

COVID-19 IMPACT IN MEXICO CITY COMMERCIAL ACTIVITY



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Summary

-  1 The present document explores the different **stages of Covid-19 evolution across Mexico City in 2020**, and its correlation with global **economic activity performance indicators**.
-  2 There is a **mismatch between governmental lockdown restrictions and actual Covid-19 active cases** figures which rose dramatically by Q4 of 2020 when cases rose to a daily maximum of over 26 thousand active cases daily.
-  3 The deployment of governmental restrictions in early 2020 shows a correlation with the severe decrease in economic activity across all sectors (e.g.: -28% for secondary sector in Q2!). However, **as restrictions were lifted by mid-late 2020**, Covid-19 cases rose to an average of 13.6 thousand daily active cases during Q4 but the **industry did not recover accordingly**.
-  4 Nonetheless, the informal sector and street economic activities are less bound to be paralyzed by stringent restrictions. We explored the **tentative correlation between street economic activity hubs**, such as "tianguis", **and active Covid-19 cases**.
-  5 A top level analysis shows that those **districts with more and highly crowded street markets** tend to match with those districts with **higher amount of active Covid-19 cases**.

Background, Scope & Approach

Research Inquiries

- How were (1) the evolution of **economic activity**, (2) **governmental restrictions** and (3) **Covid-19 spreading**, interrelated at a local urban level? (Scope: Mexico City, 2020)
- Can we provide some evidence of the correlation between **informal and/or street economic activities** and **spreading of Covid-19**? (Scope: Mexico City, 2020)

Explored sources



SECRETARÍA
DE SALUD

GOBIERNO DE LA
CIUDAD DE MÉXICO



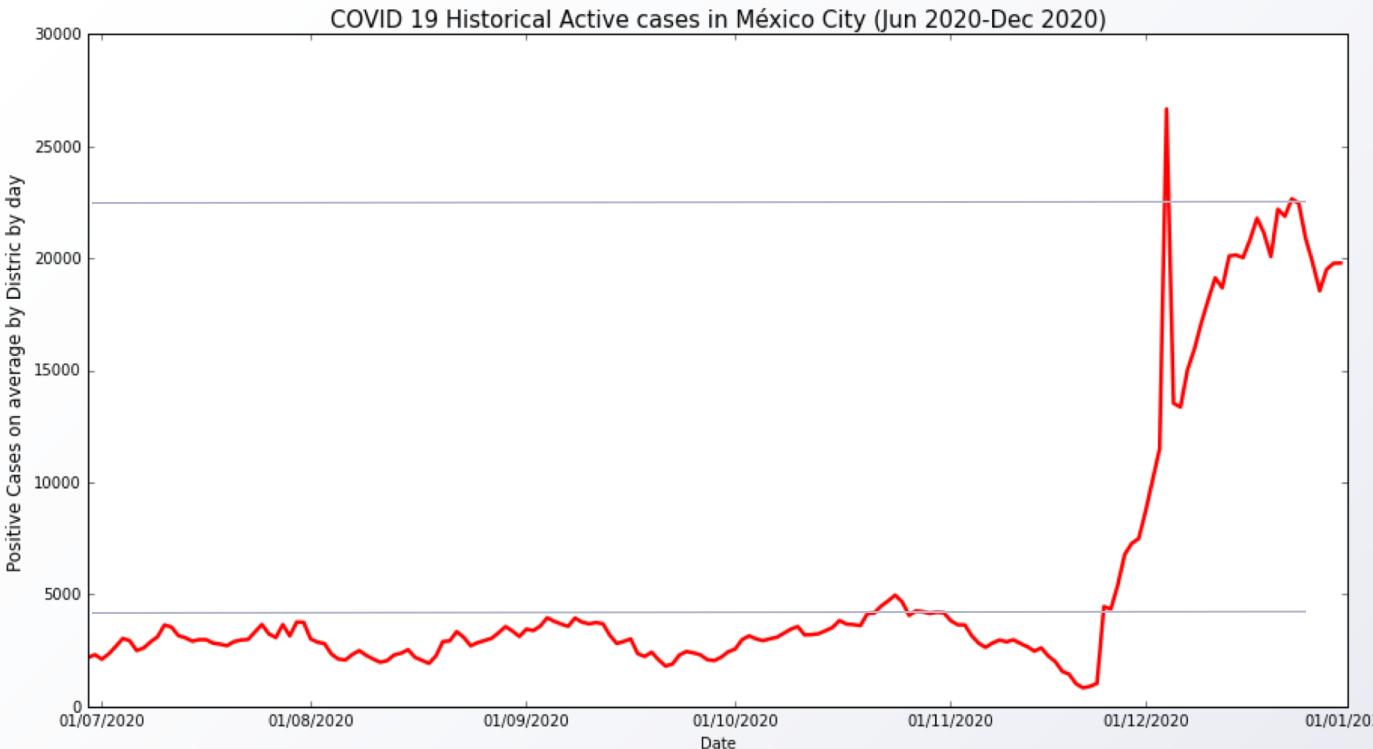
Sources: SINAVE Historico de casos COVID 19 por colonia, Economic activity measured by INEGI Index, Geo location of street market stores by Alcaldía, 2020.

Commercial Activity & Restrictions

Hypothesis



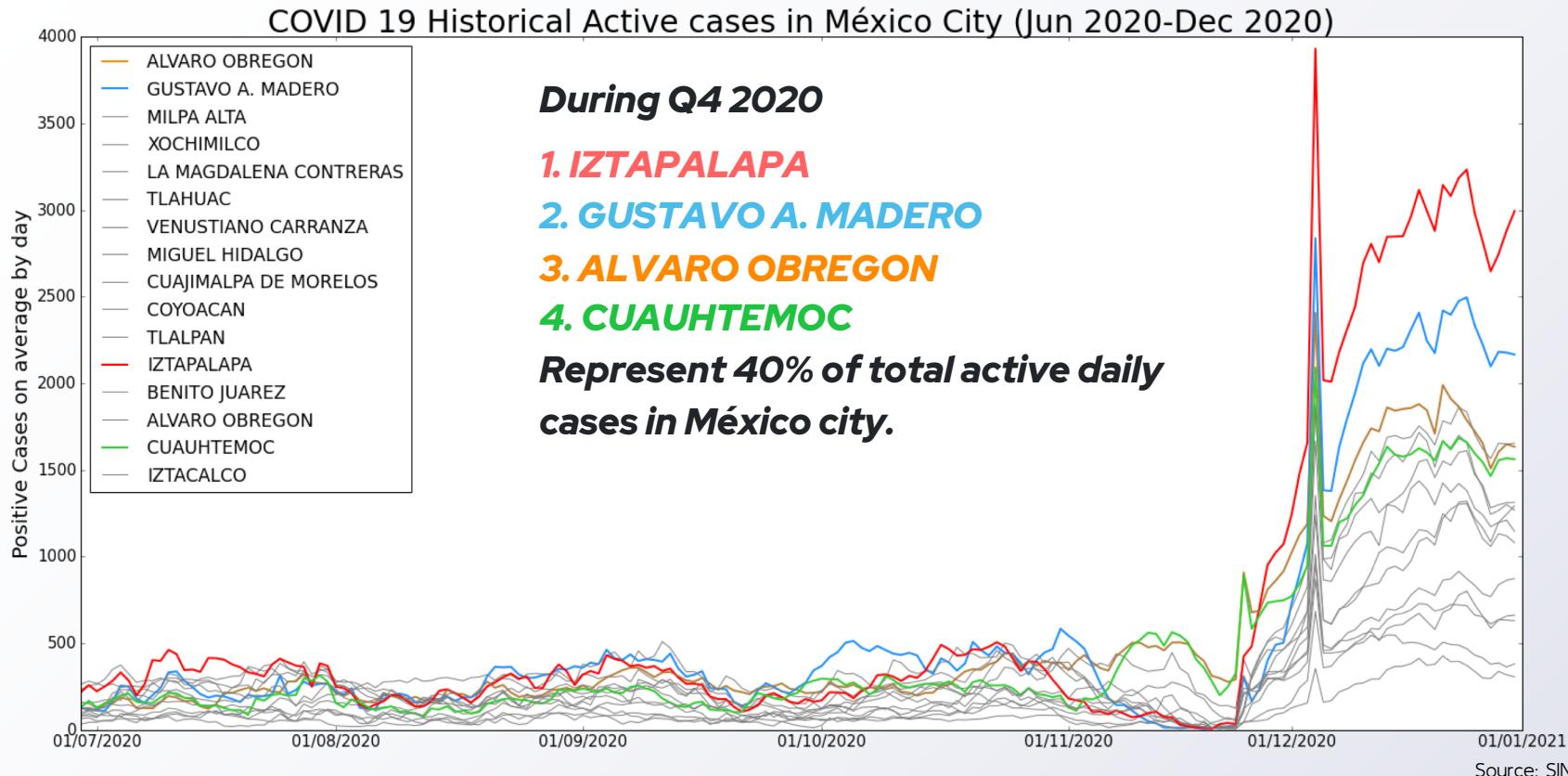
Covid-19 Evolution Across Mexico City



Since the beginning of the pandemic, Mexico City presented a total active daily cases of around 4,000.

However, by Q4, active daily cases rose dramatically, reaching a maximum of 26,000 by the end of December!

Covid-19 Evolution by District

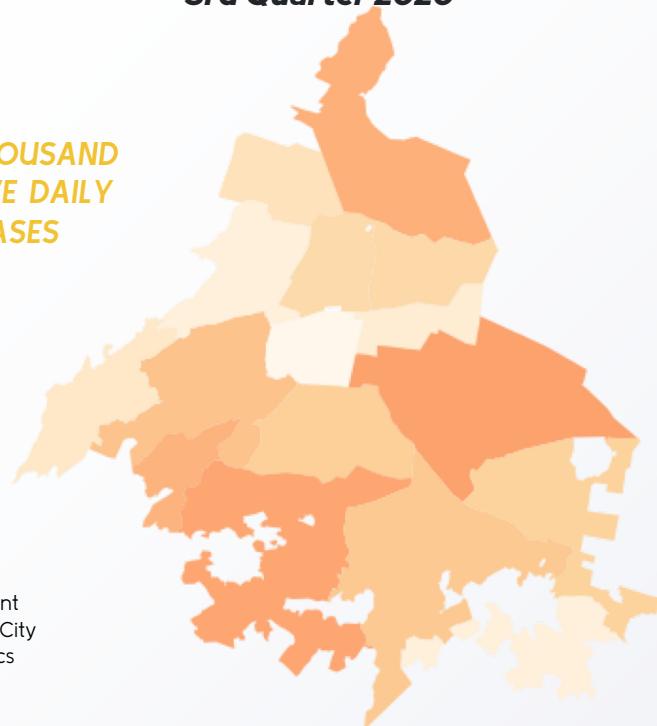


Covid-19 Evolution Across Mexico City



3rd Quarter 2020

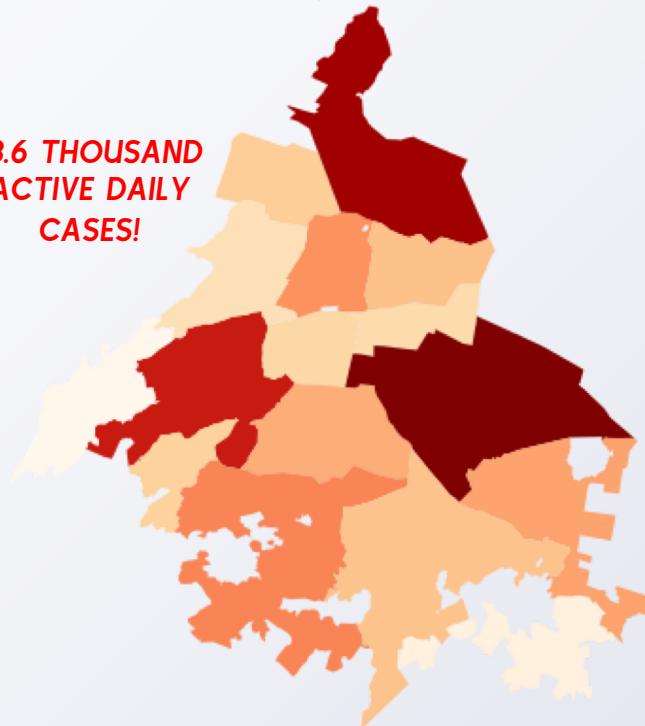
**3.7 THOUSAND
ACTIVE DAILY
CASES**



Figures
Represent
Mexico City
16 Districts

4th Quarter 2020

**13.6 THOUSAND
ACTIVE DAILY
CASES!**



Q4 presented a daily average of active cases 367% larger to Q3 daily average!

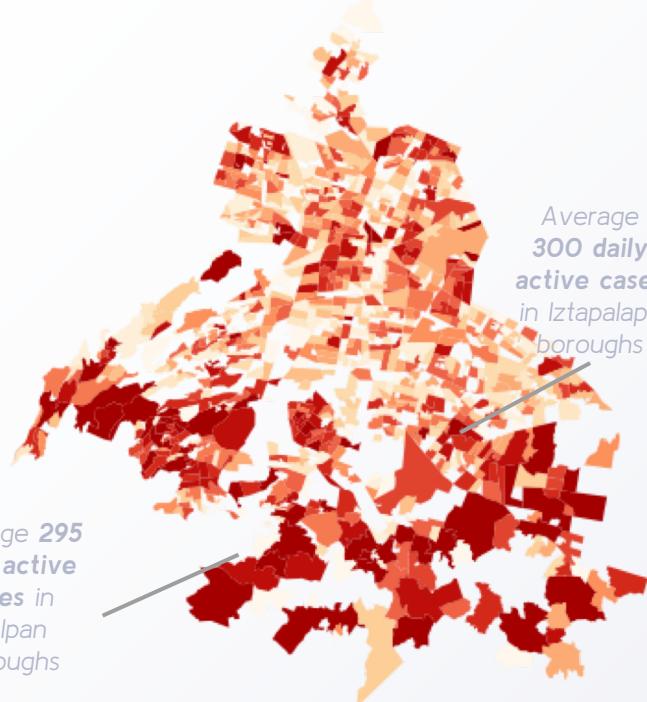
Source: SINAVER, 2021

COVID-19 Evolution by Borough

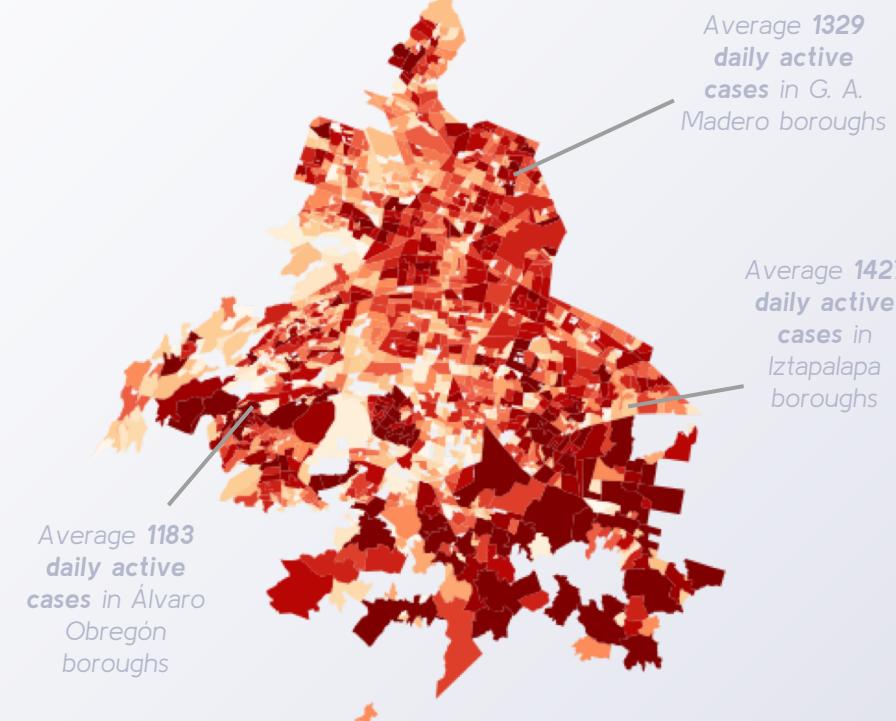


3rd Quarter 2020

Figures
Represent
Mexico City
over 1800
boroughs



4th Quarter 2020



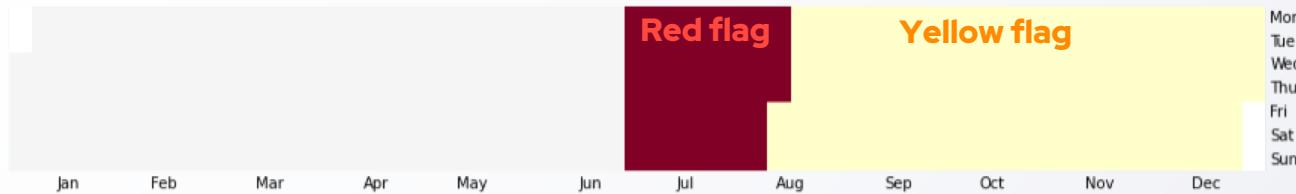
Most severely affected areas match the most socially vulnerable boroughs of the City.

Source: SINAVER, 2021

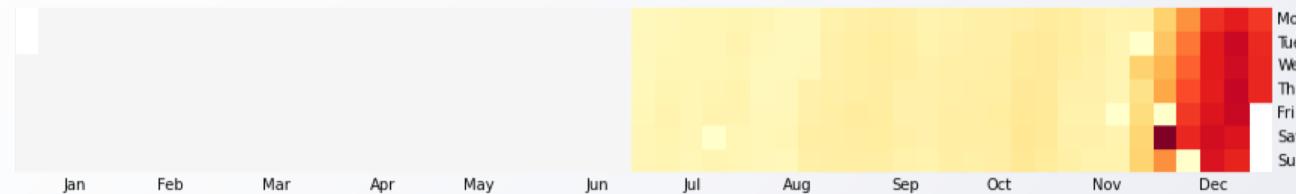
Government Restrictions



While in July government stop every social activity, population in December relax their precautions, increasing cases to a new “red flag” restrictions



Restrictions placed by Government

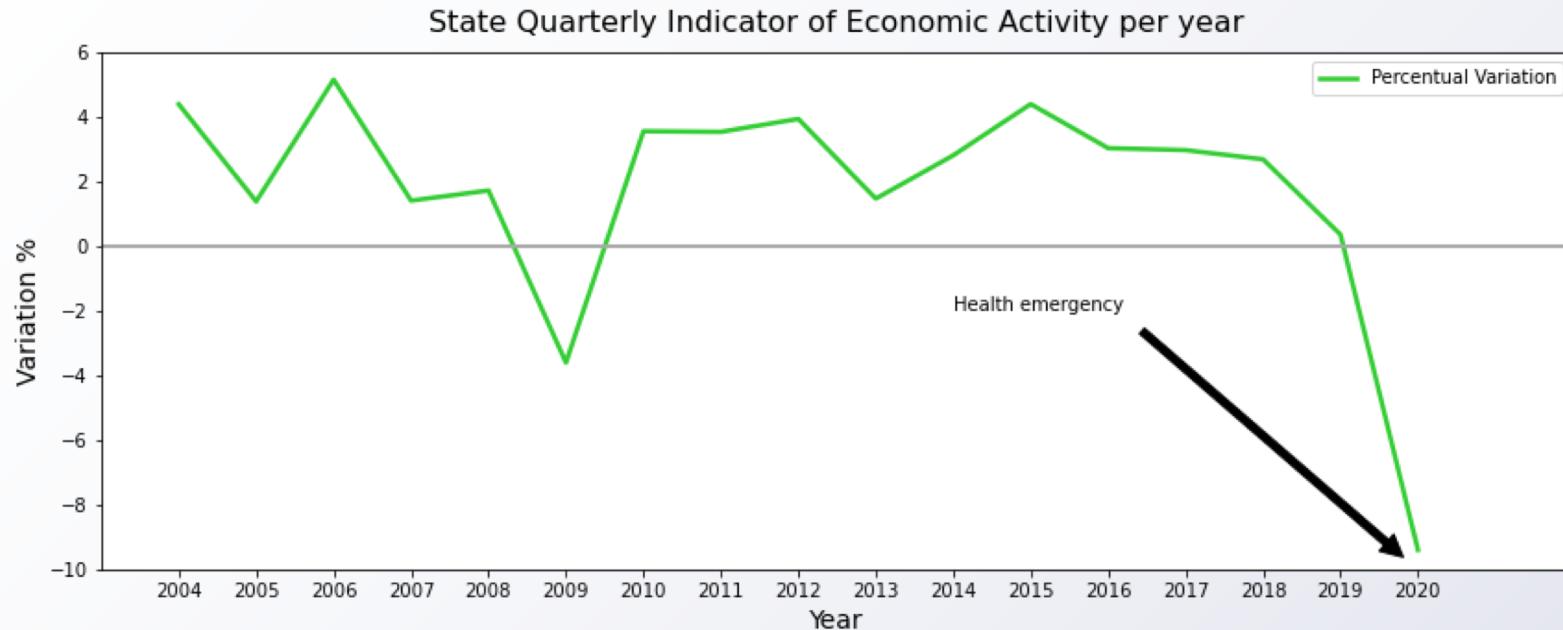


COVID 19 Cases

Economic Activity Metrics



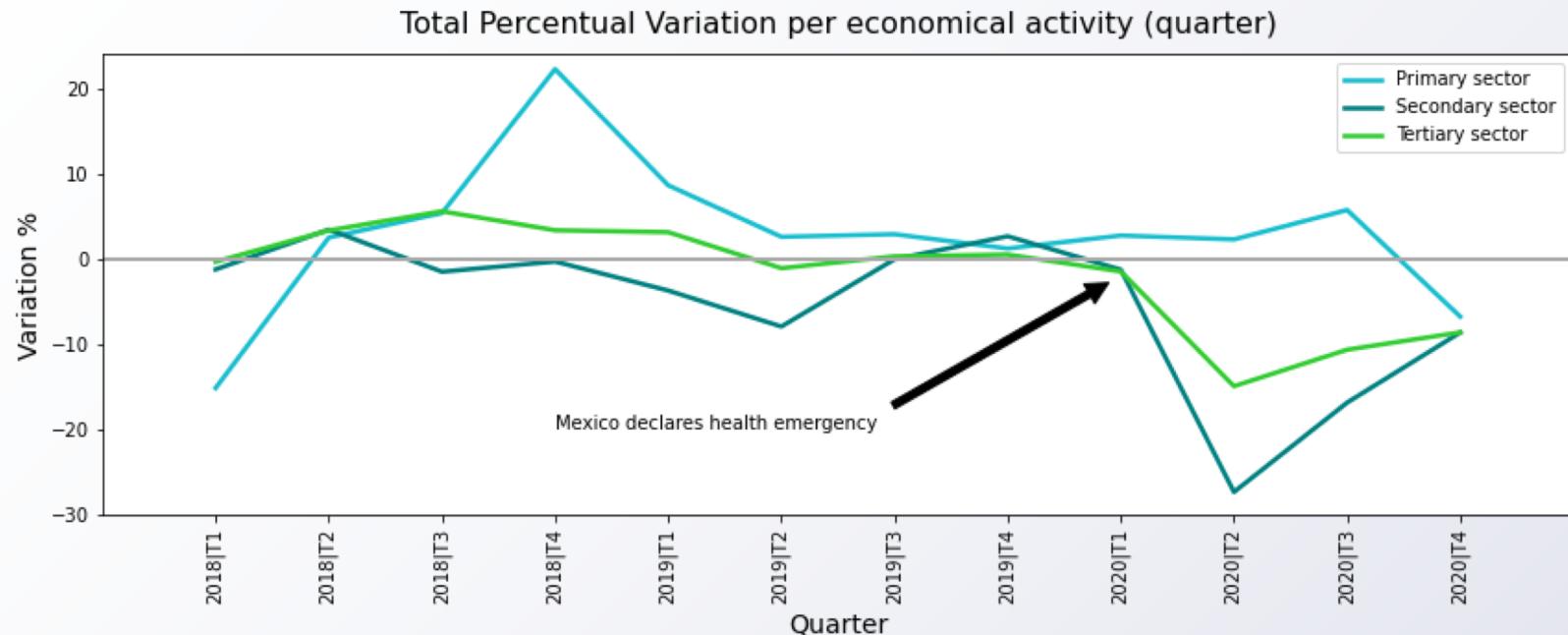
The Covid-19 crisis represented the highest fall in Mexico City economic activity: a collapse even more dramatic than the 2009 subprime crisis.



Economic Activity Metrics



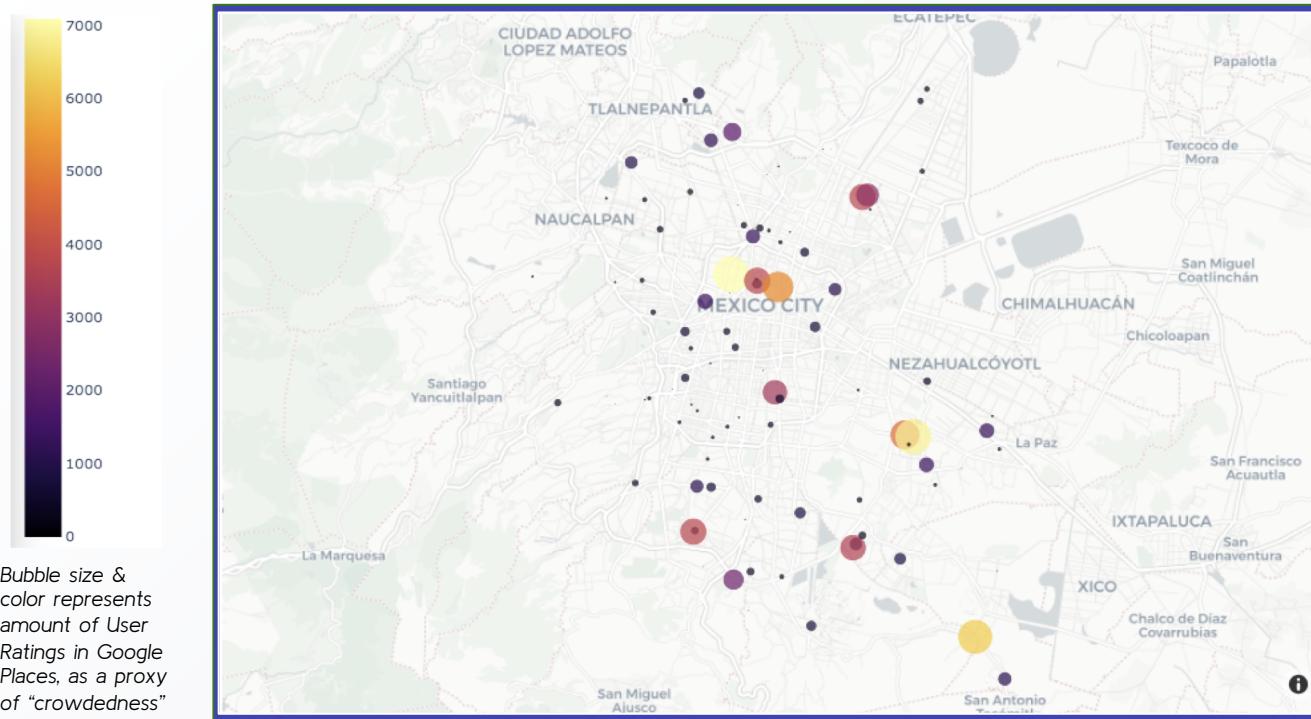
In Mexico City, most of the economic activity sectors had negative growth during 2020, even after the flexibilization of lockdown measures.



Proximity Street Markets In Mexico City



How is Covid-19 increase in cases related to informal and street economic activity?



Over 218 “Tianguis” identified across Mexico City with Google Places API.

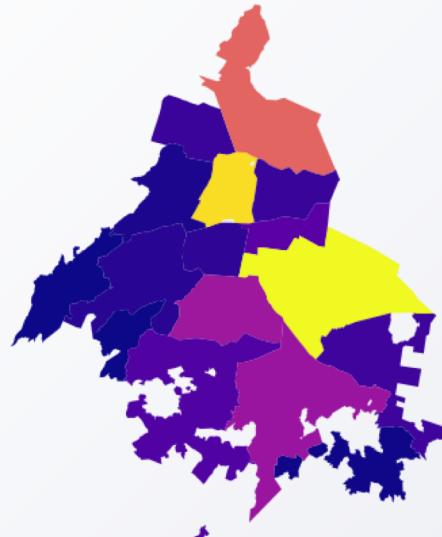
Proximity Street Markets In Mexico City



"Tianguis" Total Count by District



"Tianguis" Total Amount of Google Reviews by District



LOW

HIGH

Iztapalapa and G.A. Madero are the districts with more street markets operational.

The most crowded and popular street markets are located in Iztapalapa, G.A. Madero and Cuauhtémoc districts

Districts with the higher amount of street market activity tend to match with those with high levels of daily active Covid cases.

Discussion

The present study explores some ideas that are part of an ongoing debate on governments' agendas across the globe...

What is the impact of lockdown measures on economic activities and what is the real toll when considering a global sanitary crisis without precedents in the XXIst century?





Q&A with the audience

Appendix 1

All the project workbooks, files and results supporting the present slideshow can be accessed in the following GitHub repository:

<https://github.com/martinsingla/data-project>

Appendix 2

Study Limitations & Further Research / Post-mortem

1. Low quality Data Sources

- Difficult to find disaggregated data by neighborhood
- Inconsistent continuity in dates
- Duplicated and inaccurate data

1. Measuring Economic activity

- Correct way to measure economic activity

Additional questions that came up

- How different has changed the active cases during 2021?
- How does other countries have faced Covid cases in economic perspectives?

