Università degli Studi di Padova
Dipartimento di Scienze Economiche e Aziendali «Marco Fanno»
Corso di Laurea Magistrale in Economia Internazionale
LM-56 Classe delle lauree magistrali in Scienze dell'Economia

The Sharing Economy in the Italian cities: an analysis of Airbnb in Venice

March 8th, 2018

Student: Arianna Rossi
Supervisor: Prof.ssa Annalisa Caloffi
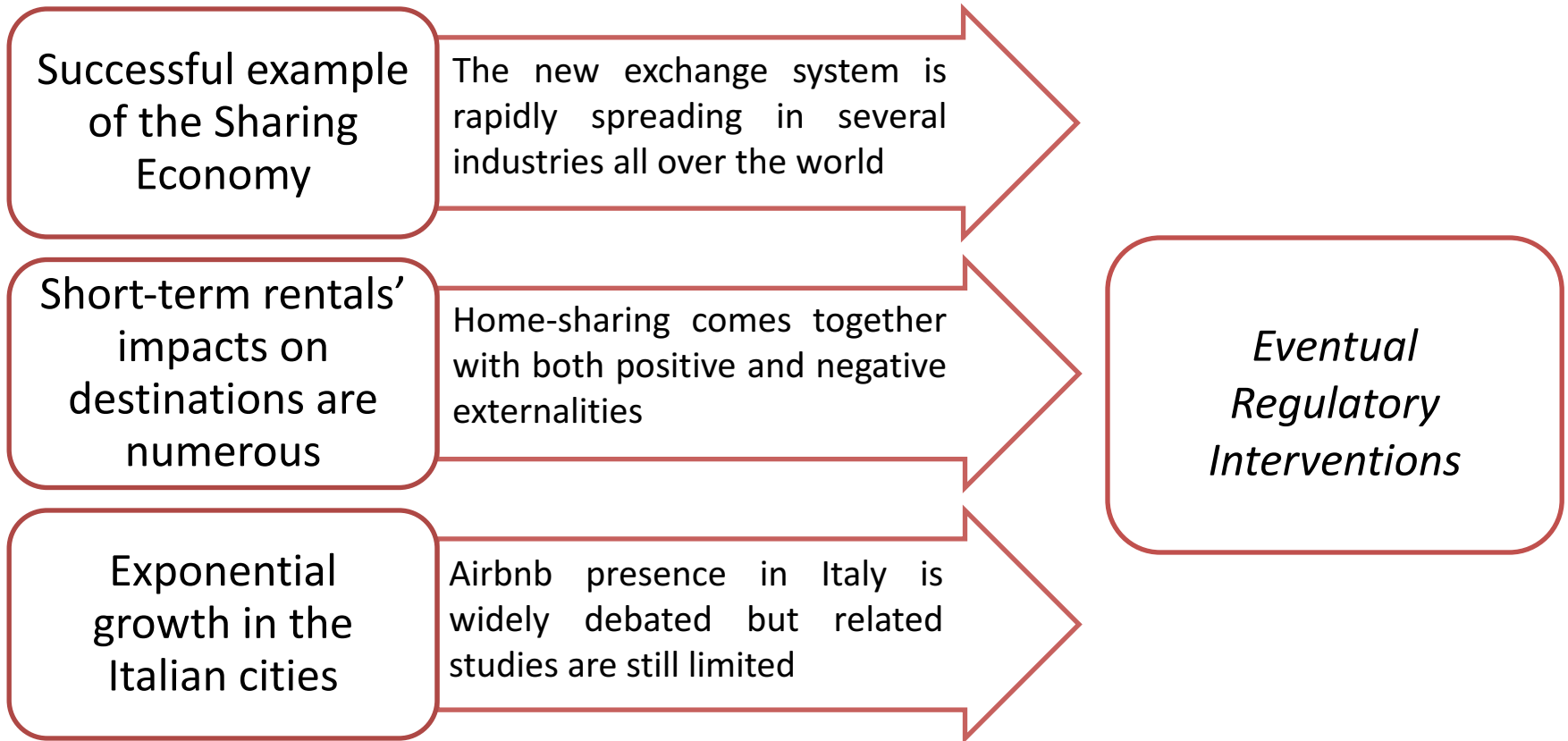
Academic Year 2017 - 2018

Why Airbnb?

Successful example of the Sharing Economy	The new exchange system is rapidly spreading in several industries all over the world	
Short-term rentals' impacts on destinations are numerous	Home-sharing comes together with both positive and negative externalities	*Eventual Regulatory Interventions*
Exponential growth in the Italian cities	Airbnb presence in Italy is widely debated but related studies are still limited	

Table of Contents

What is Airbnb impact on Destinations' Economies?

- Airbnb Platform and the Sharing Economy
- Literature Review about the several potential impacts of home-sharing

Whether and how short-term rentals should be regulated

- Theoretical proposals about Airbnb regulation
- The current legislative landscape

Airbnb in Italy and the City of Venice

- Evidences of the presence of Airbnb in Italy and the current related legislative landscape
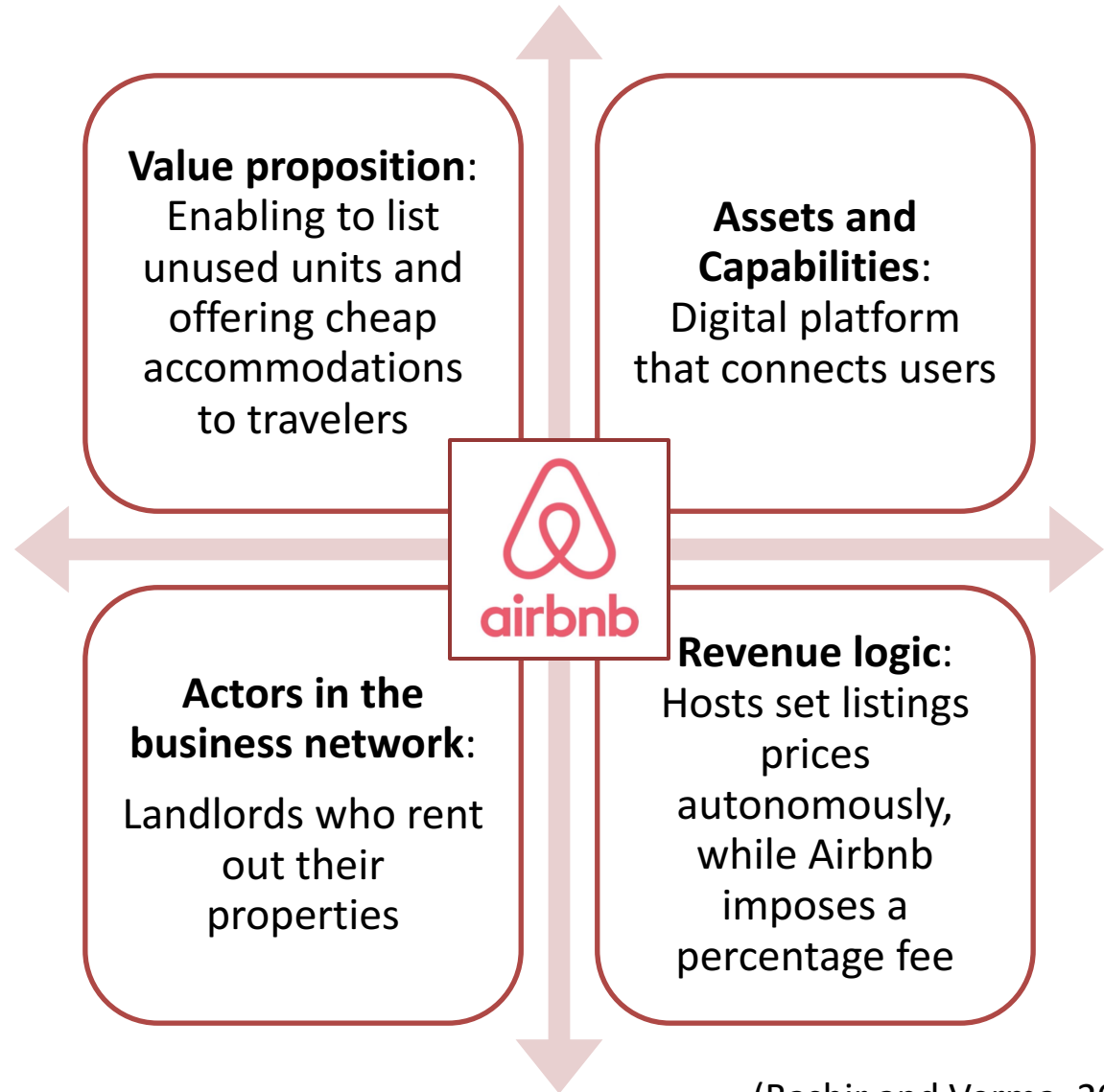- A focus on the City of Venice, its Tourism Industry and short-term rentals

Analysis

- We observed the trend of two variables (residents internal migration and long-term rental prices) in order to investigate whether the dynamics that characterize the long term rental market in several European and US cities may or may not apply to the City of Venice.
- We tested the existence of a correlation between hotels revenues per employee and the number of Airbnb listings in Venice

"A social website that connects people who have space to spare with those who are looking for a place to stay ".
(Airbnb.com, 2017)

Value proposition: Enabling to list unused units and offering cheap accommodations to travelers

Assets and Capabilities: Digital platform that connects users

Actors in the business network: Landlords who rent out their properties

Revenue logic: Hosts set listings prices autonomously, while Airbnb imposes a percentage fee

(Bashir and Verma, 2016)

Exploit the value of under-utilized assets

Airbnb allows hosts to exploit the value of unused spaces

Consumers can benefit from the good without owning it

Airbnb guests may spend a short period in a housing unit without owning it

The sharing economy key features

Decentralised network

Airbnb users interact with each others through the platform without intermediation

Meaningful principles and the respect of providers

Airbnb's mission is "make people around the world feel they could belong anywhere"

The Potential Impacts of Home Sharing on Destinations

Positive impacts

- Tourism growth
- Additional income for hosts
- Relaunch of suburbs
- Cheap accommodations for travelers

Negative impacts

- Disneyfication of Cities
- Inequality increase
- Neighborhoods issues
- Negative impacts on hotel perfromances
- Affordable housing crises

Impacts tend to be destination specific.

Airbnb Regulation Fields

Eventual regulatory interventions are controversial as the interests of each stakeholder should be considered.

- Safety issues

- Asymmetric Regulation

- Housing Market safeguard

- Discrimination avoidance

- Neighborhoods management

Regulatory interventions should be aimed at enhancing benefits and reducing the negative externalities that come together with home sharing and should be based on the empirical studies that addressed the specific impact of the platform in each destination.

The current Legislative Landscape

The current legislative landscape is uneven around the world. Some examples:

NYC	San Francisco	Barcelona	Berlin	Amsterdam
• Multiple dwelling Law • Zoning codes	• Primary residence requirement	• Flat detector app	• No more than the 50% of the apartment can be listed	• Cooperation with Airbnb to promote responsible home sharing

Again, legislation is destination specific, if not neighborhood specific

Airbnb Impact on long-term rentals

Airbnb listings may remove housing units from the long-term rental market

↓

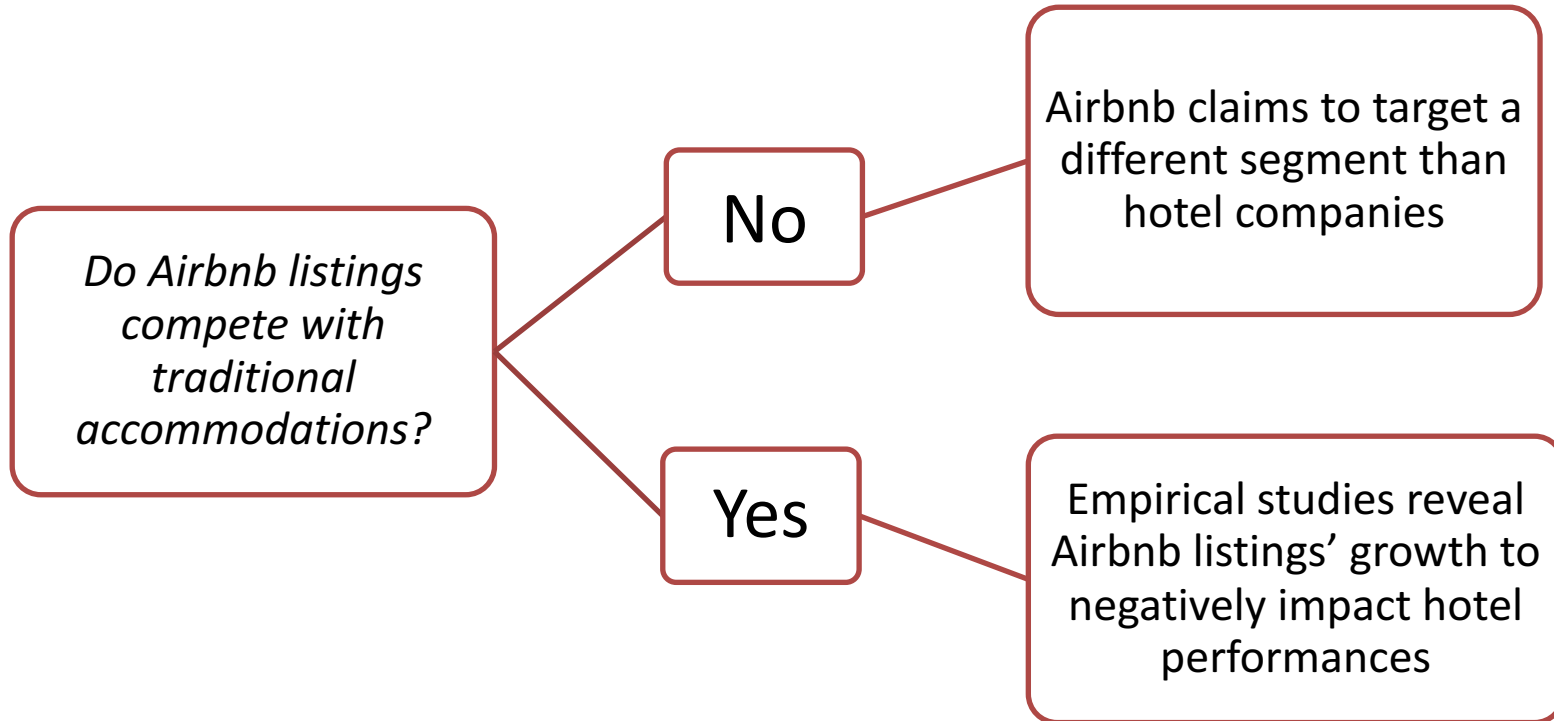The housing shortage may lead to the increase of long-term rental price

↓

It can ultimately generate an **affordable housing crises** that penalizes residents

Lee (2016); Guerran and Phibbs (2017)

Airbnb impact on the Lodging Industry

Do Airbnb listings compete with traditional accommodations?

No → Airbnb claims to target a different segment than hotel companies

Yes → Empirical studies reveal Airbnb listings' growth to negatively impact hotel performances
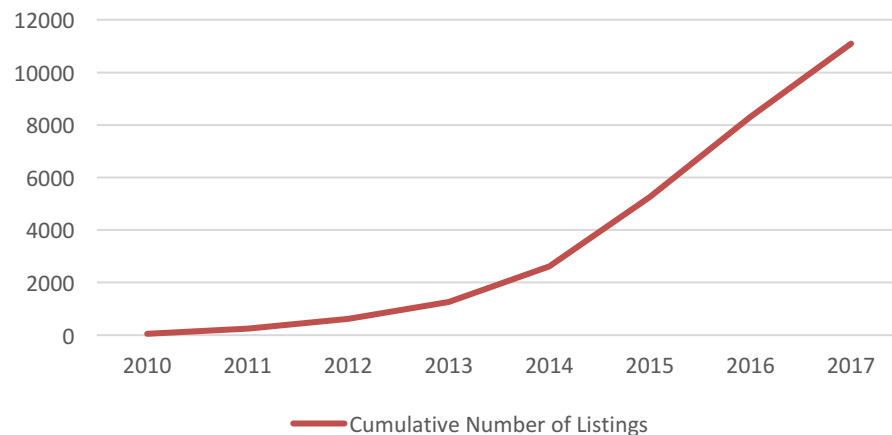
Zervas et al. (2014); Neeser (2014); Suiciu (2016)

The level of competition between the two business models may indeed involve several consequences such as overall tourism industry performances or asymmetric regulation issues. It may also affect the lodging industry level of employment.
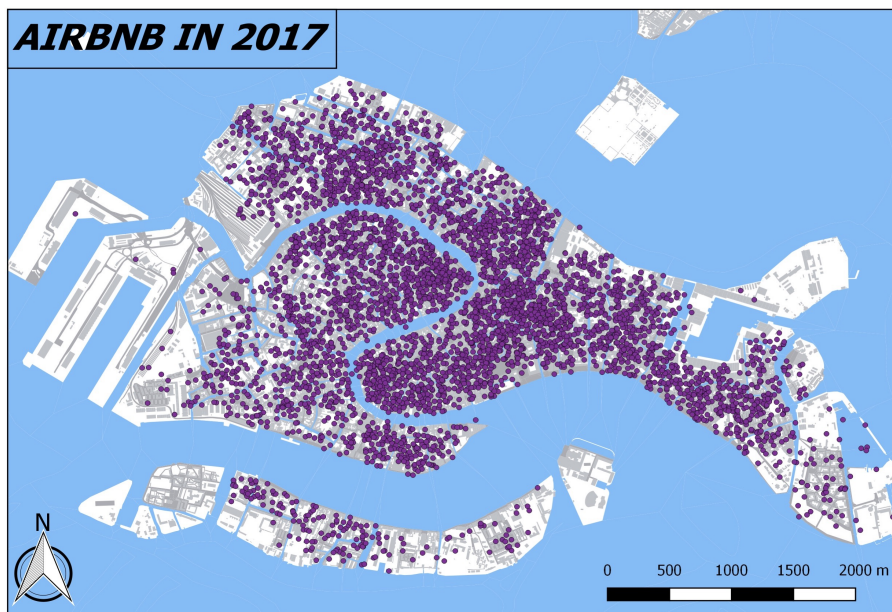
ANALYSIS

Airbnb in Venice

Listings Growth

From 2010 to 2017 the number of listings in Venice is constantly increasing. The average growth rate is about 33% per year. The 8.9% of the total housing stock is listed on the platform.

AIRBNB IN 2017

We realized a geo-localized representation of the actual degree of penetration of the number of listings in Venice. About the 85% of units are concentrated in the central neighborhoods.

Long-term rentals

- *Are residents leaving the city center?*
  Observation of the **internal migration** trend over time

- *Are long-term rental prices increasing?*
  Observation of the historical **trend of rental prices** in Venice neighborhoods
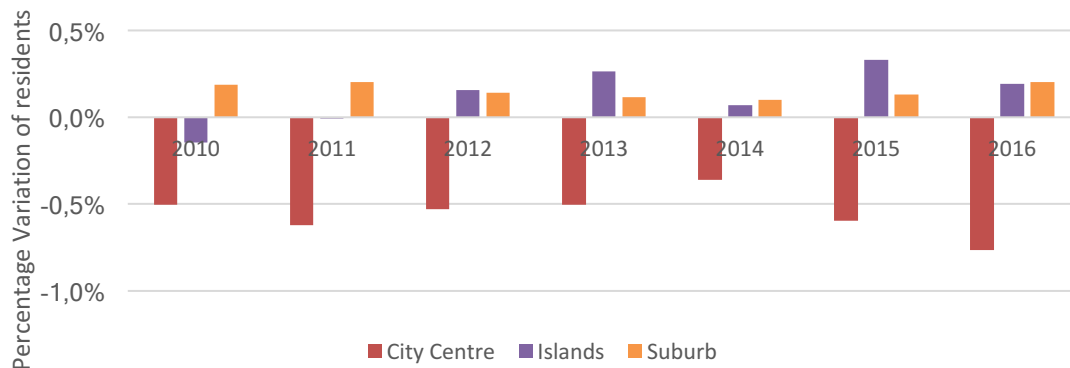
Lodging Industry

- *Does Airbnb impact traditional hotel performances?*
  We tested the existence of a correlation between **revenue per employee** and the number of listings

Results: Long-Term Rentals

INTERNAL MIGRATION

Small but negative residents' migration from the city center toward suburbs

	City Centre*	Percentage Variation	Semi-Suburb*	Percentage Variation	Suburb*	Percentage Variation
2009	230,80		160,03		145,88	
2010	224,30	-2,8%	149,97	-6,3%	138,31	-5,2%
2011	233,62	4,2%	152,01	1,4%	138,06	-0,2%
2012	236,83	1,4%	153,89	1,2%	138,72	0,5%
2013	203,12	-14,2%	129,20	-16,0%	116,44	-16,1%
2014	193,26	-4,9%	137,66	6,6%	123,97	6,5%
2015	183,06	-5,3%	140,38	2,0%	124,08	0,1%
2016	182,62	-0,2%	139,54	-0,6%	126,05	1,6%
2017	185,98	1,8%	148,04	6,1%	129,37	2,6%

*€/m² per year

Long-term rentals prices are decreasing in the city center, while increasing in suburban areas

Airbnb and Revenues per employee

We conducted a **panel data analysis with random effects** in order to investigate the existence of the correlation between revenues/employee of hotels and the number of listings in Venice.
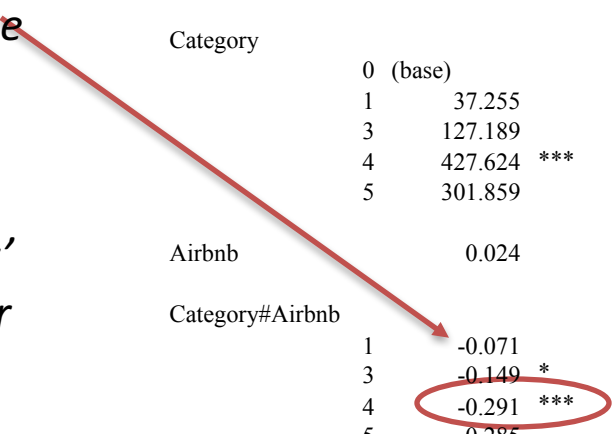
Variable	Description		Obs	Mean	Std. Dev.	Min	Max
Revenues/employees	Hotel revenues divided by the number of employees. Aida data		1529	235.78	645.91	-10212.2	12739.5
		between	n=212		893.3003	-1038.97	12739.5
		within	T-bar = 7.21226		496.2677	-8937.45	4321.547
Arrivals	Number of tourists that spent some night in the city. Data from Istat (National Institute of Statistics)		1944	8055556	552130.6	7200000	8800000
Tourists' presence	Number of nights that tourists are spending in hotels. Data from Istat (National Institute of Statistics)		1944	34000000	471525.8	33000000	35000000
Airbnb listings	Number of listings on Airbnb. Data from Airdna.com		2160	1584.3	2294.465	0	7109
Category	Hotel category dummies. Data from hotels web sites:						
	0=B&B or other lodgings		760				
	1=1 and 2 stars hotels		290				
	3=3 stars hotels		540				
	4=4 stars hotels		500				
	5=5 stars hotels		70				
Year	Year dummies (2007-2016)		216 per year				

Results: Airbnb and Revenues per employee

Negative and significant correlation between the number of listings and four stars hotels' revenue per employee

		Coef.		Std. Err.	z	P>z	[95% Conf.Interval]	
Y=Revenues/employees								
Tourists' presence		-0.000	**	0.000	-2.29	0.022	0.000	0.000
Arrivals		-0.000		0.000	-1.15	0.248	0.000	0.000
Year								
	2008	(base)						
	2009	-4.151		111.5848	-0.04	0.970	-222.853	214.551
	2010	-106.310		145.1688	-0.73	0.464	-390.836	178.215
	2011	-100.100		122.3411	-0.91	0.324	-291.162	166.135
	2012	-283.988	***	81.20931	-3.5	0.000	-443.155	-124.821
	2013	-196.249	***	73.97223	-2.65	0.008	-341.232	-51.266
	2014	-109.209	*	65.6696	-1.66	0.096	-237.919	19.501
	2015	-66.873		61.37261	-1.09	0.276	-187.161	53.415
	2016	-60.188		58.2221	-1.07	0.245	-176.441	47.504
Category								
	0	(base)						
	1	37.255		164.4597	0.23	0.821	-285.08	359.5903
	3	127.189		132.1276	0.96	0.336	-131.776	386.1545
	4	427.624	***	135.1798	3.16	0.002	162.6766	692.5718
	5	301.859		313.5221	0.96	0.336	-312.633	916.3507
Airbnb		0.024		0.102734	0.23	0.816	-0.17744	0.225271
Category#Airbnb								
	1	-0.071		0.117617	-0.61	0.544	-0.30193	0.159122
	3	-0.149	*	0.089957	-1.66	0.097	-0.32539	0.02724
	4	-0.291	***	0.090443	-3.22	0.001	-0.46873	-0.1142
	5	-0.285		0.188156	-1.51	0.13	-0.6535	0.084061
_cons		8113.561	***	2809.64	2.89	0.004	2606.769	13620.35
sigma_u		656.334						
sigma_e		481.140						
rho		0.650						

Note to table: Statistical significance: $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$
Wald chi2(19) = 124.18; Prob > chi2 = 0.0000
R-sq: within = 0.1068; between = 0.0343; overall = 0.0746.
Tot obs: 1230, 211 groups. Obs per group: min = 1; avg=5.8; max=8

Conclusions

Long-term rental prices' decrease seems not consistent with the hypothesis of an affordable housing crises. However, other variables may be investigated; the properties' quality level is an example

Four stars hotels result the most impacted category by Airbnb entry. This is consistent with the hypothesis of competition between the two business models and it may reflect the similarity in the price positioning of four stars hotel rooms and Airbnb entire apartments

The present preliminary study highlights the importance of addressing the impact of Airbnb listings in the Italian territory. Further empirical analysis should be conducted considering more variables and more destinations

Thank you
for your attention