Market entry in the care homes sector*

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Abstract

This study investigates the effects of house prices in the English care homes market. High house prices, as experienced currently in England, may disincentive the entry in certain markets restricting the access to long term care services in these areas. Alternatively, these areas may also suppose business opportunity. We provide evidence in order to disentangle these effects. Our results suggest that higher house prices increase the rate care homes. Based on unique dataset that collates information from several sources our analysis exploits planning regulations to address empirical limitations associated with the house prices. Our findings contribute to inform policy makers about the relationship between the long term care and housing markets.

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Contents

1 Introduction

England has experienced the fastest growth in house prices amongst all OECD country during the last decades. This inflationary trend has had consequences for both households, materialised in the so called "house affordability crisis", and to less extent businesses. In this paper we investigate the relationship between the house prices and the market structure of an industry that typically operates with low margins, the care homes that provide long term care services. Our interest in the long term care is not trivial. Elements such as the ageing of the population or some socioeconomic changes that include the inclusion of more women in the labour force as well as the composition of different family structures, have shifted informal caregiving towards more formal long term care provision. These patterns evidence the importance of this sector in the forthcoming decades. Yet, despite the will of policy makers to design policies that preserve a sustainable provision of long term care and that also ensure competitive market structures, there is limited evidence for the design of these policies. We aim at informing these policies by analysing the extent of the effect of high prices in the housing market on the entries in the market of care homes.

Table 1: First stage results, dependent variable average house prices (log)

	Average house prices (log)			
	Refusal rate	Delay change	Labour share	Population density 1911
	3.142***	-0.561***	-2.312***	0.0001***
	(0.1608)	(0.0853)	(0.34083)	(0.0001)
Observations	945	945	945	945
F(excluded instruments)	206.50***	47.26***	58.04***	43.85***
Cragg-Donald Wald F statistic	641.313	192.834	392.101	261.942
Kleibergen-Paap Wald rk F statistic	206.502	47.264	58.043	43.854
Hansen J statistic	5.458**	1.918	10.117***	

Notes All regressions include the following controls. Share of people 85+, Share of people receiving Attendance Allowance, Share of people with pension credits, Share of females claiming for Job Seekers Allowance, Share of adults with income support, Herfindahl-Hirschmann Index, share of Labour voters for 2015. All regressions include fixed effect controls at county level. Robust standard errors in parentheses. Standard errors are clustered at local planning authority level. ***/**/*/$^{+}$ denote significance levels at 1%, 5%, 10% and 15%. Standard errors are presented in parentheses.

Table 2: Second stage results, effects on care homes entry

	(1)	(2)	(3)	(4)	(5)
Average house prices (log)	-0.270***	-0.0254	-0.332***	-0.188**	-0.414***
	(0.0597)	(0.130)	(0.0965)	(0.0938)	(0.0913)
Observations	945	945	945	945	945
F	51.27***	31.26***	11.80***	2.128	20.45***
R-squared	0.052	0.184	0.049	0.053	0.037

Notes All regressions include the following controls. Share of people 85+, Share of people receiving Attendance Allowance, Share of people with pension credits, Share of females claiming for Job Seekers Allowance, Share of adults with income support, Herfindahl-Hirschmann Index, share of Labour voters for 2015. All regressions include fixed effect controls at county level. Robust standard errors in parentheses. Standard errors are clustered at local planning authority level. ***/**/*/$^{+}$ denote significance levels at 1%, 5%, 10% and 15%. Standard errors are presented in parentheses.

Table 3: Robustness check, effects of lagged house prices on care home entry

	(1)	(2)	(3)	(4)	(5)
Average lagged house price (log)	-0.250***	-0.022	-0.357***	-0.193*	-0.469***
	(0.039)	(0.1286)	(0.107)	(0.0994)	(0.0994)
Observations	945	945	945	945	945
F	41.73***	27.76***	38.93***	58.35***	34.60***
R-squared	0.042	0.184	0.035	0.048	0.010
Cragg-Donald Wald F statistic			157.422	384.978	202.022
Kleibergen-Paap Wald rk F statistic			38.926	58.353	34.604
Hansen J statistic			2.438	10.227***	

Notes All regressions include the following controls. Share of people 85+, Share of people receiving Attendance Allowance, Share of people with pension credits, Share of females claiming for Job Seekers Allowance, Share of adults with income support, Herfindahl-Hirschmann Index, share of Labour voters for 2015. All regressions include fixed effect controls at county level. Robust standard errors in parentheses. Standard errors are clustered at local planning authority level. ***/**/*/$^{+}$ denote significance levels at 1%, 5%, 10% and 15%. Standard errors are presented in parentheses.

Table 4: Second stage results, effects of house prices on care homes entry

	Top and bottom 5% excluded					London excluded				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10
Average lagged price (log)	-0.148***	0.110	-0.0105	0.0669	-0.0906	-0.232***	0.0968	-0.360*	0.477	-0.868**
	(0.0328)	(0.0666)	(0.128)	(0.115)	(0.160)	(0.0477)	(0.122)	(0.205)	(0.532)	(0.396)
Observations	851	851	851	851	851	849	849	849	849	849
F	20.21***	23.01***	61.49***	59.03***	81.00***	23.68***	24.31***	32.81***	12.08***	23.88***
R-squared	0.023	0.171	0.020	0.020	0.020	0.027	0.167	0.019	-0.179	-0.177
Cragg-Donald Wald F statistic			93.197	219.308	91.879			68.589	20.776	50.042
Kleibergen-Paap Wald rk F statistic			61.494	59.034	80.996			32.808	12.080	23.880
Hansen J statistic			0.452	5.641**				4.123**	6.329**	

Notes All regressions include the following controls. Share of people 85+, Share of people receiving Attendance Allowance, Share of people with pension credits, Share of females claiming for Job Seekers Allowance, Share of adults with income support, Herfindahl-Hirschmann Index, share of Labour voters for 2015. All regressions include fixed effect controls at county level. Robust standard errors in parentheses. Standard errors are clustered at local planning authority level. ***/**/*/$^{+}$ denote significance levels at 1%, 5%, 10% and 15%. Standard errors are presented in parentheses.

Table 5: Second stage results, effects of house prices on care homes entry

	(1)	(2)	(3)	(4)	(5)
Per capita residential expenditure	-0.133	0.292	0.903	0.363	0.891
	(0.125)	(0.304)	(0.620)	(0.441)	(0.632)
Observations	945	945	945	945	945
F	1.13	18.97***	32.39***	48.18***	46.74***
R-squared	0.001	0.349	0.338	0.356	0.338
Cragg-Donald Wald F statistic			239.469	315.479	423.757
Kleibergen-Paap Wald rk F statistic			32.386	48.185	46.736
Hansen J statistic			0.008	9.960***	

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Table 6: Second stage results, effects of house prices on care homes entry

	Good quality care homes					Bad quality care homes				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Quality rating	0.155***	0.0776	-0.0410	0.0800	0.0540	0.0324***	0.0581***	0.0177	0.0100	0.0281
	(0.0421)	(0.0710)	(0.0847)	(0.0703)	(0.0989)	(0.00874)	(0.0162)	(0.0214)	(0.0201)	(0.0272)
Observations	945	945	945	945	945	945	945	945	945	945
F	13.54***	44.12***	47.26***	58.04***	43.85***	13.71***	76.89***	47.26***	58.04***	43.85***
R-squared	0.014	0.221	-0.008	0.012	0.008	0.014	0.356	0.011	0.012	0.014
Cragg-Donald Wald F statistic			192.834	392.10	261.942			192.83	392.101	261.942
Kleibergen-Paap Wald rk F statistic			47.264	58.04	43.854			47.26	58.043	43.854
Hansen J statistic			3.311*	0				0.880	0.595	

Notes All regressions include the following controls. Share of people 85+, Share of people receiving Attendance Allowance, Share of people with pension credits, Share of females claiming for Job Seekers Allowance, Share of adults with income support, Herfindahl-Hirschmann Index, share of Labour voters for 2015. All regressions include fixed effect controls at county level. Robust standard errors in parentheses. Standard errors are clustered at local planning authority level. ***/**/*/$^{+}$ denote significance levels at 1%, 5%, 10% and 15%. Standard errors are presented in parentheses.