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Immigration and property prices: Evidence from England and Wales

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Abstract:

This paper investigates the link between immigration and property prices in England and Wales. Evidence from fixed effects and shift-share-based instrumental variable regressions suggests that an increase in the regional share of migrants (a) decreases prices at the lower end of the distribution up to the median and (b) has (almost) no effect on mean property prices or prices above the median. I also provide evidence on two mechanisms that explain these effects: (c) natives move out of regions as immigration increases and (d) the number of persons per room increases with the share of immigrants.

Keywords: Immigration; property prices; housing market; England; Wales
JEL Classification: J15; R21; R31

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1. Introduction

This paper investigates the link between immigration and property prices in England and Wales. I use census data from the 2001 and 2011 UK censuses combined with property price data from the UK Land Registry. Evidence from fixed effects and shift-share-based instrumental variable regressions suggests that an increase in the regional share of migrants (a) decreases prices at the lower end of the distribution up to the median and (b) has (almost) no effect on mean property prices or prices above the median. I also provide evidence on two mechanisms that explain these effects: (c) natives move out of regions as immigration increases and (d) the number of persons per room increases with the share of immigrants, i.e., existing properties become more crowded.

Much of the academic discussion on the impact of immigration has focused on wages.¹ In contrast, there is comparatively little evidence on whether and how immigration affects housing markets. Theoretically, an increase in (net) immigration into an area can go both ways: Firstly, if it increases the regional population it represents an increase in demand, which should increase prices. Secondly, it might lower property prices if an inflow of immigrants leads to an outflow of natives (i.e., segregation) and thus to a drop in demand. Which of the two effects dominates will, inter alia, depend on the relative magnitude of the in- and outflows as well as potential differences in willingness to pay for housing space between immigrants and natives.

¹ See, e.g., the recent symposium in the *Journal of the European Economic Association* (Card, Dustmann and Preston, 2012; Manacorda, Manning and Wadsworth, 2012; Ottaviano and Peri, 2012; Borjas, Grogger and Hanson, 2012; Card, 2012; Dustmann and Preston, 2012).

The (sparse) empirical evidence seems more in favor of the first explanation: Saiz (2003) looks at Miami after the Mariel Boatlift led to an influx of Cuban immigrants. His findings indicate an increase in rents, in particular at the low end of the market, relative to four comparison cities by 8 to 11% in the short run. At the same time, house prices appeared to drop – which he explains by an outflow of natives – and there was a short-run increase in the persons per bedroom. In a later study for US cities (Saiz, 2006), he finds that immigration shocks equal to 1% population growth increase average rents and housing values by approximately 1%. Ottaviano and Peri (2006) find a similar result for rents (and wages) in 160 American cities. Evidence from Spain (Gonzalez and Ortega, 2013) indicates that an average annual increase in the share of migrants by 1.5% led to an annual increase in housing prices by 2% and to an increase by 1.2 to 1.5% increase in housing units.

This paper adds to this sparse literature in several dimensions: Firstly, it provides first evidence for the UK, where the impact of immigration on housing markets (and the availability of properties and their prices more generally) has received considerable attention in the public. Secondly, it provides evidence on the impact of immigration along several points of the property price distribution. Thirdly, it considers two potential explanations for changes in house prices, namely the outflow of natives and changes in the usage of existing properties, i.e., whether the existing housing stock becomes increasingly crowded in the response to immigration.

2. Data and estimation

I use two main data sources: Property prices are based on data from the Land Registry where every property transaction in England and Wales (including its price) needs to be registered. For 2001, this data is available on the local authority level from

<http://neighbourhood.statistics.gov.uk/>. For 2011, the raw data was obtained from the Land Registry at <http://www.landregistry.gov.uk/market-trend-data/public-data/price-paid-data> and aggregated at the level of the 2001 local authorities. Data on immigration and housing usage comes from the 2001 and 2011 censuses. As several local authorities changed between 2001 and 2011, the data was obtained on the level of the local layer super-output areas used by the census (which are consistent over time) and then aggregated on the level of the 2001 local authorities.²

In terms of variables, the available data contains the number the 2nd, 25th, 75th and 98th percentile of the property price distribution in each region and year as well as the median and the mean price. I also have information on the local (overall and native) population and the share of households with 0.5 to 1 and with more than 1 person per room in their property. Immigrants are measured by the number/share of individuals born outside of England, Wales, Scotland and Northern Ireland. Table 1 presents descriptive statistics.

(Table 1 about here.)

Estimation is based on

$$y_{it} = \alpha_i + \delta_t + \tau * (\text{share migrants})_{it} + \varepsilon_{it}, \quad (1)$$

where i indexes regions, t years, α_i is a local authority fixed effect, δ_t is a dummy for 2011 and τ is identified using the variation in the share of migrants in a region relative to the regional population from 2001 to 2011. Standard errors are clustered on the local authority level.

A major concern with (1) is that the change in immigrants might be correlated with other (unobserved) changes on the regional level, such as economic conditions. This would introduce correlation between $(\text{share migrants})_{it}$ and ε_{it} and would bias the

² Local authorities are regional administrative units. In 2011 there were 376 local authorities in England and Wales.

estimates. The direction of the bias is a priori unknown as immigrants could be attracted to “cheap” regions that experienced negative shocks to property prices (leading to a downward bias in τ) or to economically prosperous regions with increasing property prices (leading to upward bias). In addition to the regional fixed effects, which take into account time-constant regional factors such as local amenities, this paper follows Saiz (2006), Ottaviano and Peri (2006) and Gonzalez and Ortega (2013) in using the shift-share instrument originally introduced by Card (2001). The instrument effectively redistributes the nationwide change in immigrants according to the initial distribution of immigrants across regions, so that a region that is initially home to, say, 5% of all immigrants would receive 5% of all new immigrants that enter the country during the observation period. The idea underlying this instrument is that new migrants are more likely to settle in regions with a substantial immigrant population, which leads to a correlation between the initial share of immigrants and changes in the share of immigrants. At the same time, the initial shares are likely to be unrelated to any future changes that might affect immigrants’ location decisions.

To give an example on how the instrument is constructed: The number of immigrants in the census data increased from 4,550,799 in 2001 to 7,337,139 in 2011 (or by 2,786,340). A region that housed 1% of the migrants in 2001 (or 45,508) would then receive an additional influx of $0.01 * 2,786,340$ immigrants over the period 2001 to 2011.³ This influx is used to construct a predicted share of migrants – in our example $45,508 + 0.01 * 2,786,340$ or 73371.4 – that is then used as an instrument for the actual (observed) share of migrants.

(Table 2 about here.)

³ A more refined version would additionally use information on nationalities as in Card (2001), Saiz (2006) or Gonzalez and Ortega (2013). Unfortunately, disaggregated nationalities are not available in the published census data, which rules out this method.

Table 2 presents first stage statistics for these estimates. One can see that past migration patterns are predictive of current migration patterns: A 1 percentage point increase in the predicted share leads to a 0.45 percentage point increase in the observed share of migrants. The instrument is also fairly strong with a first stage F-value of 21.

3. Results

Table 3 presents the basic relationship between immigration, the number of property sales and (log) property prices. Both the simple fixed effects as well as the IV estimates suggest a negative impact of immigration on prices below or at the median: Prices drop on average by 3% at the 2nd percentile, by 2% at the 25th percentile and by 1% at the median. IV estimates are also consistently larger in magnitude than the basic fixed effects estimates. There does not appear to be any effect on the 75th or the 98th percentile or the regional mean price of properties. This finding is consistent (although not fully comparable due to different outcomes) with Saiz (2003) who also found stronger effects for housing at the lower end of the rent distribution.

(Table 3 about here.)

There are several potential explanations for this finding (also considered by Saiz, 2003): First, if natives try to leave the region in response to an increase in the number of immigrants, total population could drop leading to a decrease in the demand for housing. Second, immigrants could be willing to (at least initially) accept more crowded living conditions, meaning that more people could live in the same housing stock.

(Table 4 about here.)

Table 4 provides some evidence on these alternative explanations. First, the absolute number of natives in a region indeed drops by between 1000 and 1300 for a 1-percentage point increase in the share of migrants, even though the overall population still increases by around 1700 to 2200. Second, there is also evidence that living conditions become more crowded following an increase in the number of migrants: The share of households with 0.5 to 1 person per room increases by 0.5 to 0.9 percentage points, while the share of households with more than 1 person per room increases by around 0.1 percentage points. These two findings as well as the drop in housing prices are relatively similar to the US results by Saiz (2003).

4. Conclusion

Increases in immigration seem to lead to lower house prices in England and Wales, in particular at the lower end of the price distribution. This effect seems to be caused by an outflow of natives following an increase in the number of migrants (even though the population still increases) and more crowded living conditions for households in the affected regions. These effects are similar to evidence from the US (Saiz, 2003), but differ from available results for Spain (Gonzalez and Ortega, 2013).

References

- Borjas, George J., Jeffrey Grogger and Gordon H. Hanson (2012). Comment: On estimating elasticities of substitution. *Journal of the European Economic Association* 10(1), pp. 198-210.
- Card, David (2001). Immigrant inflows, native outflows and the local labor market impacts of higher immigration. *Journal of Labor Economics* 19(1), 22–61.

- Card, David (2012). Comment: The elusive search for negative wage impacts of immigration. *Journal of the European Economic Association* 10(1), pp. 211-215.
- Card, David, Christian Dustmann and Ian Preston (2012). Immigration, wages and compositional amenities. *Journal of the European Economic Association* 10(1), pp. 78-119.
- Dustmann, Christian and Ian Preston (2012). Comment: Estimating the effect of immigration on wages. *Journal of the European Economic Association* 10(1), pp. 216-223.
- Gonzalez, Libertad and Francesc Ortega (2013). Immigration and housing booms: Evidence from Spain. *Journal of Regional Science* 53(1), pp. 37-59.
- Manacorda, Marco, Alan Manning and Jonathan Wadsworth (2012). The impact of immigration on the structure of wages: Theory and evidence from Britain. *Journal of the European Economic Association* 10(1), pp. 120-151.
- Ottaviano, Gianmarco I.P. and Giovanni Peri (2006). The economic value of cultural diversity: Evidence from US cities. *Journal of Economic Geography* 6(1), pp. 9-44.
- Ottaviano, Gianmarco I.P. and Giovanni Peri (2012). Rethinking the impact of immigration on wages. *Journal of the European Economic Association* 10(1), pp. 152-197.
- Saiz, Albert (2003). Room in the kitchen for the melting pot: Immigration and rental prices. *Review of Economics and Statistics* 85(3), pp. 502-521.
- Saiz, Albert (2006). Immigration and housing rents in American cities. *Journal of Urban Economics* 61(2), pp. 345-371.

Table 1: Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
Share of migrants (actual)	8.89	9.04	1.13	54.96
Share of migrants (shift-share predicted)	9.24	9.88	1.13	71.30
No. of property transactions per year	2503.7	1742.4	16	18,744
Property price, 2 nd percentile	54,001	31,689	4000	237,999
Property price, lower quartile	105,094	57,267	16,000	485,438
Property price, median	140821	77,402	33,000	795,000
Property price, upper quartile	199,711	120,324	44,975	1,600,000
Property price, 98 th percentile	491,852	419,177	97,000	5,950,000
Property price, mean	170,701	107,048	36,673	1,340,224
Share of HHs with 0.5 to 1 persons per room	25.69	4.38	16.97	42.89
Share of HHs with more than 1 persons per room	1.58	1.64	0.40	15.96
Number of natives	125,503	78,341	2070	815,827
Regional population	141,097	93,233	2153	978,987
Observations	752			

Table 2: First stage regression

Outcome: actual migrant share (0 to 100)	
Shift-share predicted share of migrants (0 to 100)	0.446*** (0.097)
First stage F-value (instrument)	21.22
Observations	752

***/**/* denote statistical significance on the 10%, 5% and 1% level respectively. Coefficients, cluster-robust standard errors in parentheses. All estimates include a dummy for 2011 and local authority-fixed effects.

Table 3: Immigration and property transactions

	Fixed effects	IV
	Number of property transactions per year	
Actual migrant share (0 to 100)	-131.995*** (17.598)	-129.726*** (33.606)
	Ln property prices, 2 nd percentile	
Actual migrant share (0 to 100)	-0.014*** (0.004)	-0.031*** (0.007)
	Ln property prices, lower quartile	
Actual migrant share (0 to 100)	-0.007*** (0.002)	-0.020*** (0.004)
	Ln property prices, median	
Actual migrant share (0 to 100)	-0.006*** (0.002)	-0.013*** (0.003)
	Ln property prices, upper quartile	
Actual migrant share (0 to 100)	-0.001 (0.001)	0.001 (0.004)
	Ln property prices, 98 th percentile	
Actual migrant share (0 to 100)	-0.001 (0.003)	0.009 (0.006)
	Ln property prices, mean	
Actual migrant share (0 to 100)	-0.003** (0.001)	-0.004 (0.004)
Observations	752	752

Each cell is from a separate regression. ***/**/* denote statistical significance on the 10%, 5% and 1% level respectively. Coefficients, cluster-robust standard errors in parentheses. All estimates include a dummy for 2011 and local authority-fixed effects.

Table 4: Immigration, regional population and room usage of properties

	Fixed effects	IV
	Regional population	
Actual migrant share (0 to 100)	1745.970*** (197.914)	2156.069*** (325.324)
	Number of natives	
Actual migrant share (0 to 100)	-977.261*** (104.972)	-1309.888*** (218.490)
	Share of HHs with 0.5 to 1 persons per room	
Actual migrant share (0 to 100)	0.571*** (0.032)	0.876*** (0.081)
	Share of HHs with more than 1 person per room	
Actual migrant share (0 to 100)	0.114*** (0.013)	0.084** (0.036)
Observations	752	752

Each cell is from a separate regression. ***/**/* denote statistical significance on the 10%, 5% and 1% level respectively. Coefficients, cluster-robust standard errors in parentheses. All estimates include a dummy for 2011 and local authority-fixed effects.