

Sasha Tsenkova, University of Calgary, Alberta, Canada; Zorica Nedović-Budić, University of Illinois, Champaign, IL, USA (Eds.)

The Urban Mosaic of Post-Socialist Europe

Space, Institutions and Policy

The book explores urban dynamics in post-socialist Europe 15 years after the fall of communism. The 'urban mosaic' metaphor expresses the complexity, diversity and uniqueness of the processes and spatial outcomes in post-socialist cities. The book examines the urban development and the policy and planning processes that have resulted from the socio-economic, political, and institutional transformations characterizing the move to markets and democracy. The emerging urban phenomena are illustrated with in-depth case studies, sensitive to historical themes, cultural issues and the socialist legacy. Cities featured in the book include: Kazan, St. Petersburg, Moscow, Warsaw, Prague, Komarno, Budapest, Belgrade, Bucharest, Sofia and Tirana. The edited volume is organized around the following four themes: the driving forces of post-socialist change; urban processes and spatial change; housing and retail sector transformation; and urban planning and policy responses.

Contents: Part I: The Driving Forces of Post-socialist Change.- Part II: Urban Processes and Spatial Change.- Part III: Urban Functions: Housing and Retail.- Part IV: Urban Planning and Policy Responses.

2006 X, 390 p. 77 illus. Softcover
Contributions to Economics
ISBN 3-7908-1726-0 ► \$ 99.00

forthcoming

Order Now!

Yes, please send me

— copies

Tsenkova (Eds), The Urban Mosaic of Post-Socialist Europe (Contrib. Econ.)
ISBN 3-7908-1726-0 ► \$ 99.00

- Check / Money order enclosed
 Please charge my credit card:

MasterCard

VISA

AmEx

Number

exp. Date

Please send order to:

Springer
Order Department
PO Box 2485
Secaucus, NJ 07096-2485

Name

Address

Address

(Sorry, we cannot deliver to P.O. boxes)

City / State / ZIP-Code

Country

Telephone / Email

Date ✕

Signature ✕

► Call toll-free 1-800-SPRINGER, 8:30 am – 5:30 pm ET
► Fax +1 (201) 348-4505 ► Email orders-ny@springer.com

CA, CO, MA, MD, NJ, and NY residents, please add sales tax. Canadian residents, please add 7% GST. Please add \$5.00 for shipping one book and \$1.00 for each additional book. Outside the US and Canada add \$10.00 for first book, \$5.00 for each additional book. All orders are processed upon receipt. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent. Remember, your 30-day return privilege is always guaranteed.

12 The retail revolution in post-socialist Central Europe and its lessons

Yaakov Garb with Tomasz Dybicz

Introduction

Decentralization of retail activities and facilities has been a major trend in developed countries for the past several decades. Now that trend is occurring, often in accelerated form, in transitional and developing countries. The rapid spread of new, large and typically peripheral shopping centres in post-socialist Central and Eastern Europe (CEE) is a striking example of this “retail revolution.” Though “big box” retailing was entirely absent before the political transition of the early 1990s, Warsaw, Prague, and Budapest are now close to saturated with such commercial development. It is spreading as well into smaller towns (fewer than 100,000 or even 50,000 inhabitants) in those countries, and into the large cities of the countries, among them Bulgaria, Croatia, Russia and Lithuania. For urban life in those places, the spatial, economic, and behavioural consequences of the retail revolution have been profound. This essay surveys the retail decentralization and the reasons for its rapid establishment in Central Europe, its effects (especially on travel patterns), and the lessons that can be drawn for improving retail policies in post-socialist cities and internationally.

The essay has several overlapping purposes. One is to provide an empirically informed sketch of the effects, often noted, of retail deconcentration on travel behaviour. Although it is a common assumption that the consequences of peripheral retail are longer trips and more car-borne shopping, systematic evidence for that is lacking. The speed and recent date of Central European retail decentralization offer a rare opportunity to make before-and-after comparisons that can illuminate those consequences.

Another goal is to show the ways in which central themes of this volume—transition, diversity, and competition—characterize the retail sphere. We describe a remarkably rapid shift, in which hypermarkets have approached half of the retail market share within one decade. This trend is complemented, however, by the ongoing establishment of new retail centres still occurring in city centres and around smaller towns, which has drawn back some customers who had travelled to the peripheries of their own cities, or even for hundreds of kilometres to hypermarkets at the periphery of capital cities, during the first wave of retail deconcentration when these were the only form of modern retail available. We note tremendous diversity among cities, among the patronage patterns at individual shopping centres, and among the retail habits of geographically and socio-economically distinct populations. Underlying the post-socialist retail revolution is a set of far-reaching,

competitive dynamics. Large western European retail chains, for example, having reached growth limits and encountered regulation barriers in their home countries, have surged into Central and Eastern Europe to maintain growth, fighting one another for key sites and market share in this newly opened terrain. Peripheral facilities around the major cities have started to compete not only with retail in the traditional city centres but with facilities in a large radius of surrounding towns and villages, as well.

Next, moving beyond description, we present some of the lessons that planners and decision-makers in CEE and other countries can learn from the dynamism and diversity of Central European retail. Other transitional economies, for example, can take note of the major structural impact that the wave of largely unregulated retail development has had on Central European post-socialist cities. Developed countries can draw lessons from the fact that significant and unique niches of sustainable retail patterns remain in CEE cities even after this major transformation.

12.1 The flash malling of post-socialist Central Europe

After the Second World War, the retail sectors in countries under Soviet influence were systematically dismantled and reconstructed according to Marxist-Leninist ideologies and economic priorities (Michalak 2001; Smith 2003). Like other aspects of the economy, the retail sector became state-owned and controlled in most aspects: location, price, purchasing and stock, staffing (Kulke 1997; Michalak 2001). By the end of the 1980s, for example, 80% of stores, accounting for over 95% of turnover, were state owned (Michalak 2001). Almost all higher-order retail was located in the centres of the main CEE cities, which were compact and well served by public transport—subway, tram, and bus.¹ Other places—smaller towns, villages, and even the massive housing estates established in peripheral (“suburban”) locations around the main cities—had only very basic shops. The provision of goods and food articles at factories, through “grey” retailing, and through self-help production supplemented the formal retail market, which was notorious for its limited quality and range.

The rapid changes in the retail sector in post-socialist Central and Eastern Europe are well recognized and can arguably be considered a symbolic hallmark of the transition. After a few transitional years of privatization, deconcentration of retail ownership, and some domestic-capital initiatives, from the late 1990s onward there was rapid consolidation and the establishment of multinational, large-format, modern retail facilities.² These were usually occupied peripheral locations on major highways—radials and/or ring roads. Within a decade, retail in modern

¹ For an overview of the impact of socialism on urban spatial structures, see Bertaud in this volume.

² The authors are not aware of any good overview of the spatial organization of retail in Central and Central Europe during the socialist period, except for Kulke’s (1997) excellent presentation of the East German situation.

formats, foreign ownership, and ex-urban locations jumped from being negligible to being the majority.³

While the growth of large-format, peripheral retail was similarly rapid in many countries, several factors made for an exceptionally rapid malling of post-socialist Central and Eastern Europe:

- The planning system after the departure from socialism was allergic to central planning in any form, including the regulation of retail location. In addition, changes in territorial government and administration removed the regional level of governance that had existed between the municipal and the national levels, and that might have been the natural locus of such planning and regulation.⁴
- Various aspects of post-socialist, urban real estate as well as planning procedures made it nearly impossible to site large modern retail facilities in town centres or sub-centres. For example, the ownership of re-privatized properties was unclear; the use of large, vacant or underused land was blocked for various reasons; and the approval of changes in zoning status to allow retail was lengthy and uncertain (Jackson and Garb 2002; Garb and Jackson forthcoming). In contrast to those ordeals, large retail facilities were welcome on greenfield sites in many small communities around large cities, which competed for the anticipated jobs, and where the lure of profitable land sales could sway local councils and mayors.
- The massive capitalization of international retailers in contrast to the incomes of government and municipal officials meant that bribery was frequent and could override residual attempts to regulate land use.
- Modern retail facilities were symbolic of the new freedoms, since a key characteristic of socialist economies had been the limited range and amount of commodities and the great difficulties in obtaining even those.⁵ Retail freedoms were thus unstoppable, symbolically and politically.
- The transitions in Central and Eastern Europe in the early 1990s coincided with difficulties for large Western European retailers, in their home markets, where they were feeling the pinch of increased retail competition, saturation, and zoning regulation that hindered the establishment of new hypermarket facilities.
- The geographic proximity of Western European retailers to Central and Eastern Europe made for logistic convenience in supplying the stores, while cultural similarities with Western Europe made for a more fluent working relationship between the stores and Western European headquarters. At the same time, the prospect of the CEE countries joining NATO and then the European Union

³ These dynamics have been described in Dries et al. (2004), local and business periodicals, and real estate and development trade literature in these countries. They are also reflected in the data available from various consultancies, such as Cushman & Wakefield Healy & Baker, INCOMA, CEERetail, PMR, Colliers International, and A. C. Nielson.

⁴ For a discussion on some of these features in the Czech Republic's case see Maier (1998).

⁵ For an ethnographic account of the condition of shopping under socialism in Hungary and reflections on the transition see Smith (2003). See also Stenning's (2005) account of Nova Huta, Poland.

guaranteed the rise in purchasing power and political stability required by Western investors.

Retail deconcentration in Central and Eastern Europe differs from the familiar trend in developed countries, especially in Western Europe and North America, in several ways:

- Decentralization occurred massively and rapidly over a single decade. In 1995, there were literally a handful of hypermarkets in CEE countries; today there are over 500.
- Decentralization occurred in towns and cities that were traditionally compact and well served by public transport.
- Retail usually led urban decentralization, proceeding rather than following residential and job sprawl. Thus, in the early years of decentralization, out-of-town hypermarkets did not serve shoppers from adjacent suburbs (which barely existed), but rather urban shoppers travelling outward and long-distance shoppers from surrounding villages and cities.
- While the format and offerings of the new retail facilities were virtually identical to those of their Western European counterparts, the purchasing power of their customers was only a fraction of that of Western Europeans. During the first decade of CEE retail decentralization, companies were willing to operate in the red and absorb losses in the scramble for initial market share and key retail locations.
- CEE retail is overwhelmingly foreign-owned. A list of the top ten retailers in most CEE countries will not show any domestically owned shops. In the Czech Republic, for example, the top ten companies, which in 2004 accounted for aggregate sales revenue of over 7 billion Euro,⁶ are all Western European retail chains. The global annual revenues of several of these chains approach or exceed the GDPs of their host countries.⁷

12.2 The travel consequences of the 'big box' retail revolution

In Western Europe, the reworking of urban geographies by the movement from smaller retail outlets within cities to large, car-accessible sites on cheaper land at city margins occurred several decades earlier than it did in Central and Eastern Europe, and at a slower pace. In the UK, for example, it began in the 1970s and continued in new forms (such as the grouping into retail parks of several large

⁶ INCOMA Research, as reported in the CEERetail news alert on January 25, 2005.

⁷ The annual revenues of Carrefour of \$52 billion during the formative years of Central European retail were less than Poland's GDP (\$154.1 billion), but almost equal to the Czech Republic's GDP (\$56.4 billion), and higher than Hungary's (48.4 billion), Romania's (\$33.7 billion), and the Slovak Republic's GDP (\$19.3 billion). Figures are for 2000, extracted from Chung et al. (2001), pp. 68-71.

stores offering both food and non-food items) through the 1980s and onwards. Experience with those changes began to concern planning authorities in the mid-1980s and more so through the mid-1990s, and consequently gave rise to various kinds of retail regulation (Garb and Lichfield 2005). Planning concerns centered on the threat of reduced economic (and thus cultural and social) activity in the urban core, the conversion of greenfield (usually agricultural) land at the city edge, the discrimination against less mobile populations unable to easily reach the new facilities, and the rise in travel as people made longer and more car-borne trips for retail purposes. This section examines the latter effects in some detail, as a window into the suite of behavioural changes entailed by the retail revolution in post-socialist Central Europe, and also as an empirical contribution to the study of retail travel.

This section presents selected findings from three sources of evidence:

- A national-level household survey in the Czech Republic
- A questionnaire survey of 4 hypermarkets in Prague
- Traffic counts and questionnaire surveys at 5 Warsaw hypermarkets.

The research findings illustrate the characteristics of shopping trips (especially in terms of frequency, travel distance, and travel mode); the complex interrelationships between those characteristics and socioeconomic and other factors; the nature of the transition from a pre-hypermarket to a hypermarket retail landscape; and the diversity of shopping patterns in different cities, different malls, and among subpopulations. Overall, the findings show that while Central European retail travel is rapidly coming to approximate the expected features of retail travel in the U.S. and Western Europe, the compact post-socialist cities still maintain important opportunities for transit- and pedestrian-based shopping.

12.2.1 National-level household survey in the Czech Republic

The graphs in Fig. 12.1. show the use of cars for grocery shopping and its distribution by gender, age, education, income, size of a town, and store type. The data were derived from a household survey conducted throughout the Czech Republic by INCOMA Research in November 2001.⁸ Approximately 2000 people (1669, or 83.5%, of them women) were surveyed, in households in five municipal-size classes representative of the Czech population, and with four main shopping formats well represented (at least 350 people designated each one as their “main shopping facility”).

As expected, the results point to more car dependence among those who shop at hypermarkets, working-age people, those with higher income and education, and – somewhat surprisingly – of those living in small or very small towns. At the same time, those who use smaller shops do so using relatively little car travel. Strikingly, the number of people reporting that they do not need a car to shop rises with

⁸ INCOMA Research is a commercial retail consultancy in Prague, which conducts shopper and household surveys.

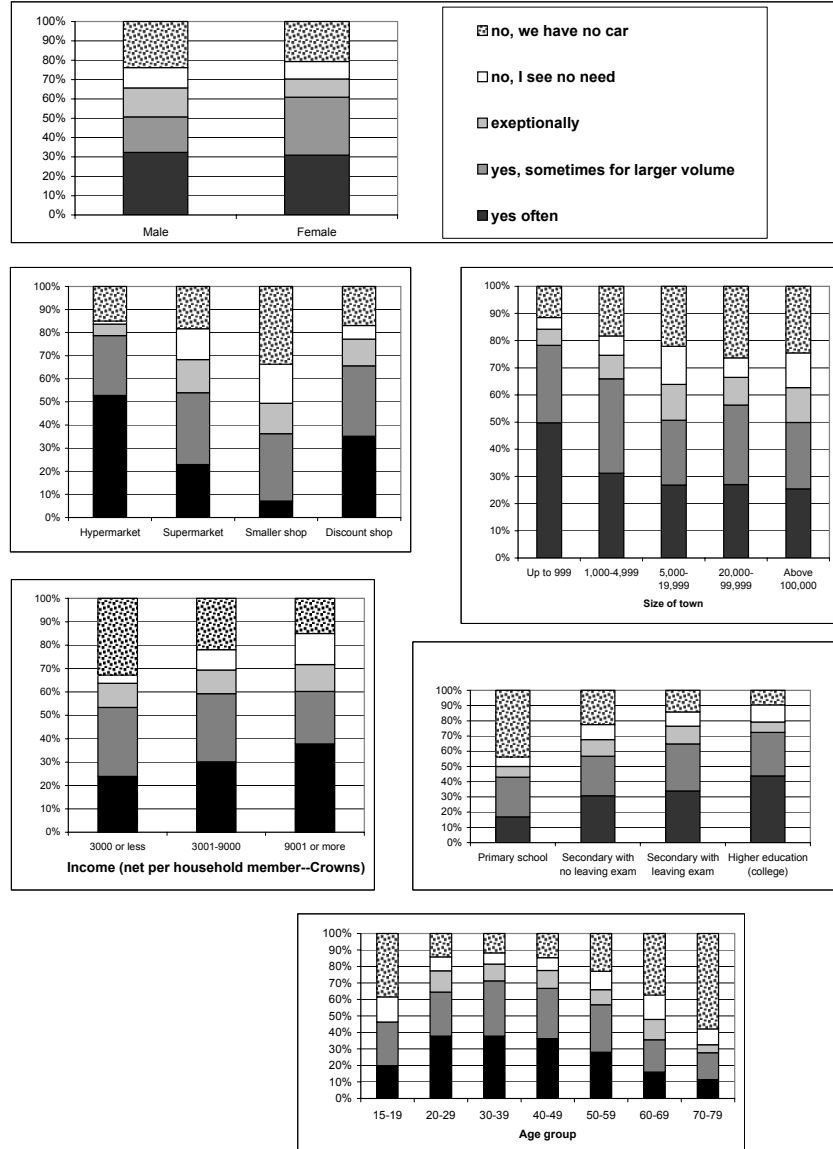


Fig. 12.1. Use of cars for food shopping - national level household survey in the Czech Republic

Source: Derived from data gathered by INCOMA Research, 2001

Note:

Responses to the survey question: “Do you use a car to shop for food?”

income. Towns above 5,000 inhabitants are less car-dependent, and the responses to other questions, not presented in Figure 12.1, show that people in these towns, and especially in towns above 100,000 inhabitants, place more importance on and are more satisfied with transit access to their shopping outlet. Those who shop in small shops care less about the quality of transit access to their shop than do those in other shopping formats, probably because they reach their shops on foot. Thus at the national level, on aggregate we see both the car dependence of hypermarkets, and the survival of non-car-dependent shopping at small retail outlets and in the larger cities. These national findings become clearer when examined through the perspective of the surveys of mall shoppers conducted in Prague and Warsaw, which are described below.

12.2.2 Survey of four hypermarkets in Prague

This survey was conducted by The Institute for Transportation and Development Policy (ITDP) in the fall of 2001. Questionnaires were administered at 4 different mall locations in and around Prague (Fig. 12.2.) and had a total of 1649 respondents. The malls surveyed included two typical peripheral malls, one (Zlicin) just inside and the other (Prohinice) just outside the city limits; and two “infill” malls located closer to the city centre and surrounded by areas with higher residential densities. It is important to note that even the “decentralized,” peripheral malls in Prague and Warsaw (discussed below) are quite close to those cities in North American terms: the farthest is 14 km (under 9 miles) from the town centre.

These questionnaires gathered information about respondent’s demographics, his or her shopping trip (e.g., pre- and post-mall activity and location, travel time, and purpose), their shopping behaviour at the mall (e.g., frequency, duration, and expenditure), and, most importantly, the characteristics of the shopping trips they had made for the same purpose prior to the existence of the mall where the survey was conducted. An extensive analysis of these findings is provided in Garb (forthcoming). Fig. 12.3. summarizes the factors (e.g., travel mode, distance and duration, mall location, shopping duration and expenditure, current and prior shopping frequency, income, age, gender, car availability, number of people in the car) that were found to influence key trip parameters – distance of travel, modal distribution and frequency. The relevance of each factor is indicated by the extent to which selected subpopulations of shoppers differed on the given trip parameter. The directions of most of the listed effects, if not their magnitudes, could be anticipated as typical of retail travel in Western Europe and the U.S., albeit with average distances and modal splits that would be the envy of U.S. planners in particular. For example, the average round-trip length for all surveyed mall trips originating or ending within the Prague agglomeration was 21 kilometres, with 68% of arrivals by private vehicle, 28% by transit, and 4% pedestrian. This modal split is almost identical to the modal split reported from a 2003 national household survey of shopping centre travel by INCOMA. Further analysis showed, for example, that trips were longer for the car and subway trips and shorter for the other modes, and that longer trips were made by people of working age, were less

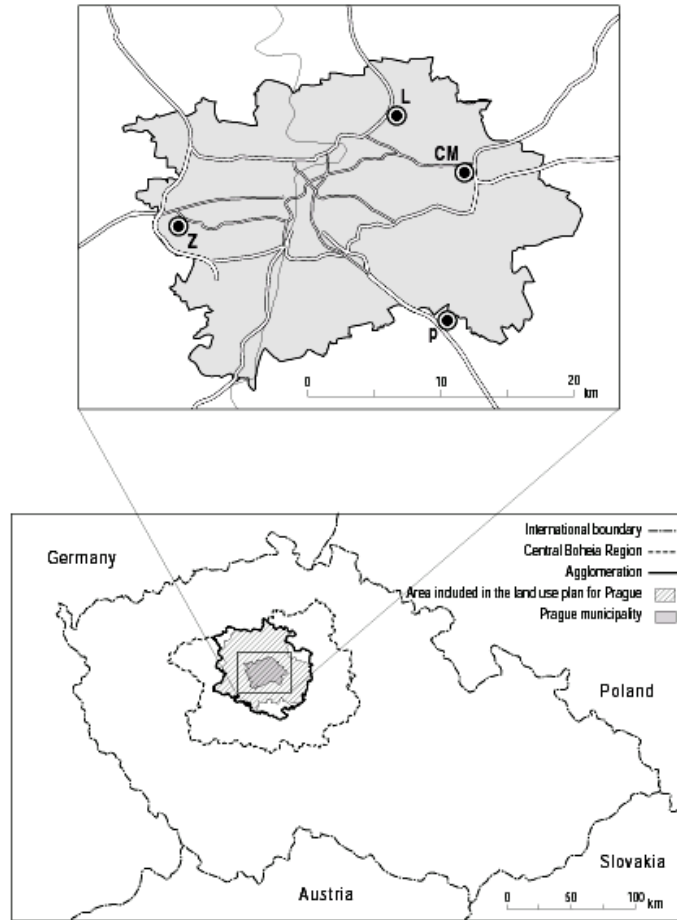


Fig. 12.2. The location of four surveyed malls within the Prague municipal boundaries.

Note: Z=Zlicin; P=Prohinice; CM= Cerny Most, L=Letnany

Trip parameter	Influencing factors and indicative examples (all significant at the 0.0001 level)
Distance (average round trip: 21.4 km)	<ul style="list-style-type: none"> • Travel mode (car trips average 20 km longer than pedestrian ones) • Current shopping frequency (trips done biweekly or less average 12 km more than trips done weekly or more) • Duration of mall visit (stays of over 2 hours average 10 km longer than stays under one hour) • Location of the mall (Zlicin trips average 9 km longer than Letnany ones) • Prior frequency of shopping (trips done biweekly or less average 7 km more than trips done weekly or more) • Grocery vs. other trip purpose (non-grocery trips average 6 km longer than grocery trips) • Purchase amount (visits with expenditure over 1000 crowns average 5 km longer than those of under 1000 crowns) • Day of week (weekend or weekday) (Weekend trips average 4 km longer than weekday ones)
Modal distribution (overall percent coming by car: 68%)	<ul style="list-style-type: none"> • Availability of car (17% of those in carless households come by car versus 75% of those having one car in household) • Mall expenditure (39% of the group spending under 500 crown, come by car versus 88% of the group spending over 1000 crowns) • Reported income (89% of those reporting above average income come by car, versus 65% of the others) • Distance of trip (39% of those traveling under 6.5 kilometers round trip come by car, versus 72% of those traveling over 6.5 km) • Mall location (57% of shoppers at Letnany come by car versus 90% of those at Prohinice) • Age (46-49% of those over 62 or under 21 come by car versus 83% of those in the 29-42 age bracket) • Prior shopping mode (32% of those who used to shop by public transport prior to the mall's existence now shop by car versus 92% of those who used to shop by car) • Gender (60% of women versus 77% of men come by car)
Frequency (average monthly frequency: 3.6)	<ul style="list-style-type: none"> • Number of passengers in the car (those without a passenger come 3.1 times more a month than those with one or more passengers) • Distance (those traveling under 11 km come 2.0 times a month more than those traveling over 11 km) • Prior frequency of shopping (those who used to shop weekly or more now average 1.8 times more a month than those that used to shop biweekly or less) • Travel time to mall (those traveling 15 minutes or under come 1.6 times a month more than those traveling 30-45 minutes) • Mall location (Shoppers at Cerny Most come 1.1 times a month more than those at Zlicin) • Is public transport available (those who declare that public transport is available for their trip come an additional 1.0 time a month more than those who don't) • Duration of mall stay (those who spend under an hour come an additional 0.8 times a month compared to those spending between one and two hours) • Used to shop locally (those who used to shop locally now shop an additional 0.6 times a month compared to non-local shoppers)

Fig. 12.3. Factors influencing key trip parameters (after Garb, 2004)

Note: Income, mall expenditure, shopping frequencies, age, trip purpose and travel time were all reported by respondent. Distance is distance on the road network based on reported origins and destinations.

frequent, involved a longer stay and larger expenditure at the mall, and were less likely to be for grocery shopping.

Rather than dwell on these and various other effects modelled for trip frequency, mode share, distance, and other variables (summarized in Figure 12.3 and detailed in Garb, forthcoming), we will focus here on findings that are relevant for retail policies internationally. The following analyses illustrate the changes in retail travel that have occurred with the emergence of hypermarkets, the persistence of non-car travel to hypermarkets being the most interesting result. They also show that although car travel to hypermarkets by car is quite extensive in absolute terms, in a motorized society the policies for reducing it are not at all clear-cut.

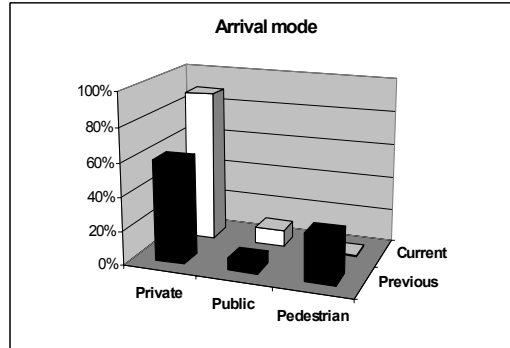
12.2.2.1 The effects of transition to hypermarkets on modal choice

Because the malls surveyed in Prague had opened only 2-4 years before the survey, shoppers could reliably be asked about their prior (pre-hypermarket) shopping patterns. Fig. 12.4. highlights the changes in mode, frequency and duration of shopping since the transition to hypermarket shopping. Table 12.1. shows where people used to shop before they began shopping at the surveyed hypermarket and how they used to get there. We can see that local retail (local supermarkets or shops) was reached mostly by walking or biking (69%), while the more distant retail outlets (hypermarkets, supermarkets, company price clubs, or other centres) were reached mostly by car (72%).

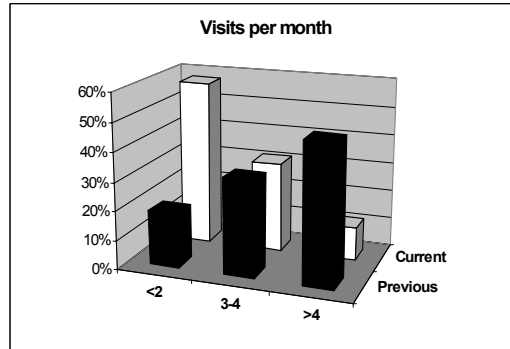
Figure 12.5 summarizes the shifts in travel mode by comparing the modal choices that current hypermarket shoppers made before and after they started to use this particular facility. The horizontal axis in the mosaic is partitioned according to the prior mode share, and the vertical axis shows the conversion of each mode once the respondents started to use the new hypermarket. While the car users hardly changed modes, transit users shifted considerably to car use, and pedestrian shoppers overwhelmingly abandoned that mode, for cars and to a lesser degree to transit. Thus, 25% of all shopping trips had switched to cars from modes considered more environmentally friendly. Four percent regained by car users who moved to more environmentally friendly modes should be deducted from this figure. The total number of trips made by surveyed shoppers was 60% more in prior (pre-hypermarket) shopping patterns than currently.⁹

⁹ The total reported frequencies multiplied by the number of people who reported the frequencies was 7,614 for the prior shopping pattern, versus 4,663 for the surveyed trips.

Growth in car shopping and elimination of pedestrian shopping



Trip frequency drops sharply



Predominantly short visits replaced by long and very long visits

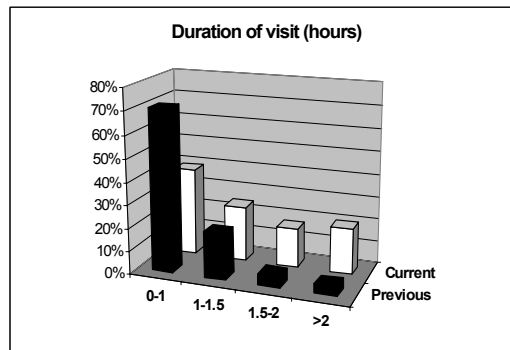


Fig. 12.4. Summary of changes in travel patterns in the transition to hypermarket shopping: arrival mode, monthly frequency and duration of visits

Note:
The data is for Pruhonice, Prague; the n for each of two groups in the three graphs range from 335 to 357).

Table 12.1. Travel mode prior to the use of the surveyed facility by type of shopping—shoppers at 4 malls (n=1542)

Column %	Local shops	Local supermarket	Another supermarket	Another centre	Company shopping club	Another hypermarket	Other
Row %							
Private car	24	24	57	70	50	78	41
	9	9	35	8	5	23	11
Public transport	11	5	26	22	19	14	41
	10	4	39	6	5	10	26
Walk or bike	65	71	18	9	31	8	18
	34	35	15	1	5	3	7

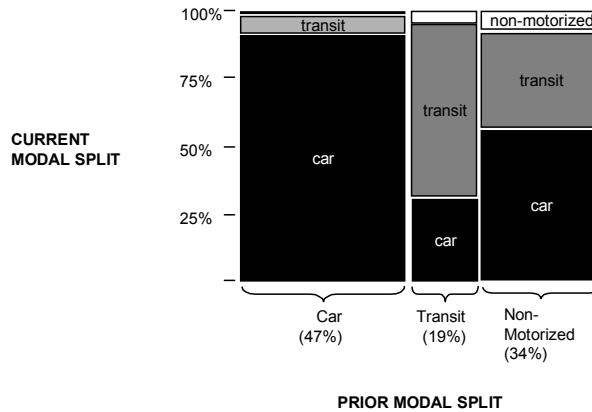


Fig. 12.5. Conversion of trip modes with the emergence of hypermarkets

12.2.2.2 The accessibility of hypermarkets by transit and walking

Car ownership strongly determines the modal choice for shopping. With no car in the household, the chance of coming to a hypermarket by car (predominantly as a passenger) is 16%; it rises to 79% when one car is owned by the household, and to 87% with two cars. At the same time, as Figure 12.6 shows, a sizeable percentage of hypermarket shoppers still arrive by means other than the car, and many do so despite having a car available. For example, 57% of those arriving at the mall by public transport have at least one car in the household, as do an even higher percent of those arriving by foot.

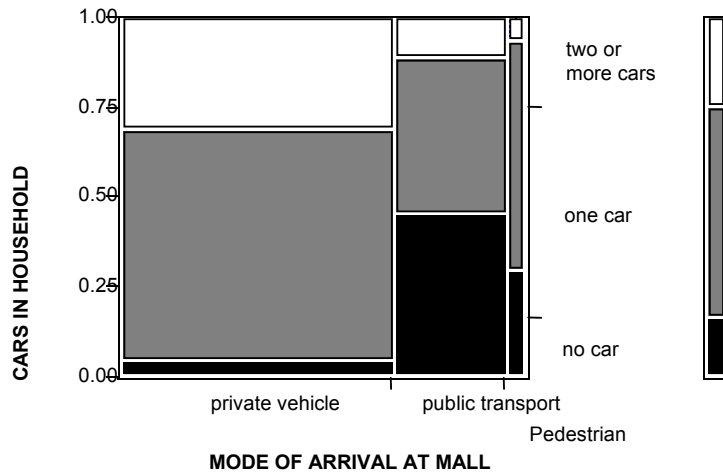


Fig. 12.6. Breakdown of household car availability by travel mode of arrival at the surveyed Prague malls.

Note:

The left vertical scale indicates the portion of respondents belonging to each car ownership category, and the horizontal scale the portion arriving by each mode. The separate scale on the right indicates the overall breakdown of car ownership with aggregated arrival mode.

However, these modal splits vary by mall. For instance, 90% of trips to the peripheral mall Prohínice are by car. This is much higher than 52% of trips to the more central mall Letná. There are also large shopping centres in Prague, such as the National Theatre Tesco, where almost no shoppers arrive by car. In other words, public transport is still a viable mode for hypermarket-related travel of those that have cars, not just the only alternative available to carless “captive” transit riders.

12.2.2.3 Travel generation – overall and outside Prague

In order to estimate absolute amount of travel, the length of trips within the Prague’s agglomeration as derived from the survey was compared with a commercial count of traffic to one of the surveyed malls. The commercial traffic count included all public and private vehicle entries over 24 hours, on both a weekday and a weekend day. The overall travel generated by this large mall is on the order of 170 million kilometres annually. A rough conservative estimate of the overall annual travel to Czech malls nationally is in the order of tens of billions of kilometres, producing over a million tons of carbon dioxide (CO₂) from the car trips

alone (that is, over 3.5% of total CO₂ emission from all fossil fuels in the Czech Republic).¹⁰ Some portion of that travel would have occurred prior to retail de-concentration, but the survey shows that a substantial portion of the shopping travel would not have been car-borne before the existence of hypermarkets (as described above). Thus, varied retail configurations seem to significantly influence travel patterns and consequently environmental quality.

The above estimate of total mall-related travel is based on surveyed trips originating and ending within the Prague agglomeration—Prague’s sphere of influence for traffic modelling, which is an extensive area approximating the area in land-use plans of Prague (see Figure 12.2). However, a significant number of trips (16%) to the four surveyed malls originate outside the Prague agglomeration. Almost all (91%) of those long distance trips are made by car; 84% are primary trips (i.e., home-mall-home); they are sporadic (half are monthly or less); and their predominant (65%) purpose is other than grocery shopping. Although the outside-Prague trips are a minor component in terms of their number, they average 200 kilometres per round trip and are an important component of the overall traffic. These trips are responsible for 50% more person-kilometres than are the majority (84%) of trips that originate within the Prague agglomeration. In other words, the above estimate of tens of billions of kilometres annually of the national traffic generated by hypermarkets represents only 40% of the full amount of such travel that would be estimated if we included the long distance trips. The long distance trips however have started to diminish, however, as more local, modern retail stores became available in smaller towns.

Interestingly, even though the shoppers who travel to Prague’s hypermarkets from other cities and villages report that they are on a home-mall-home trip, it is not simply the ex-urban malls at the points of entry into the city that are picking up the long distance trips, but central ones as well. For example, Prohonice (“P” in Figure 12.2), which is one of the four surveyed malls most distant from Prague’s centre, has the smallest portion of these long-distance trips. In complex ways, the peripheral malls draw both outward trips from the city and trips from long distances. Figure 12.7 illustrates the incoming trips to Zlicin mall at Prague’s edge. The majority of the trips come from within Prague; a significant portion come from places outside the boundary of the agglomeration (the traffic model assigns these trips to the point where they enter the agglomeration); and a negligible proportion come from Prague’s urban agglomeration.

We can understand these travel dynamics in light of the national pattern, which shows that people in smaller municipalities do much more of their shopping by car. As there are no hypermarkets in the smaller towns, it is likely that the inhabitants do their occasional bulk or comparison shopping at the nearest major city. It is important to see whether a similar long-distance component prevails in developed countries, or whether the long-distance trips are part of a transitional phase

¹⁰ There were about 80 hypermarkets in the Czech Republic at the time of the survey, but only some were as large or peripheral as the reference mall—Centrum Praha, which is part of the Zlicin complex. At the same time, this figure does not include the extensive amount of travel from outside of Prague’s agglomeration.



Fig. 12.7. Trips from Zlacin mall, Prague; line width denotes volume of trips to each destination zone.

that will cease once hypermarkets penetrate the smaller municipalities and remove these trips from the regional grid. The component of analogous long-distance trips to Warsaw's malls, described below, is smaller (5%), perhaps because distances are shorter and orientation toward urban centres is greater in the Czech Republic.

Time will tell the extent to which the marked long distance travel component observed in this 2001 Prague survey was a transient feature of retail travel. If it continues to hold true, that will have important implications for the debate on the most sustainable locations for hypermarkets. With 60% of Prague's mall travel (in terms of VKT—vehicle kilometres travelled) on any given day actually unrelated to the urban form or the city's travel patterns, but generated instead by longer trips from remote smaller places, travel generation becomes a question of regional and national rather than municipal retail structure.

12.2.3 Traffic counts and survey at five hypermarkets in Warsaw

Surveys of 4254 shoppers and traffic counts were conducted in 5 malls in and around Warsaw in 1999. Traffic counts focused on flows and car occupancy levels over time. The surveys focused on pre- and post-mall locations and activities, trip purposes, mode and frequency, and the perceived next-best shopping mall. To illustrate the variety of travel patterns, Figure 12. 8 compares Centrum Janki, a peripheral mall, with HIT Kabaty, a mall at a subway station in a fairly dense residential area. The diagram displays striking differences between these malls in the number of originating trips in each traffic analysis zone (for weekday entry trips), the modal split, and distribution of trip lengths.

The Warsaw data set also demonstrates why trip chaining must be an important consideration in understanding and optimizing retail travel. The differences in chaining patterns can be observed between various malls within a city and between cities in their aggregate patterns. For example, the overwhelming majority of trips in both Prague and Warsaw are unchained (primary) home-mall-home trips: 85-95% in Warsaw's malls and 74-86% in Prague's malls, even on weekdays during the hours when people are returning from their workday.¹¹ The high proportion of primary trips indicates the importance of malls in generating rather than simply redirecting travel. In Prague, the largest component of the chained trips were the mall stops on the way home from work in the afternoon. However, on weekdays such trips represented only about 10% of all trips, an anomalously low figure in comparison to other international data (Garb, forthcoming). Warsaw shows a more common pattern, with 27% of weekday mall trips being a stop on the way home from work. In Prague, trip chaining is less likely among transit users than among car users, but the reverse is the case in Warsaw.

If we compare trip chaining patterns with respect to the different malls in each city, we again detect a considerable variety. There are small but statistically significant differences among the malls in Prague, with the peripheral malls Pruhonice and Zlicin, for example, having somewhat larger portions of (12% and 15% respectively) chained trips than the central malls have (7-8%). The differences between malls are much more notable in Warsaw. For example, 41% of the trips to Reduta and only 15% of those to HIT Kabaty are stops on the way home from work, with the differences resulting from factors such as the proximity of the malls to work and home and the routes between them. While Reduta is surrounded by extensive office space and may be attracting a high proportion of visitors who are on their way home from work, HIT Kabaty, at a subway station in a dense residential area, has visitors who are likely to have already stopped at home before visiting Kabaty.

¹¹ Surveys in both Prague and Warsaw did not include the home-to-work commute hours.

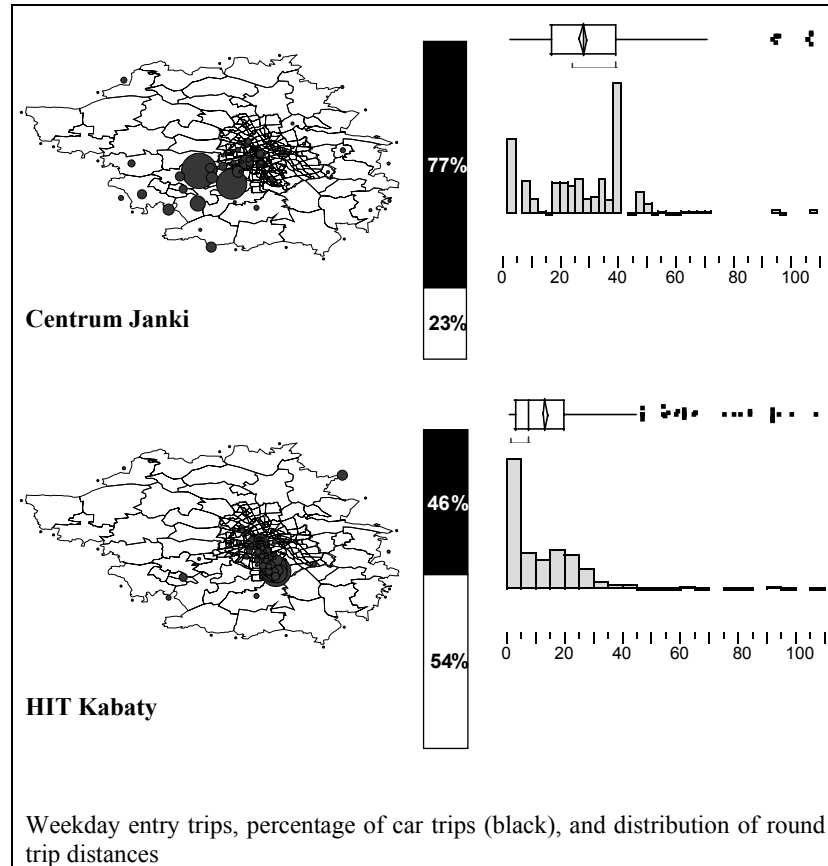


Fig. 12.8. Comparison of two malls in Warsaw: Centrum Janki, an out-of-town mall, versus HIT Kabaty, a mall on a subway stop station in a fairly dense residential area.

Conclusions and policy implications

In Central and Eastern Europe the retail revolution was intensive, and in contrast to its course in most other countries, it preceded rather than trailed residential sprawl and suburban lifestyles. Moreover, it occurred in the absence of regulatory or other restraints. For these reasons, it offers unusual insights into the effects of retail deconcentration on travel. These insights are internationally relevant as the multinational retail chains increasingly turn their attention to the transitional countries. A recent survey by PriceWaterhouseCoopers (2004/5) of the patterns of

growth in retail and consumption in transitional economies provides the following summary:

As the transitional economies develop, the lives of their populations will open up to discover a whole new range of consumer goods. Shopping centres with their malls, and the creation of adjacent leisure activities will become one of the important poles of future consumption patterns. Emerging regional players, as well as the multinationals already present in these countries, will be seizing the significant potential for expansion from the increasingly saturated major cities into smaller, regional urban centres (p. 17 of the Executive Summary).

There are pressures on the expanding retail sector to locate in ex-urban areas: that was the case in the first phase of retail growth in major cities of Central and Eastern Europe, and is likely to be the case in the smaller urban centres as well. We expect that the drive for retail development in Central and Eastern Europe, tied to images of Western lifestyles, and the power wielded by international retailers as compared to that of local authorities will frequently overcome the planning restraints that are in place in transitional economies.

While large retail chains have traditionally relied on the hypermarket model in their overseas expansion, they are not necessarily wedded to it, and are likely to experiment with other formats, locations and business models as they try to tap new and lucrative markets. These markets lie not only in the well-off populations that use smaller urban supermarkets (e.g., Tesco's "Tesco Metro" or Ahold's "Albert Heijn" models), but in the extensive poor and even subsistence-level populations in transitional countries who now are loyal to small family stores, which offer a remarkably sophisticated response to their needs.¹² In post-socialist economies, sub-optimal peripheral locations have sometimes been chosen by retailers blocked from their preferred central locations. As the CEE urban retail market eases up with brownfield reuse, clearer ownership, and faster rezoning procedures, retailers may be able to move closer to their still predominantly urban customers.

As the retail revolution goes global, the role of planners is not simply to warn about potential adverse consequences of the new developments. They can also underscore good practices for the nature, location and accessibility of retail, and translate those principles into regulatory tools and requirements. The brief sampling of empirical findings presented here shows the importance and complexity of their task.

During its first decade of expansion, Central and Eastern European retail in post-socialist cities approximated the North American model – unregulated and

¹² Booz-Allen-Hamilton conducted a fascinating study of traditional and small retail in Argentina, Brazil, Chile, Colombia, Costa Rica, and Mexico in 2003 for the Coca-Cola Retailing Research Council—Latin America, a group of major retail leaders in the region.

market-driven.¹³ In the U.S., however, due to its large size, lack of land-use powers at the federal level, and strong emphasis on local policy determination, there are no national policies and very few state-level initiatives governing the location of retail. There it is only local ordinances that can temper the encroachment of new 'big box' stores, and the circumstances and actions taken vary from community to community. Planners in the U.S. are more often reactive in the face of proposed development, rather than establishing retail strategies and policies such as are seen at a national level in other countries.¹⁴

Western Europe, on the other hand, has evolved a fairly diverse and sophisticated toolkit of measures for regulating retail (Garb and Lichfield, forthcoming). Zoning has been used to restrict retail development to town centres, or to urban areas with good access by all forms of transport. Countries have set thresholds for the maximum size of new retail projects, the kinds of goods sold, and even their open hours, in order to reduce competition with small retailers. In the Dutch case, the impact on existing small retail is avoided by specifying a limited number of the national "large scale concentrated retail establishments," which have a minimum size threshold (Garb and Lichfield, forthcoming). Yet another set of tools regulates retail by manipulating of incentive structures and stakeholder relations rather than by zoning, by redistributing business taxes paid by large retailers to retailers in traditional locations, or by allowing a regional planning authority to veto the proposals of another adjacent authority on the basis that they will have an adverse regional effect. At various in times, some countries have mandated obligatory retail research that would map out the needs for and impact of retail development.

From the empirical findings in this paper one may see how subtly these and other tools must be formulated and applied, and their complex linkages with policies on motorization and other forms of deconcentration (e.g., of jobs and housing). Our findings show that hypermarkets significantly reduce the number of trips made, but convert them into motorized and longer distance trips. In the extreme case, in a motorized country, larger and thus more appealing retail will draw significant numbers of people from smaller towns on occasional trips that are hundreds of kilometres in length. In such a context, finding the optimal location for a large mall would not always be simple. An in-town location will increase the distance travelled for many shoppers coming from out of town, and will put their car traffic onto urban roads rather than inter-urban highways.¹⁵ At the same time, the

¹³ See, for example, Walter's (2003) detailed study of retail regulation in the Polish context, which shows that while existing legal tools were adequate, the lack of enforcement made for more or less free-market development. The drive toward retail modernization overrode any concerns about spatial consequences. Impact analysis of new retail facilities was required; but they were prepared by the developer, and there were no guidelines as to what to measure or what the goals or benchmarks were. As might be expected, such reports focused on (unsubstantiated) claims about increased employment opportunities and highly local (parking-lot level!) assessment of impacts on air quality.

¹⁴ This summary and the following summary of Western European retail draws from a comprehensive survey by Garb and Lichfield, forthcoming from ITDP.

¹⁵ Similar findings from simulations are provided by Hay (2005).

construction of more malls in smaller cities can reduce some long distance travel. An examination of trip origins of existing malls, case by case, can inform policies for such difficult balancing of local and regional travel.

The findings on CEE countries also show the variety of ways in which retail can interact with different travel modes, trip chaining patterns, and locational settings, including some important sustainable retail niches, past and current. For example, our Warsaw survey shows a “stop-on-the-way-from work” mall with over 40% of its visits being part of such trip chains, and a “transit mall” where more than half the customers come by non-car transportation. Indeed, in general, retail in Central and Eastern European cities remains very transit-based. More than half of the people surveyed in large (>100,000) cities report that transit is “very important” for them in their shopping for food and basic foodstuff, and almost everyone (nearly 90%) is either very satisfied (50%) or satisfied (40%) with the level of transit access they have. On the other hand, a niche that has been most severely hurt by the growth of hypermarkets comprises the local shops and local supermarkets that were formerly reached on foot by 65%-71% of people surveyed, and by transit by another 5-11%.

The analysis we began here should be extended. It hints at exciting directions for furthering existing retail policies and impact assessment approaches for promoting more sustainable retail. An alternative to prohibitory regulation may be to support retail actively at locations that have been demonstrated to facilitate desirable travel characteristics; in a highly competitive market, this may have some of the same effects as outright restrictions. Or, more drastically, using the characteristics of such “better practice” facilities as benchmarks for permitting proposed developments would provide legitimacy and validity to *ex ante* retail impact assessments. Stipulating a minimal non-car modal share or maximum average travel distance for retail (enforceable through free shuttle services, for example) would introduce new locational criteria to developers searching for suitable sites and would encourage more accuracy in the impact assessment reports they commission.¹⁶ Also, in an era of increased sensitivity to greenhouse emissions, the considerable, measurable, and perhaps tradable reduction of emissions due to improved access to a shopping facility could spur better policies on retail location.

These kinds of policies and tools are urgently needed in Central and Eastern European countries as “big box” retail deconcentration now spreads from the large cities to towns with population of 50,000 people and less. They may also be useful to planners in other transitional economies and in developing countries worldwide, as similar pressures are likely to be felt from the rise in purchasing power and motorization rates. In developed countries, where retail deconcentration occurred few decades ago and more gradually, planners can sharpen their understanding of that process and of retail alternatives. The different outcomes and “irregular” patterns shown where hypermarkets are located in and around cities that are still relatively compact and well served by transit can point to the potential for

¹⁶ On the example of the “Centro” peripheral shopping and leisure centre in Oberhausen (Germany), and the achievement of the mandated 35% public transport mode share despite 10,500 free parking spaces, see International Association of Public Transport (2002).

more sustainable land use patterns. (From the U.S. perspective, the land-use/transport conditions in CEE are still enviable, even after the decade of “degradation” described here.)

Finally, the CEE case raises a question for transnational civil society groups.¹⁷ Should large transnational retail chains, which increasingly operate abroad, be immune from regulation as they “export” sprawling land-use practices? This question is especially applicable to Western European corporations, which were extremely aggressive in exporting their operations and formats to post-socialist Central and Eastern Europe with a lack of spatial oversight they would never have been allowed in their home countries. The question is even more pointed in the case of international financial institutions such as the European Bank for Reconstruction and Development, which is a large and active lender for private exurban retail facilities in Central, Eastern, and Southeastern Europe.

Acknowledgements

This research was supported by the Institute for Transportation and Development Policy (New York), and the Rockefeller Brothers Fund initiative on smart growth in Central Europe. The authors are grateful to Jirina Jackson, Karel Maier, Karel Stransky, Andrzej Kassenberg, Nadace Via, and others who a generous introduction to Central European urban processes. We also thank Jirina Jackson and Greg Newmark for assistance in designing and administering the Prague questionnaire, to UDI Prague for data entry and use of their Prague traffic model, and to Jonathan Levine, Walter Hook, and Eran Razin for providing valuable feedback on drafts of this chapter.

References

- Booz-Allen Hamilton (2003) Creating value for emerging consumers in retailing. A study conducted for the Coca-Cola Retailing Research Council—Latin America. Summary available at http://www.coke.net/app/home/portal/_pagr/109/_pa.109/135 (accessed in 2005).
- Chung CJ, Jeffrey I, Koolhaas R, Leong ST (eds) (2001) *The Harvard Design School guide to shopping*. Koln, Taschen.
- Dries L, Reardon T, Swinnen J (2004) The rapid rise of supermarkets in Central and Eastern Europe: Implications for the agrifood sector and rural development. *Development Policy Review* 22(5):525 – 556.
- Florini AM (ed) (2000) *The third force: The rise of transnational civil society*. Carnegie Endowment for International Peace and Japan Centre for International Exchange, Washington DC.
- Garb Y (forthcoming) Retail deconcentration and its impacts on travel patterns: Findings from the Czech Republic. In: Eran R, Vazquez C, Djist M (eds) *Deconcentration in*

¹⁷ On transnational civil society, see Keck (1998) and Florini (2000).

- European metropolitan areas: Market forces vs. planning regulations. Kluwer, Dordrecht.
- Garb Y, Lichfield S (forthcoming) A survey of measures for retail regulation in Western Europe and their evolution. Institute for Transportation and Development Policy (ITDP), New York.
- Garb Y, Jackson J (forthcoming) Brownfields in Central Europe: A unique urban planning challenge, and a NGO advocacy response. In: Altrock UG, Güntner S, Huning S, Peters D (eds) Berlin spatial planning and urban development in the new EU member states. Ashgate, Aldershot.
- Hay A (2005) The transport implications of planning policy guidance on the location of superstores in England and Wales: simulations and case study. *Journal of Transport Geography* 13:13-22.
- INCOMA (2001) Sheet # 5 in *SHOPPING MONITOR 2001*. <http://www.incoma.cz/en/>.
- International Association of Public Transport (2002) Public transport connections to out-of-town shopping and leisure facilities. International Association of Public Transport (UITP), Brussels, <http://www.uitp.com>.
- Jackson J, Garb Y (2002) The search for brownfield leadership in Central European cities: Overview and case study of the Czech Republic. Policy report, Institute for Transportation and Development Policy, New York/Prague.
- Keck ME, Sikkink K (1998) *Activists beyond borders*. Cornell University Press, Ithaca, NY.
- Kulke E (1997) Effects of the economic transformation process on the structure and locations of retailing in East Germany. *Journal of Retailing and Consumer Services* 4:49-55.
- Maier K (1998) Czech planning in transition: Assets and deficiencies. *International Planning Studies* 3:351-365.
- Michalak WZ (2001) Retail in Poland: An assessment of changing market and foreign investment conditions. *Canadian Journal of Regional Science* 24:485-504.
- PriceWaterhouseCoopers (2004/5) From Beijing to Budapest: New retail and consumer growth patterns in transitional economies. Executive Summary, 3rd edition. www.pwc.com (accessed in 2005).
- Smith J (2003) From hazi to hyper market: Discourses on time, money, and food in Hungary. *Anthropology of East Europe Review* 21 (electronic).
- Stenning A (2005) Post-socialism and the changing geographies of the everyday in Poland. *Transactions of the Institute of British Geographers* 30:113-127.
- Walter M (2003) Einzelhandelsentwicklung in Polen: Probleme der planerischen Steuerung des Einzelhandels in Warschau. MA thesis. Institute for Town and Regional Planning, Technical University, Berlin.