



Research article

The effect of COVID-19 pandemic on residential real estate prices: Turkish case¹

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Supplementary

A. Data

Table A1. Statistical properties.

Variables	Obs.	Mean	Std. Dev.	Min	Max
<i>AR_{region}</i>	312	0.0123778	0.0172828	-0.231282	0.1080163
<i>INF_{region}</i>	312	0.0092474	0.0043244	-0.006081	0.026425
<i>CL_{region}</i>	312	0.0295454	0.066902	-0.9167975	0.4318835
<i>AR_{city}</i>	900	0.0167356	0.0225299	-0.696746	0.1201937
<i>INF_{city}</i>	900	0.0092469	0.0043959	-0.006081	0.026425
<i>CL_{city}</i>	900	0.0325726	0.0787071	-1.239891	1,202191
Control/Common Variables					
<i>FX</i>		0.0256386	0.0251989	-0.0082475	0.0745134
<i>INT</i>		11.67367	1.41057	9.114	14.15
<i>XU100</i>		0.0072091	0.087289	-0.1675362	0.1203671
<i>CCI</i>		0.0336402	0.1195933	-0.0796635	0.4083383

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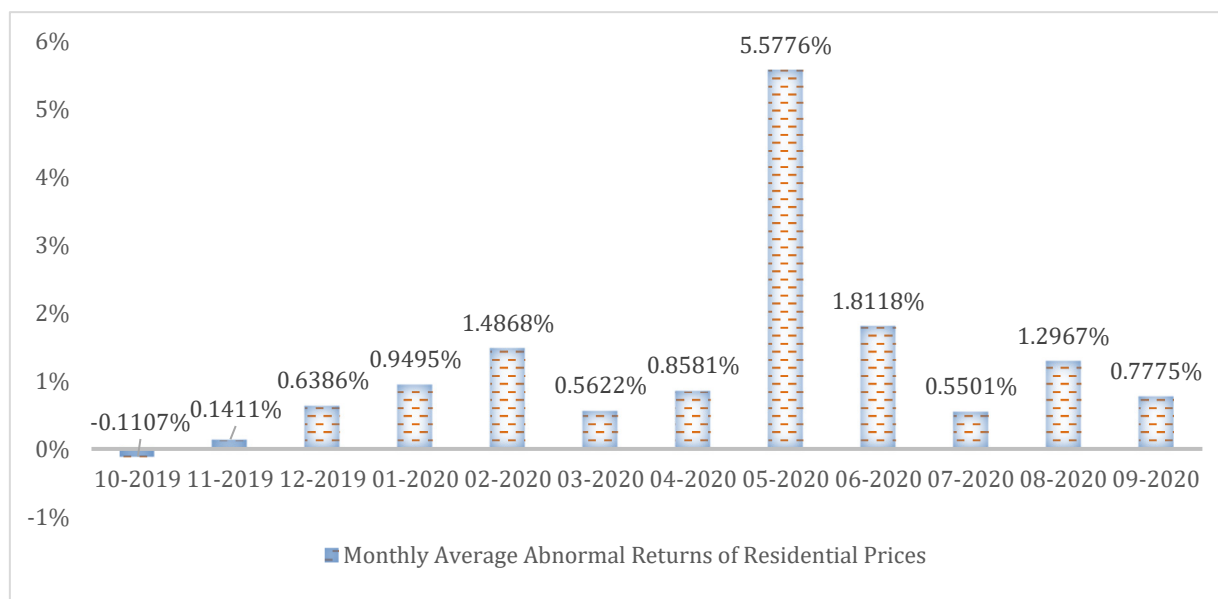


Figure A1. Monthly average abnormal returns (region level).
Source: CBRT, EDSS and authors' calculations.

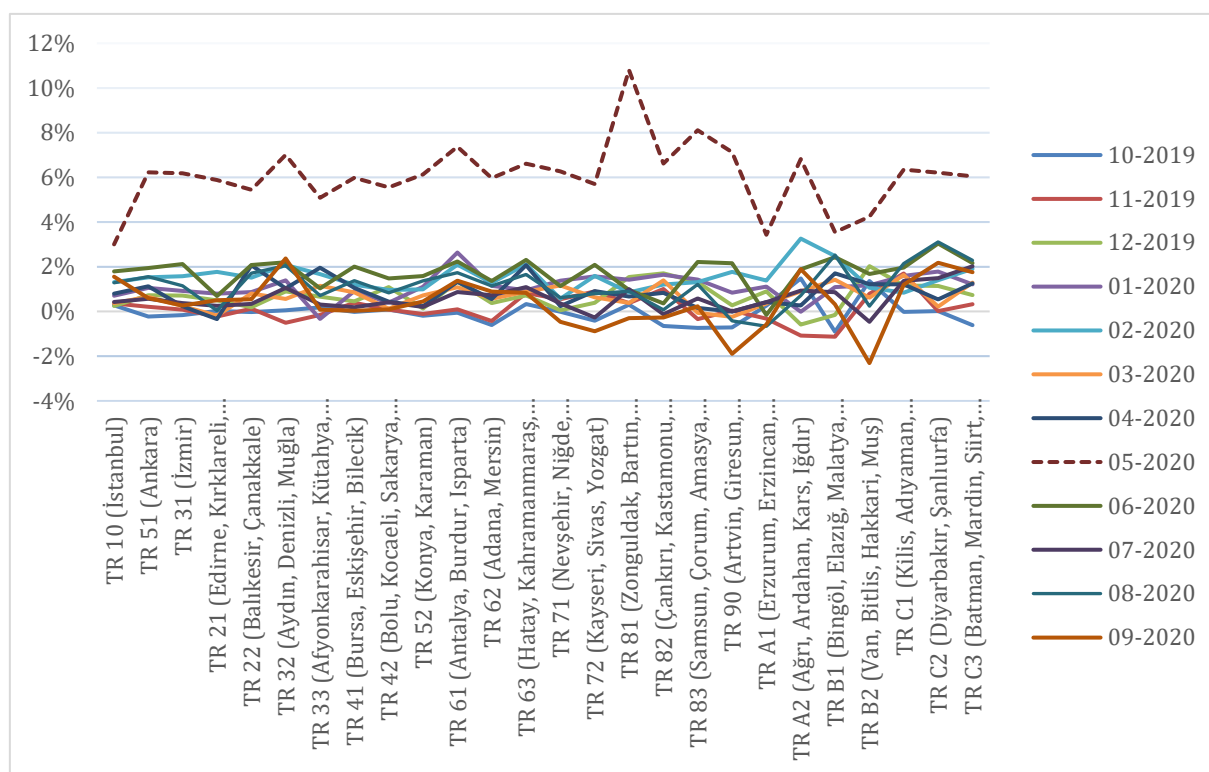


Figure A2. Abnormal returns, by sub-regions.
Source: CBRT, EDSS and authors' calculations.

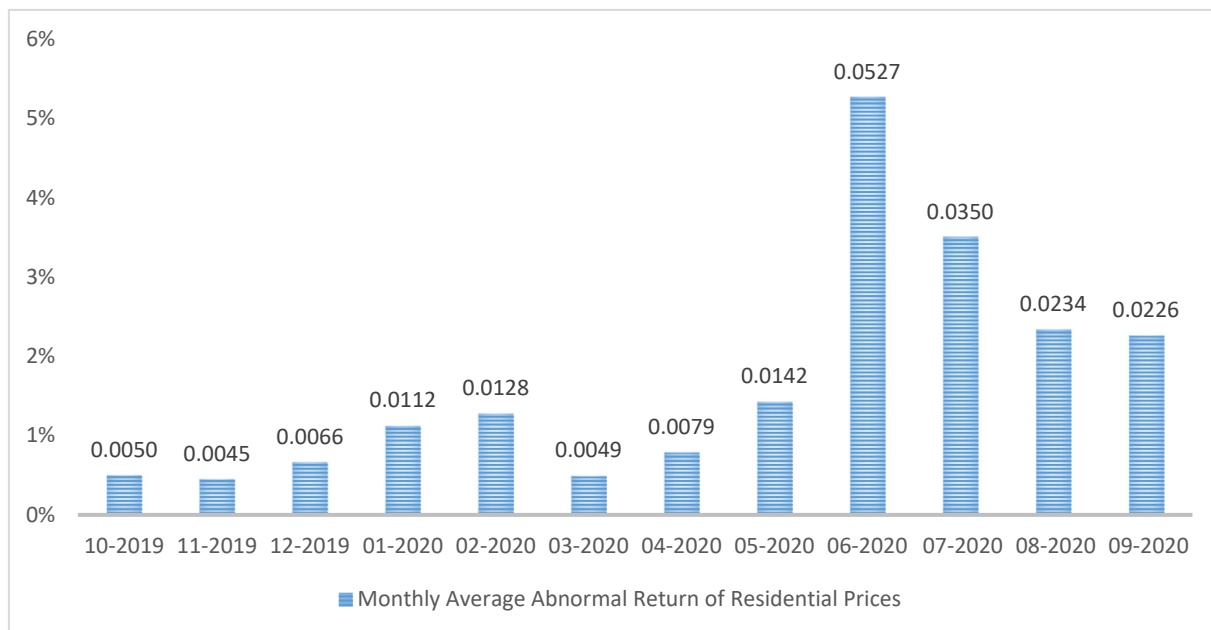


Figure A3. Monthly average abnormal returns (city level).

Source: sahibinden.com and authors' calculations.

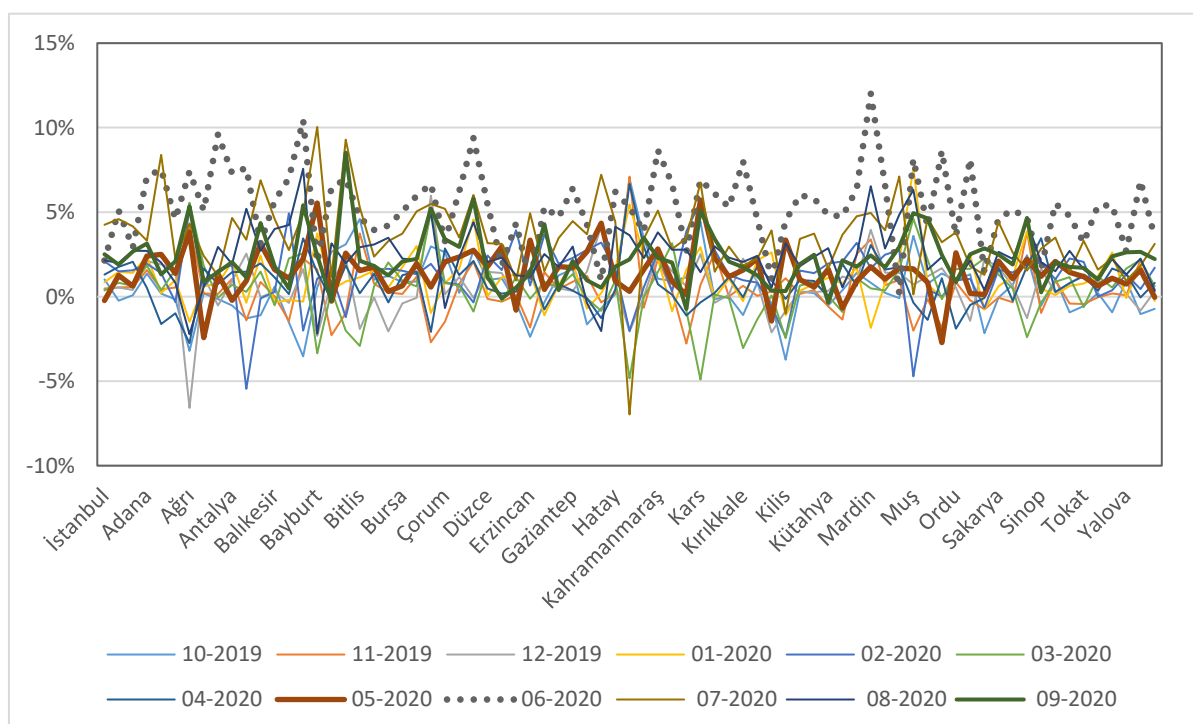


Figure A4. Abnormal returns, by cities.

Source: sahibinden.com and authors' calculations.

B. The results of panel data regressions

Table B1. Results of the two-way model for main and augmented model (regional level).

Variables	1(a)	2(a)	3(a)
β_0	0.0084923*	0.106351*	0.1242128***
<i>Covid</i>	0.0279312***	0.0275***	0.0004514
<i>LP</i>	0.0045525	-0.0240953	-0.024415***
<i>INF</i>	-0.1517248	-0.1629246	-0.0872295
<i>CL</i>	-0.0042444	-0.0043639	-0.0036418
<i>FX</i>	-	-0.2888017**	-0.0278082
<i>INT</i>	-	-0.0073196*	-0.0094213***
<i>XU100</i>	-	-0.0091005	0.0427224**
<i>CCI</i>	-	-	0.1028191***
LR Test Statistics	265.89***	209.05***	28.57***

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.

Table B2. Results of the one-way model for regional level main and augmented model (unit effect).

Variables	1(a)	2(a)	3(a)
β_0	-0.003860**	0.0751643***	0.1137434***
<i>Covid</i>	0.025422***	0.0265432***	0.0008554
<i>LP</i>	0.003663*	-0.0168975***	-0.02221***
<i>INF</i>	1.2710***	0.8523743***	0.2248718*
<i>CL</i>	-0.0122	-0.0141281	-0.0023397
<i>FX</i>	-	-0.1824528***	-0.0040607
<i>INT</i>	-	-0.0057426***	-0.0088517***
<i>XU100</i>	-	-0.0199976*	0.0376105***
<i>CCI</i>	-	-	0.0995273***
LR Test Statistics	0	0	0

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.

Table B3. Results of the one-way model for regional level main and augmented model (time effect).

Variables	1(a)	2(a)	3(a)
β_0	0.0080129*	0.1046831*	0.1221428***
<i>Covid</i>	0.0278329***	0.0275103**	0.0005567
<i>LP</i>	0.0045176	-0.0237149	-0.0239715***
<i>INF</i>	-0.0965753	-0.109008	-0.0250102
<i>CL</i>	-0.0045291	-0.0046663	-0.0038315
<i>FX</i>	-	-0.2831959**	-0.0230775
<i>INT</i>	-	-0.0072352	-0.0093083***
<i>XU100</i>	-	-0.009683	0.0416925***
<i>CCI</i>	-	-	0.1021261***
LR Test Statistics	252.26***	195.38***	15.48***

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.

Table B4. Results of the two-way model for main and augmented model (city level).

Variables	1(a)	2(a)	3(a)
β_0	0.0106299***	0.0191274	0.0282307
<i>Covid</i>	0.0000725	-0.0066274	-0.0174337**
<i>LP</i>	0.032927***	0.0309477***	0.0303703***
<i>INF</i>	0.1197493	0.1754859	0.1445782
<i>CL</i>	-0.0153976**	-0.0157667**	-0.0153316**
<i>FX</i>	-	0.1315275	0.2299331***
<i>INT</i>	-	-0.0009577	-0.0019
<i>XU100</i>	-	0.0350855	0.0566132**
<i>CCI</i>	-	-	0.0412513**
LR Test Statistics	95.04***	64.99***	42.32***

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.

Table B5. Results of the one-way model for city level main and augmented model (unit effect).

Variables	1(a)	2(a)	3(a)
β_0	0.0098821***	0.0075291	-0.0229316
<i>Covid</i>	0.0000439	-0.0069099***	-0.0170763***
<i>LP</i>	0.0330073***	0.0338017***	-0.0315749***
<i>INF</i>	0.2151979	0.5442054***	-0.3007696*
<i>CL</i>	-0.0198025**	-0.0211815***	-0.170989**
<i>FX</i>	-	0.1701957***	-0.2415245***
<i>INT</i>	-	-0.0003598	-0.0016053
<i>XU100</i>	-	0.0303103***	-0.0536301***
<i>CCI</i>	-	-	-0.039354***
LR Test Statistics	2.30*	3.20**	3.97**

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.

Table B6. Results of the one-way model for city level main and augmented model (time effect).

Variables	1(a)	2(a)	3(a)
β_0	0.01062***	0.0190399	-0.0174338
<i>Covid</i>	0.0000682	-0.0066329	-0.0174338**
<i>LP</i>	0.0329246***	0.0309655***	0.0303821***
<i>INF</i>	0.1207747	0.1782038	0.146452
<i>CL</i>	-0.0153514**	-0.0157206**	-0.0152828*
<i>FX</i>	-	0.131794	0.2300723***
<i>INT</i>	-	-0.0009532	-0.0018965
<i>XU100</i>	-	0.0350522	0.0565821**
<i>CCI</i>	-	-	0.0412347**
LR Test Statistics	88.63***	58.6***	35.95***

Note: ***, **, and * denote significance levels of 1%, 5% and 10% respectively.



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