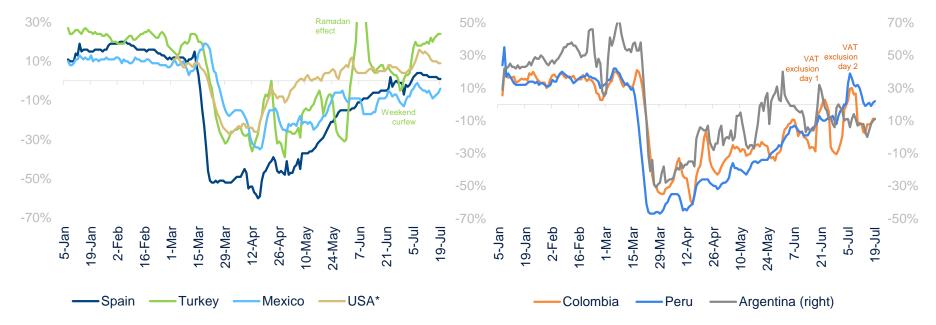
The COVID-19 impact on Consumption in Real Time and High Definition A Big Data BBVA Research Project

July 23th, 2020

Positive growth rates in the USA and Europe, Turkey accelerates. Latam countries are catching up

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

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

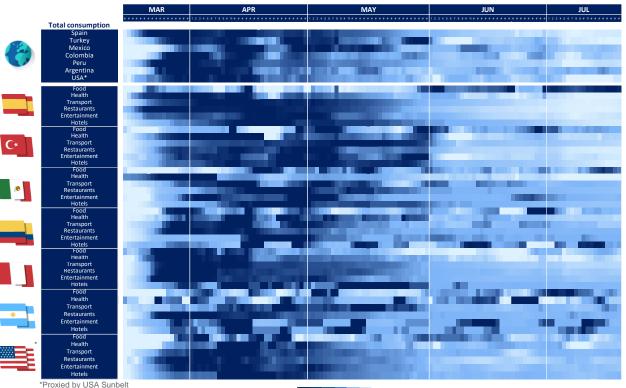


Source: BBVA Research. * Proxied by USA Sunbelt

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: the recovery by sectors seems clearer in Spain and Turkey

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



Lower Growth

- Light colors become broad based including the more restrained segments and countries
- Food remains positive, but it moderated in most of the countries.
- Tourism & Hotels started to recover in some countries as well as entertainment & restaurants

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.

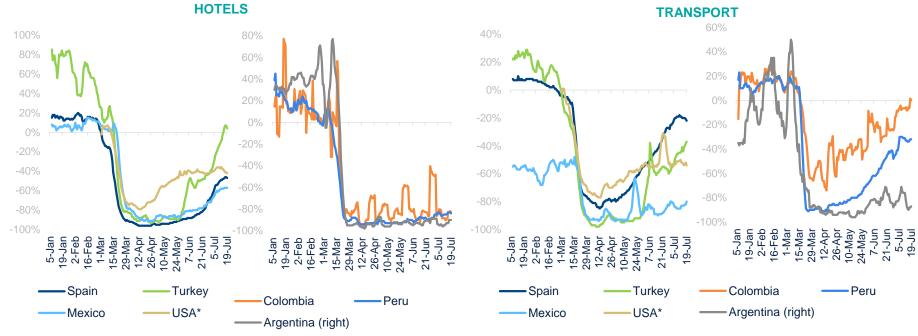
*Proxied by USA Sunbelt Source: BBVA Research.

Higher Growth

Hotels expenditures stabilized this week in most of the countries, but it increased in Turkey (driven by nationals), achieving positive growth rates. Transport consumption kept recovering

BBVA RESEARCH BIG DATA CONSUMPTION INDICES

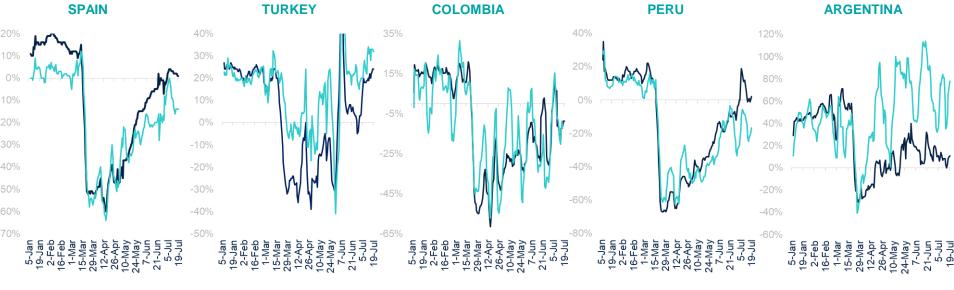
(Consumption by card, % YoY, 7D cumulative)



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

The use of cash increased more than card payments in the case of Turkey and Argentina, but the opposite happened for Spain and Peru

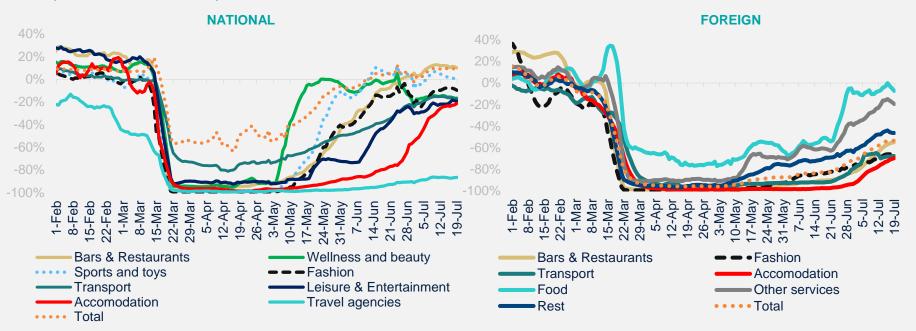
BBVA RESEARCH BIG DATA CONSUMPTION INDICES: CARD PURCHASES VS ATM WITHDRAWALS (Total consumption by Point of Sales. % YoY, 7D cumulative)



— Total purchases — ATMs withdrawals

Topic of the week: Spain. The recovery continued among national consumers. Foreign expenditure is still at lower growth rates than previous year

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



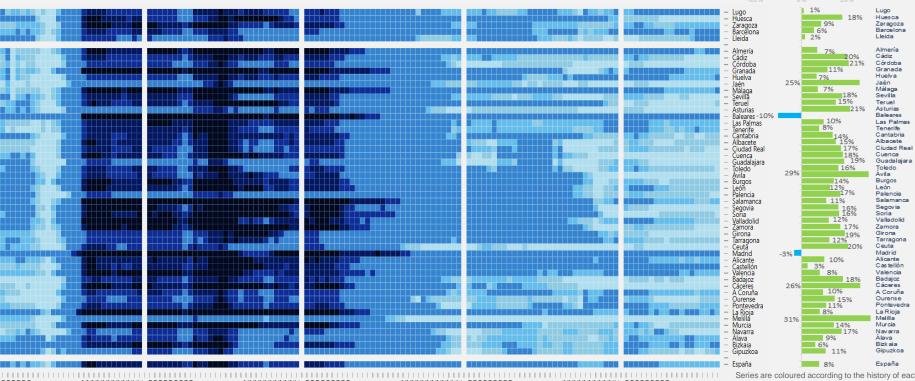
Topic of the week: Spain. The slump in foreign expenditure is still high in touristic areas and big cities

SPAIN: AVERAGE WEEKLY EXPENDITURE WITH FOREIGN CARDS BY PROVINCE (Average January-February 2020 = 100) MÁLAGA **ILLES BALEARS ISLAS CANARIAS** 400% 4-Jan 5-Jul 5-Feb 15-Mar 29-Mar 12-Apr 26-Apr 24-May 7-Jun 4-Jan 12-Apr 26-Apr 18-Jan 1-Feb 1-Mar 10-May 21-Jun 19-Jul 1-Feb 5-Feb 15-Mar 29-Mar 10-May 24-May 7-Jun 21-Jun 5-Jul lo-Jul 8-Jan 1-Mar 4-Jan 1-Feb 5-Feb 1-Mar 29-Mar 12-Apr 26-Apr 10-May 24-May 8-Jan 15-Mar 1-Jun 21-Jun 5-Jul 19-Jul BARCELONA MADRID **REST OF SPAIN** 40% 40% 4-Jan 18-Jan 1-Feb 15-Feb 1-Mar 15-Mar 29-Mar 12-Apr 26-Apr 10-May 24-May 1-Jun 21-Jun 5-Jul 19-Jul 4-Jan 15-Mar 29-Mar 12-Apr 26-Apr 7-Jun 5-Jul InL-61 4-Jan 26-Apr 8-Jan -Feb 5-Feb 1-Mar 10-May 21-Jun 1-Feb 15-Feb 15-Mar 29-Mar 12-Apr 10-May 7-Jun 21-Jun 5-Jul 19-Jul 18-Jan 1-Mar 24-May 24-May **BBVA Research** 2020 2019

13-19 JUL EXPENDITURE (% YOY)

Topic of the week: Spain. The Spending recovery. 50 provinces are growing

SPAIN: AVERAGE WEEKLY EXPENDITURE BY PROVINCE* (% YoY, 7D cumulative)



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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 through TPV BBVA

Source: BBVA Research

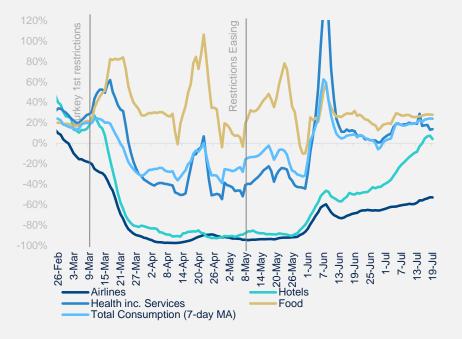
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Lower Growth

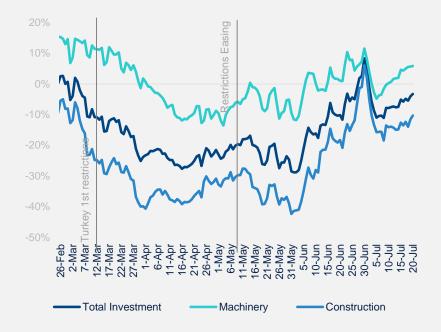
Higher Growth

Topic of the week: Turkish recovery is ongoing in both, consumption and investment

GARANTI BBVA BIG DATA CONSUMPTION ITEMS (CUMULATIVE 7 DAYS, YOY NOMINAL)



BBVA BIG DATA DAILY INVESTMENT INDEX (CUMULATIVE 28 DAYS, YOY NOMINAL)





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Creating Opportunities