

When resources are allocated without regard to price, as with UK land use regulation, the consequences are often bad for business and consumers. **Paul Cheshire, Christian Hilber** and colleagues find that the restrictions that planning policies impose on retail development have significantly reduced the productivity of supermarkets.

# Land use planning: the damaging impact on retail productivity

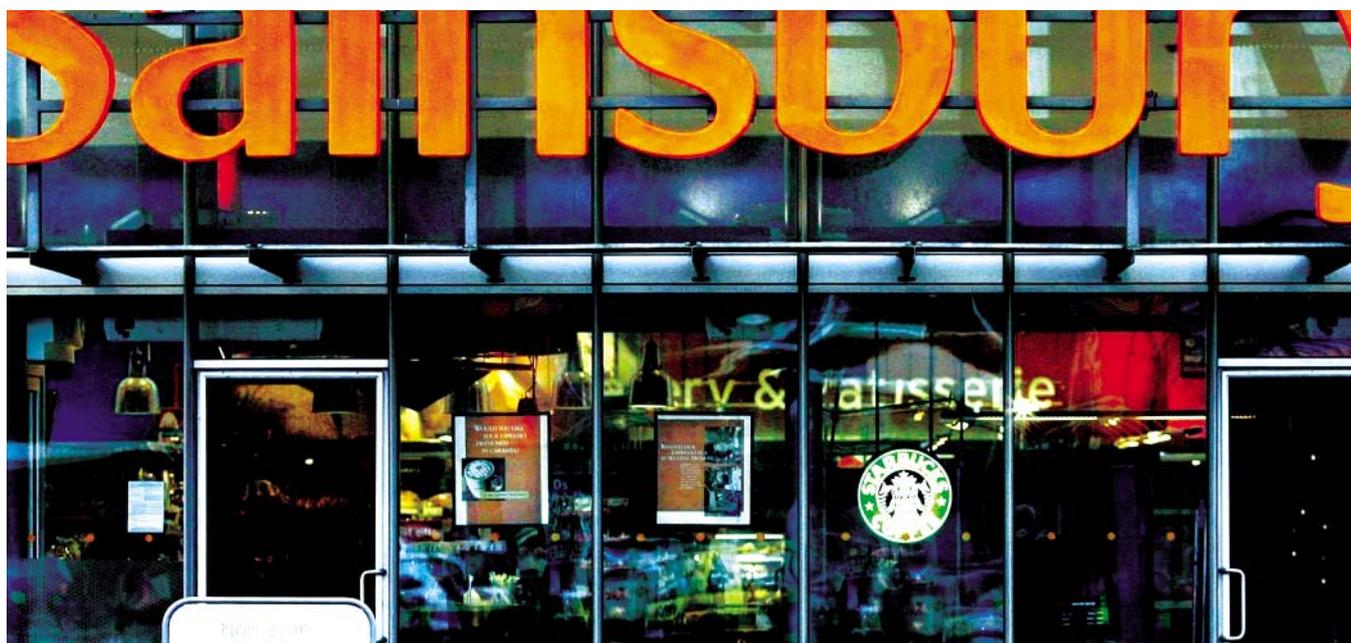
**E**lementary economics teaches that there are three factors of production – land, labour and capital – yet the importance of the first input is all too frequently neglected. Nowhere is that more evident than in the UK's system of land use planning, in which a scarce resource is allocated without any regard for markets or prices. Indeed, price information is

explicitly excluded from decisions about land use, so it is only after the supply of land is allocated to each use that the price is set in markets.

But as the government seems to recognise in its commitment 'to reform the planning system radically and fundamentally' (HM Treasury/BIS, 2011), rationing land use in this way has a significant impact on efficiency and growth, imposing substantial costs on

households and businesses. Given the present goal of economic growth with fiscal rectitude, reforming our system of land use planning is almost certainly the simplest, the cheapest and the most effective route to freeing up the supply side of the economy.

Of course, the planning system does have significant benefits, mainly in the form of open space in cities and the separation of industry from residential



areas. But our research has shown that even allowing for the value produced by the system, in prosperous and tightly constrained south east England, the restriction of land supply for housing generates a substantial net loss for society – equivalent to a tax of nearly four pence in the pound (Cheshire and Sheppard, 2002).

More recently, we have shown that restrictions on office building have led, at the extreme, to an increase in costs equivalent to an 800% tax on the marginal costs of construction. Even depressed provincial cities, such as Birmingham, have an average equivalent tax on the marginal costs of construction of 250%. As would be expected, building costs in Birmingham are only about half of those in Manhattan, but total occupation costs are 44% higher (Cheshire and Hilber, 2008).

Our latest research focuses on the retail sector, where we have had access to a uniquely rich data set for one of the major supermarket chains. Merging detailed information on each store with other spatial data (such as the distance to competing stores, local population and car ownership density), we can estimate the contribution of space to each store's productivity. As expected, it is highly significant: bigger stores are considerably more productive.

The next step was to measure the impact of planning, where restrictions on retail development have tightened since 1988. Fortunately for our research strategy, this happened sooner and much more restrictively in England than in Scotland, Northern Ireland or even Wales. In England from 1988, policy tried to control not just the area of land available

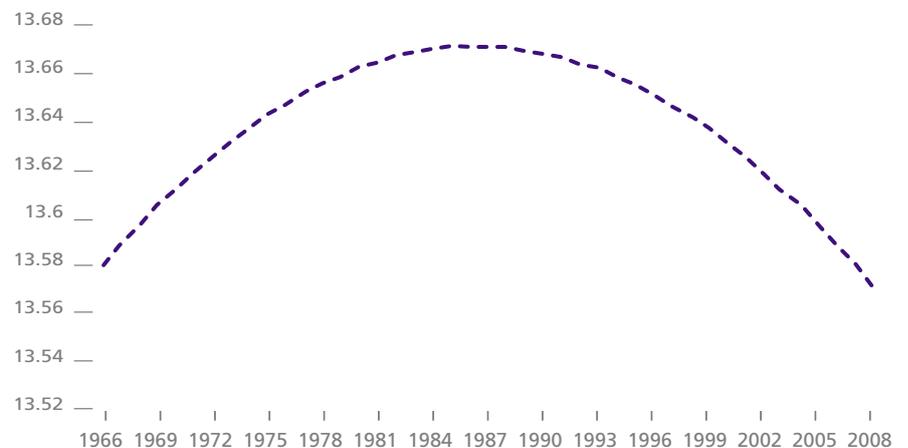
## Planning policies in England have reduced supermarket productivity by at least 20% – which means higher prices

for retail development but where development should take place at a micro-level.

This policy was tightened further in 1996, when a 'town centre first' policy was introduced. The new policy forced would-be developers to show first that the local area 'needed' more shopping space ('need' being defined in legalistic not economic terms) and then to pass a 'sequential test'. Developers had to demonstrate that for any proposed development, there was no 'suitable' site in the town centre (again with 'suitable' defined in legalistic terms).

To be 'suitable', a site had to have been identified in the Local Development Plan (though only a minority of local authorities have such a plan) and to be in the designated town centre. That the site

Figure 1:  
Productivity by year of opening:  
controlled for all other factors





was owned by a competing retailer did not make it 'unsuitable'. Thus the planning system was 'micro-managing' the location – even the specific sites – for development and effectively prohibiting out-of-town superstores.

Analysing our store level data revealed a striking pattern related to the date at which a store was opened. Controlling for all other factors, productivity increased over the first 20 years from the oldest stores to those established in the late 1980s (see Figure 1).

But for stores established after the late 1980s, productivity fell so that in the most recently established stores, productivity was actually lower than in the oldest stores of all. Even more revealing was that this relationship only existed for stores in England, where the micro-management of specific locations had started in 1988 and had been much more vigorously enforced.

A second route by which planning policies might reduce retail productivity is through overall restrictiveness. A local authority that restricts development more tightly may raise the price of all types of development, including the price of retail space. If land prices are raised, stores will tend to be smaller and so less productive.

We had data on planning decisions for all English local authorities since 1979, which could be used as a measure of local restrictiveness. Careful analysis of this data (taking account of the possibility that if a local authority is known to be

particularly restrictive, potential developers may not apply in the first place) confirmed that stores are smaller where planning policy is more restrictive and enabled us to quantify the relationship reliably.

Together these results allow us to estimate a lower bound impact of land use planning on supermarket productivity. It is lower bound because it is conservative to assume that without the town centre first policy, productivity would have continued to grow only at

the rate between 1966 and 1986: for example, US retail productivity growth accelerated sharply in the 1990s. But making that assumption implies that the town centre first policy reduced supermarket productivity in England by 16%.

It is equally conservative to assume that even in the least restrictive English local authority, policies restricting the supply of urban land had no impact on the costs of retail space. But if we attribute the reduction in productivity associated with the reduction in store sizes resulting from the variation in restrictiveness between the most and least restrictive local authorities, then this contributed a further 4.2% reduction to supermarket productivity. Putting it another way, productivity 'would' have been 4.2% higher if all local authorities had been as unrestrictive as the least restrictive.

Overall, therefore, it seems that on the most conservative assumptions, planning policies in England have reduced retail productivity by more than 20%. Lower productivity entails higher prices – and since poorer households spend a larger proportion of their incomes in supermarkets, this probably hits poorer households harder than richer ones.

This is a separate effect from that diagnosed by Raffaella Sadun and described in the autumn 2008 issue of *CentrePiece*. Her study finds that the policy of prohibiting out-of-town

Poorer households spend a larger share of their incomes in supermarkets and will be hit harder by lower productivity

superstores has reduced town centre employment in retail because the supermarkets' response has been to divert their investment into 'locals' and 'metros', thereby eliminating more traditional retailers.

The 20% reduction in retail productivity that our study finds is a measure of the gross costs to the economy. It is possible that there are benefits generated by such restrictive policies. In the next stage of this research, we intend to quantify the effects of planning policies on the carbon footprint of the retail sector. Reduced energy use is one of the main benefits claimed for town centre first policies, based on the assertion that they promote 'linked trips', thus reducing overall travel.

But it is by no means clear that the evidence will show a reduction in net carbon use. With continued decentralisation of urban populations, people may have become separated from supermarkets, not only extending their trips but forcing them into more congested conditions. Equally, restocking of supermarket shelves may have become more energy-intensive with a larger number of smaller lorries operating in more congested conditions.

Another issue where it is essential to examine the evidence rigorously is the significant ageing of the stock of retail buildings that is driven by the restrictions on new retail developments. Of the current stock of stores, 90% were built before 1980 and 70% before 1940. Needless to say, old buildings are far less energy efficient than new ones. Addressing such questions of energy efficiency will form the next stage of our research.

## Supermarkets are smaller and less productive in local authorities with tighter planning restrictions

This article summarises 'Evaluating the Effects of Planning Policies on the Retail Sector: Or do Town Centre First Policies Deliver the Goods?' by Paul Cheshire, Christian Hilber and Ioannis Kaplanis, Spatial Economics Research Centre Discussion Paper No. 66 (<http://www.spatial-economics.ac.uk/textonly/SERC/publications/download/sercdp0066.pdf>).

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### Further reading

Paul Cheshire and Stephen Sheppard (2002) 'Welfare Economics of Land Use Regulation', *Journal of Urban Economics* 52: 242-69

Paul Cheshire and Christian Hilber (2008) 'Office Space Supply Restrictions in Britain: The Political Economy of Market Revenge', *Economic Journal* 118: F185-221

HM Treasury/BIS (2011) *The Plan for Growth* ([cdn.hm-treasury.gov.uk/2011budget\\_growth.pdf](http://cdn.hm-treasury.gov.uk/2011budget_growth.pdf))

Raffaella Sadun (2008) 'Does Planning Regulation Protect Independent Retailers?', *CentrePiece* ([http://cep.lse.ac.uk/\\_new/publications/abstract.asp?index=3217](http://cep.lse.ac.uk/_new/publications/abstract.asp?index=3217))

