Short-term rentals in the age of digital capitalism: mapping and exploring Airbnb's impacts in Rome
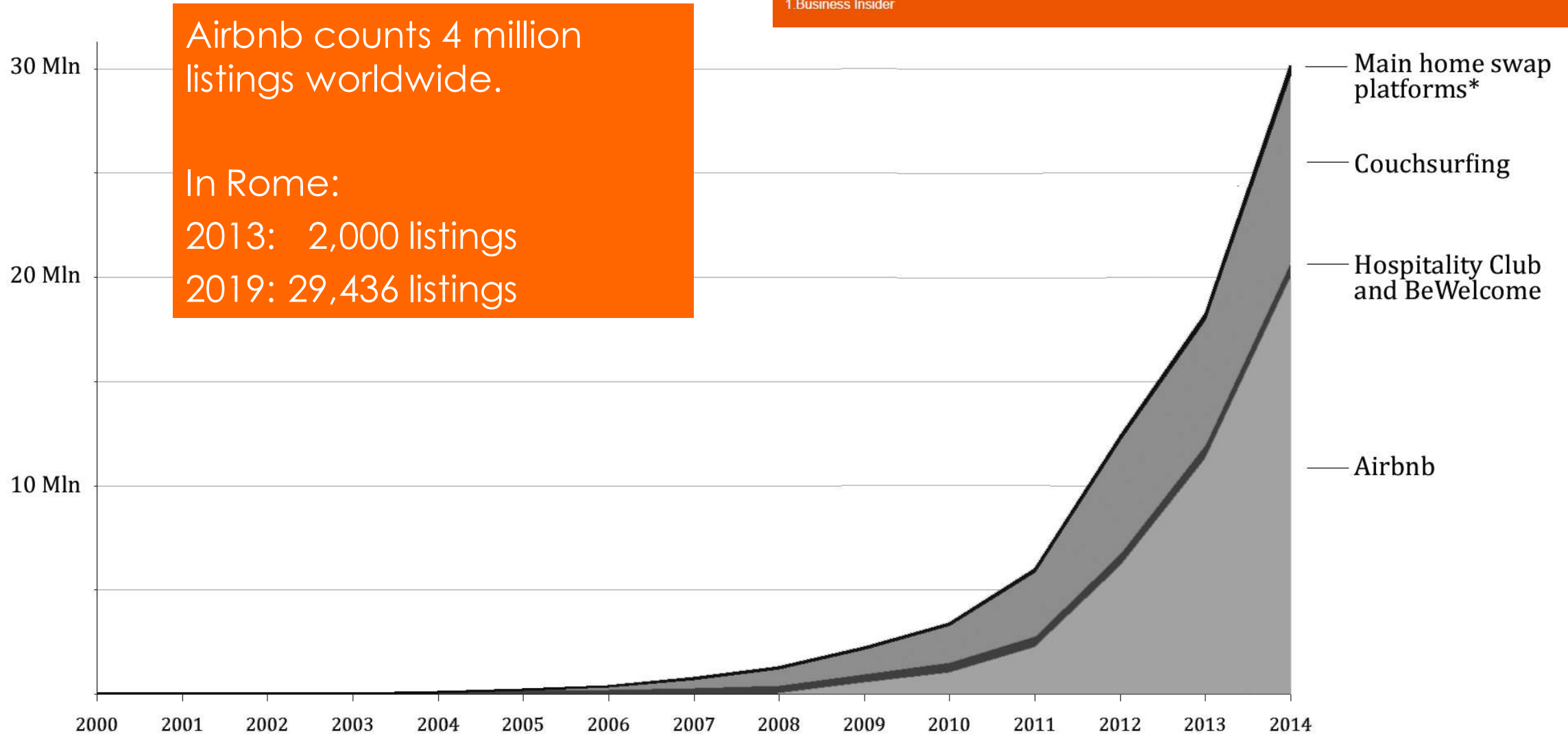
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University of Rome La Sapienza

International Interdisciplinary Symposium
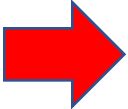*Exploring the Aspects of the Collaborative Economy*
15 March 2019, Zagreb

The Sharing Economy is growing faster than Facebook, Google and Yahoo combined[1]

1.Business Insider

Airbnb counts 4 million listings worldwide.

In Rome:

2013:   2,000 listings
2019: 29,436 listings

Celata F., Hendrickson C. Y. and Sanna V.S. (2017), The sharing economy as community marketplace? Trust, reciprocity and belonging in peer-to-peer accommodation platforms, *Cambridge Journal of Regions, Economy and Society*, 10, pp. 349–363

Main research questions:

1. Where is Airbnb activity located in Rome, and how is it changing?

2. Who makes money from Airbnb in Rome, and how is income distributed/concentrated?

3. Where, how, and to what extent has Airbnb affected real estate and rental values?

4. What the consequences are for residents and specific neighbourhoods within these cities? (E.g. is Airbnb driving gentrification in Rome?)

5. How much housing has Airbnb removed from the market in Rome?

1. Where is Airbnb activity located in Rome, and how is it changing?

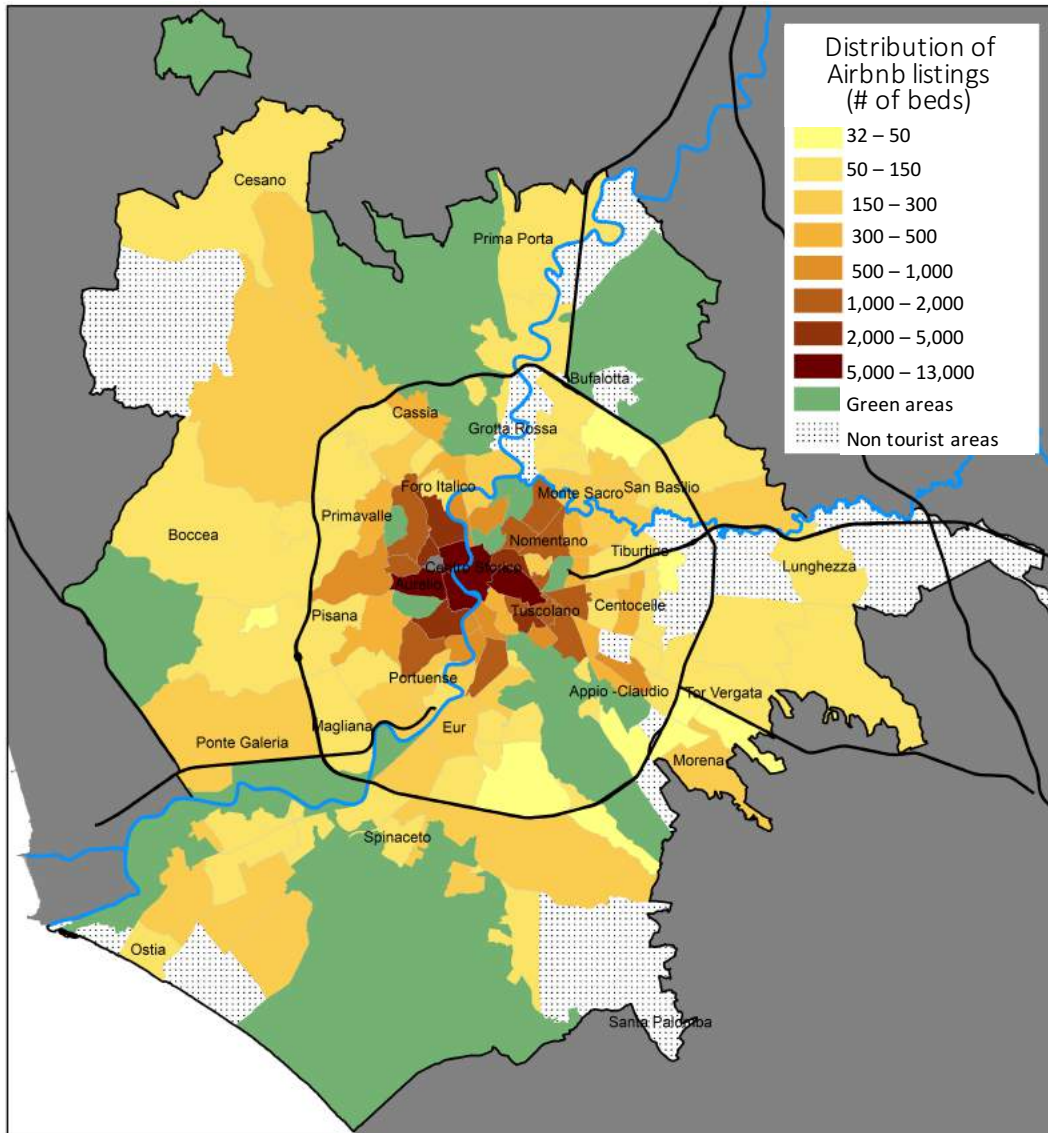The evolution of Airbnb listings in Rome, 2008-2017

March 2019
29,436 listings
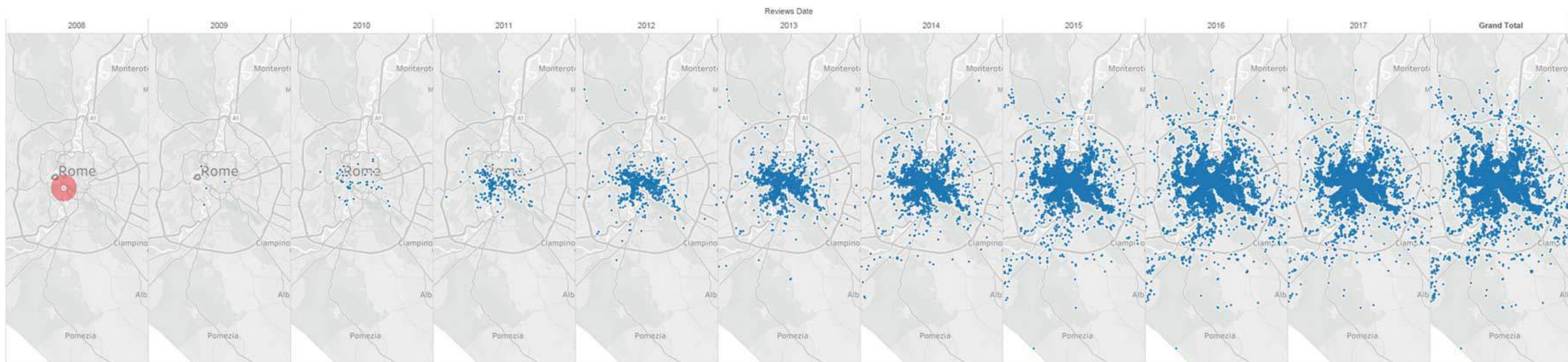
"Stay a night in Calisto6 B&B Rome"
2 reviews in 2008

Map and Analysis by Antonello Romano
Data: insideairbnb.com, May 2017

1. Where is Airbnb activity located in Rome, and how is it changing?

Distribution of Airbnb listings (# of beds)
- 32 – 50
- 50 – 150
- 150 – 300
- 300 – 500
- 500 – 1,000
- 1,000 – 2,000
- 2,000 – 5,000
- 5,000 – 13,000
- Green areas
- Non tourist areas

Celata 2017, La "airbnbficazione" delle città: gli effetti a Roma tra centro e periferia"

According to Inside Airbnb data for Rome, compiled on March 2019, Rome counts a total of **29,436 listings** of which:

- **64%** (18,843) **entire homes/apartments**
- **35.2%** (10,368) **private rooms**
- **0.8%** (225) **shared rooms**

Overall, most of the listings of rooms and apartments are located in the city centre, and **more than half** of the ads consist of **multiple ads managed by a single user.**

56.2% of **entire homes/apartments** are **multiple ads.**

Map, 155 urbanistic zones of Rome

1. Where is Airbnb activity located in Rome, and how is it changing?

In terms of availability, 3,674 (12.5%) of ads show a "low availability" (=< 60 days per year).

Most of the listings, 25,762 (**87.5%**) are qualified as "**highly available**" and were estimated to be booked for more than 60 nights a year.

*"Most likely, in the case of entire homes or apartments highly available year-round for tourists, **probably don't have the owner present**, could be illegal, and more importantly, are displacing residents from the neighbourhood"* (InsideAirbnb, 2017).

Average # of
Airbnb beds

0 - 3
3 - 6
6 - 10
10 - 15
15 - 20
20 - 25
25 - 36
Green areas
Non tourist areas
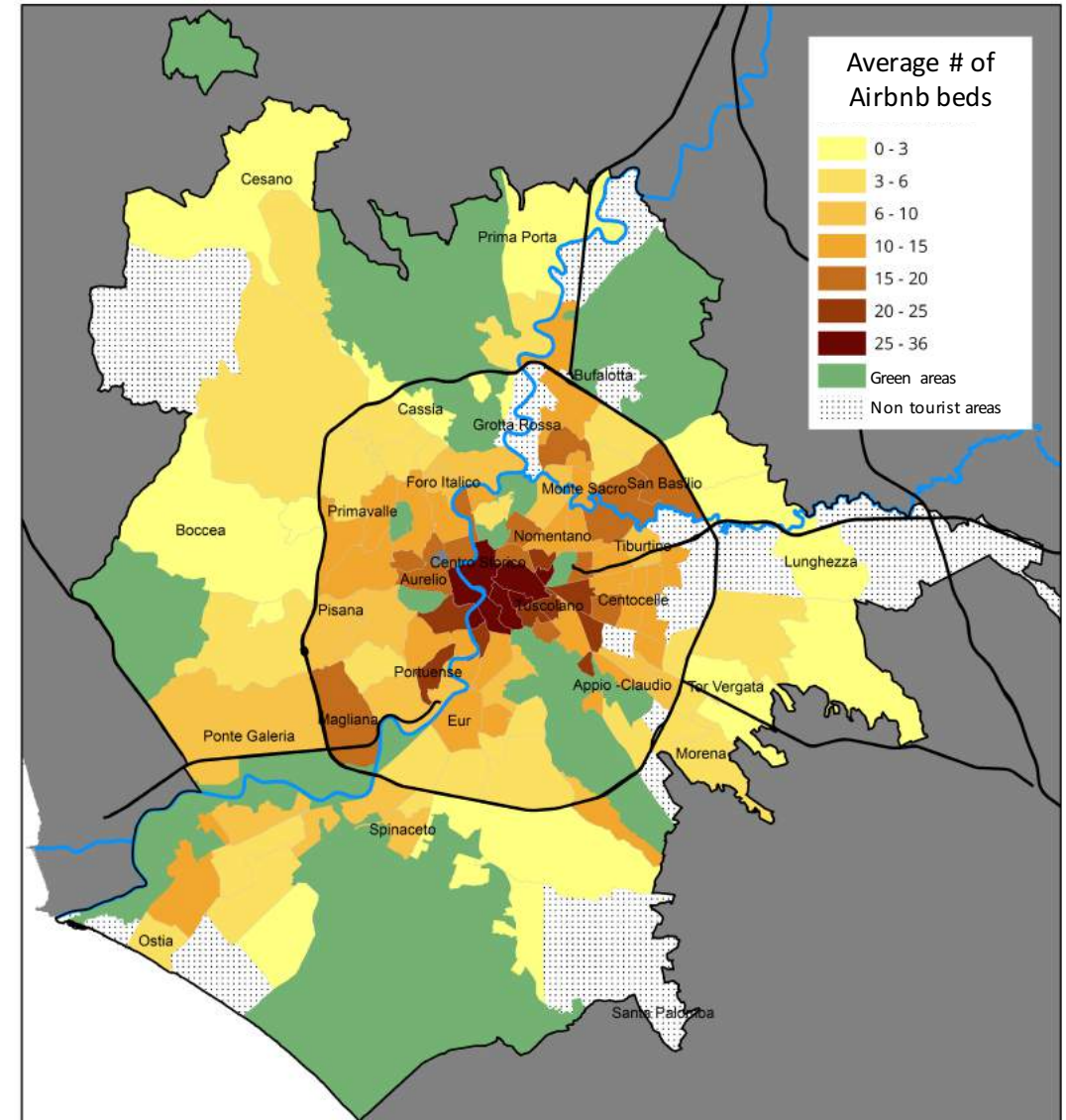
Celata 2017, La "airbnbficazione" delle città:
gli effetti a Roma tra centro e periferia"

2. Who makes money from Airbnb in Rome, and how is income distributed/concentrated?

Celata 2017, La "airbnbficazione" delle città: gli effetti a Roma tra centro e periferia"
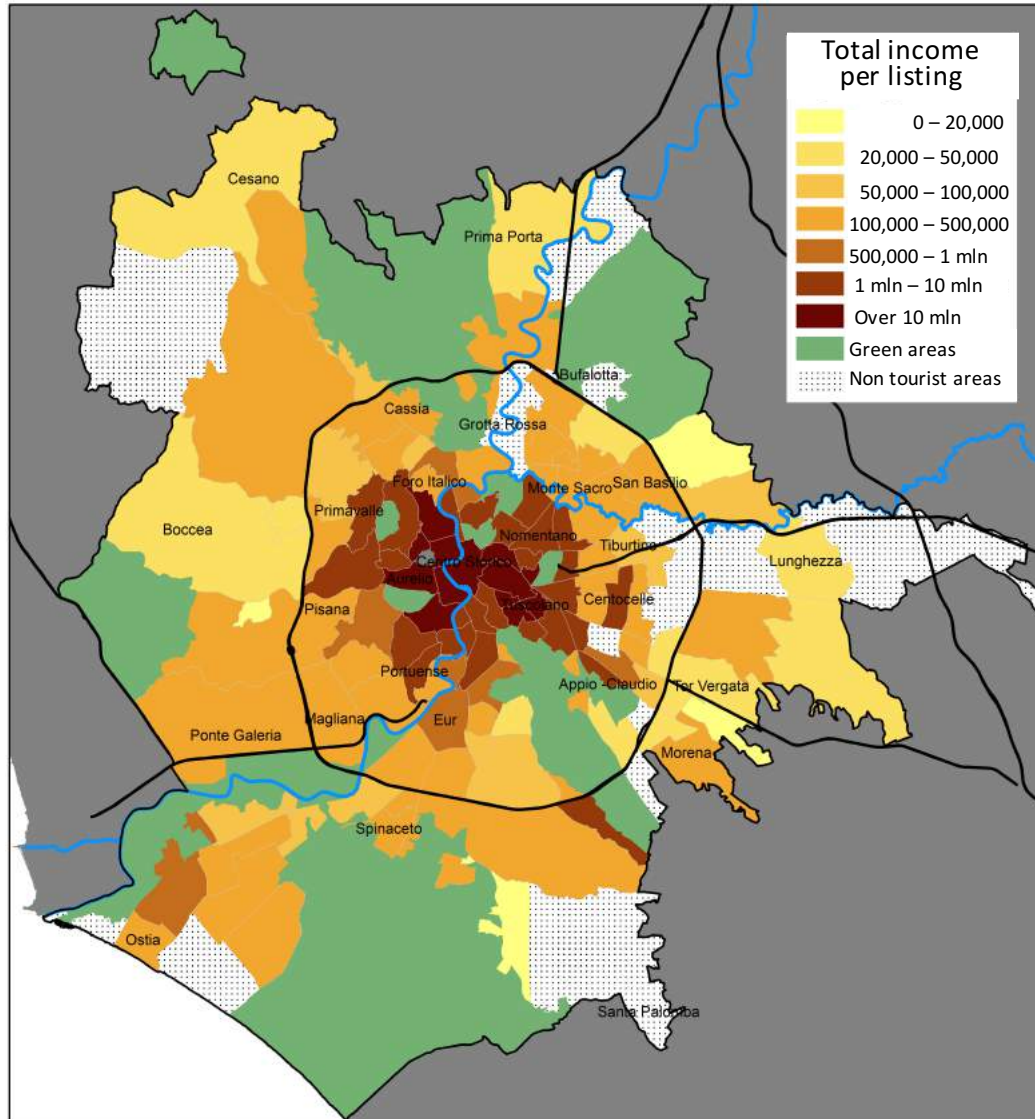
35% of Airbnb listings are concentrated in **4 zones** (out of 155). These listings produce **58% of the income**.

GINI Index	2013	2015	2017
Listings	0.952	0.823	0.736
Reviews	0.958	0.862	0.829
Average Price	**0.897**	**0.607**	**0.256**
Earnings	0.957	0.879	0.857

New instruments have been produced in order to 'help' hosts to calculate their potential Airbnb income...

3. Where, how, and to what extent Airbnb affected real estate and rental values?

According to a study by Massachusetts Institute of Technology (MIT), University of California (UCLA) and University of Southern California (USC): **'Airbnb is driving up the cost of urban living and pricing local people out of areas that have proved popular as holiday destinations'**

Barron, Kung and Proserpio (2017) looked at **rents and home prices** in the **100 largest metro areas** in the **U.S.** between **2012** and **2016**.
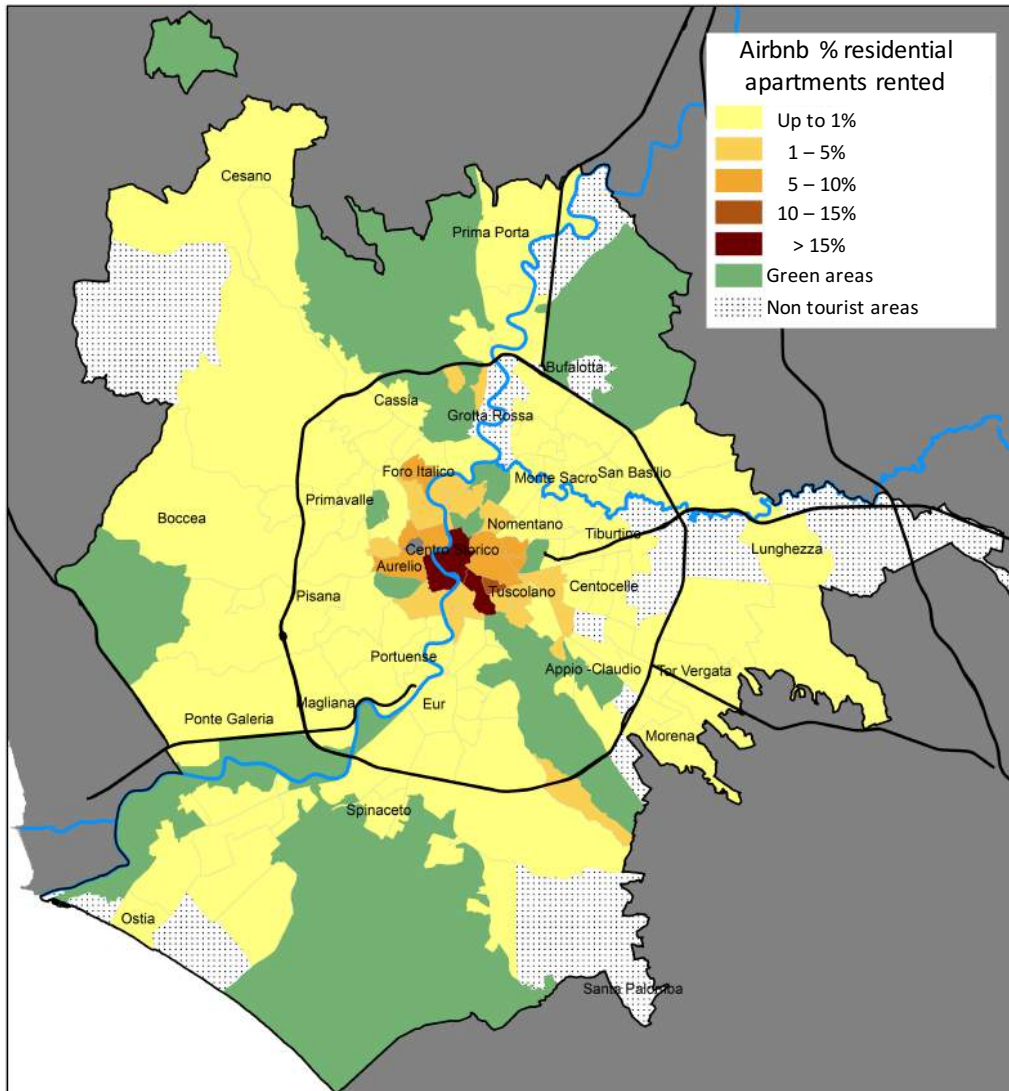
They found that a **10% increase in Airbnb listings leads to a 0.42% increase in rents** and a **0.76% increase in house prices**.
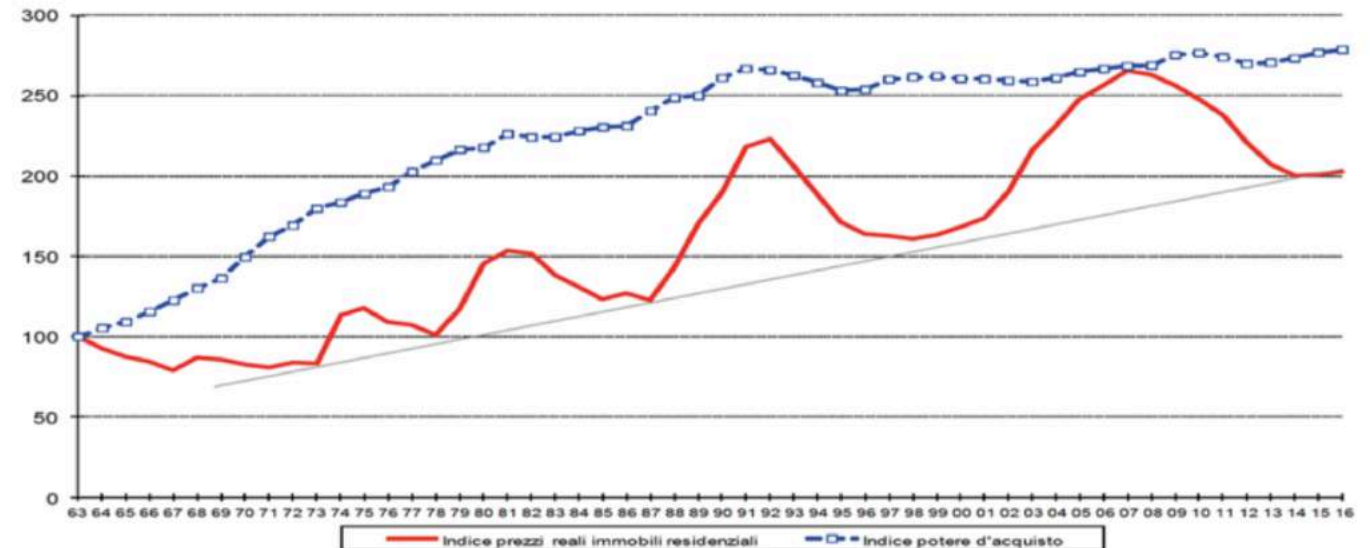
Barron K., Kung E., and Proserpio D. (2017), *The Sharing Economy and Housing Affordability: Evidence from Airbnb,* working paper.

3. Where, how, and to what extent Airbnb affected real estate and rental values?

Methodological/research design constraints and context related challenges:

Airbnb % residential apartments rented
- Up to 1%
- 1 – 5%
- 5 – 10%
- 10 – 15%
- > 15%
- Green areas
- Non tourist areas

- Airbnb 'boom' is a recent phenomenon in Rome (compared to other cities) and is highly concentrated in a few areas (see map),

- Heavy recession trend for the real estate sale and rental values,

- Rigid and fragmentated mortgage market.

Indice prezzi reali immobili residenziali
Indice potere d'acquisto

Fonte: Elaborazione Reddy's Group srl su dati ISTAT, Reddy's Group srl

3. Where, how, and to what extent has Airbnb affected real estate and rental values?

Micro-econometric fixed effect model

Panel data:

- **Time**: years 2015 (annual), and 2016-2017 (semestral)
- **Unit**: Rome, 144 OMI zones within the city ring road

Variables:

- **Explanatory:** Airbnb listing entire homes/apts (data source Tom Slee, 2018)
- **Dependent:** Sales and rental values, Tax Agency Real Estate Market Observatory (OMI)

	Dependent variable:			
	ln Max Rental	ln Min Rental	ln Max Sale	ln Min Sale
	(1)	(2)	(3)	(4)
ln Listing AirBnB	−0.0002	−0.003	−0.003	−0.007***
	(0.002)	(0.003)	(0.002)	(0.002)
Time effect	YES	YES	YES	YES
Zone effect	YES	YES	YES	YES
Observations	720	720	720	720
R^2	0.00001	0.002	0.004	0.016
Adjusted R^2	−0.259	−0.257	−0.254	−0.240
F Statistic (df = 1; 571)	0.004	1.151	2.173	9.039***

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

The model proves that an increase in Airbnb listings only negatively affects minimum sale prices

3. Where, how, and to what extent has Airbnb affected real estate and rental values?

There may be a few **reasons why Airbnb does not affect the real estate market** in Rome:

- The **market for short-term rentals** may be **very small** compared to the market for long-term rentals. In this case, even large changes to the short-term rental market might not produce a measurable effect on the long-term one.

- The market for short-term rentals **could be dominated by housing units that would have remained vacant in the absence of house sharing**. In this case home sharing provides them with an income stream for times when their housing capacity would otherwise be underutilized.

- A **growing number of Airbnb listings** might cause an **increase of the housing stock** for sale and rent on the market, and this might in fact **lower the minimum sale price** for residential properties.

4. Consequences for residents and specific neighbourhoods within these cities?

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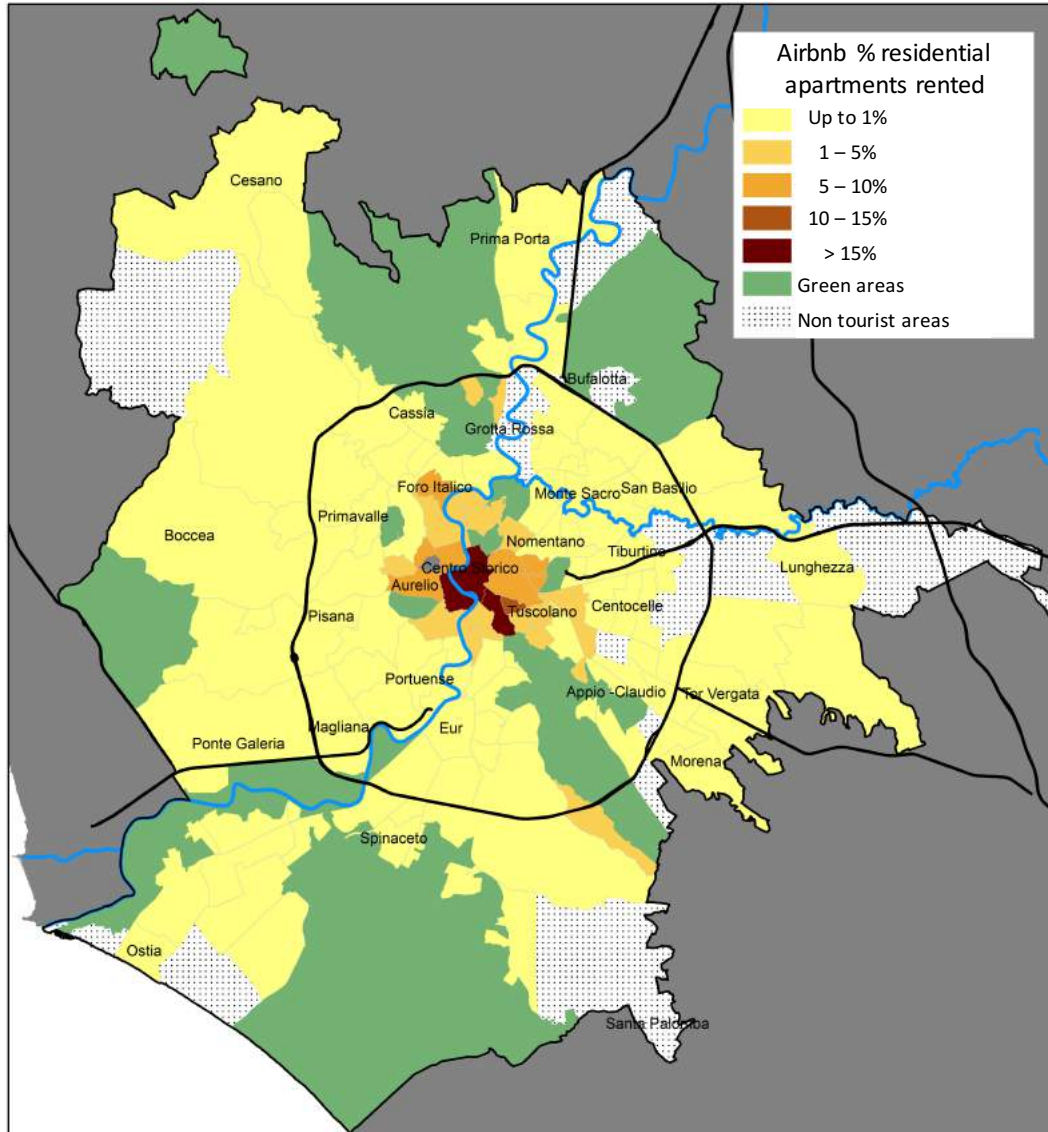
Airbnbification, de-residentialization, gentrification

Villa Pamphili	80,0%
Zona Archeologica	40,4%
Centro Storico	22,2%
Trastevere	19,1%
Celio	18,3%
XX Settembre	19,3%
Villa Borghese	11,5%
Esquilino	15,6%
Prati	15,4%
Verano	15,9%
Eroi	11,1%
Università	15,1%
Aurelio Sud	10,3%
Foro Italico	5,6%
San Lorenzo	8,0%
Testaccio	4,8%
Della Vittoria	4,8%
Ostiense	5,7%

% of entire homes/apts rented on Airbnb in Roman neighborhoods

	2016	Var. 15-16
Matera	25,3%	46%
Firenze	17,9%	61%
Venezia	8,9%	46%
Roma	8,0%	13%
Verona	4,1%	86%
Siena	4,0%	60%
Milano	3,6%	112%
Napoli	3,1%	210%
Torino	2,8%	180%
Bologna	2,4%	140%
Catania	2,2%	57%
Bari	1,0%	25%
Genova	1,0%	67%

% of entire homes/apts rented on Airbnb in different Italian cities

* Latest, *The airification of cities*, Unisi, 2017

Thank you!!!

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