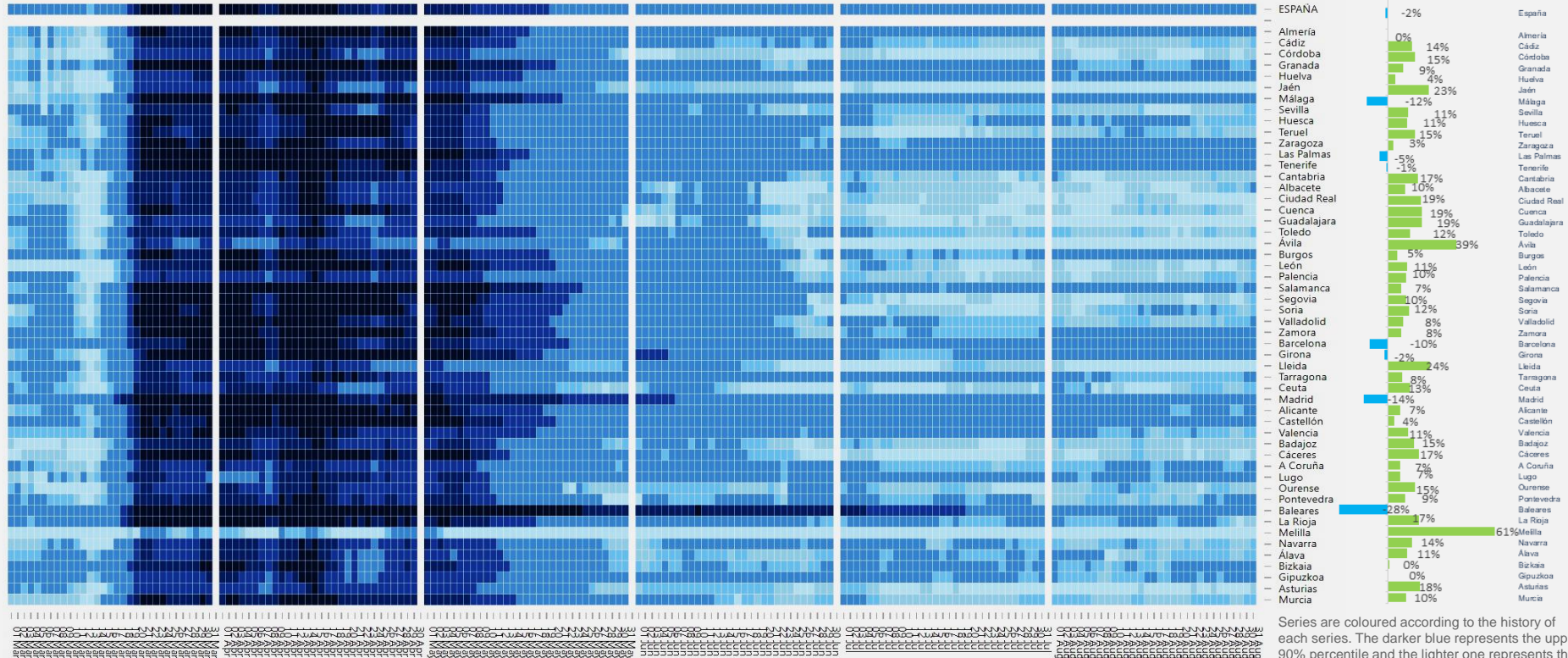


Topic of the week: Spain. 43/50 provinces are growing despite the stagnation of foreign expenditure

SPAIN: TOTAL AVERAGE WEEKLY EXPENDITURE BY PROVINCE*

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

25-31 AUG EXPENDITURE (% YOY)



Source: BBVA Research

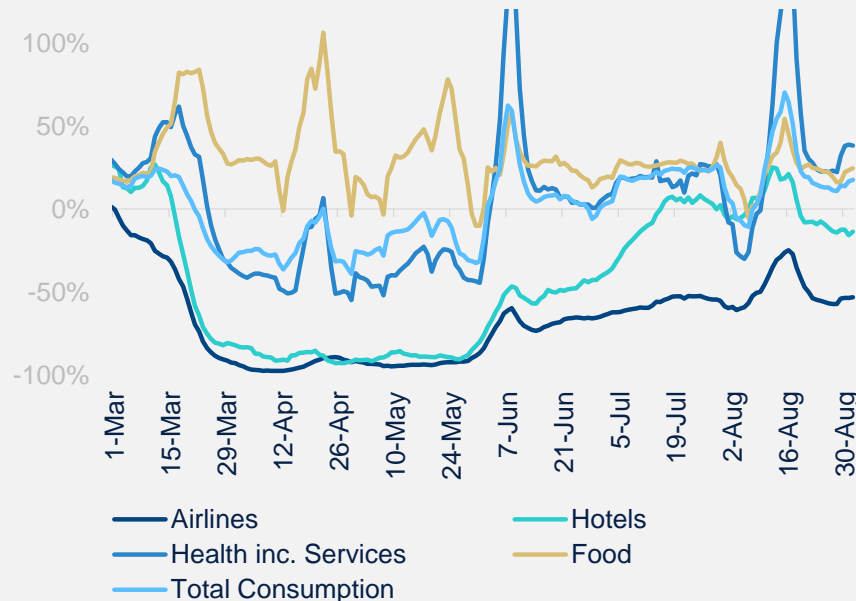
Lower Growth

Higher Growth

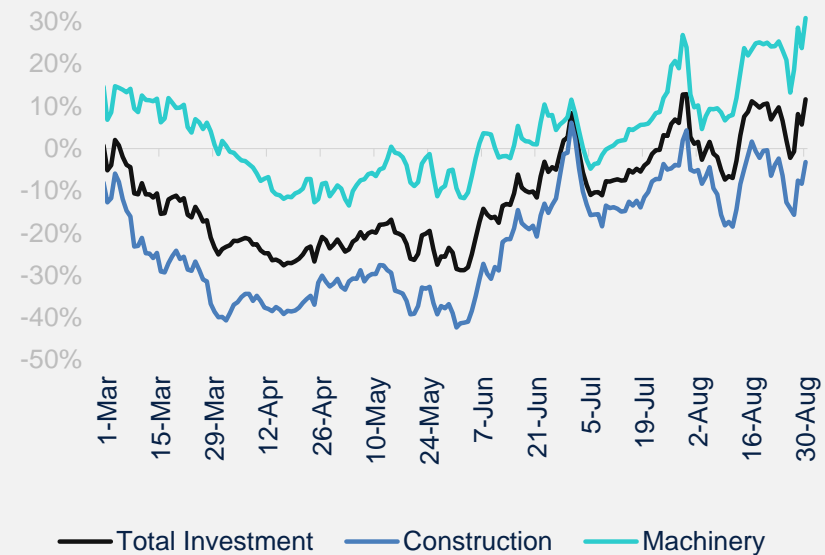
Series are coloured according to the history of each series. The darker blue represents the upper 90th percentile and the lighter one represents the lower 10th percentile. Expenditure by BBVA client and other Spanish cards registered in TPV BBVA

Topic of the Week: Turkish consumption continued growing, specially because of health and food expenditures. Investment registered positive growth rates too

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



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



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