

Spatial impacts of immigration: evidence from the Spanish housing market

Rosa Sanchis-Guarner

London School of Economics
& Spatial Economics Research Centre

TOM Frontiers of Migration Research

Bamberg, 2nd July 2010

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach
 - Descriptives
 - Specification and identification
- 4 Results
 - Main results
 - Housing rents
 - Housing prices
 - Robustness
 - Further results
- 5 Conclusions

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach
- 4 Results
- 5 Conclusions

Economic impacts of immigration

- An inflow of immigrants into a region changes both the **size** and the **composition** (skills/age) of the population and of the labour force
- It has implications on the **design of regional policies** for the provision of public goods and services
- Micro-level effects: effects on the natives/immigrants
 - ① wages, employment of native labour force
 - ② internal mobility (crowding-out effect)
 - ③ assimilation, segregation
- Macro-level effects: aggregate regional / national
 - ① aggregate wages / employment rates
 - ② output mix / Rybczynski effect (HO)
 - ③ productivity / output growth / convergence
 - ④ technology adoption...

Effects on prices

- Immigration inflows can be seen as a **positive shock to demand**
- Given the supply of goods, prices may rise
- They also change wages (costs), so prices may also decrease
- Some empirical **evidence**:
 - ▶ *United States*:
 - ① goods and services (domestic): Cortes (2008)
 - ② housing prices and rents: Saiz (2003, 2007), Ottaviano and Peri (2007)
 - ▶ *United Kingdom*:
 - ① goods prices (Frattini, 2008)
 - ▶ *Other papers (general prices)*:
 - ① World cities (Zachariadis, 2010)
 - ② Israel (Lach, 2007)

Evidence for Spain

- Given the magnitude of the recent immigration phenomenon, a large number of empirical studies have been produced in recent years
- Most of the studies focus on **the effects on the labour market**
 - ▶ Carrasco et al (2008), Amuedo-Dorantes and De la Rica (2008), González and Ortega (2007)
- **Other studies:**
 - ▶ *Assimilation*: Fernández and Ortega (2008), Sanromá et al (2008)
 - ▶ *Productivity*: Kangasniemi et al (2008)
 - ▶ *Pensions system*: Conde Ruiz et al (2008)
 - ▶ *Internal mobility*: Sempere and Ródenas (2008)
 - ▶ *Fiscal effects*: García Pérez et al (2008)
 - ▶ *Welfare state*: Collado-Iturbe (2004)
 - ▶ *Trade*: Peri and Requena (2009)

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach
- 4 Results
- 5 Conclusions

This paper

- **Research questions:**

- ① What is the effect of immigration inflows on housing prices and rents?
- ② Do immigrants of different origin affect these variables differently?
- ③ What is the role of supply?

- **Objective:**

- ▶ I want to infer causality on the relationship between prices/rents and immigration inflows \Rightarrow I use fixed-effects and instrumental variables to identify the parameter of interest

- **Preview of the results:**

- ① For rents I find positive and significant effects
- ② For housing prices, partial correlations show positive effects, while IV results produces mixed sign, although non significant, coefficients
- ③ There is (some) evidence of a differentiated effect on prices/rents by nationality group
- ④ In regions where availability of land is higher, the effect is lower

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach**
 - Descriptives
 - Specification and identification
- 4 Results
- 5 Conclusions

The immigrants in Spain

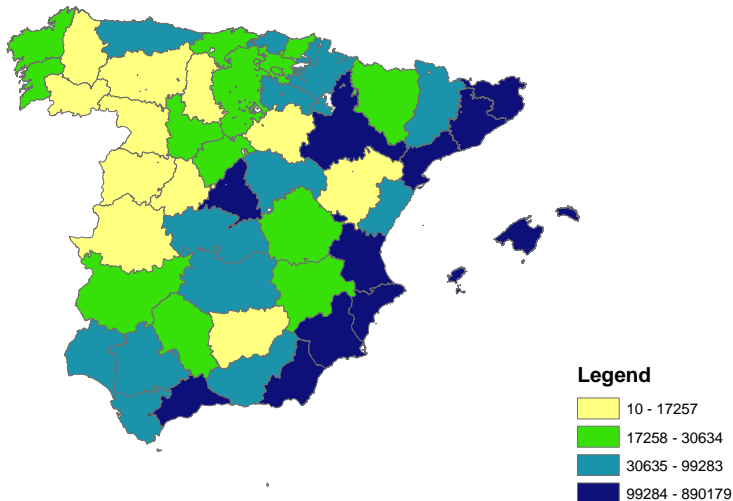
National Immigration Survey 2007: Immigrants living in Spain at the beginning of 2007 aged 16-90 that arrived after 1995

- Very recent phenomenon: 82% of them arrived in 2000-06
- Immigrants are very concentrated by origin: more than 60% come from only 8 countries (Romania, Ecuador, Morocco, Colombia, UK, Argentina, Bolivia and Perú)
- Immigrants are very concentrated by destination: five provinces concentrate more than 50% of the immigrants (Madrid, Barcelona, Alicante, Valencia and Málaga)

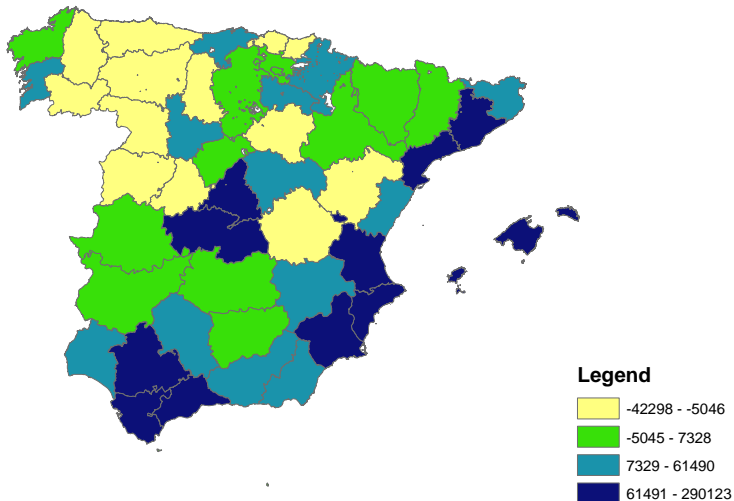
Population registers: Foreign-born residents 1998-2009

- The share of foreign-born grew from less than 2% to 13.6%
- Almost all population growth came from immigration
- Same concentration patterns on origin-destination as above

Immigration inflow 2008-1998



Natives inflow 2008-1998



The Spanish housing market

The numbers (IVIE-FBBVA and Housing Department) growth (p.a. average)

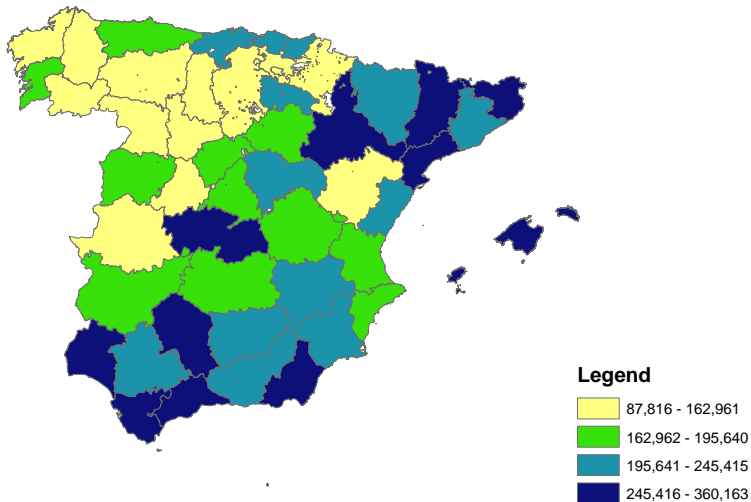
- Rent prices (2002-2009): 28% over the period (3.5% p.a)
- Housing prices (1998-2009): 168% over the period (14% p.a)
- New dwellings (1998-2008): 111% over the period (10% p.a) mostly (80-90%) private (658,000 finished houses in 2006)
- Value of housing stock (1998-2007): 263% over the period (26% p.a)

The immigrants and the housing market

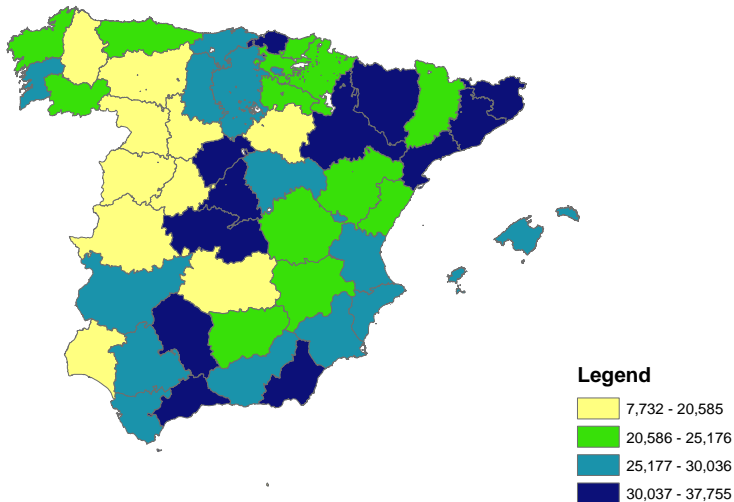
National Immigration Survey

- 60% of immigrants rent and only 21% own the house where they live
- The tenancy status is very different for different nationality groups
 - ▶ EU15 nationalities (12% of total): 60% own
 - ▶ African, East Europe and Latin American (81% of total): 70% rent
- Demand effects on purchase prices: mostly indirect (through rent)

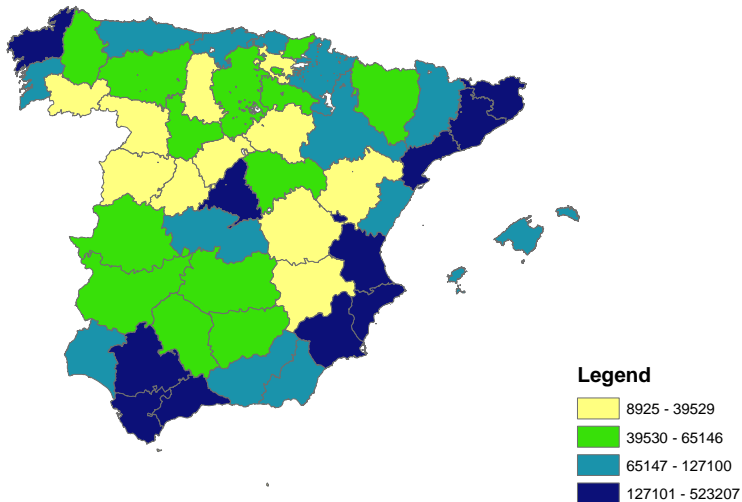
Growth of housing prices 1997-2007



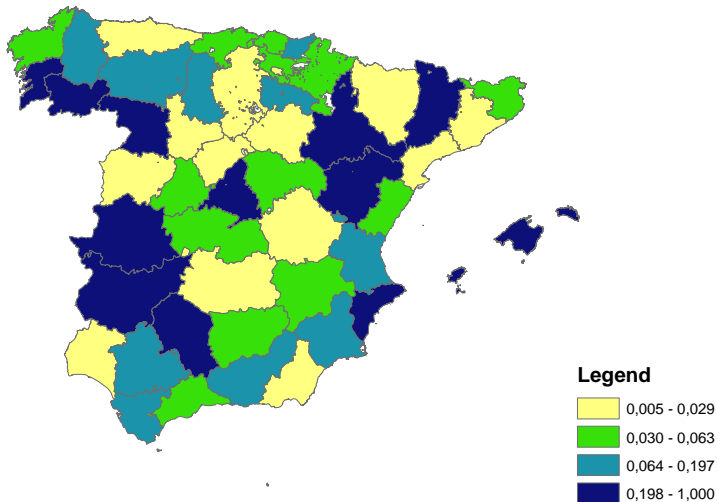
Growth of rents prices 2002-2008



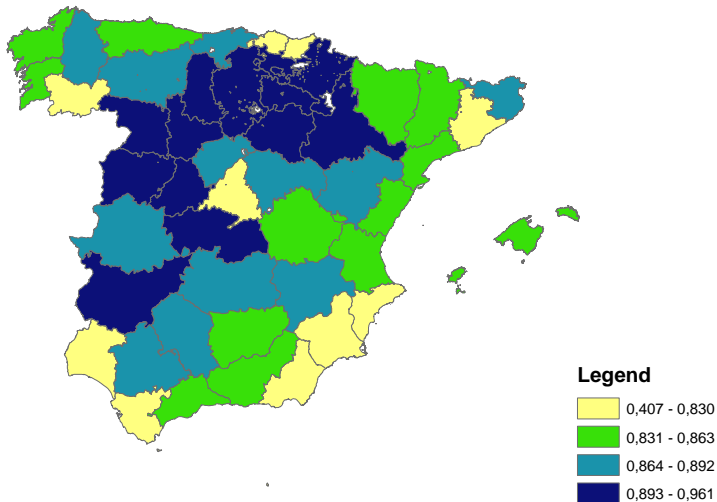
Increment in stock dwellings 1998-2008



Percentage of municipalities with planning in 1999



Ratio of developable/total land in 2000



- **Immigration** data:
 - ▶ National Immigration Survey (Encuesta Nacional de Inmigrantes - 2007) to select the key nationality groups
 - ▶ Population register for total and foreign born population (1998-2009) for net inflows
- **Housing price** data:
 - ▶ Housing prices database from IVIE-FBBVA
 - ▶ Housing Department (quarter data from 1995 to 2010)
 - ▶ Other sources for robustness (IVIE and Valuation Society S.A.)
- **Housing rents** data:
 - ▶ Rents survey (2006) and rents component of the regional CPI (02-09)
- **Controls**: INE, FBBVA-IVIE, Corine Land Cover, IGN
- **Instrumental Variables**:
 - ▶ Historical census data (1991 and 1930)
 - ▶ Gravity model: World Bank, OECD and CEPII

What can I explain?

- I use a panel of NUTS3 regions (provinces) during periods 2003-2009 (rents) and 1997-2007 (prices)
- **Reduced form estimation:** expected effects unclear because immigrants affect housing markets in multiple ways:
 - ▶ *Some issues:*
 - 1 definition of demand (relevant market)
 - 2 displacement of natives
 - 3 selection into different type of housing than natives
 - 4 credit restrictions
 - 5 housing as investment
 - 6 supply response
 - 7 cost effects
 - ▶ Housing "*bubble*": focus on rent prices

Empirical specification

- **Empirical specification** Saiz (2006):

$$\Delta \log(r_{i,t}) = \alpha + \beta \frac{\text{inflow}_{i,t}}{\text{population}_{i,t-1}} + \delta' X_{i,t-1} + \lambda_t + \lambda_r + \varepsilon_{i,t}$$

- **Parameter of interest β :** some interpretations
 - ▶ *Positive*: demand shock / not displacement of natives
 - ▶ *Zero*: perfect displacement of natives / off-setting demand-cost effects
 - ▶ *Negative*: reduced costs / displacement

Identification issues

Identification issues: endogeneity

- Correct identification of β relies on local shocks that affect the prices annual growth ($\varepsilon_{i,t}$) being uncorrelated with the immigration ratio
- If the controls and time fixed-effects do not capture all the correlation between the shocks and immigrations, β is estimated inconsistently
 - ① Time-varying:
GDP growth, unemployment level, number of credit establishments, years of education of the WAP
 - ② Time-invariant:
province located on the coast, coastline length, weather conditions (rainfall, temperature, sun days), number of national parks
 - ③ Supply variables:
lagged inflow/stock of dwellings, ratio developable/total land (2000), % of rented dwellings in 2001, % of municipalities with planning in 1999, mean province land ruggedness (Nunn-Puga)

Identification strategies

- **First strategy:** Fixed-effects estimation

- ▶ The empirical specification is in *first differences*: unobservable fixed-effects that affect the level of prices are removed
- ▶ Decompose $\varepsilon_{i,t}$ into a time-varying component $\xi_{i,t}$ (assumed they are orthogonal to the immigration ratio) and a time-invariant (trend) component which is *correlated* with the immigration ratio
 - ★ Unobservable fixed-effects that affect the change of prices λ_r (regional and provincial *trends*) are explicitly reintroduced (*second differences*)

- **Second strategy:** Instrumental variables estimation

- ▶ What if $\xi_{i,t}$ correlated with immigration? *inconsistency* \Rightarrow use IV that correlated with the ratio and uncorrelated with the local shocks

1 Shift-share instrument (Peri, 2009):

- ▶ Shift-share methodology: historical location patterns by nationality are correlated with current location patterns but uncorrelated with local shocks

- ▶ Predicted foreign-born population of nationality n in province i at t :

$$imp_FB_{i,t}^n = \left(\frac{FB_{i,base}^n}{\sum_j FB_{j,base}^n} \right) * \left(\sum_{j \neq i}^J FB_{j,t}^n \right) = share_{i,base}^n * \left(\sum_{j \neq i}^J FB_{j,t}^n \right)$$

- ▶ National inflow by nationality $\left(\sum_{j \neq i}^J FB_{j,t}^n \right)$ can still be correlated with local shocks \Rightarrow can use a prediction of it (push factors gravity model)

- ▶ Predicted foreign-born in i at t : $imp_FB_{i,t} = \sum_n^N \left(imp_FB_{i,t}^n \right)$

- ▶ Instrument for immigration ratio in i at t : $IV_ratio_{i,t} = \frac{(imp_FB_{i,t+1} - imp_FB_{i,t})}{imp_FB_{i,t} + natives_{i,t}}$

2 Weddings IV:

- ▶ I use two lags of the proportion of non-catholic/(catholic and civil) weddings
- ▶ Same idea of '*ethnic*' networks

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach
- 4 Results**
 - Main results
 - Housing rents
 - Housing prices
 - Robustness
 - Further results
- 5 Conclusions

Housing rents

OLS and Fixed Effects - only immigration ratio

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	0.420 [0.102]***	0.389 [0.123]***	0.353 [0.145]**	0.412 [0.153]***	0.068 [0.148]
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
Adjusted R^2	0.051	0.156	0.173	0.197	0.039
F-stat model	3.593	5.258	4.148	3.304	1.846

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing rents

IV: one instrument - Census 1991 shares (with prediction for national inflow)

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	1.378 [0.452]***	1.144 [0.983]	0.933 [0.536]*	1.302 [0.589]**	0.912 [1.087]
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
F-stat model	2.255	4.322	4.789	3.660	5.263
F-stat weak identification	24.540	4.539	36.868	26.101	3.863

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing rents

IV: two instruments - Census 1991/1940 shares (with prediction for national inflow)

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	0.734 [0.304]**	0.241 [0.671]	0.921 [0.532]*	1.182 [0.537]**	0.827 [0.992]
Observations	300	300	300	300	300
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
F-stat model	1.863	4.878	4.829	3.873	5.452
F-stat weak identification	15.690	2.914	19.115	15.580	2.386
P-value Hansen-J	0.001	0.059	0.602	0.385	0.795

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing rents

IV: two instruments - Census 1991 shares (with prediction for national inflow) and *weddings* instrument

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	1.225 [0.387]***	0.769 [0.637]	0.935 [0.532]*	1.131 [0.526]**	0.629 [0.979]
Observations	300	300	300	300	300
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
F-stat model	2.431	4.709	4.772	3.935	5.865
F-stat weak identification	13.868	4.647	19.932	17.306	2.515
P-value Hansen-J	0.474	0.598	0.978	0.371	0.477

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

OLS and Fixed Effects - only immigration ratio

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	1.164 [0.227]***	1.142 [0.264]***	0.842 [0.279]***	0.940 [0.312]***	0.860 [0.380]**
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
Adjusted R^2	0.543	0.575	0.582	0.586	0.588
F-stat model	104.500	52.753	73.062	47.180	122.157

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

IV: one instrument - Census 1991 shares (with prediction for national inflow)

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	1.177 [0.773]	-2.221 [2.368]	0.507 [1.286]	-0.192 [1.456]	-11.737 [11.726]
Observations	300	300	300	300	300
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
F-stat model	101.201	42.338	39.348	30.291	5.982
F-stat weak identification	75.856	13.082	65.500	42.741	1.330

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

IV: two instruments - Census 1991/1940 shares (with prediction for national inflow)

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	0.379 [0.638]	-2.811 [1.724]	0.579 [1.286]	0.224 [1.399]	-7.793 [6.411]
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
F-stat weak identification	47.395	8.547	33.460	24.206	1.267
P-value Hansen-J	0.021	0.654	0.037	0.136	0.453

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

IV: two instruments - Census 1991 shares (with prediction for national inflow) and *weddings* instrument

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	1.212 [0.704]*	-2.122 [1.908]	0.493 [1.286]	-0.285 [1.448]	-11.720 [11.718]
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
F-stat weak ident	40.936	8.412	33.119	22.353	0.664
P-value Hansen-J	0.847	0.921	0.311	0.539	0.701

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Robustness tests

Robustness checks:

- ① IV without prediction of total national inflow:
⇒ same results
- ② lagged:
⇒ almost same results (changes for IV)
- ③ gross inflows:
⇒ almost same results (changes for IV)
- ④ other housing prices:
⇒ same results

Further results

Other results (*very preliminary*):

- ① controlling for natives inflows (not IV for natives!):
 - ▶ OLS and IV results for housing rents show no effect of native inflows while the effect of immigrants remains
 - ▶ OLS and IV results for housing price show no effect of immigrants inflows while the effect of natives is very persistent
- ② taking into account the role of the supply:
 - ▶ I use an interaction term of share of developable land (in 2000) with the immigration ratio
⇒ results (OLS-FE) suggest that the effects were smaller where there was more land to be built
- ③ by buyers/renters nationality groups:
 - ▶ "*buyers*" do not seem to have any effect neither on rents nor on prices
⇒ not surprising (only 12% of the immigrants)
 - ▶ "*renters*" seem to have some effect both on rents and on prices
⇒ do for FE, not for IV

Housing rents

OLS and Fixed Effects - adding the natives

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	0.302 [0.112]***	0.327 [0.134]**	0.301 [0.148]**	0.306 [0.157]*	0.111 [0.147]
Natives ratio	0.291 [0.152]*	0.184 [0.162]	0.220 [0.184]	0.411 [0.192]**	-0.763 [0.384]*
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
Adjusted R^2	0.064	0.158	0.174	0.207	0.052
F-stat model	3.521	5.169	3.931	3.243	1.725

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

OLS and Fixed Effects - adding the natives

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	0.519 [0.242]**	0.774 [0.275]***	0.558 [0.287]*	0.647 [0.324]**	0.653 [0.377]*
Natives ratio	1.378 [0.301]***	1.102 [0.363]***	1.237 [0.426]***	1.251 [0.442]***	1.895 [0.648]***
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
Adjusted R^2	0.566	0.585	0.591	0.595	0.599
F-stat model	92.275	47.516	68.587	44.988	130.748

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

OLS and Fixed Effects - the role of the supply

	(1)	(2)	(3)	(4)	(5)
Immigration ratio	3.148 [1.455]**	7.859 [2.610]***	4.228 [2.298]*	7.070 [2.934]**	9.893 [2.601]***
Interaction ratio with developable ratio	-1.720 [0.704]**	-2.587 [1.532]*	-0.291 [1.047]	-2.797 [1.649]*	-4.161 [1.216]***
Interaction ratio with ruggedness measure	-0.172 [0.355]	-1.318 [0.567]**	-0.904 [0.552]	-1.121 [0.646]*	-1.634 [0.669]**
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
Adjusted R^2	0.543	0.578	0.582	0.587	0.592
F-stat model	96.585	50.237	68.680	45.145	112.587

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing rents

OLS and Fixed Effects - different immigrants' groups

	(1)	(2)	(3)	(4)	(5)
Immigration ratio - buyers	-0.002 [0.014]	-0.009 [0.015]	-0.016 [0.016]	-0.019 [0.016]	-0.013 [0.016]
Immigration ratio - renters	0.016 [0.013]	0.032 [0.013]**	0.024 [0.015]	0.029 [0.015]*	0.023 [0.014]*
Immigration ratio - other	-0.015 [0.009]*	-0.008 [0.010]	-0.018 [0.009]*	-0.019 [0.009]**	-0.024 [0.009]**
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	300	300	300	300	300
Adjusted R^2	0.002	0.140	0.169	0.196	0.068
F-stat model	1.191	4.358	4.127	3.415	3.777

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing prices

OLS and Fixed Effects - different immigrants' groups

	(1)	(2)	(3)	(4)	(5)
Immigration ratio - buyers	0.048 [0.021]**	0.031 [0.016]*	0.041 [0.016]**	0.043 [0.017]**	0.041 [0.019]**
Immigration ratio - renters	-0.021 [0.010]**	-0.011 [0.011]	-0.016 [0.012]	-0.018 [0.012]	-0.015 [0.013]
Immigration ratio - other	0.026 [0.021]	0.027 [0.020]	0.007 [0.020]	0.009 [0.019]	0.001 [0.022]
Time varying controls	No	Yes	Yes	Yes	Yes
Time invariant controls	No	Yes	No	Yes	No
Supply controls	No	Yes	No	Yes	No
Time fixed-effects	Yes	Yes	Yes	Yes	Yes
Region fixed-effects	No	No	Nuts2	Nuts2	Nuts3
Observations	550	550	550	550	550
Adjusted R^2	0.532	0.566	0.581	0.585	0.588
F-stat model	91.119	47.857	64.182	42.094	112.169

Robust s.e. in brackets; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Outline

- 1 Introduction
- 2 Research questions
- 3 Empirical Approach
- 4 Results
- 5 Conclusions**

Conclusions and limitations

● Main results:

- ▶ OLS-FE estimates suggest *positive* effects of immigration on both prices and rents
- ▶ IV estimates find a positive and significant effect of immigration on housing rents (1.3%) but no effect on housing prices
- ▶ These results are different from González and Ortega (2009) but confirm García-Montalvo (2010)
- ▶ They are quite robust to different specification tests

● Limitations:

- ▶ Housing rents seem a better proxy if want to assess demand effects
- ▶ Effects on housing prices are difficult to disentangle because an important part of price raises may not be due to demand increases
 - ① *housing bubble*
 - ② housing as an *investment asset*, not a consumption good
- ▶ Limited analysis: short panel, big regions, aggregated data on prices and immigrants