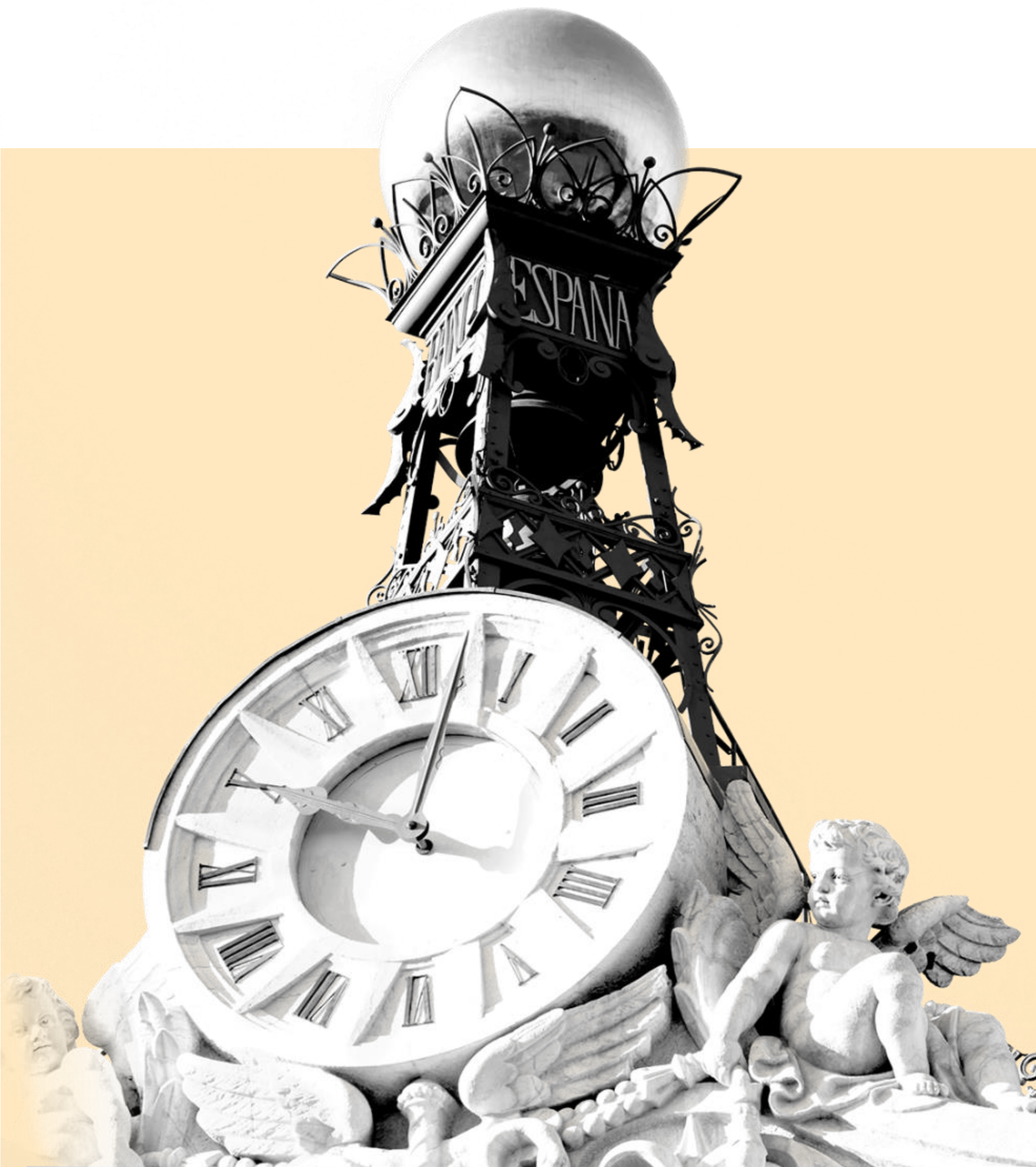


7TH BANCO DE ESPAÑA ANNUAL RESEARCH CONFERENCE

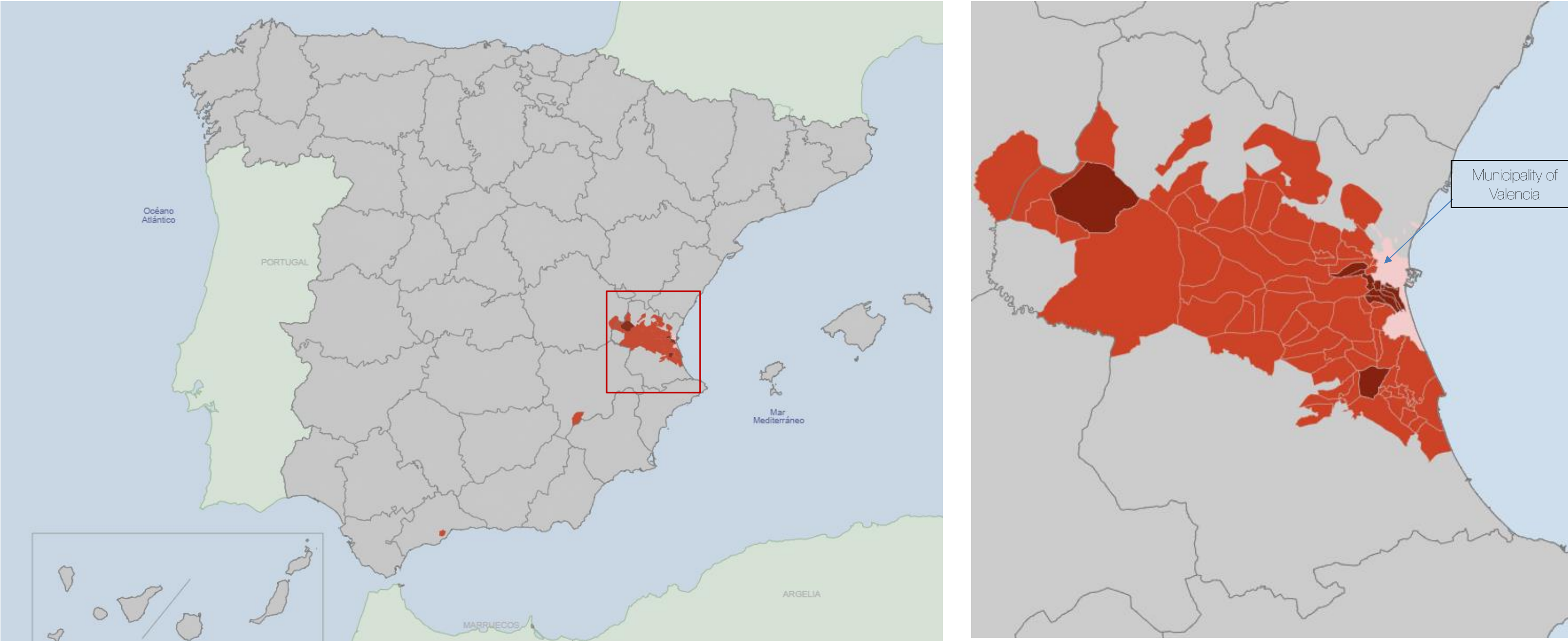
MACROECONOMIC AND FINANCIAL ASPECTS OF CLIMATE CHANGE

JOSÉ LUIS ESCRIVÁ
BANCO DE ESPAÑA GOVERNOR
14.11.2024



Areas affected by the DANA

MUNICIPALITIES AFFECTED BY THE DANA, ACCORDING TO RDL 6/2024*

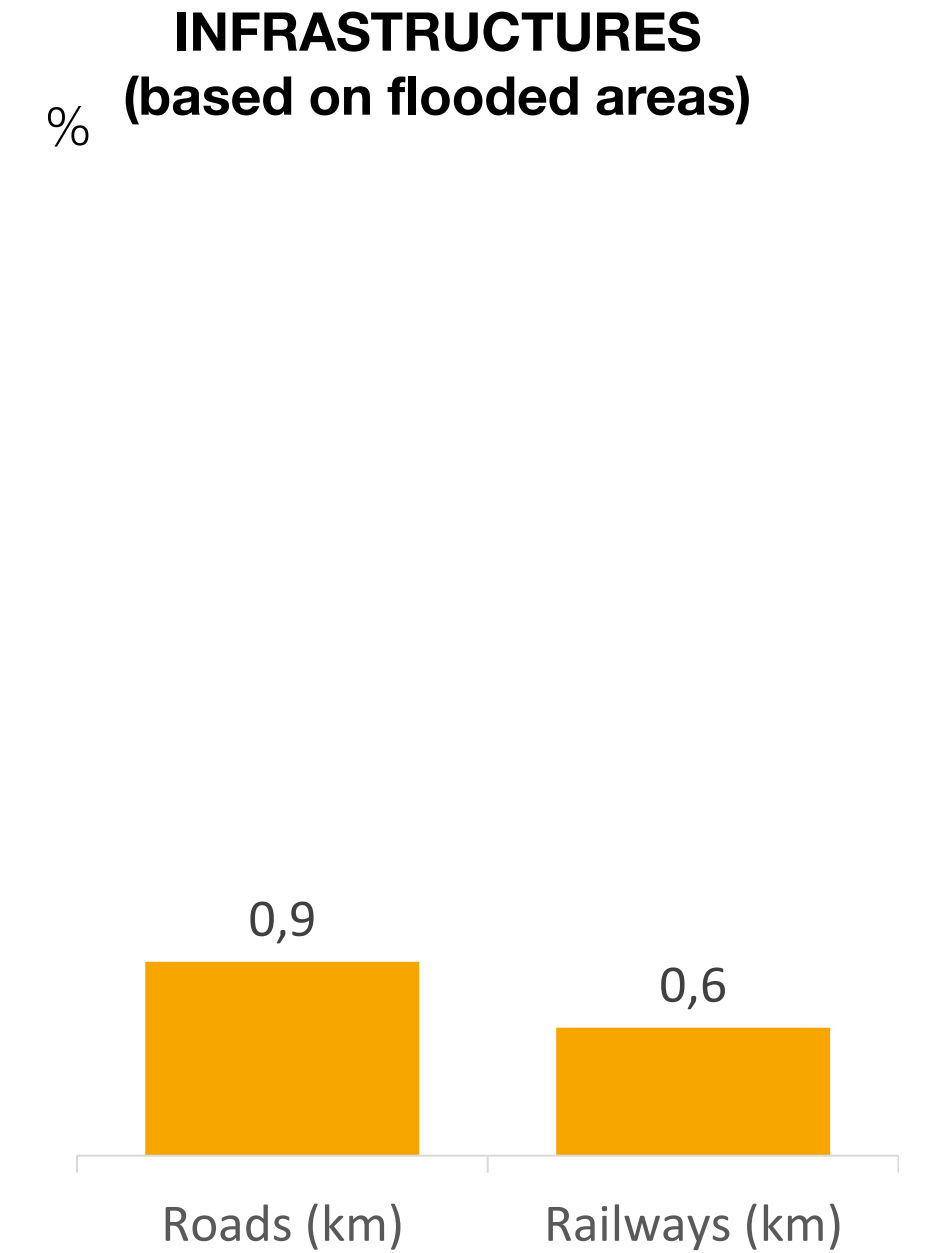
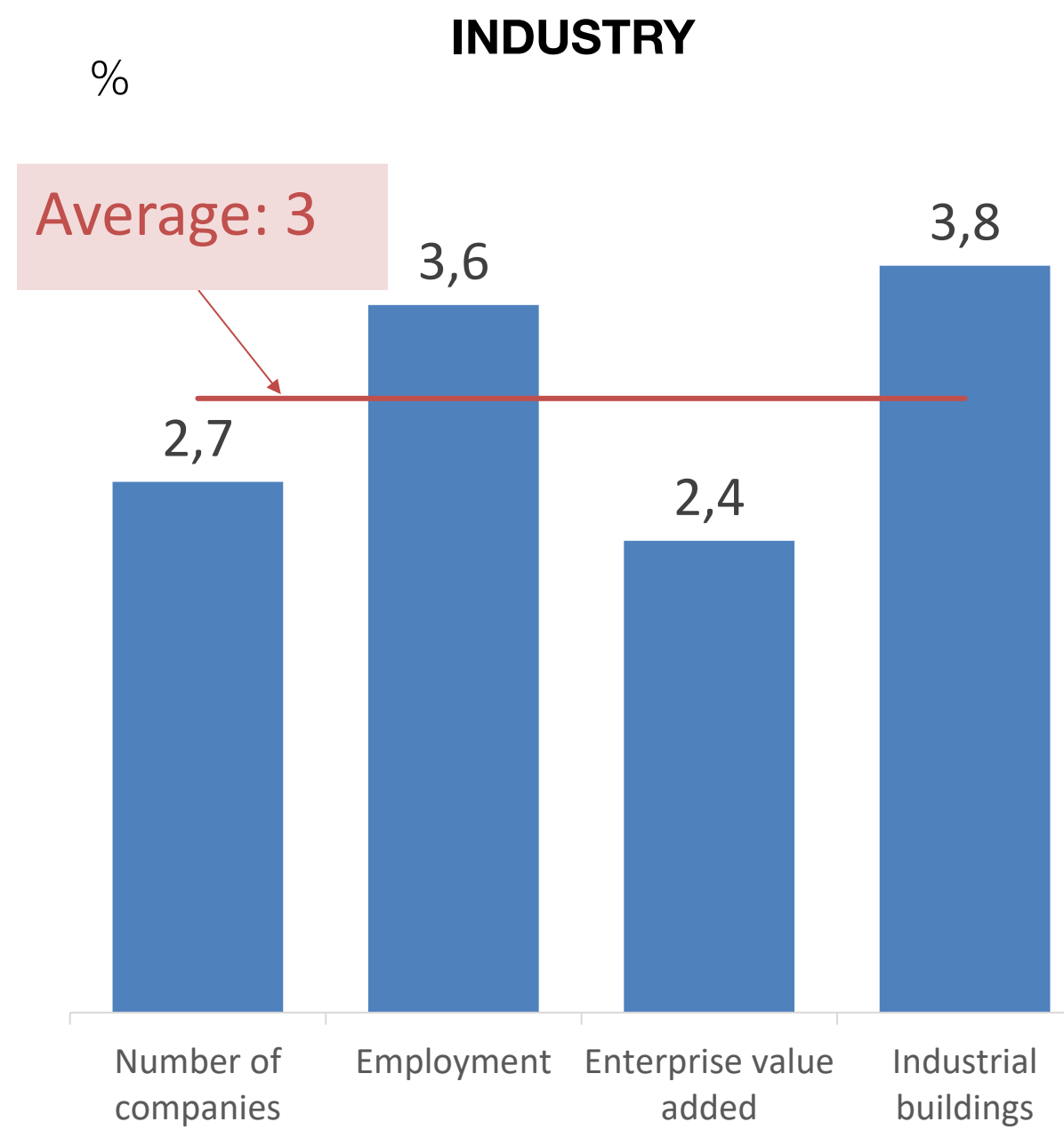
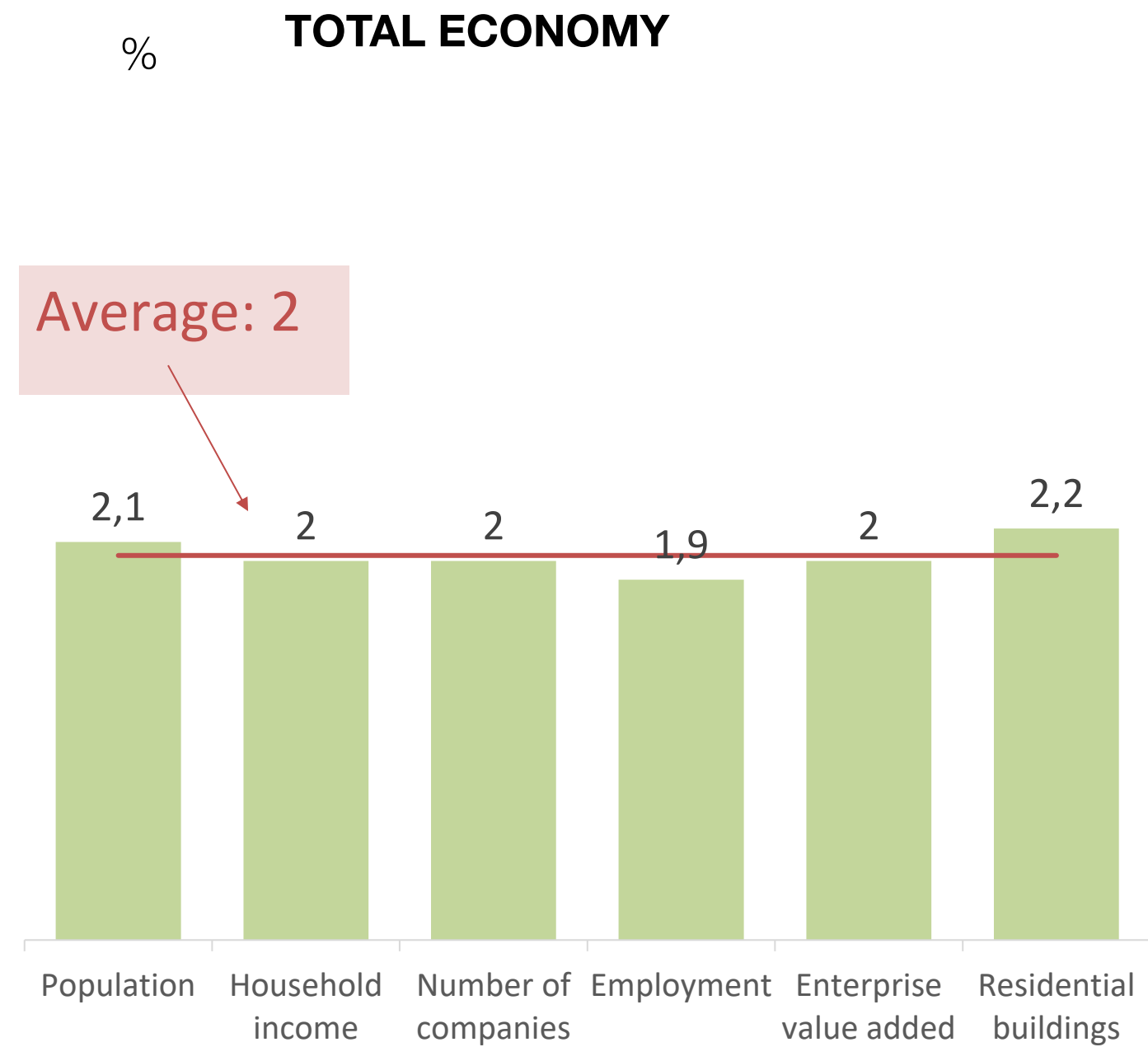


78 municipalities included in the government's aid package 13 municipalities more severely affected

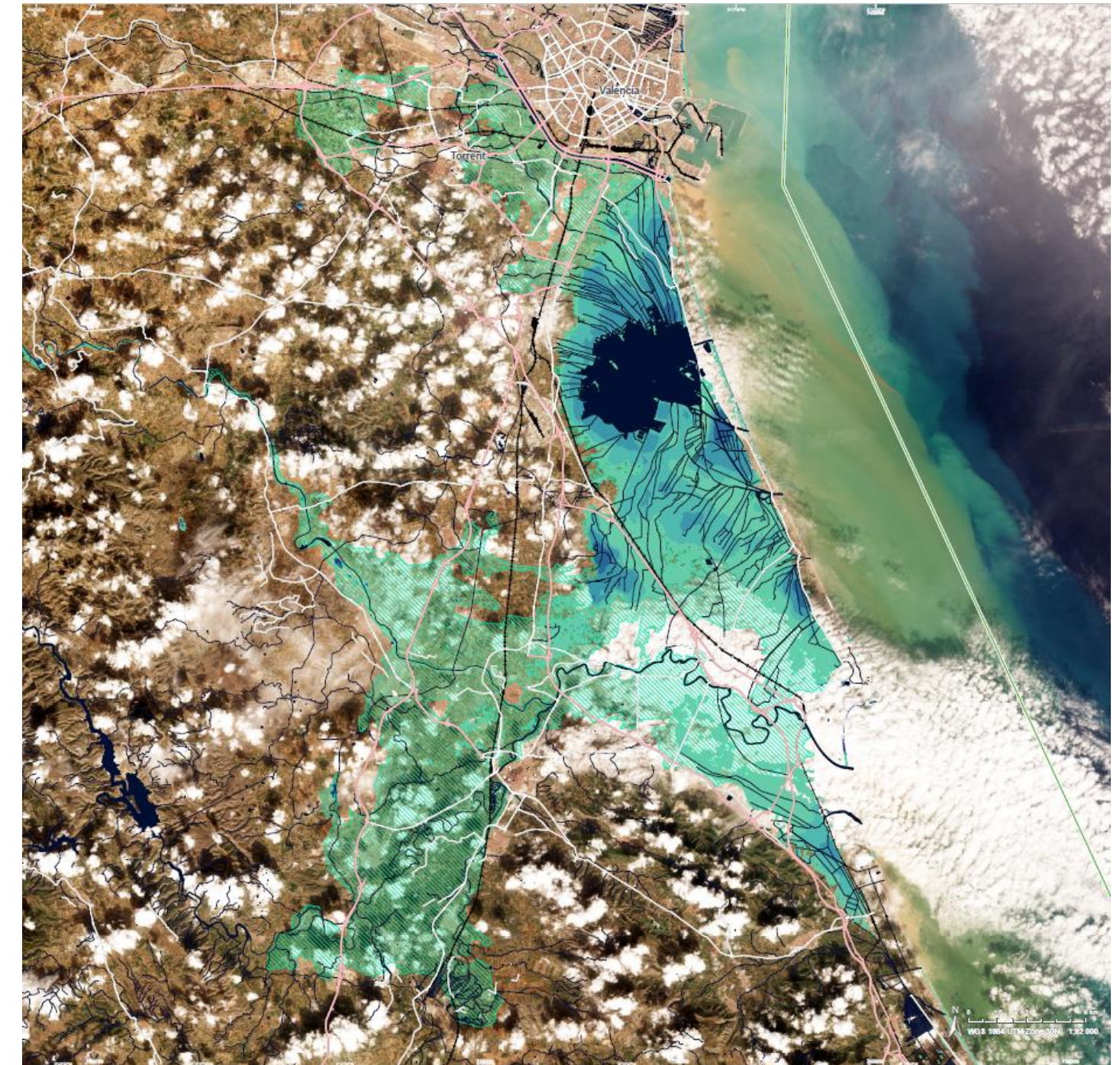
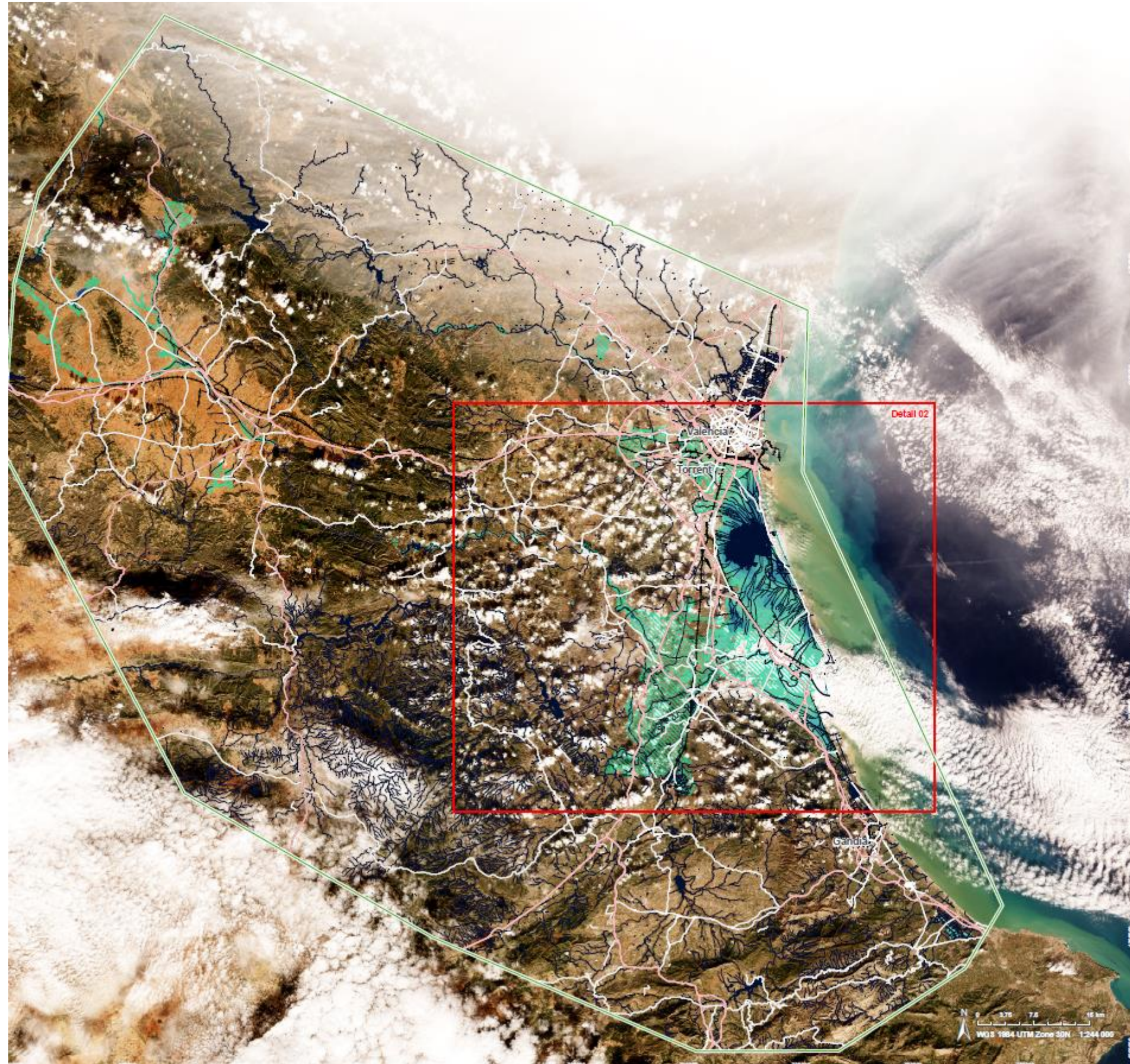
* In the municipality of Valencia (in pink), affected areas are “pedanías del sur”, with around 21.000 inhabitants.

Economic relevance of the areas affected by the DANA

WEIGHT OF AFFECTED AREAS IN THE PROVINCE OF VALENCIA OVER TOTAL IN SPAIN

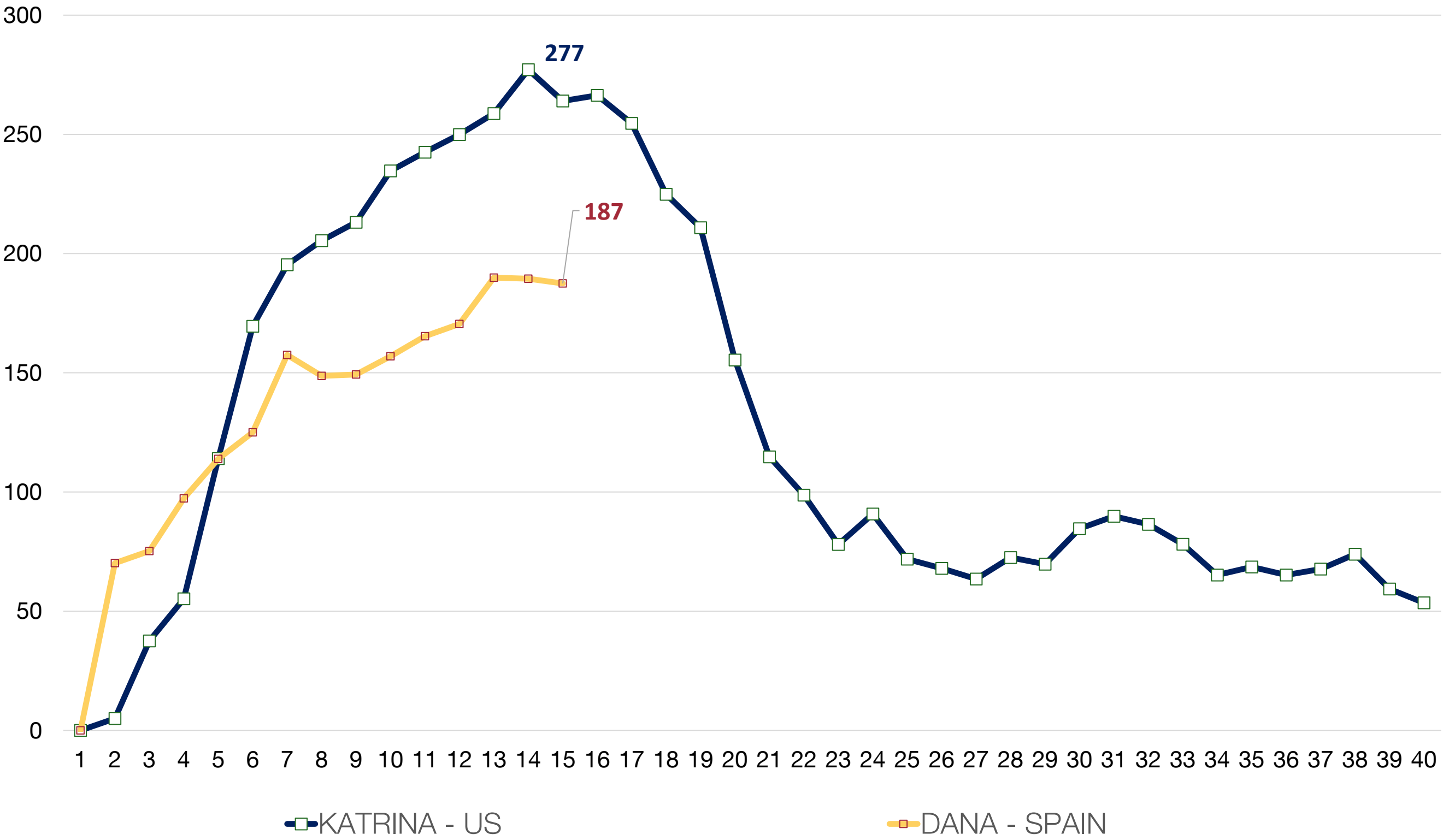


Areas affected by the DANA



Real-time monitoring of the economic impact: bottlenecks

CHANGE IN THE SUPPLY BOTTLENECKS INDEX IN THE UNITED STATES AFTER KATRINA VS. CHANGE IN SPAIN AFTER THE DANA

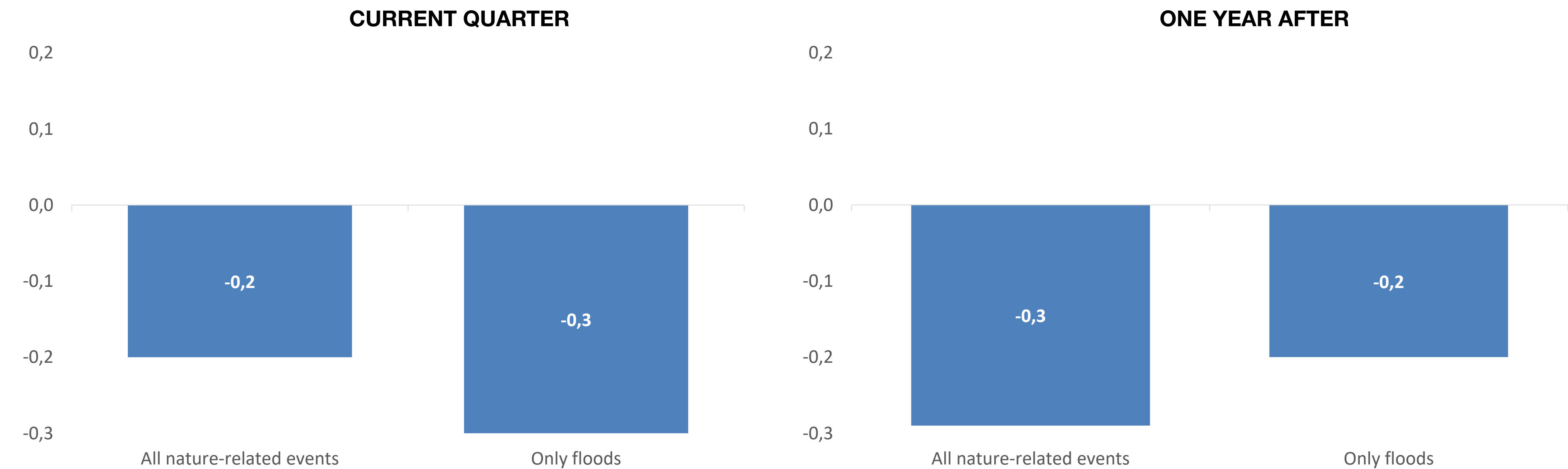


Source: Banco de España. Burriel, Kataryniuk, Moreno-Pérez and Viani (2024). 15-day moving average. Last observation: 12 November 2024.

Historical international evidence points to a negative short-run impact of nature-related events on GDP

- The impact of the DANA on Spain’s GDP growth is uncertain and will depend on various factors, such as the percentage of economic activity affected and the magnitude and timeliness of fiscal measures implemented

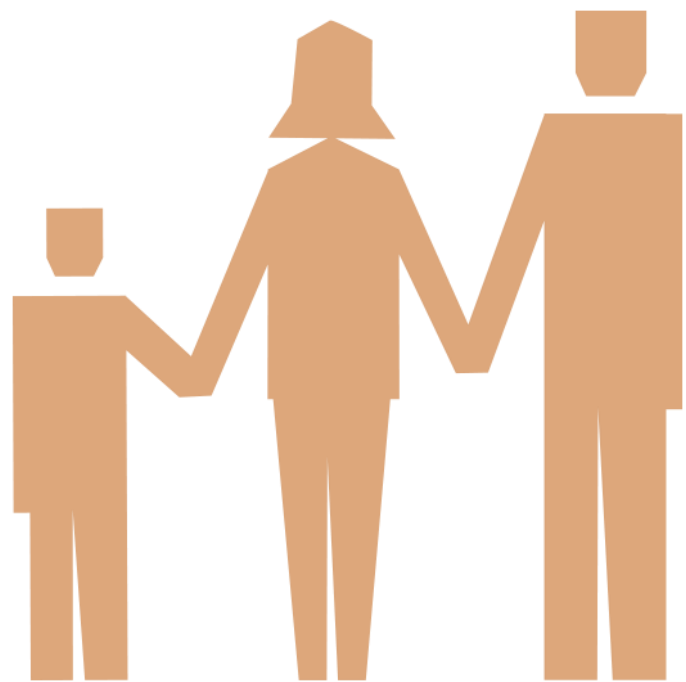
ESTIMATED IMPACT OF NATURE-RELATED EVENTS ON GDP



Source: Own calculations based on Eurostat and EM-DATA. The EM-DATA database collects natural disasters in Europe in the last 23 years, including drought, earthquake, epidemic, flood, glacial lake outburst, flood, infestation, mass movement, storm, volcanic activity, wildfire. Extreme temperature events are excluded (e.g. Spain heat wave in 2022 with 11,000 casualties).

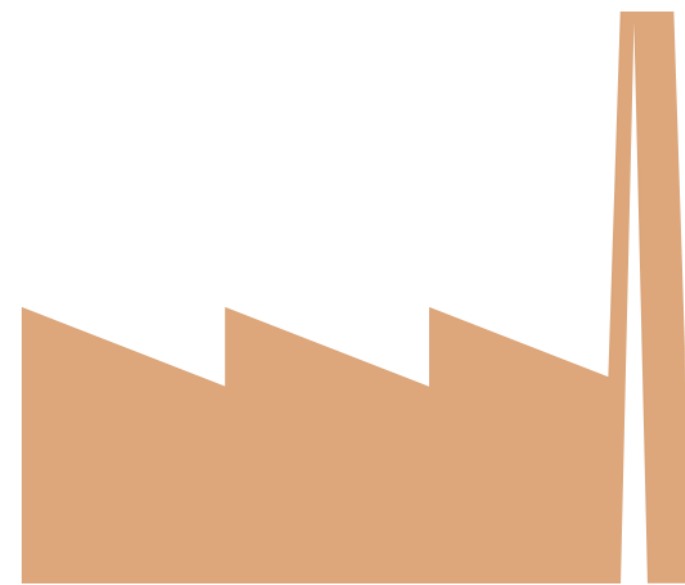
The fiscal response to the DANA

- On November 5th and 11th, the Government enacted **fiscal measures** to support households, firms, and other public administrations (reestablishing local infrastructure).



HOUSEHOLDS

- Including assistance to compensate for property damage



FIRMS & SELF-EMPLOYED

- Including direct transfers (about EUR 1bn)



PUBLIC INFRASTRUCTURE

- Including street cleaning and water infrastructure

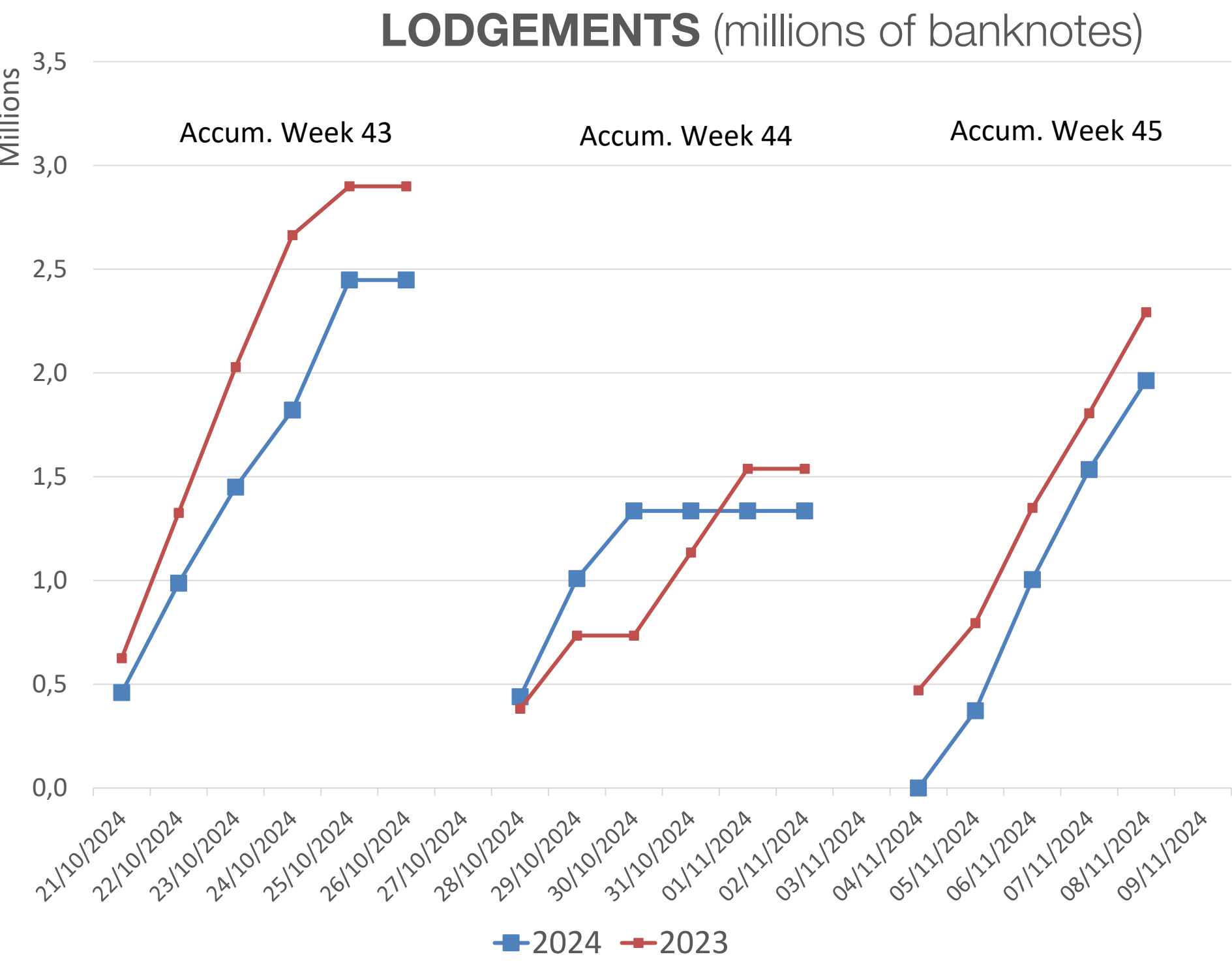


FINANCIAL AID

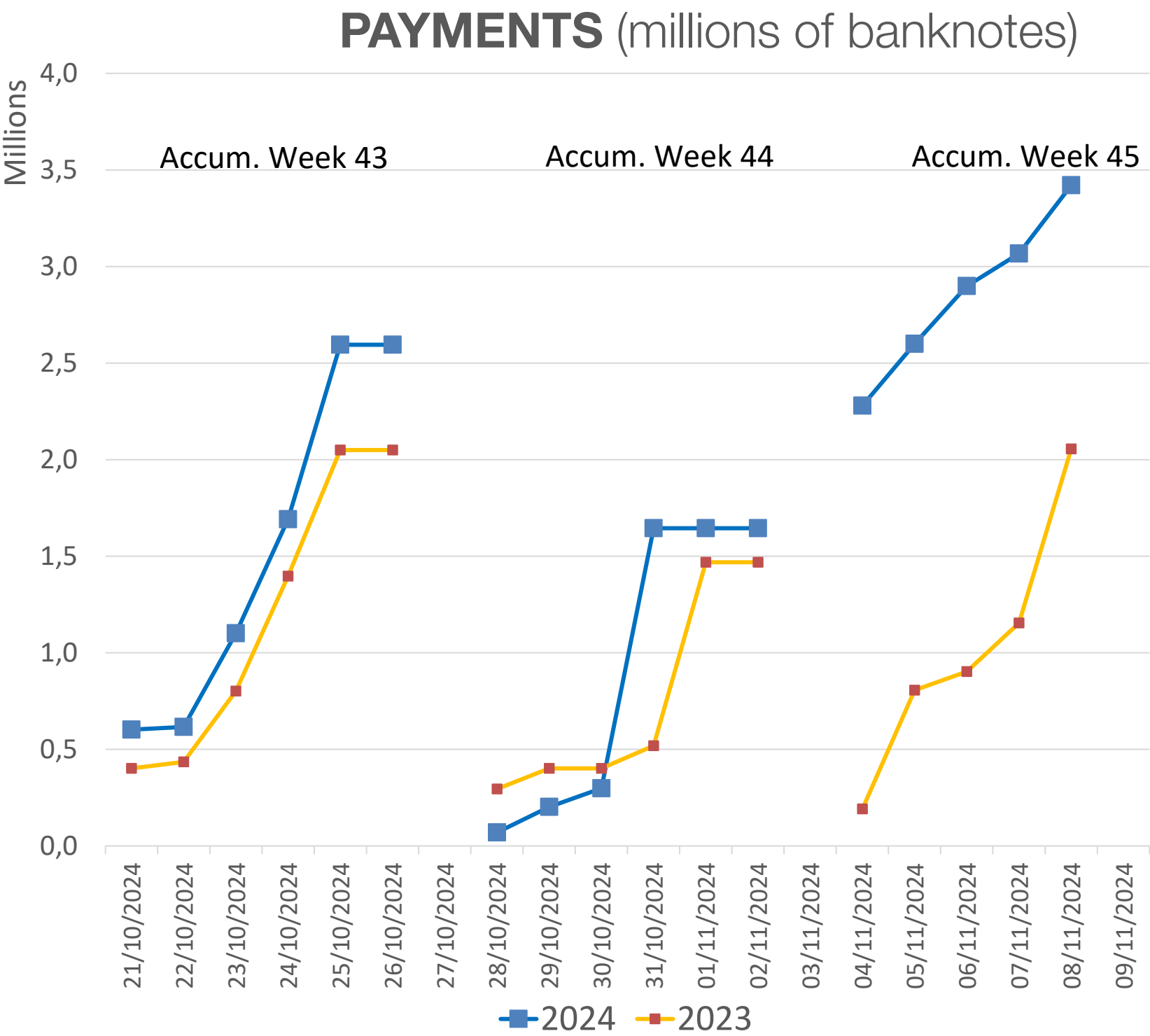
- Including public guarantees to households, firms and self-employed (about EUR 5bn) and moratoria

Distribution and access to cash: monitoring cash lodgements and payments

Lodgements are expected to grow this week once the procedure to exchange damaged banknotes is in place



Payments last week nearly doubled the amount of the previous year to ensure the capacity to provide non-damaged banknotes



Impact on payments

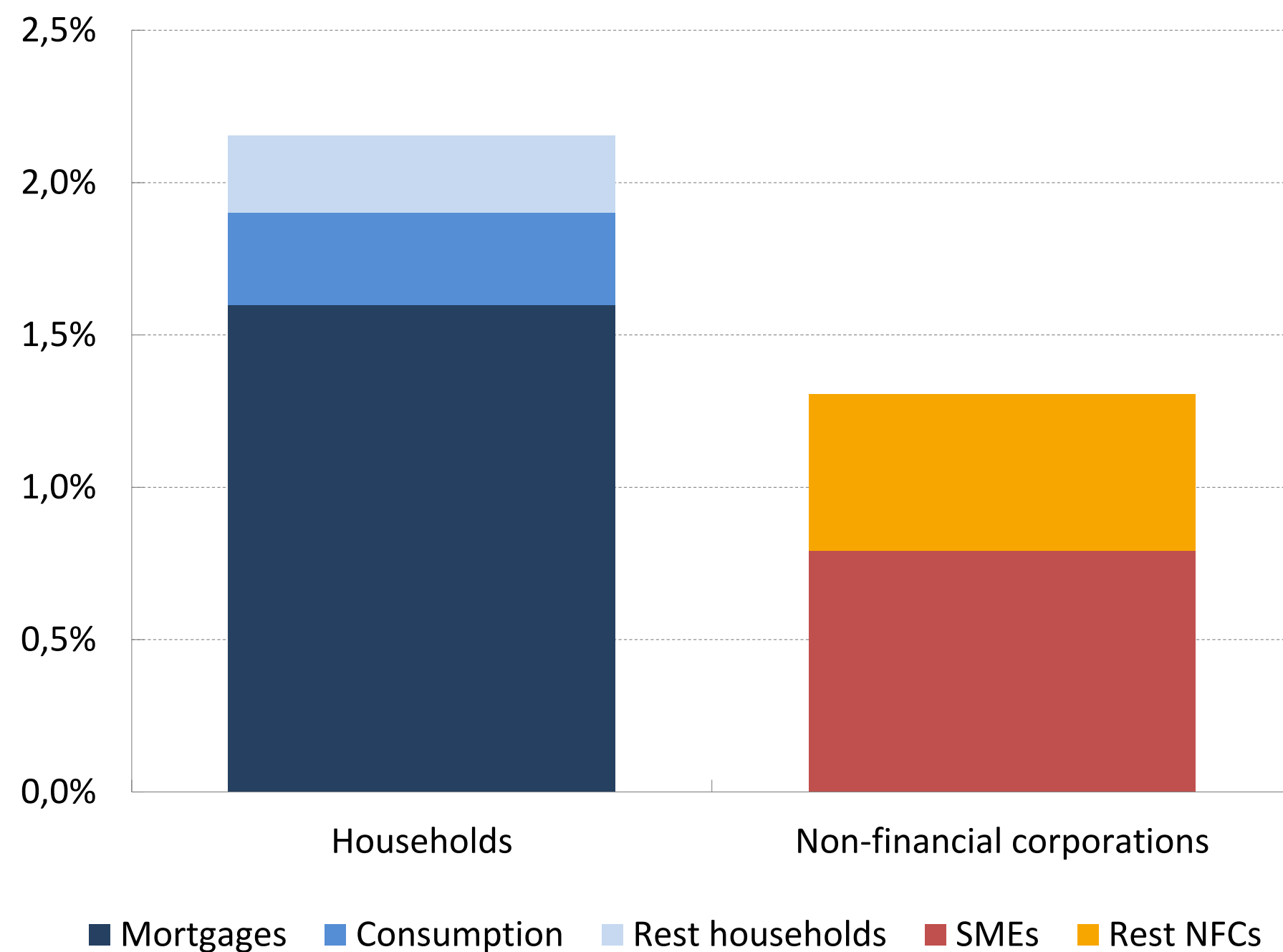
- **11% of Point of Sale terminals in the area** have not operated since 29 October.
- **Sales** using Point of Sale terminals **have fallen by 15%** in the area



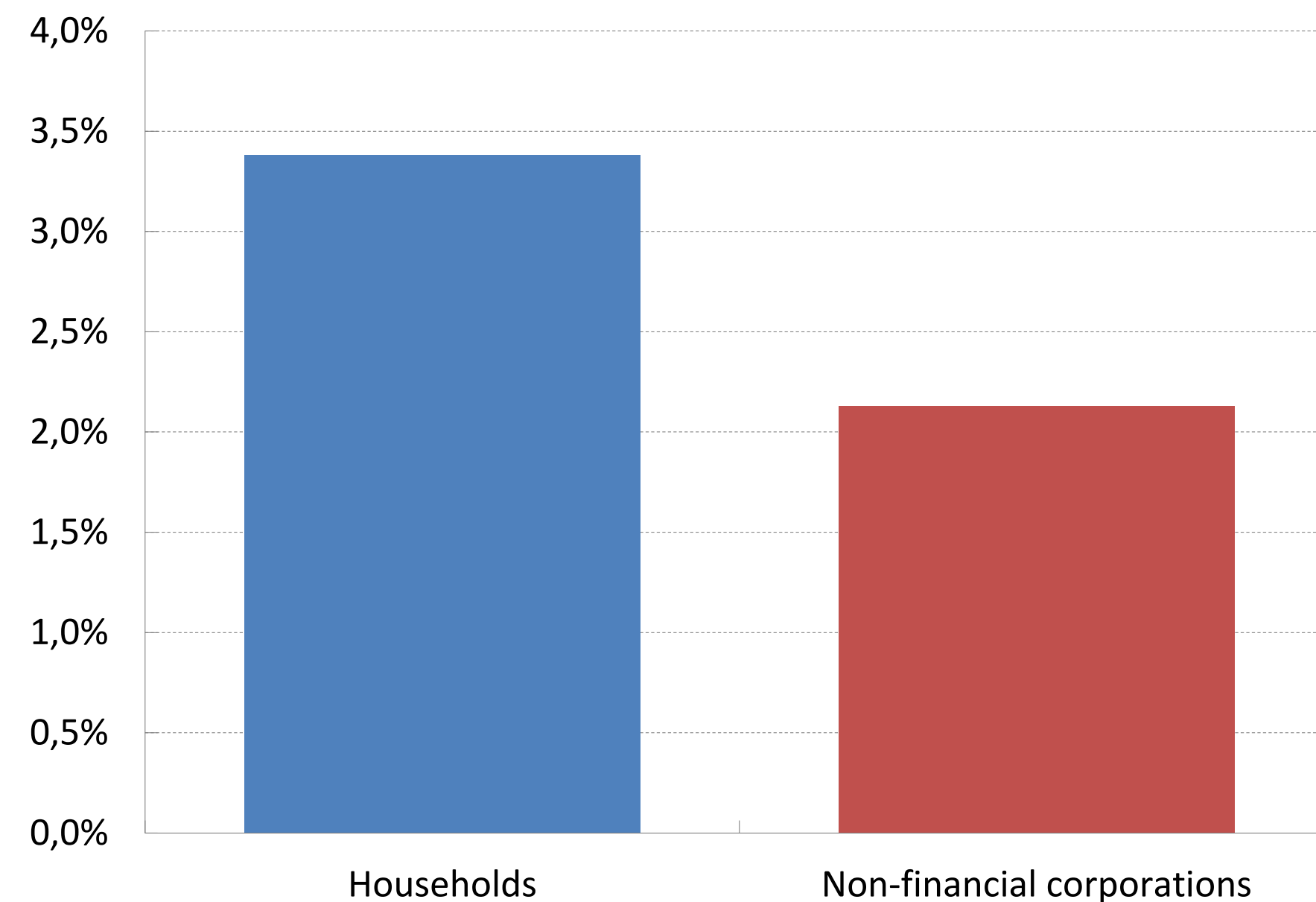
- Volume of Cash withdrawals in ATMs **has declined by 5%**

Impact on the banking system: Macroprudential picture

VOLUME OF EXPOSURE IN AFFECTED AREAS
(% outstanding households or NFCs loans)



NUMBER OF AFFECTED HOLDERS
(% total households or NFCs holders)

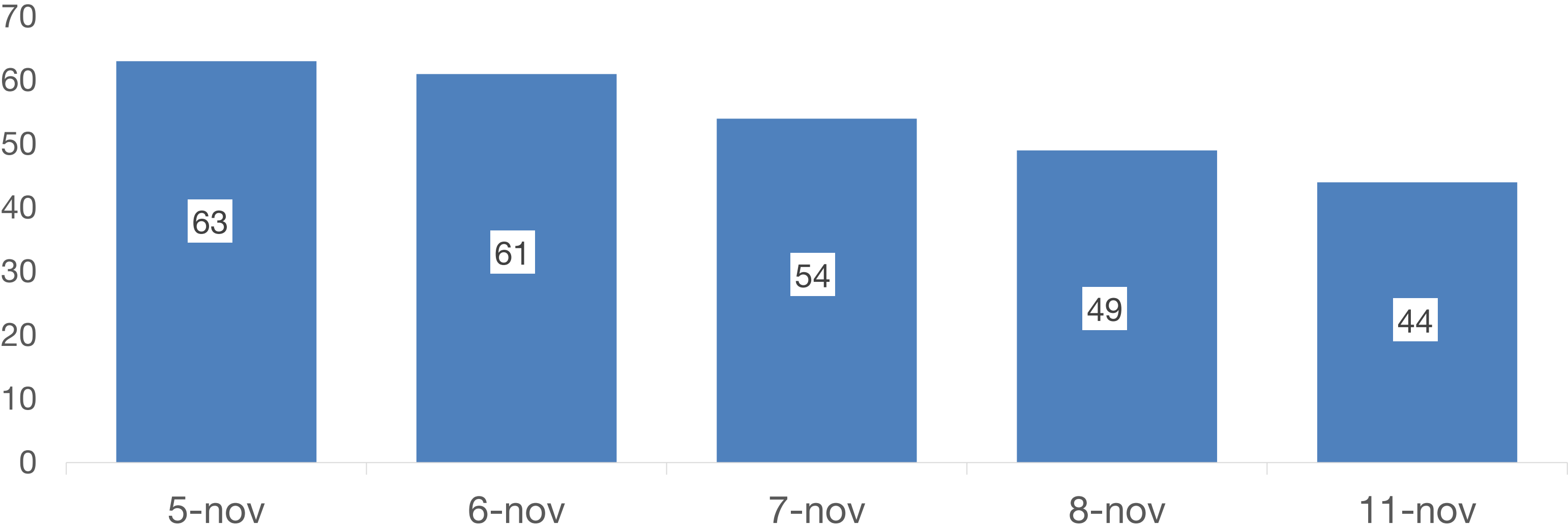


Impact on the banking system: Operational capacity

280
Branches in the affected area

44
Non-operative branches as of today

NON-OPERATIVE BRANCHES OVER TIME



Percentage of total branches in the affected areas

23%

22%

19%

18%

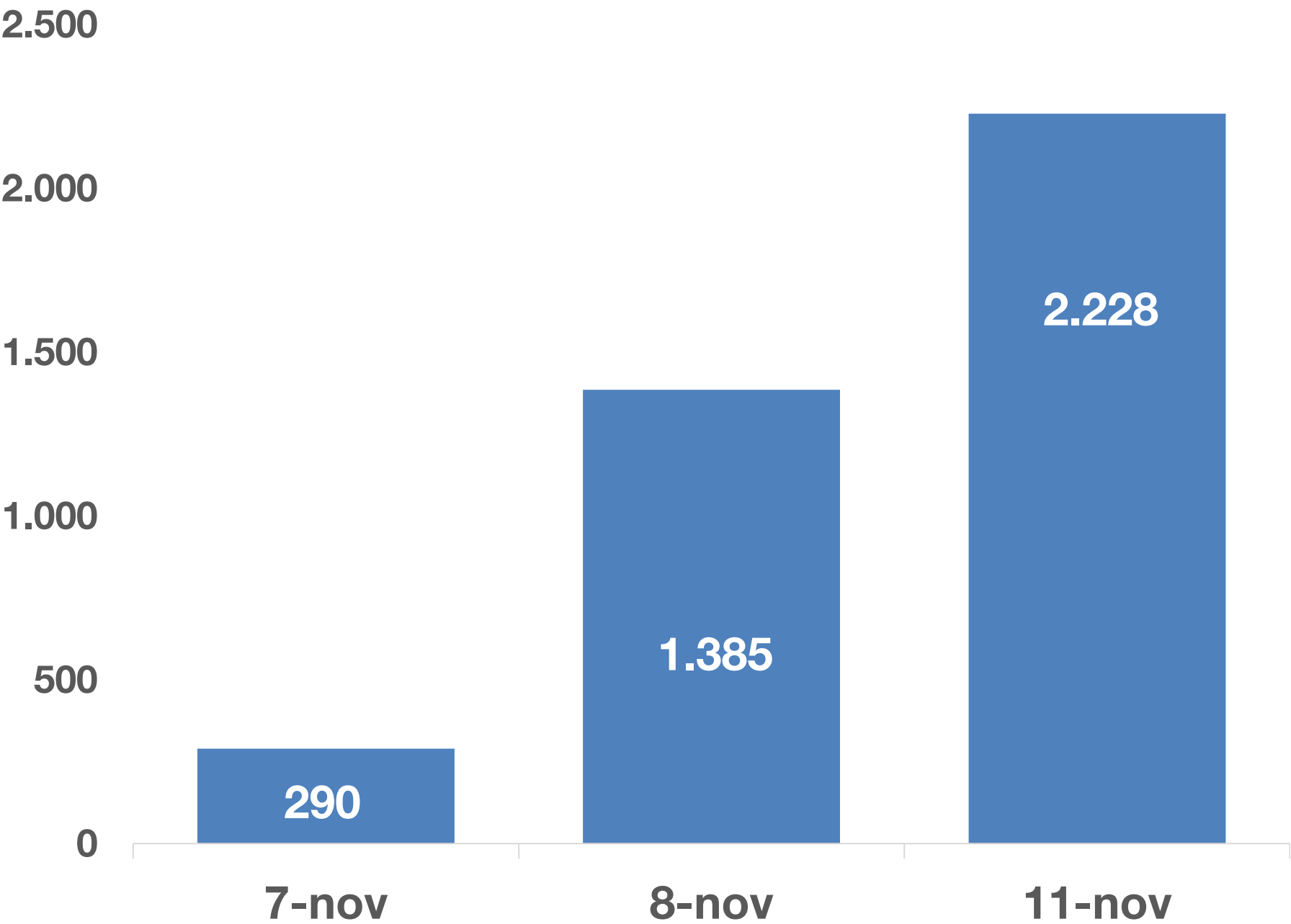
16%

Source: Daily survey to entities

Impact on the banking system: Measures adopted

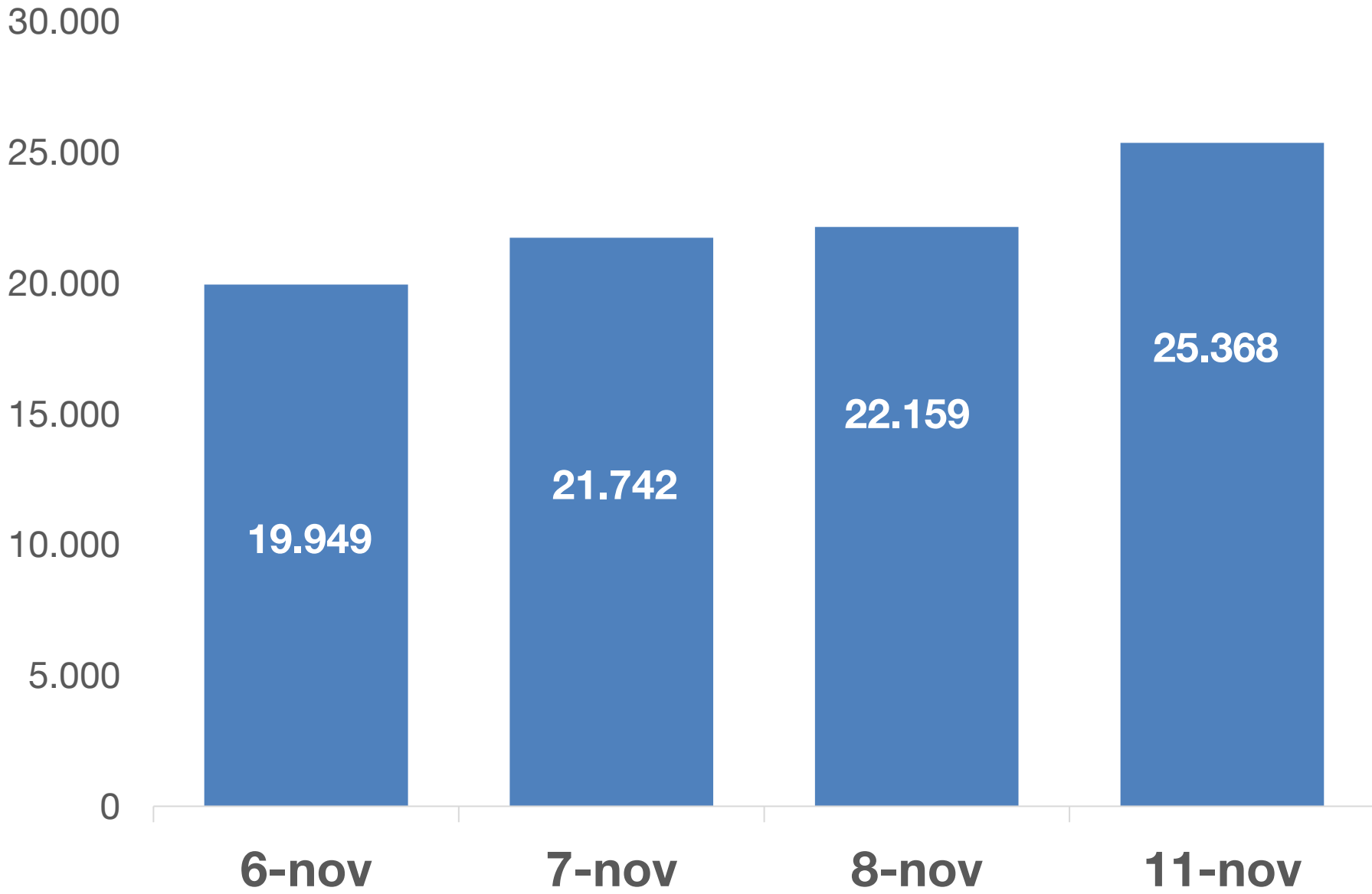
Loan moratoria

ACUMULATED NUMBER OF MORATORIA



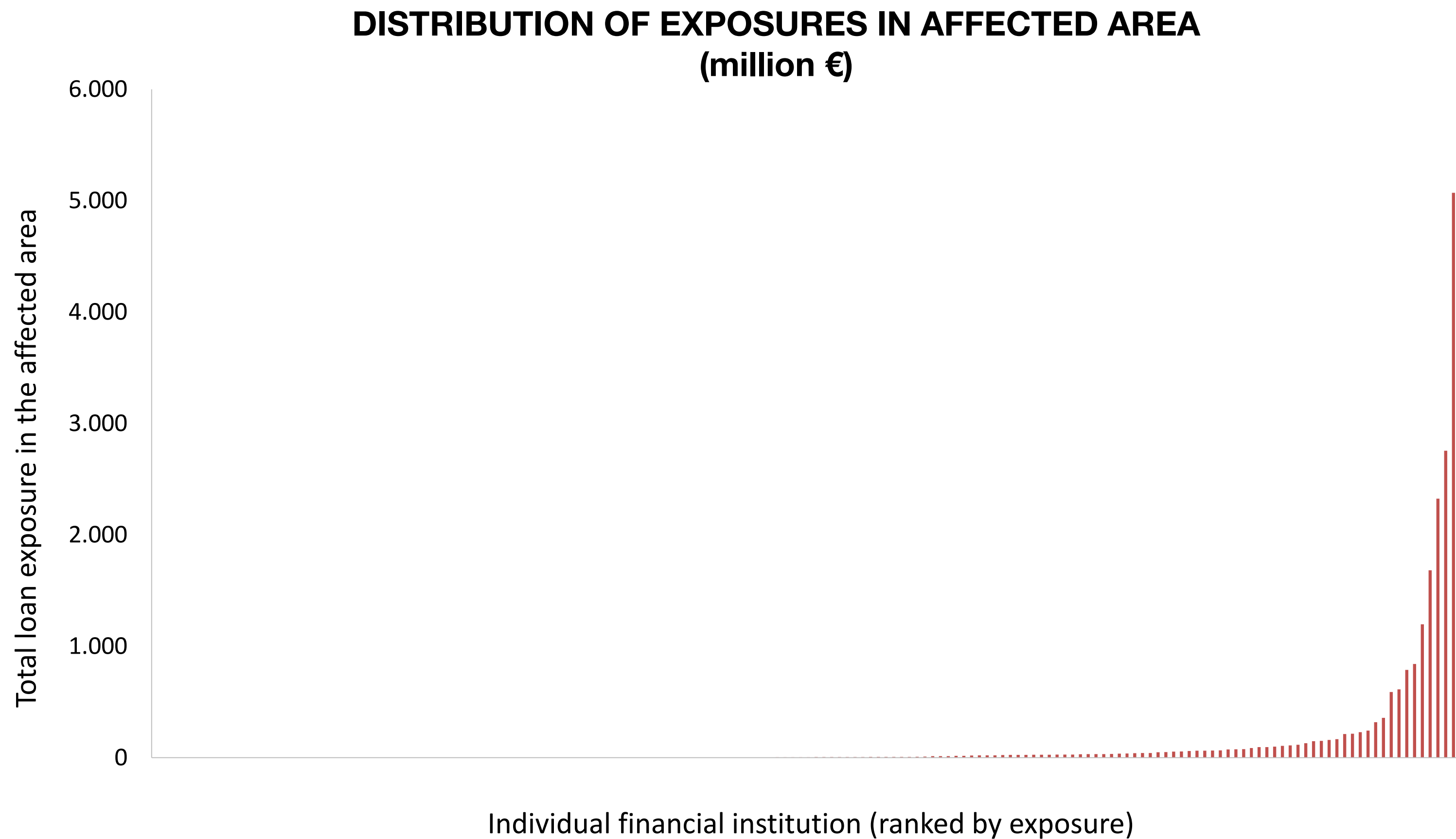
Insurance Claims (Insurance Compensation Consortium + direct claims)

CLAIMS THROUGH THE BANKING SYSTEM
Accumulated number



Source: Daily survey to entities

Impact on the banking system: Microprudential picture



THANK YOU

