BUILDING MARKET TRANSFORMATION

Retail Workshop

Discussing the future of retail in the context of a target 50% reduction in CO_2 emissions from all UK buildings by 2050

26 October 2006, New Connaught Rooms
Great Queen Street, London WC

Building Market Transformation and the retail sector

Building Market Transformation (BMT) is part of the Carbon Vision Buildings research programme, examining how to achieve a 50% reduction in carbon dioxide emissions from the UK building stock by 2030. It is supported by the Engineering and Physical Sciences Research Council and the Carbon Trust. We are committed to working with stakeholders involved in managing or developing buildings and this workshop formed part of that process.

The trends we have identified from existing data show fewer but larger retail premises since 1972, with an increase of 32% in retail floorspace per capita, across the whole population. The workshop was convened to examine likely 'retail drivers' and 'policy drivers' over the coming decades. What follows is a summary of the main points discussed during the workshop. A fuller account, including most of the more speculative comments, is available from the BMT team via Mark Hinnells (mark.hinnells@eci.ox.ac.uk)

UK retail: concentration and planning issues

The UK has a large retail floor area per head of population – up to five times as much as some other EU countries. Each sub-sector of 'retail' has its own geography, with high-income areas showing the greatest diversity in their shops.

While small shops for high-value goods are still emerging, there is a concentration of retail spend in fewer centres. The average size of a shop in the high street is 190-280m^2. In a retail park it is 1860 m^2, but still only needs one manager. Retail parks also have a less 'peaky' footfall through the day than high street shops. Retailers, investors and developers like retail parks and malls because of their greater efficiency, but planning requirements at present are aimed away from such large, out-of-town developments and towards urban infill. This could lead to building upwards or downwards rather than outwards as well as to changes of use in existing developments. However, restrictions on out-of-town centres are thought to be strongly policy-driven and retail has to be viewed in the context of wider issues, including the provision of housing, construction and the state of local economies.

Setting requirements for newbuild is relatively easy, especially for large malls with single ownership, but even there the tenants of a development are generally unknown at the planning stage, so that planning cannot influence the way in which the building is fitted out. Retrofitting is hard to regulate, especially for dispersed high street shops. Retail developers work to a lead-time of 10–15 years and most do not

use life-cycle costing. Those that do are the ones that develop and manage their own estates – ie they have a long-term stake in the operation of their buildings.

Tenure

Most space is rented and this is often seen as the most desirable state, with some retail owners making sale-and-leaseback arrangements with investors. Retail premises account for around half of commercial property investment portfolios and the proportion is growing.

Standard Leases are on the basis of full repair and insurance, with the retail tenant paying for light and heat, and for fabric maintenance if the property is not in a mall. Generally the landlord will be most interested in refurbishment if it increases the lettable area. Some small shops sign long leases, during which little or no change may take place in the building fabric and appliances. Minimum standards lead to some form of liability, but may be difficult to define and enforce where there is divided responsibility (eg if a heating system fails to comply with standards, is that the fault of the system designer or the system operator/manager?) There is plenty of scope to look more closely at who (landlord, tenant etc) controls what, and at what times. The table below is a beginning.

Table 1: Who is in a position to change infrastructure and equipment?

	Heating /cooling plant	**Water heaters**	**Fabric maintenance**	**Lifts and communal facilities**	**Lighting**	**Other appliances**
Shopping mall owner	X			X		
Shopping mall tenant		X?	x		X	x
Retail owner	X	x		X		
Retail tenant	Supplementary heating/cooling appliances?		x		X	x

Mall landlords can have a major influence on turnover, eg by attracting leisure facilities to extend footfall hours. The interests of mall landlords and tenants are beginning to come together in one respect, with more co-operative management of centres, sometimes aided with turnover-based rents. Market rents predominate however especially in the high street. Average lease lengths are longer in out-of-town centres (15 years) than on the high street (9 years); these figures may now be falling.

Anticipated change

Population increase and the trend towards living in *smaller household* units will fuel further retail growth.

We can expect *higher energy prices* to concentrate retailers' minds. Energy has been a relatively small cost (estimated at 1-2%, typically) but is rising (may now be 4%?).

Energy security and *climate change* are both likely to become extremely important in terms of policy and general awareness. Growth in retail floor area or turnover will have to be achieved in the context of a shrinking 'budget' of permitted CO_2 emissions. The climate change agenda will change the assessment of building obsolescence and the relative merits of refurbishment or replacement.

If there is a 10% increase in population by 2030 and a 35% increase in space per person by 2030 (ie, on present trends), retail floorspace could increase to almost 1.5 times what it is now. Reducing retail carbon emissions to 40% of today's levels would require a cut by a factor of 3.7 per m^2 (Figure 1).

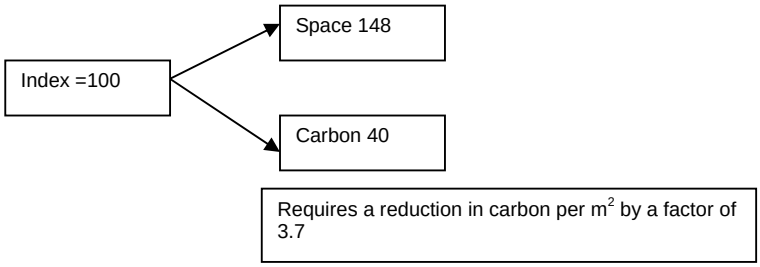

Figure 1: impact of increases in population and per capita retail space, circa 2030

There was a general expectation that we would see more *internet shopping* and *warehousing* over the long term. However, the internet has not taken away as much business as conventional retailers thought it might. We can also expect more *multichannel retail*, with the same retailer operating physical stores and on-line shopping.

"We tend to overestimate the impact of a technology in the short term and underestimate it in the long term".

Shopping habits are not simple to characterise and 'ethical' consumers are not a homogeneous group. Essential vs. luxury is an awkward distinction: one person's 'luxury' is another person's 'essential'. Overall, consumers do not yet demand 'sustainable' goods.

Finally, it was thought to be very doubtful that consumers lead change. In general, retailers respond to legislation, while consumers respond to what they are offered. What drives retailers is competition at a very local level. Retail experts are mostly interested in innovation and what this does to value, not floor area. *Increasing the sustainability of retail shopping will need leadership from government.*

The UK-*Emission Trading Scheme* (ETS) is voluntary and ends December 2006. The proposed (now under consultation) Energy Performance Commitment, a mandatory auction-based cap-and-trade scheme, was announced in the 2006 Energy Review to focus on large, non-energy intensive users of energy in the commercial and public sectors. It targets emissions by organisations whose electricity consumption is > 3,000mWh/yr and which are not included in the EU-ETS and Climate Change Agreements. This would involve some 5,000 organisations. They will have half-hourly metering for monitoring purposes, as do all organisations with loads of >100kW. The likely date of implementation of the EPC would be 2009.

The *EU Energy Performance of Buildings Directive* has potential if implemented well. The building energy label could be a base for a carbon tax and for setting new planning requirements; it can also be used for whole life cycle costings. Labelling should be displayed in retail premises – at present, these are not defined as 'public'

by the Government. Performance certificates in buildings could help close the feedback loop between designers, builders, buildings operators and occupants, helping all to understand what really works.

Other EU drivers of change include the *Directive to outlaw Freon gas,* used in refrigeration equipment. This will create a new cycle of product replacement.

Policy: provisional workshop conclusions on regulation and market instruments

- Policy-makers need to issue tough, consistent targets and metrics, giving retailers the freedom to deliver the required performance in whichever way they see fit. Drivers for energy efficiency are cost and legislation.

- Legislation for the Building Energy Label and other sustainability-related legislation should use the same definition of 'public' as that in the DDA.

- Implementation of the EPBD needs to capture *actual* energy consumption, not just design data. *Building ratings should be operational ratings, not just asset ratings.*

- Small retail is like housing –refurbishment needs to be required at point of sale/lease. Other initiatives from the housing sector may also work, eg changes to billing and metering, extension of the Energy Efficiency Commitment (EEC).

- A general approach might involve developing the Code for Sustainable Homes for retail, moving from a voluntary to a mandatory standard.

- It would be worth focusing on large organisations or chains rather than individual premises. Many smaller shops are part of larger chains (eg Threshers).

- There is still a lot of unused residential space over shops which could give lower CO_2 emissions if used better.

- There is room for many 'management solutions', eg restriction of opening hours and intelligent use of energy management systems; having a maximum lighting level for retail outlets; less hot/cool air loss through open doors in winter/summer.

- Some refurbishment funding is available as part of town-centre regeneration and could be used for energy efficiency.

- Data centres (or server farms) are a big growth area with huge cooling loads, for online retailers. Policy options for addressing this problem should focus on the purchase of efficient computer equipment.

- Microgeneration needs better infrastructure and an attractive price for the sale of electricity to the Grid in order for retailers to consider it (beyond any new planning requirements for newbuild). Training of installers and users is crucial in order to ensure quality. It is more cost-effective to install 100 solar roofs on a large project than 100 individual solar roofs, but the implications of getting it wrong are considerable - 'stupidities of scale'.

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Attendance

Neil Arckless	Hammerson
Brenda Boardman	Environmental Change Institute
Harry Bruhns	CaRB /University College London
Tom Carpen	Greater London Authority
Sarah Darby	Environmental Change Institute
Charles Follows	Investment Property Forum
Tara Garnett	Centre for Environmental Strategy, Surrey
Mark Hinnells	Environmental Change Institute
Elizabeth Howard	Said Business School
Keith Jones	Greenwich University
Leanne Jones	DEFRA
Peter Jones	BIFFA
Gavin Killip	Environmental Change Institute
Paul McNamara	Prudential Property Investments
Julian Prime	DTI
Paul Tuohy	University of Strathclyde
Anne Turner	DTI
David Upton	John Lewis Partnership
Diana Wilkins	Royal Commission on Environmental Pollution
Anson Wu	Association for the Conservation of Energy

Apologies

John Reyers	Sanderson Weatherall
Jeremy Harrison	Powergen

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Resources

Academic

- Cass Business School, Tony Key, http://www.cass.city.ac.uk/faculty/t.key/;
- Reading, Neil Crosby and Colin Lizieri, http://www.rdg.ac.uk/crer/crosby.html, http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=41181
- Cambridge, Department of Urban Land Studies, http://www.landecon.cam.ac.uk/index.htm John Glascock http://www.landecon.cam.ac.uk/staff/glascock.htm and Sean Bond
- Tim Dixon, Oxford Brookes, http://www.brookes.ac.uk/schools/be/rec/! http://www.brookes.ac.uk/schools/be/rec/staff/profiles/dixon.pdf!
- LSE Paul Chesshire http://www.lse.ac.uk/people/p.cheshire@lse.ac.uk/ and Christine Whitehead, http://www.lse.ac.uk/people/c.m.e.whitehead@lse.ac.uk/publications.htm

Practitioners

- CB Richard Ellis, http://www.cbre.com/, contact Mark Teal
- Colliers CRE www.**collierscre**.co.uk Mark Charlton
- Kings Sturge http://www.kingsturge.co.uk/ Angus McIntosh (retail, offices, and sustainability)
- Verdict Retail research http://www.verdict.co.uk/
- IPD see http://www.ipdindex.co.uk/ Malcolm Frodsham on lease terms.

Other

- Business Improvement Districts: http://www.ukbids.org/

- Town Centres project - http://www.cleanersafergreener.gov.uk/en/1/towncentres.html (http://www.defra.gov.uk/environment/climatechange/trading/epc/energyreview-statement.htm).

- Directive to outlaw use of Freon for refrigeration http://www.dti.gov.uk/files/file29100.pdf

- For multi-channel retail, see Interactive Media in Retail Group - http://www.imrg.org/

- For the Energy Performance Commitment, see http://www.defra.gov.uk/environment/climatechange/trading/epc/index.htm

- Likely growth in retail floor space over the next 20 years (without further policy intervention) is being researched by BCSC under 'Future of Retail Property' project, now. Research report due very soon.