## Results

## House prices and care homes

Table (4) reports the main results of our baseline model based on Eq. (1) in which we estimate the effect of house price on the proportion of care homes.

[INSERT TABLE 3 HERE]

The results reported in column (1) show OLS estimates that indicate a negative relationship between the house prices and the distribution of care. Figure (6) illustrates this association which is negative and significant at the 1% level. As discussed before, these estimates should not be read as a causal link. This is because there may be factors affecting the level of house prices that also affect the decision of long term care providers to choose those locations.

[INSERT FIGURE 6 HERE]

Next columns present IV estimates using different combinations of the instruments . The coefficients derived from all the IV specifications suggest that higher prices in the housing markets affect negatively the number of care homes. Column (2) and (3) presents results using the delay rate and the labour share in conjunction with the historical population density respectively. The effect using the rate of delay and the historical population density (-0.33) is significant at the 1% level. The effect without considering the influence of regulation constraints is greater (-0.42) and also significant at the 1% level.

A potential concern is that the decision of entry in the market may be lagged to certain extent. For instance, providers may determine their decision of entry in a local market considering the historical house prices. Also, another potential problem is the influence of care homes on the value of the properties in an area. They may suppose and amenity that future inhabitants may value and thus affect the prices of the properties in the area. To mitigate these potential limitations, Table (4) show the effects of house prices that are lagged two years. The effects using the lagged prices are along the same lines as the findings presented in Table (3).

[INSERT TABLE 4 HERE]

In Tables (5) and (6) we explore the robustness of our results adopting various changes in the sample. Firstly, we assess the potential influence of outliers in the number of care homes. Thus, we remove from the sample those local authorities that have the top and bottom 5% of the care homes in the market (94 care homes in total). Table (5) display the results of these estimates.

[INSERT TABLE 5 HERE]

The IV estimates (columns (2) to (5)) present heterogeneous effects. Particularly, in the regressions using the share of Labour votes, the effect of the house prices on the distribution of care homes is positive. Given the value of the Hansen J statistic, it is possible that these specifications could be identifying other parameters than the house prices. The specifications with the remaining instruments, the change of the delay rate and the population density in 1911, provide negative effects. However, now these effects are not statistically significant. These findings suggest that that our results could be driven by the extreme values of the sample.

Likewise, we also consider a sample without those care homes that are associated with planning authorities in the region of London (96 care homes). As we reflected in Figure (1), the house prices in this region have experienced the greatest increase during the last two decades. The results from this analysis are presented in Table (6). Compared to previous analysis in Table (5), the estimates derived from the regressions instrumenting with the rate of delay and the population density report greater effects that are significant at less than 5% level.

[INSERT TABLE 6 HERE]

In general, these findings suggest that the decision of entry by long term care providers in local markets may respond mainly to financial incentives that determine the cost of development. The development of a care home in an area where the value of alternative uses of land such as housing are high, also entails a high opportunity cost. If this argument holds, given the positive relationship between the level of planning restrictiveness and value of the properties, more restrictive planning areas would imply higher opportunity costs and therefore the negative effects of the prices on the entry of care homes should be more pronounced.

## Alternative mechanisms

We explore the former argument by carrying out the analysis in two samples that gather local authorities according to their level of restrictiveness in the planning decisions. We select each group of planning authorities on the basis of their behaviour before and after the reform that imposed particular planning targets. In Figures (6) and (7) we represent the distributions of refusal rates and prices for local authorities depending on the change in their rate of delay before and after the reform.

[INSERT FIGURE 6 HERE]

[INSERT FIGURE 7 HERE]

Tables and (7) and (8) report the effects of house prices on the the care homes depending on whether the local authorities were delaying equally or more after the reform (e.g. non restrictive), or less (e.g restrictive).

[INSERT TABLE 7 HERE]

[INSERT TABLE 8 HERE]

In more restrictive local authorities, we find a negative and significant effect from the prices compared to no restrictive local authorities. As introduced before, a reason behind these findings would be the greater opportunity costs associated with the alternative uses of land in this more restrictive planning authorities.

Providers also could be focused on more affluent areas aiming at securing potential clients that do not rely on public funding arrangements. A potential explanation may be the purpose of providers for ensuring a level of clientele that helps them to offset costs. These would not be only associated with the entry and development of care homes in a local market. Also, they would related to the existing cross-subsidisation from self-funded to publicly supported clients. Humphries et al (2016) argue that this strategy is followed by a number of long term care providers in order to preserve their financial viability and overcome the funding crisis. This argument would suggest that areas with a greater proportion of clients that self fund their care should be more attractive for care homes.

Exploring this mechanism would require information on the composition of the clientele associated with each care home. Unfortunately, this information is not publicly available. However, a proxy for the composition of the clientele can be derived from the quality rating associated with the care homes. It is sensible to think that people who self-fund their care may have more willingness to pay for greater levels of quality. Care homes with an outstanding level of quality are likely to have a greater proportion of clients that self fund their care.

[INSERT TABLE 9 HERE]

[INSERT TABLE 10 HERE]

Tables (9) and (10) report the results of the effect of house prices on the number of care homes according to their level of quality. The IV estimates (columns (2) to (5)) reveal a positive effect of the house prices on the number that obtain an outstanding rating (Table (9)). Although these effects are small, possibly because of the reduced proportion that this type of care homes represent out of the total, they are significant at a level less than 5% when instrumenting with the share of Labour voters and all the instruments. Regarding the number of care homes with a bad rating, the effect is also positive and greater, but not significant for any of the IV estimates. These findings suggest that effectively care homes would be addressing their market strategy to those markets where there is a higher proportion of potential self-funded clients.