The rental market in Italian cities

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Introduction

The information coming from **online rental listings** (**Immobiliare.it**) is very timely and consistent with that provided by official sources. Online listings fill a **big gap** in Italian rental market statistics, namely the absence of detailed **physical characteristics** for houses rented out. The **granularity** of online data also makes possible timely analyses at a very detailed geographical level.

Data

Weakly snapshots – all ads that are visible on a specific day on **Immobiliare.it** – from January 2016 to December 2018.

Full set of **dwellings characteristics**, asking rental prices, geographical coordinates and the dates of listing and delisting.

Duplicate **ads** (referring to the same house) removed through supervised machine learning techniques. The **actual number of dwellings** is about 285,000 units in 110 main Italian cities.

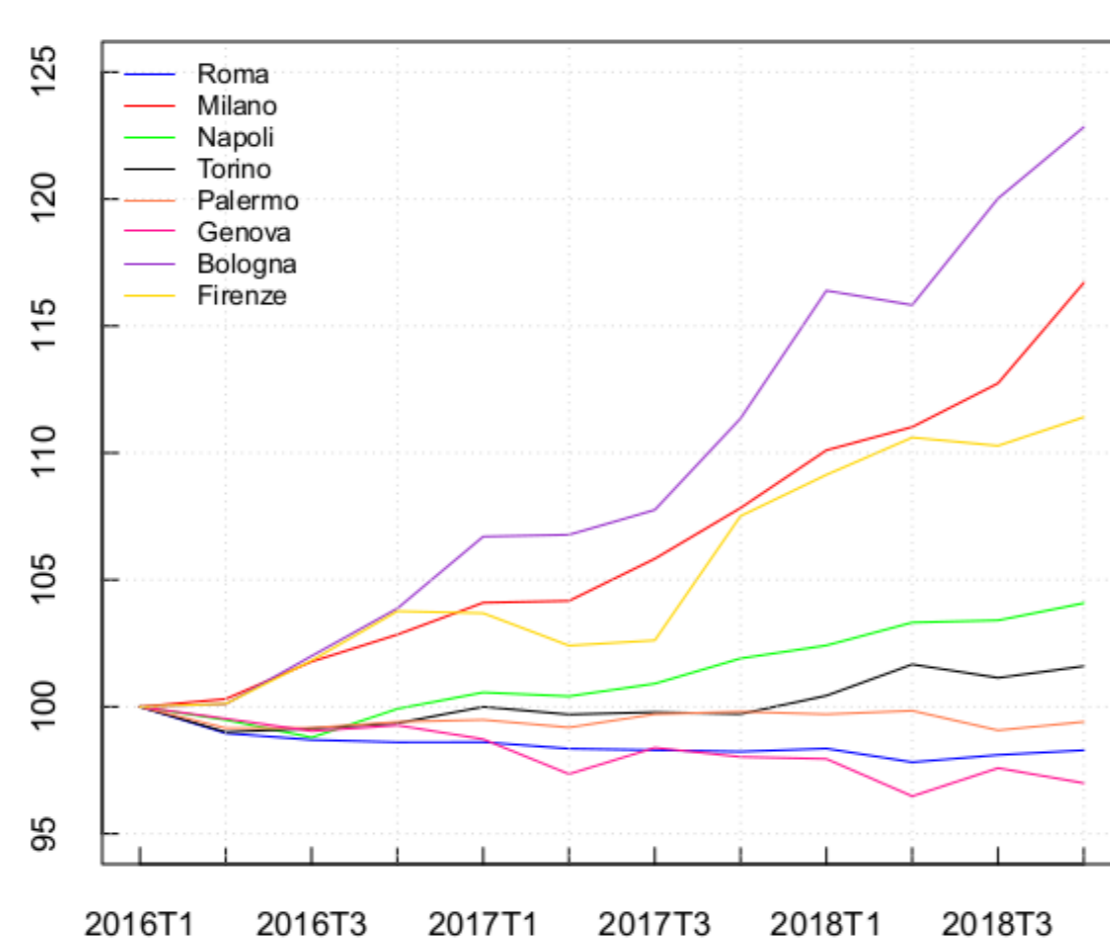## Online listings consistent with administrative data
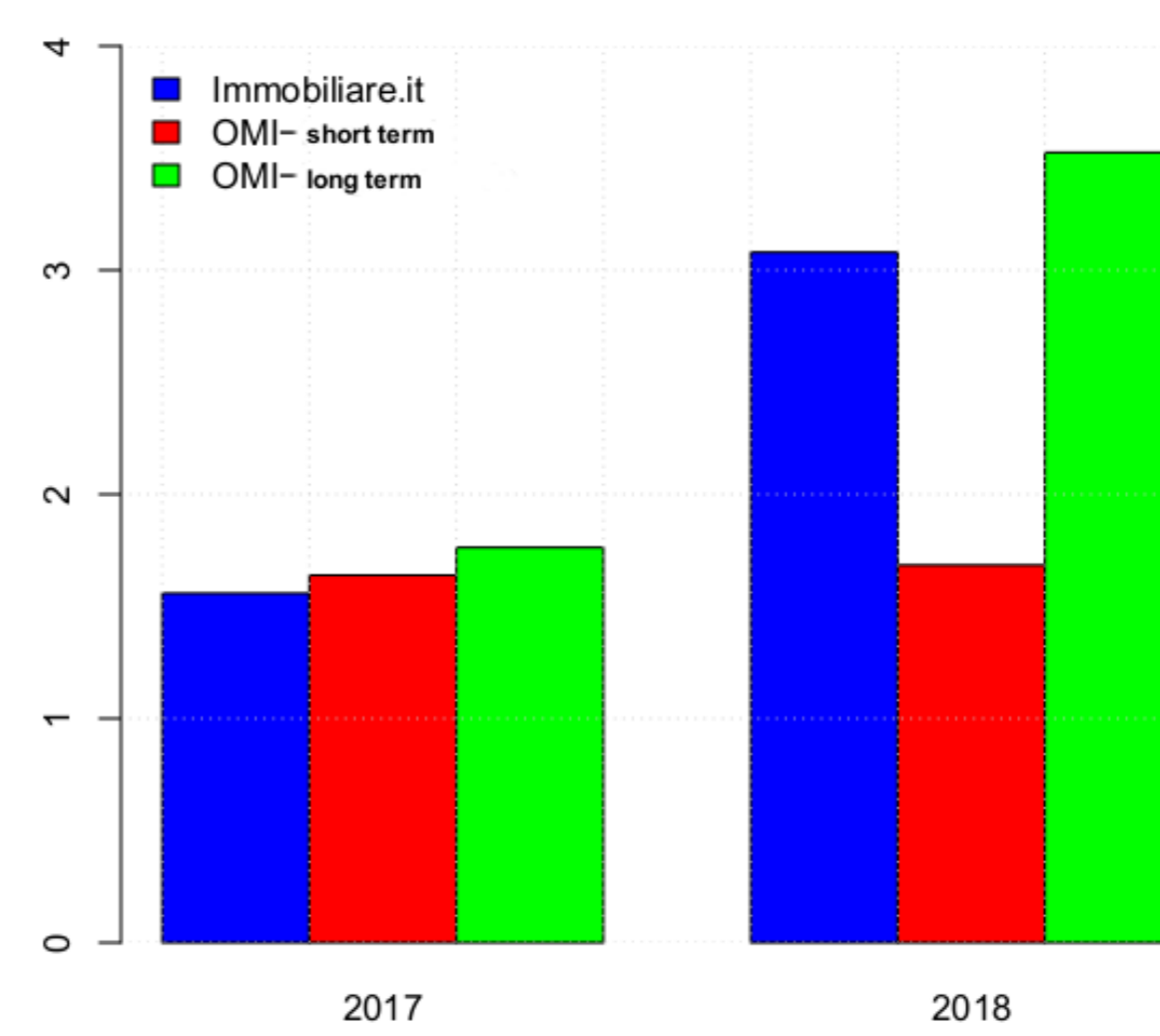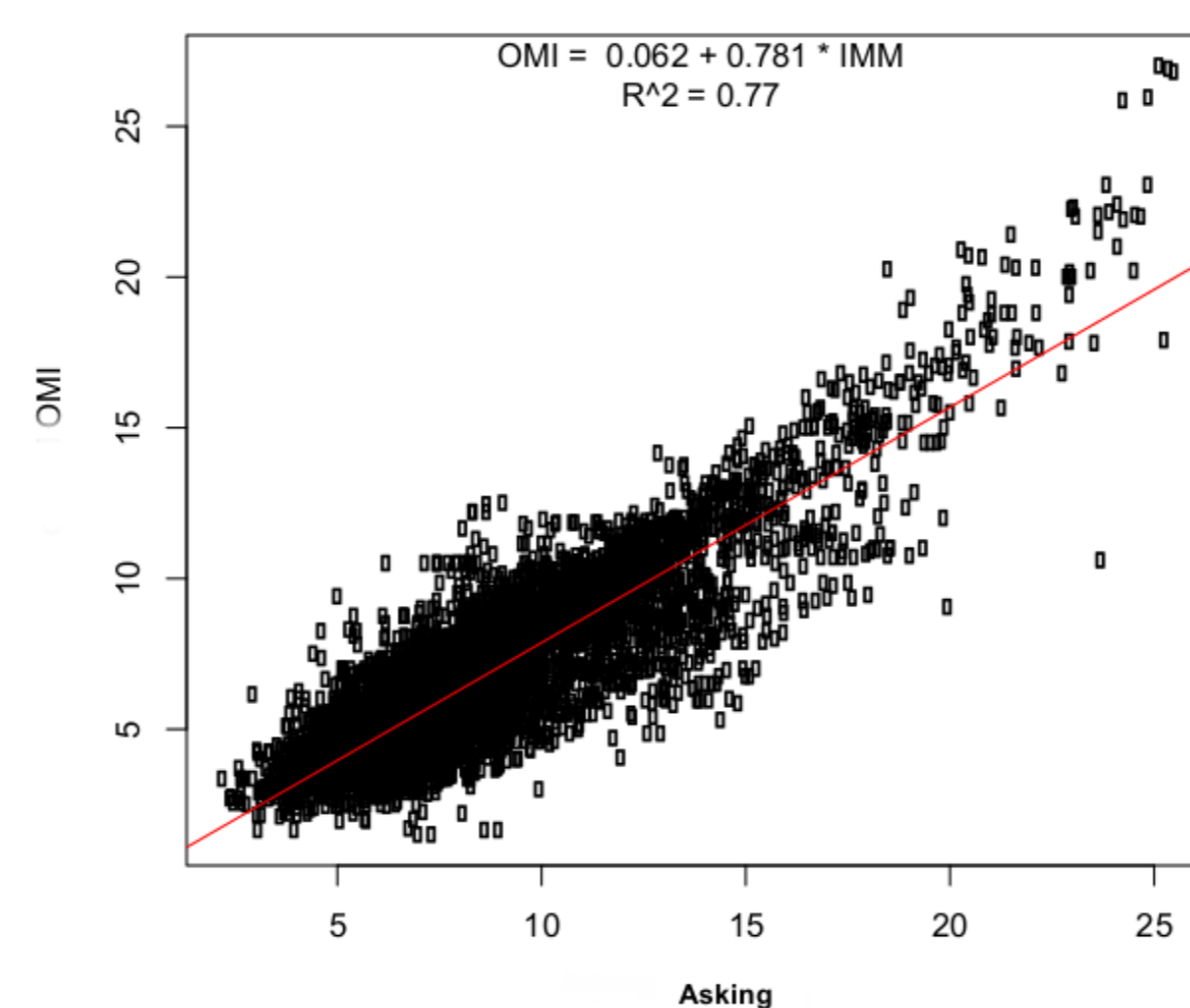
Asking rental prices and estimated rents. Neighborhood rents per m^2 (left) and aggregate y-o-y growth (right)
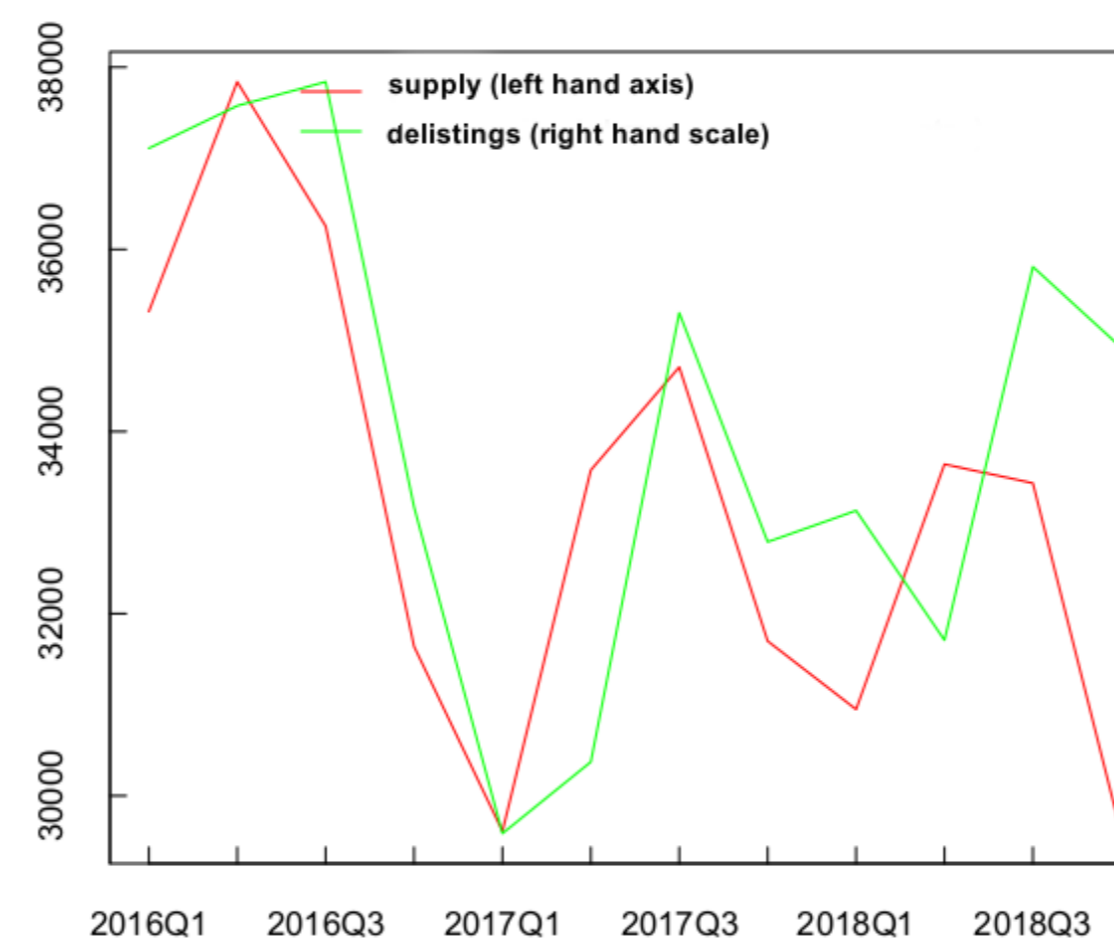
New statistics on the rental market
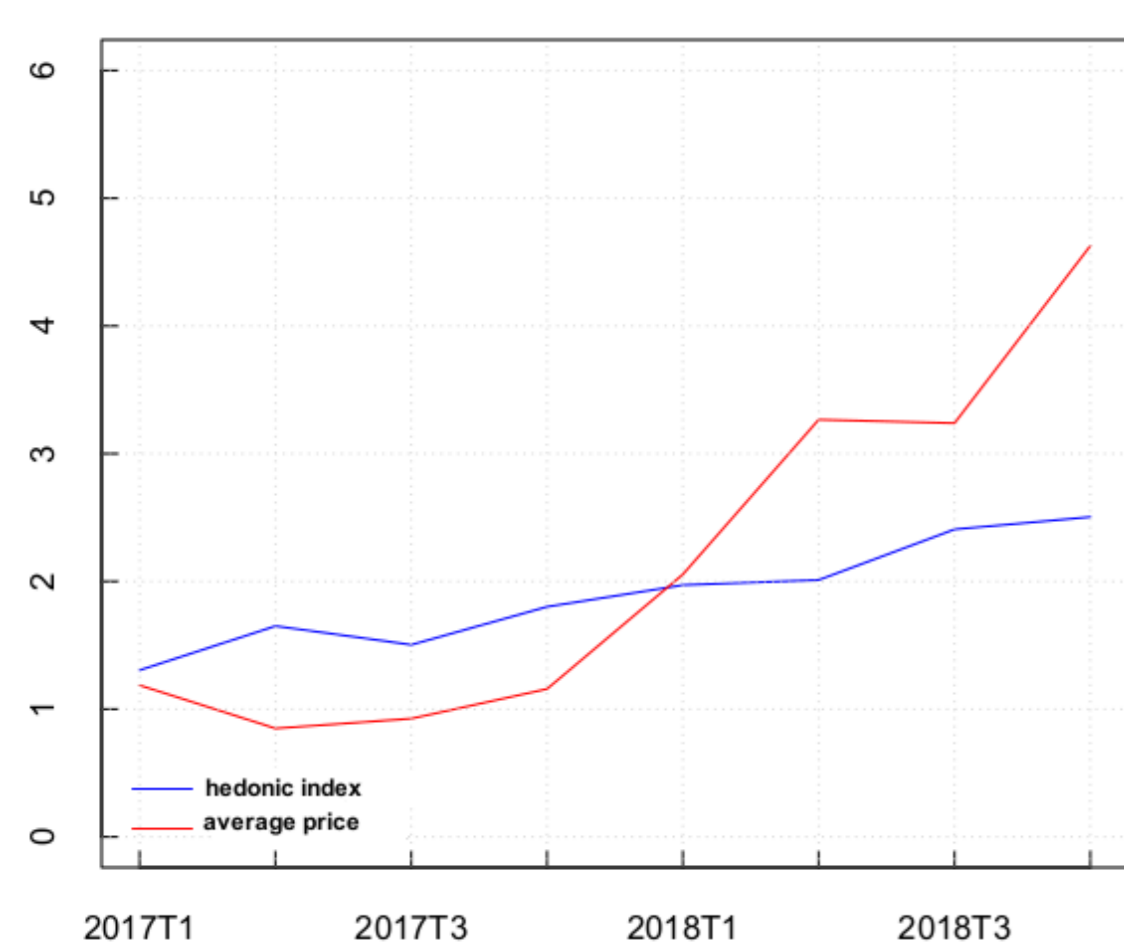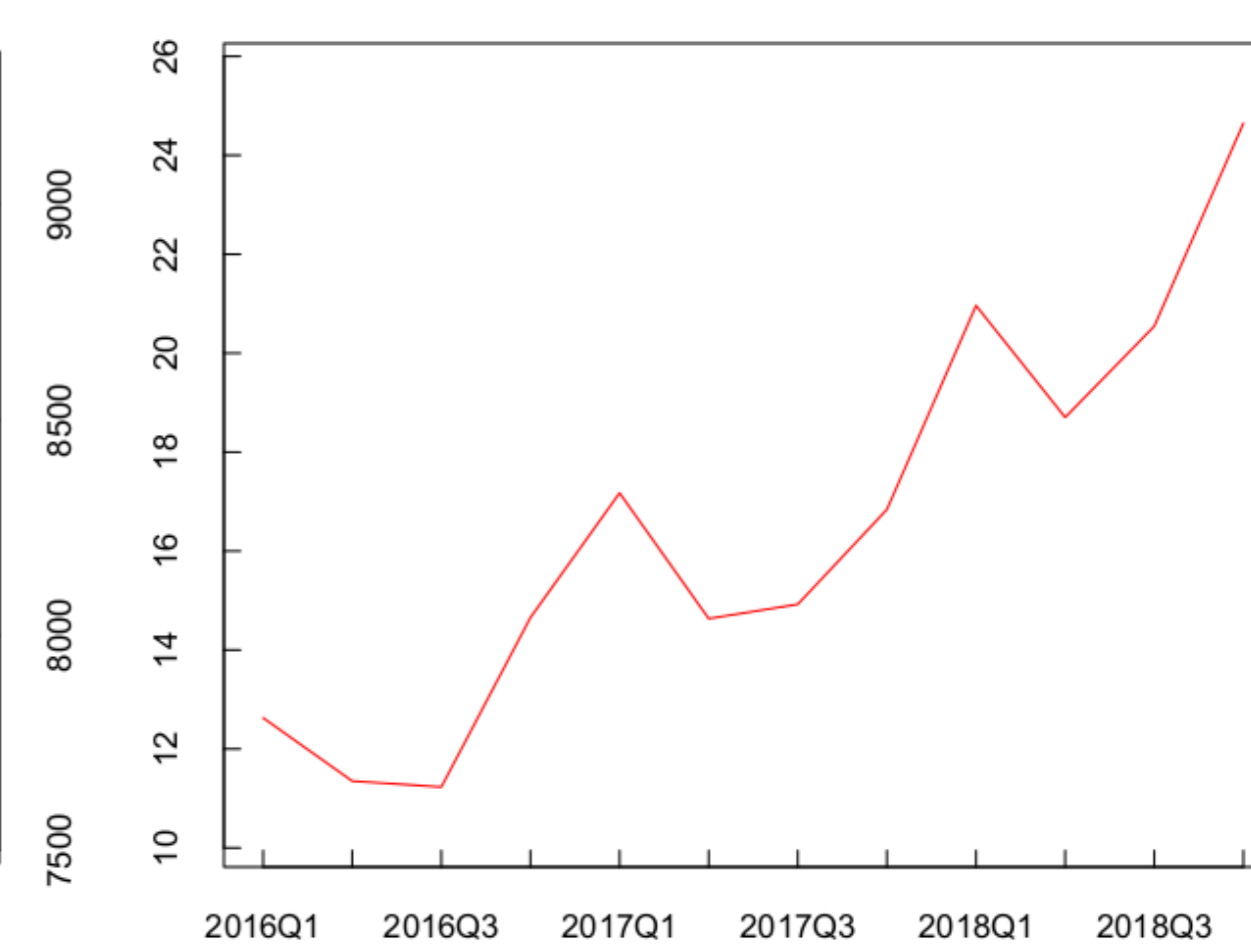

Aggregate rental prices (y-o-y var.)

City level hedonic indices

Supply and delistings

Demand for rentals

Segmentation between rental and property

The **characteristics** of dwellings rented out are systematically different from those listed in the market for property

	Dependent variable:	
	Lease (1) vs Sale (0)	
	logit coefficients	odd-ratio
Distance from the city centre (km)	-0.027^{***}	0.973^{***}
Location: close to the city center	-0.205^{***}	0.815^{***}
Location: outskirts	-0.447^{***}	0.640^{***}
Location: suburbs	-0.244^{***}	0.783^{***}
Location: out-of-town	-0.285^{***}	0.752^{***}
Floor area	-0.008^{***}	0.992^{***}
Maintenance status: To be renovated	-3.062^{***}	0.047^{***}
Maintenance status: Excellent conditions	0.126^{***}	1.134^{***}
Maintenance status: New	-0.739^{***}	0.478^{***}
Detached dwelling	-0.208^{***}	0.812^{***}
Number of bathroooms: 2	-0.101^{***}	0.904^{***}
Floor: intermediate	0.036^{***}	1.037^{***}
Floor: high	0.021^{***}	1.022^{***}
Floor: multiple	-0.182^{***}	0.833^{***}
Parking space	0.049^{***}	1.051^{***}
Box	-0.507^{***}	0.602^{***}
Shared garden	-0.129^{***}	0.879^{***}
Private garden	-0.288^{***}	0.750^{***}
Elevator	0.161^{***}	1.175^{***}
Terrace	-0.039^{***}	0.962^{***}
Balcony	-0.079^{***}	0.924^{***}
Basement	-0.954^{***}	0.385^{***}
Janitor	0.312^{***}	1.367^{***}
Utility room	-0.291^{***}	0.748^{***}
Dummies	City+Quarter	City+Quarter
Number of observations	790,243	790,243

House yields heterogeneity

The **rate of return** of a house (annual rent/house value) depends on its characteristics

	Dependent variable:
	Rent-to-price ratio
Constant	7.822^{***}
Detached dwelling	0.499^{***}
New dwelling	-0.726^{***}
Average price: 25-50 percentile	-0.400^{***}
Average price: 50-75 percentile	-0.728^{***}
Average price: 75-100 percentile	-1.133^{***}
Floor area: 50-70m^2	-1.449^{***}
Floor area: 70-90m^2	-2.276^{***}
Floor area: 90-110m^2	-2.860^{***}
Floor area: 110-130m^2	-3.291^{***}
Floor area: 130-150m^2	-3.426^{***}
Floor area: 150-170m^2	-3.483^{***}
Floor area: 170-190m^2	-3.528^{***}
Floor area: 190-210m^2	-3.461^{***}
Floor area: oltre 210m^2	-3.524^{***}
Location: close to the city center	-0.002
Location: outskirts	-0.130^{***}
Location: suburbs	-0.117^{***}
Location: out-of-town	-0.513^{***}
Dummies	City
Number of observations	35,093
Adjusted R^2	0.410

References

M. Loberto, A. Luciani and M. Pangallo, 2018. The potential of big housing data: an application to the Italian real-estate market, Working papers, Bank of Italy.