

Real-Time Economics

Follow the evolution of the Spanish economy
with our real-time indicators.

Real-Time Economic tracker and other analytical works at CaixaBank Research

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Analytics at CaixaBank Research



__ **CaixaBank Research** is the research department of CaixaBank, the leading retail banking financial group in Spain (20.2 million clients, market share credit/deposits ~24%/~25%)



__ **Multidisciplinary** team at the analytics division: data analysts, economists and communication specialists.



__ **External** collaborations with researchers in academic institutions (e.g. public-private partnership with Pompeu Fabra University).



__ **Internal** collaborations helping other bank departments (e.g. real state) and exchanging advanced analytical knowledge (e.g. Business Intelligence).



Creating analytical knowledge using internal data in three different dimensions

- 1** *Academic projects* Public-private partnership with Universidad Pompeu Fabra, IPEG and IESE, among others
Examples: Inequality, Geography Spending, Minimum Income (IMV).
- 2** *Analytical projects* Analytical projects using different sources of information used to provide internal and external advice and policy recommendations
Examples: Expenditure in utilities, Housing, Tourism.
- 3** *Real-time economic tracker* CaixaBank Research has developed the first economic tracker in real time based on anonymized internal data made available to everyone in a website updated monthly



<https://realtimeeconomics.caixabankresearch.com>

1. Academic projects

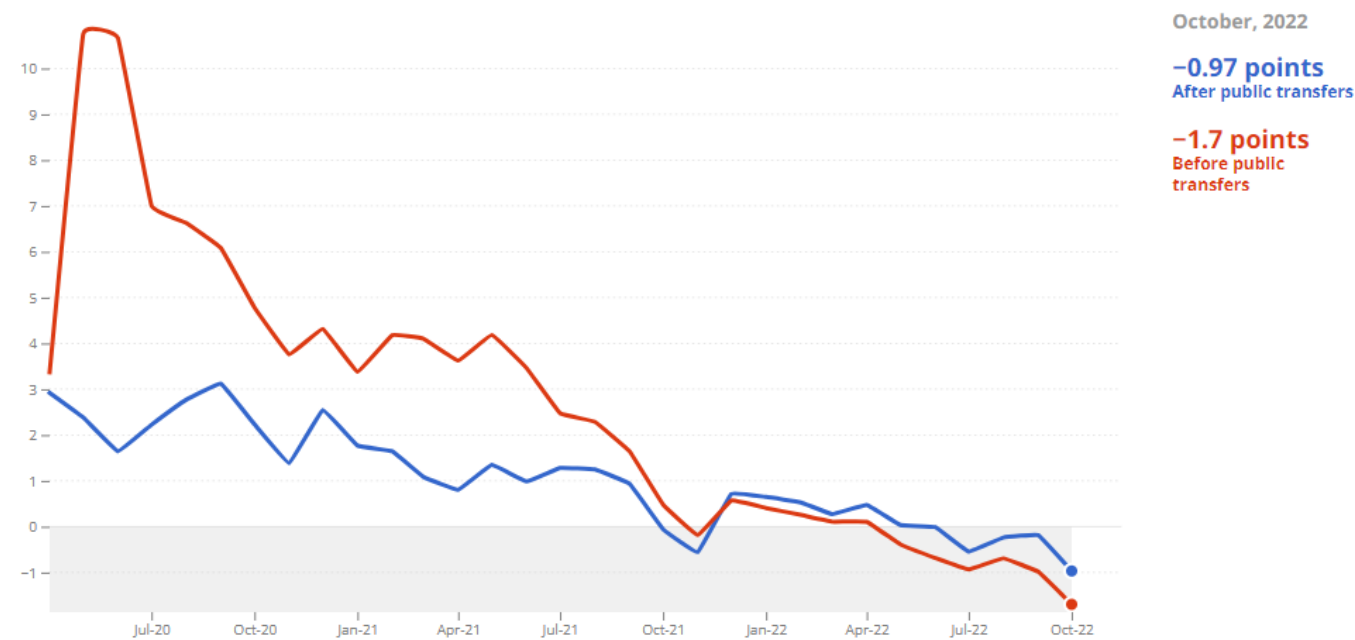
Tracking the Impact of COVID-19 on Economic Inequality at High Frequency

- ▶ We developed a new reliable methodology to track the evolution of income inequality at a high frequency using **anonymized data from bank records**
- ▶ Data on all account holders receiving **payroll payments** from a private or public employer and/or **government transfers**
- ▶ Overall sample includes over **3 million retail depositors**
- ▶ **Publications:**
 - ▶ Aspachs, O., Durante, R., Graziano, A., Mestres, J., Montalvo, J. G. & Reynal-Querol, M. (2021). Tracking the impact of COVID-19 on economic inequality at high frequency. **PloS one**, 16(3).
 - ▶ Aspachs, O., Durante, R., Graziano, A., Mestres, J., Montalvo, J. G. & Reynal-Querol, M. (2022). Real-time inequality and the welfare state in motion: evidence from Covid-19 in Spain, **Economic Policy**, Volume 37, Issue 109, Pages 165–199.

Monthly Evolution of the Gini Index since the start of the pandemic

- COVID-19 produced a massive **increase in pre-tax income inequality**
- Public **government intervention has been very effective** at containing inequality
- Wage inequality **back to pre-pandemic levels for all** groups, including the most vulnerable workers (young, foreign-born)

Differences-in-differences in pre- and post-transfer Gini



Source: CaixaBank Research.

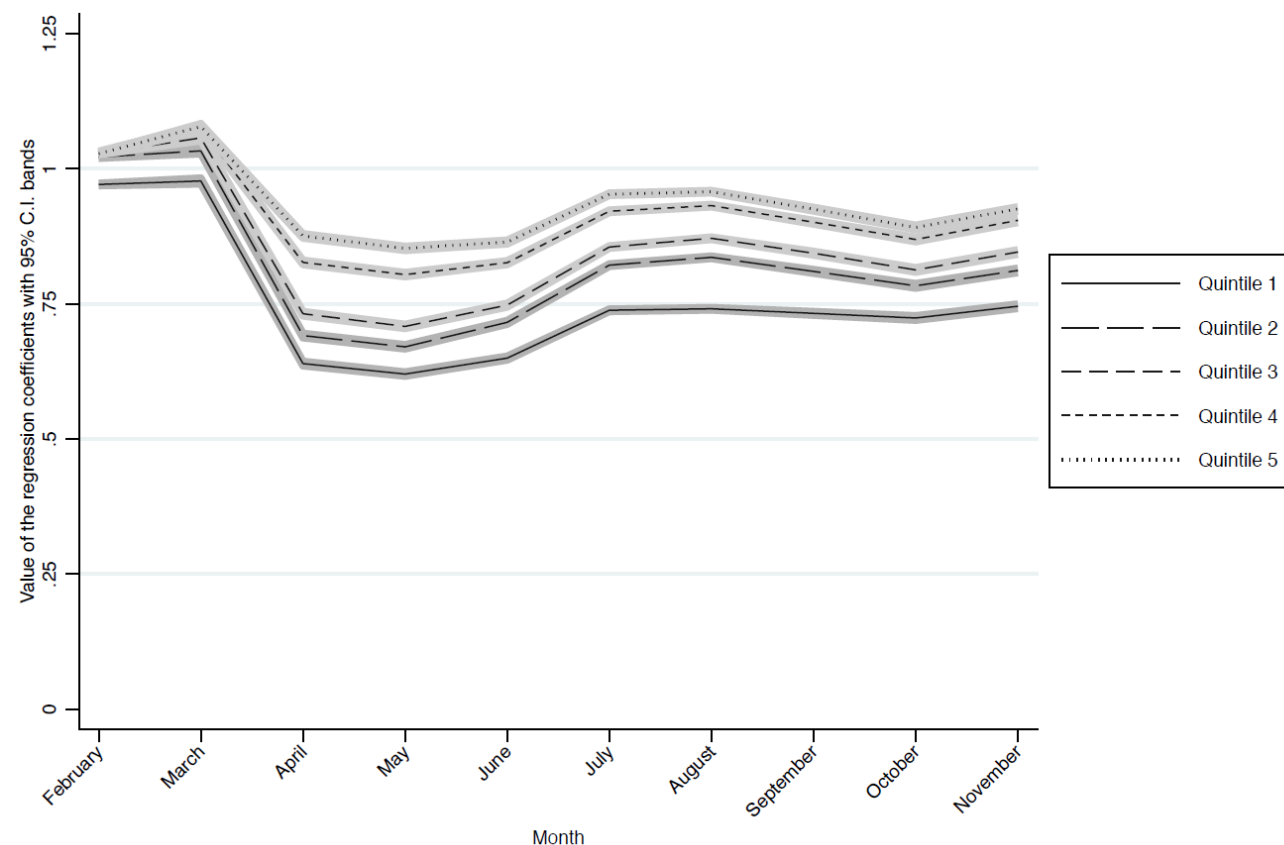
Download: [Data](#) [Chart](#)

Note (*): The change in the Gini index compared with February 2020 has been adjusted for seasonal variations observed during the same period 2 years previously. "Post" refers to the Gini index after public transfers and "Pre" before public transfers.

Impact in employment by pre-pandemic earnings quintiles

- Almost 90% of the increase in pre-benefits Gini index due to **employment reduction**
- Loss of employment more acute for **low pre-pandemic wage quintiles**, even after conditioning on observables

Employment probability over time conditional on observable characteristics



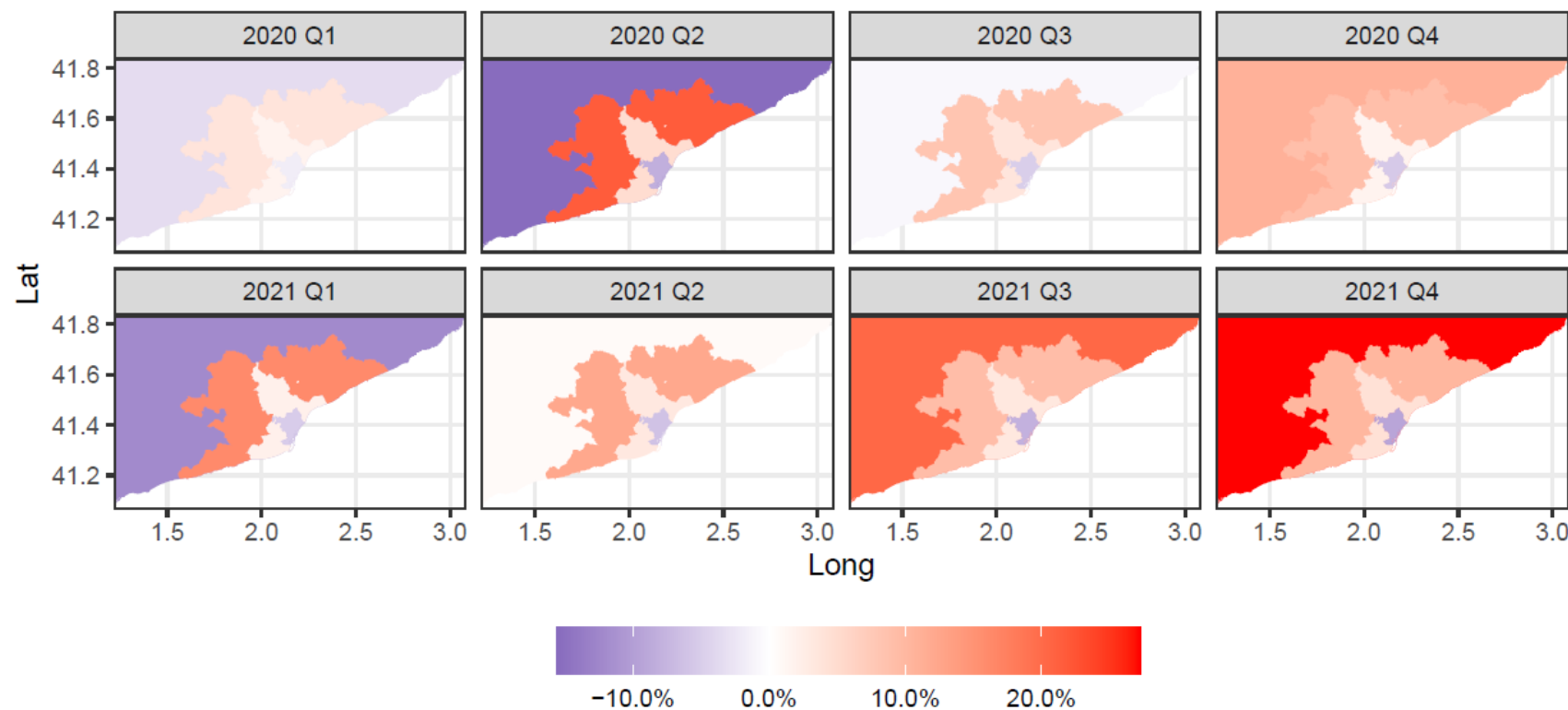
The economic geography of metropolitan areas using credit card data

- We analyse the **permanent** effect of the pandemic on the **economic geography** of **large metropolitan areas** in Spain.
- We analyse **Barcelona, Madrid, Sevilla** and **Valencia Functional Urban Areas (FUAs)**, which consists of the city and its commuting zone, using **in-person card transactions recorded at point of sales (PoS) operated by CaixaBank** and located in the region
 - For example, in Catalonia we use 180 million credit and debit card transactions in 150 thousands stores and ATMs all over the region
- We study **how the share of spending changes across different zones** within a FUA

Percentage change in share of total spending, workdays

Compared to the share in the same quarter in 2019

- Permanent shift of demand towards outskirts of in Spanish metropolitan areas
- Lower share in spending in city centers
- Limited size of location shift of (ie. 0.8-2.1km increase)

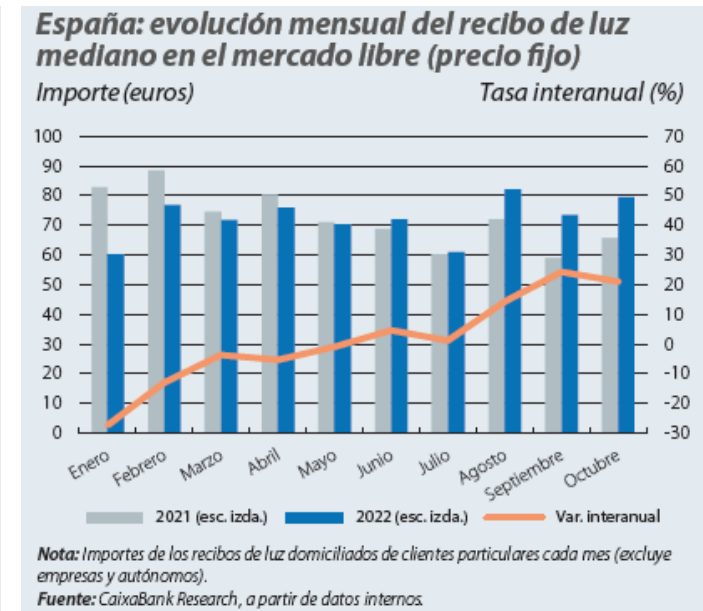
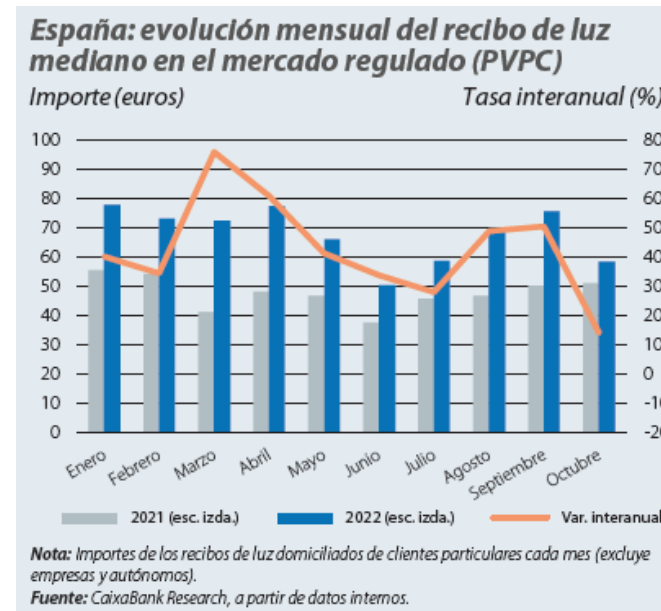


Source: CaixaBank Research, using internal bank data.

2. Analytical projects

Electricity bill direct debit payments

- Analysis of **direct-debit electricity bill payments** in the regulated and non-regulated markets in Spain
- Those consumers in the **regulated-market** experienced **increases earlier and faced more volatility** than those in the non-regulated market
- Those in **non-regulated market** (65% of total HHs) face **steady increases in 2022**, from -27% YoY on Jan-22 to +21% YoY in Oct-22

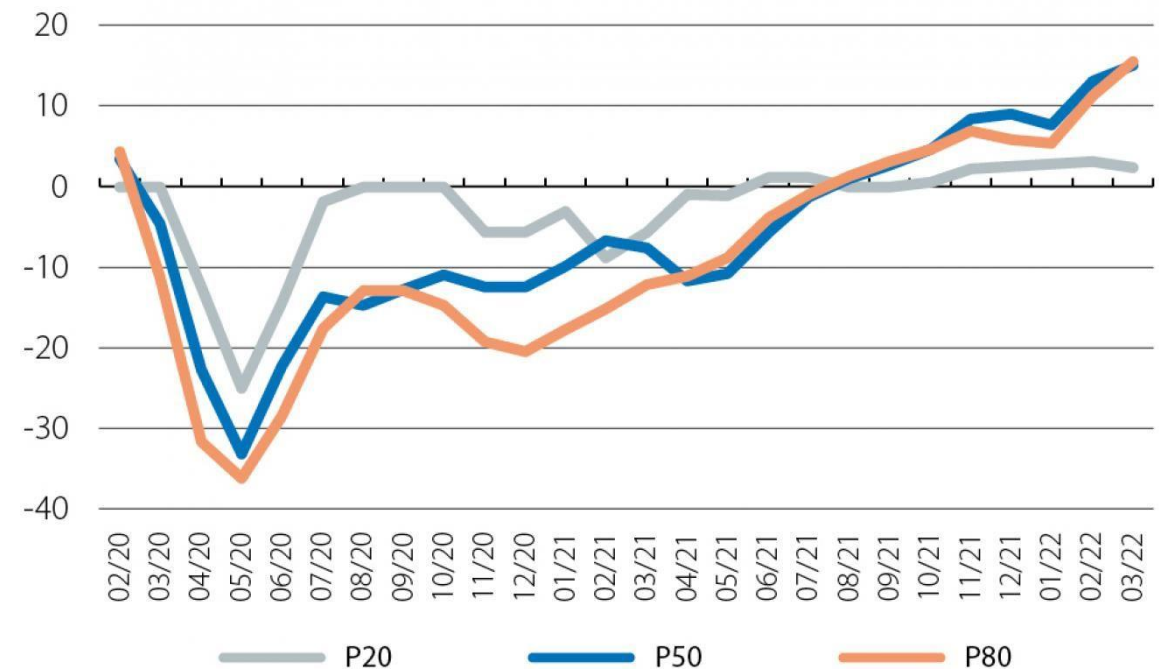


Monthly expenditure at petrol stations

- Not everyone has adjusted their fuel consumption in the same manner
- During COVID-19, reduction in fuel expenditure in all percentiles
- Following the rise in fuel prices in 2022, lowest percentiles adjust their consumption proportionally more than higher percentiles

Spain: monthly consumption at petrol stations

Monthly change versus the same month in 2019 (%)



Notes: Aggregate amount spent at petrol stations by individual customers each month. 2-month moving average.

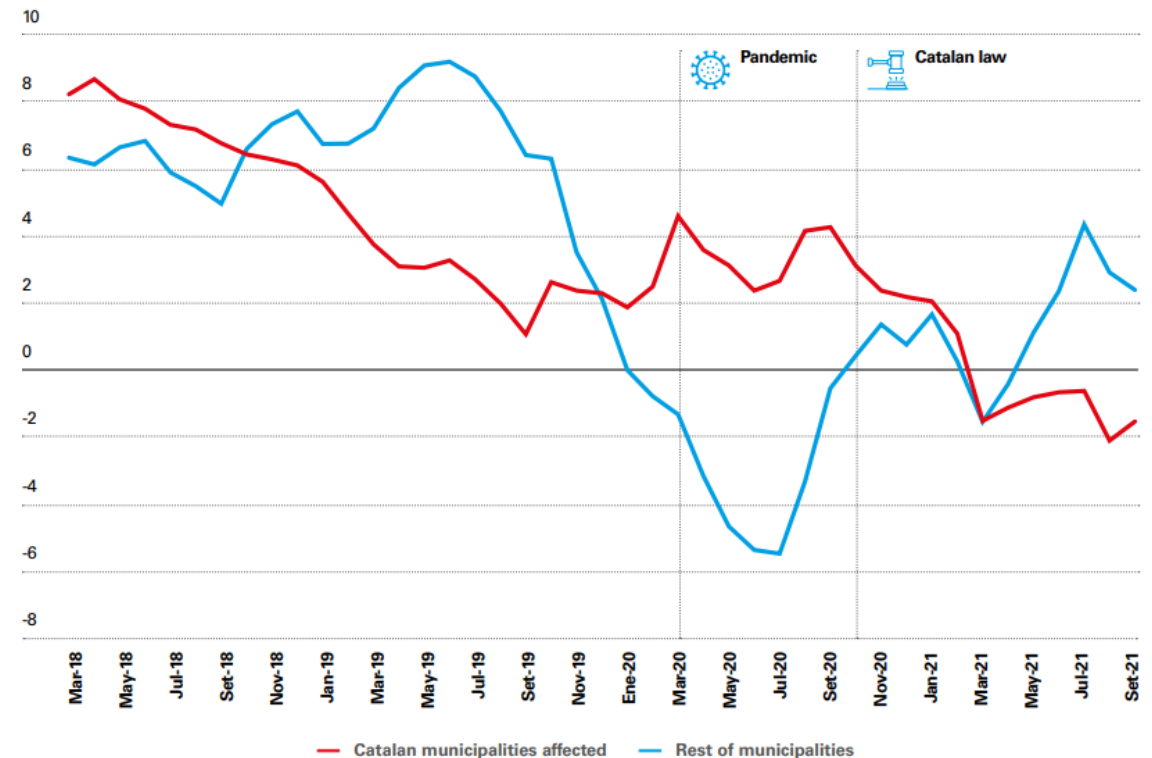
Source: CaixaBank, based on internal data.

Housing: internal rent payment data

- Evaluation of a law on rent containment in new rental lease agreements
- Difference-in-differences analysis between municipalities declared a high-price zone and those not declared high-price zone
- Change in rental price would have been around 1 pp lower in the affected Catalan municipalities.
- However, rental prices were resistant to falling during COVID-19 in affected municipalities

The impact of the Catalan law on the price of new rents

Average year-on-year change (%)



Notes: For each municipality and month, we have calculated the average value of new rent payments (rents whose issuer-payer relationship is less than or equal to six months old). The chart shows the average annual change weighted by the population of each municipality, with the municipalities grouped according to whether they have been declared a high-price zone.

Source: CaixaBank Research, based on internal rent payment data.

3. Real-time economic tracker

Pioneer Real-time economic tracker made available to everyone, made up of 12 indicators, grouped into 5 areas: **consumption, housing, wages, tourism and inequality**

Information quality The data is representative of Spanish society as a whole, which makes it possible to anticipate trends and identify differences between groups and regions.

The indicators offer information for different categories: **region, age, sex, income, sector of activity, etc.**

Some 850 series in total are published monthly.





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Portal -> <https://realtimeeconomics.caixabankresearch.com>

Link to video presentation: [HERE](#)



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