

Traffic constraints (pedestrian areas, parking limits, etc.) and real estate market

W. Kleiber *

1. If it is the highest form of human life to speak to a highly qualified audience about a subject which is a deep and dark terra incognita and one realises that nobody could offer a candle to improve visibility, it is a very lucky day for me. And I am quite sure that I can learn at this seminar more than I really could elucidate in the next hour I was given.

The subject we are discussing here is a very important one and it reflects great credit on the organizer to have put this on the agenda to bring some light into the darkness.

2. When we are talking about the real estate market under the influence of traffic constraints, pedestrian areas and the limited parking possibilities, we are more or less talking about the inner city policy where all this takes place every day and that means we are talking about the future of our towns.

3. First of all, I would like to give a *brief description of the situation in Germany*.

a) The number of cars is increasing sharply mainly due to the fact that the legs of our women are getting longer by the width of four tyres: the use of a car of their own by women has increased in Germany by 20% within two years.

* Fellow of the Royal Institution of Chartered Surveyors, Bonn-Bad Godesberg (Germania).

The increase in privately owned cars altogether may be seen from the following figures:

- 1966	10.302 millions
- 1970	13.941 millions
- 1980	23.192 millions
- 1985	25.845 millions
- 1988	28.878 millions
- 1989	29.755 millions

Up to the year 2000, a density of about 5200 vehicles per 1000 inhabitants is expected.

b) The cities have invested to a great extent to improve the local public transport system but the use of public transport could be mainly increased only in cities where the underground has been improved.

The development of public transport in Germany

Die Entwicklung des öffentlichen Nahverkehrs innerhalb und außerhalb der Verkehrsverbünde in der Bundesrepublik Deutschland von 1980 bis 1987

Verkehrsverbund	Beförderte Personen in Mill.						Veränderung 1980/1987 in %
	1980	1982	1984	1985	1986	1987	
Hamburg (HVV)	436	449	430	422	414	417	-4,4
Rhein-Ruhr (VVR)	901	887	776	817	794	775	-14,0
Frankfurt (FVV)	212	215	206	207	209	213	+0,5
Stuttgart (VVS)	182	191	181	190	192	197	+8,2
München (MVG)	451	464	479	485	482	487	+8,0
Hannover	158	168	158	158	156	159	+0,6
Berlin-West (BVG)	572	547	524	519	506	510	-10,8
innerhalb der Verkehrsverbünde	2912	2921	2754	2798	2753	2758	-5,3
außerhalb der Verkehrsverbünde	4740	4512	4065	3927	3841	3770	-20,5
insgesamt	7652	7433	6819	6725	6594	6528	-14,7

Quelle: Der Bundesminister für Verkehr (Hrsg.): Verkehr in Zahlen 1988, Bonn 1988, S. 177, S. 190; eigene Berechnungen.

But altogether it is expected that public transport will diminish up to the year 2000 by 10%!

4. In my personal view, I support the thesis that public transport even with a drastic increase in financial resources, can scarcely be made attractive enough to bring about a general reversal of trend.

We can observe the result of the current development in more and more cities: inner cities are getting more and more congested. The local politicians are waiting for the crash because they know, once a beer tankard is filled, you can't get any more beer into the tankard and you have to close the inner city to private cars. But only very few municipalities have had the political courage to do that so far, but they know, how to torture those, who are still patient enough to stand traffic jams. Planning permissions for sky scrapers for instance are given in Frankfurt just only under the condition that no new parking possibilities are created by the development. This is a strategy to make inner-city traffic collapse and fewer and fewer people dare to enter the inner city with their own car. Very few cities, like Singapore, Florence, Oslo have so far dared to do something about it.

5. We know quite well the results of this development and can observe every day the changes of the urban development and the changes of the estate markets: "No parking, no business" is the simple diagnosis of many experts and that is the reason for all the shopping centres in the suburbs, offering "one-stop-shopping".

Regional shopping centres in Germany have increased as the following figures show:

Year		space sq m	average space of one shopping centre s qm
1964	3	170.500	56.833
1965	3	170.500	56.833
1970	15	625.999	41.733
1975	47	1.654.706	34.473
1980	69	2.175.506	31.044
1985	82	2.496.848	30.449
1988	88	2.602.848	29.578
1989	91	2.687.848	29.536

Source: Institut für Gewerbezentren, Bad Urach, Mai 1988, zit. nach: Falk, Bernd: Das Shopping-Center als Einkaufs- und Freizeitzentrum, in: 50 Jahre Selbstbedienung, Dynamik im Handel - Sonderausgabe, Oktober 1988, S. 92 - 102, S. 93.

Here are some *results of research* in various German cities:

- About 50% of all inner-city customers use their own car and cover about 62% of all sales.

- Private transport is of greater importance for smaller and medium-sized towns than for bigger towns.

- The park and ride system has despite all efforts not met with great approval.

- As a result of the development of 2000 new parking possibilities in the inner city of Hamburg, sales have risen about 11%.

- Pedestrian areas need parking space at a distance of up to 300 m.

- 100 square metres of pedestrian area need parking space for about 10 cars (200 m²).

- The extension of the travelling time into the inner city of Cologne by 8 minutes is showing a reduction of 10% of customers. Only a quarter of them have changed to public transport.

Customers coming to inner cities in their own car spend the largest amount of money, as the following table shows:

Way of coming to the inner city	percentage in %	
	1984	1988
pedestrians	100	100
own car	175	165
public transport	135	112
bicycle/motor bicycle	93	95

Source: Bundesarbeitsgemeinschaft der Mittel- und Großbetriebe des Einzelhandels (Hrsg.): Mittelzentren im Aufwind, Ergebnisse der BAG-Untersuchung Kundenverkehr 1988, Köln 1989, S. 28.

The use of transport system:

	percentage of inner city customers					
	own car		public transport		Others bicycle etc.	
	town	fringe	town	fringe	town	fringe
Munich	18	32	61	64	21	3
Hamburg	26	51	67	45	7	-
Essen	53	75	37	23	10	2
Duisburg	42	79	29	19	29	-
Braunschweig	46	90	25	10	25	-
Heilbronn	50	80	21	20	29	-

Source: Deutscher Städtetag (Hrsg.): Die Innenstadt - Entwicklungen und Perspektiven, DST-Beiträge Reihe E, Heft 14, Köln 1986, S. 8.

- The money customers spend in the inner city depends on the way they come to the inner city. In Munich
- the average customer coming in his own car spends about 360 DM while
- a customer using public transport only spends 193 DM.
- Most customers now use their own car to come to the inner city and these figures are still increasing as the following table shows:

The choice of transport by customers of inner cities

percentage %			
Jahr	pedestrians	by car	by public transport
1965	28.3	29.9	37.9
1968	27.1	34.0	35.1
1971	25.9	36.0	33.4
1976	19.1	43.2	33.6
1980	16.7	42.8	35.5
1984	17.0	44.2	32.7
1988	15.1	49.2	30.2

1) Average of Thursday, Friday and Saturday

Source: Tietz nach Angaben BAG, in: Bundesarbeitsgemeinschaft der Mittel - und Großbetriebe des Einzelhandels (hrsg.): Gefahr für die Innenstädte wächst, Ergebnisse der BAG-Untersuchung Jundenverehr 1984, Köln 1985, S. 34; Bundesarbeitsgemeinschaft der Mittel - und Großbetriebe des Einzelhandels (Hrsg.): Mittelzentren im Aufwind, Ergebnisse der BAG-Untersuchung Kundenverkehr 1988, Köln 1989, S. 33.

It is expected that between 1988 and tey year 2000 public transport may decrease by 10-11%.

The bigger the city the fewer customers use their own car

Size of the town from in ... to ... inhabitants	pedestrians		percentage% by car		by public transport	
	1984	1988	1984	1988	1984	1988
under 50,000	20.6	17.5	57.7	64.4	13.5	11.3
50,000 - 100,000	18.4	15.8	53.6	59.6	20.8	18.5
100,000 - 250,000	16.2	14.9	50.1	54.8	27.5	24.6
250,000 - 500,000	16.0	14.3	47.0	51.4	31.2	28.5
500,000 and more	15.6	14.1	37.2	40.4	42.6	40.7
- centres	8.5	7.9	38.7	41.2	48.6	46.3
- subcentres	30.2	25.9	37.4	43.4	25.6	24.8

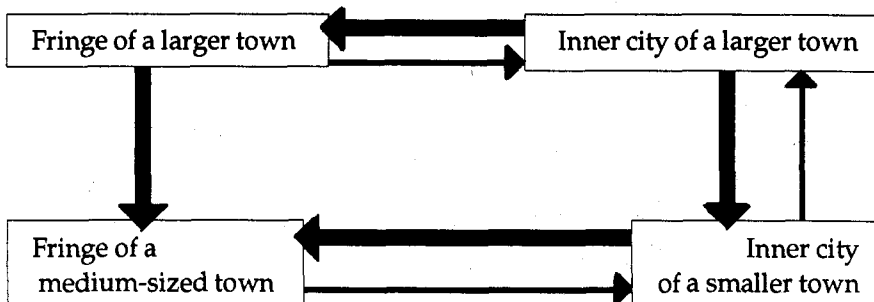
Source: Bundesarbeitsgemeinschaft der Mittel - und Großbetriebe des Einzelhandels (Hrsg.): Mittelzentren im Aufwind, Ergebnisse der BAG-Untersuchung Kundenverkehr 1988, Köln 1989, S. 25, S. 26.

6. The figures I have given to you are just some spotlights to illustrate the situation, which is in fact much more complex than I could decrive. But I would like to emphasize two *major current trends*, which will continue:

- a) The collapse of inner city private traffic will come sooner or later in all bigger cities.
- b) The process of the migration of inner-city functions to sub-centres and to suburbs will continue: inner cities are garning new functions.
- c) The migration began in the so called food sector; but high profits are mainly made in the non-food sector, especially clothing and leather. They are in a position to pay the enormous rents in the inner-city and cover about 60% of all retailers in German inner cities.
- d) The process is still going on. Shopping centres in sub centres and suburbs are on the way to attract more and more profitable non-food retailers.

What are the consequences?

The sales of retailers are migrating from the bigger towns to their suburbs as well as to smaller towns in their surrounding areas as the following table shows.



7. What does that mean now for the inner-city land market.

Will land prices rise or will there be a decrease in land values.

No one can give you any other answer than Radio Eriwan used to give: it depends - it depends on the local authorities urban policy.

The main factors of this policy is are

- how they improve the attractiveness of public and private transport
- how local authorities promote the attractiveness of inner cities and

how they succeed in creating sophisticated solutions for sub-centres.

From my point of view it would be a fundamental mistake if local authorities would just lean back in a mood of "laissez faire laissez-aller policy", expecting that business will find the right solution by using land according to the highest rent:

- Gambling and bingo halls as well as sex shops would be the winner. Offices would continue to displace living space.

- On the other hand, the sub-centres as well as the out-of-town shopping centres will renew their efforts to improve their range of non-food outhets, which show the highest profit.

That would be a short-sighted "cash out" strategy which must lead to the decline of cities. The question is whether we can prevent a development we can observe in the United States or Canada with Mega-Centres and Mega Malls like the West-Edmonton Mall of the Triple-Five-

Corporation, the Forest Fair Mall in Cincinnati or the Santis Park in St. Gallen, the Metro Centre in Gateshead/Newcastle.

8. Despite the traffic situation there is no other chance for inner cities to survive if they do not improve their attractiveness. This implies creating a "mix" of

- retail outlets for luxury goods as well as,
- low-cost concepts,
- hotels and
- cultural institutions (cinemas, theatres, museums) including sports centres.

Rising incomes, the increase in spare time, the growing mobility as well as the European market provide opportunities for inner cities.

There are many examples that it is even possible to integrate the top-ranked streets of metropolitan areas:

List of streets with highest rents?

Highest rents top list (1)

Street	City	Rents/per sq m
1. The Ginza	Tokyo	1,150,— DM
2. Trump Tower	New York	830,— DM
3. Staufinger Straße	Munich	350,—DM
Hohe Straße	Cologne	
4. Oxford Street	London	
5. Rue du Faubourg, St. Honoré	Paris	
6. Pitt Street	Sydney	
7. Via Sistina/Via Condotti	Rome	
8. Serrano	Madrid	
17. Baixa/Amoreias	Lisbon	60,— DM

- The attractiveness of the Champs Elysées could be improved by shopping centres in side streets.

- In Brussels the City 2, which connected the ware-houses "Innovation" and "Bon Marché" could be improved by new retail shops.

- In Cologne as well as in other towns the attractions of cities could

(1) Source: Healey and Baker

be improved by near galleries like the Olivandenhof, the Kö-Galerie in Düsseldorf or other centres with a broad mixture of shops, restaurants and entertainment. These examples show that the concept of a "Vertical Mall" can be very attractive, if the customer can be lured, for instance by moving staircases to upper floors. It has become obvious that there is a trend

- to smaller shops up to 80 sq m and
- to a separation of areas for "shopping goods" and "luxury goods".

More and more in all big cities there are certain streets, where all luxury and world wide operating firms - Hermes; Polo Ralph Laurent, Bulgary up to Tiffany - are close together, as for instance in the Goethe Street in Frankfurt.

9. Characteristic of all of them is the factor "entertainment": it is the key factor as well as the fact, that no heavy goods are sold.

10. How all that affects land values is a question you can hardly answer by general rules.

- It is anyway one of the unsolved valuation problems to assess land values in built-up areas for land on its own. The comparison method can't provide an answer because there is no really only developed property on the market.

- From my point of view it is anyway impossible to explain land values in inner cities by just one factor; there is no monocausal factor. It is quite easy to give 40 and more factors to explain land values in inner cities.

- It is therefore only possible to explain land values by certain representative factors, like the development of rents as the most significant.

Method A:

Land values in inner cities can be mainly explained by the rent

- on the ground floor,
- in the basement and
- on the first floor,

if there is a concept, how to integrate the basement and the first floor into the shopping area. Multiple regression analyses have shown that land values follow the (monthly) rent of the ground floor in smaller towns (300,000 inhabitants) by a nearly linear factor of 30.-200. That means

a rent of 50 DM per square metre leads on the basis of a factor of 30 to a land value of 1,500 DM.

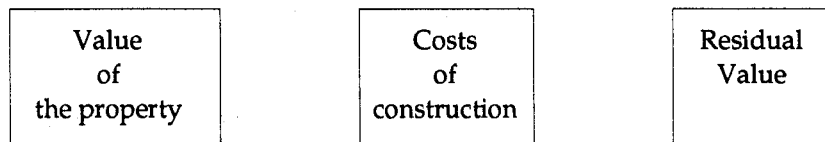
That seems to be a reliable method to estimate land values but from experience in Germany we know there are no general factors which can be used in every town. It is necessary to explore these factors taking the local situation on the market. But there is some evidence that the best results could be found on the basis of a simple linear regression. Multiple regression functions couldn't improve the results. Research has also shown that the multiplier is higher the bigger the town.

Once you have found the multiplier it is easy to estimate the influence of an increase or decrease in the rent on land values. If the monthly rent on the ground floor is rising by 10 DM monthly land values rise in the given example by 300 DM/sq m. ($= 10 \text{ DM/sq m} \times 30$). If the rent is rising monocationally by improving the traffic situation you know the influence on land values.

Method B:

The method described very often fails in fully developed areas, where you have no evidence of land values, because there is just property but no land on the market.

Most appraisers are using the so-called residual method by deducting the costs of construction from the value of the fully developed property.



Once again it is the rent, which has a direct influence on the value of the property as well as on the residual value.

For assessment the method of residual valuation which leads to individual values according to the concept of the development.

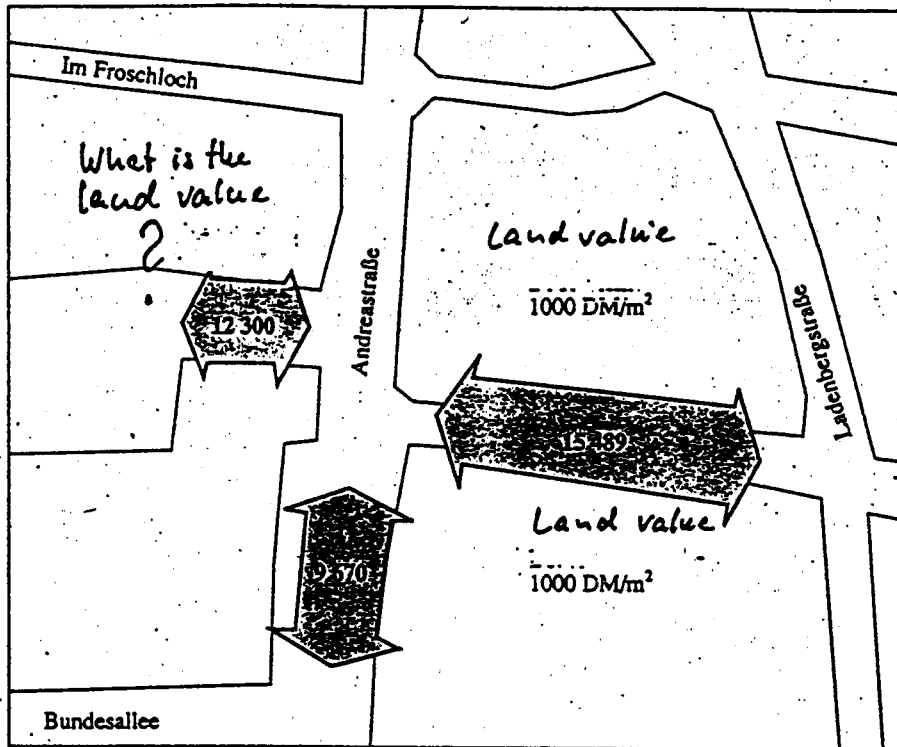
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Method C:

11. Another method to evaluate changes in land values due to the situation of traffic in the inner cities is practised by observing the

economic situation:

The example I would like to show you could be described as a comparison method and was recently practised in Bonn:



$$\text{Land value} = \frac{12300 \times 1000}{15489} = 800 \text{ DM/M}^2$$

12. All these methods I have shown are differential methods and I would like finally to remind you of what I said at the beginning. It depends on the complex urban development, if and how rents are developing. The traffic situation is just one factor and in most cases not the only one. If land values are rising or declining is the result of the local urban development as well as of the general economic and social situation. The impact of the process of motorization on land values in inner cities will be the result of the local policies and their capability of finding sophisticated solutions and this last remark should not be taken as an excuse, when I could not give you a generalized answer.

Riassunto

Misure di riduzione della circolazione (aree pedonali, limiti di parcheggio, etc.) e mercato immobiliare

La relazione presenta una breve descrizione della situazione in Germania: l'aumento delle automobili private in proprietà e il trend negativo dei trasporti pubblici. Il risultato è che i centri cittadini stanno diventando sempre più congestionati.

Le variazioni dei mercati immobiliari sono ben note: "Niente parcheggio, niente affare", mentre i shopping centres localizzati nelle periferie offrono "one-stop-shopping".

I risultati di una ricerca in diverse città tedesche mostrano che il mezzo di trasporto privato assume una importanza superiore per le città piccole e di media grandezza rispetto a quelle più grandi e che i clienti che raggiungono il centro con l'uso della propria automobile spendono di più degli altri.

E' importante porre l'accento su due principali andamenti che continueranno in futuro: primo, il collasso dei centri urbani da traffico privato riguarderà prima o poi tutte le città più grandi; secondo, il processo di migrazione delle funzioni proprie del centro urbano verso le corone esterne e le periferie continuerà.

Secondo l'autore, sarebbe un grande errore se le autorità locali declinassero le loro responsabilità verso un atteggiamento di "laissez faire"; questa strategia di rottura porterebbe al declino delle città.

Per contrastare questa situazione non esiste altra possibilità di sopravvivenza per i centri urbani che quella di migliorare la capacità di attrazione, attraverso la creazione di un mix di sbocchi di vendita per beni di lusso e per merci a basso costo, e di attrezzature ricettive, alberghiere, culturali e sportive.

Come tutto questo influenzi i valori della terra è una questione a cui è difficile dare risposta attraverso regole generali. In altre parole è impossibile spiegare i valori immobiliari nei centri urbani attraverso un solo fattore ma attraverso certi fattori rappresentativi, quali l'aumento della rendita tra i più significativi.

Vengono illustrati tre diversi metodi:

Metodo A. I valori immobiliari nei centri urbani possono essere spiegati sulla base del reddito della superficie di pavimento, nel seminterrato e al primo piano. Analisi di regressione multipla hanno mostrato

che i valori immobiliari seguono il reddito della superficie di pavimento nelle piccole città con un fattore lineare di circa 30.-300.

Metodo B. Molte stime adottano il cosiddetto metodo residuale che deduce i costi di costruzione dal valore della proprietà dopo la sua completa trasformazione. Ciò porta a valori individuali in accordo con il concetto di sviluppo.

Metodo C. Un altro metodo per valutare i cambiamenti nei valori immobiliari fa riferimento alla situazione del traffico nei centri urbani ed è praticabile osservando la situazione economica (si veda l'esempio di Bonn).

Certamente dipende dal completo sviluppo urbano se e come si sviluppano le rendite (o gli affitti).

La situazione del traffico è solo un fattore e in molti casi non l'unico. Se i valori immobiliari si innalzano o decrescono è il risultato dello sviluppo urbano locale così come dell'economia generale e della situazione sociale.

L'impatto del processo di motorizzazione sui valori immobiliari dei centri urbani sarà il risultato delle politiche locali e della loro capacità di trovare sofisticate soluzioni.

Résumé

Mesures de reduction de la circulation (aires pietones, limites de stationnement, etc..) et marche immobilier

La relation présente une brève description de la situation en Allemagne: l'augmentation des automobiles privées en propriété et le "trend" négatif des transports publics. Le résultat est que les centres citadins sont en train de devenir toujours plus congestionnés.

Les variations des marchés immobiliers sont bien connues: "pas de parking, pas d'affaires", tandis que les "shopping centres" localisés dans les périphéries offrent un "one-stop-shopping".

Les résultats d'une recherche dans plusieurs villes allemandes démontrent que le moyen de transport privé assume une importance supérieure dans les petites et moyennes villes par rapport aux plus grandes et que les clients arrivant dans le centre avec leur propre voiture dépensent plus que les autres.

Il est important de mettre l'accent sur deux principales marches qui

se poursuivant dans l'avenir: d'abord, le collapsus des centres urbains dû au trafic privé touchera un jour ou l'autre toutes les plus grandes villes; puis, se poursuivra le processus de migration des fonctions propres au centre urbains vers les couronnes externes et les périphéries.

Selon l'auteur, ce serait une grave erreur si les autorités locales déclinaient toute responsabilité en ayant une attitude de "laissez faire"; cette stratégie de rupture amènerait au déclin des villes.

Pour contraster cette situation, il n'existe comme possibilité de survivance pour les centres urbains que celle d'améliorer la capacité d'attraction, grâce à la création d'un "mix" de débouchés, à savoir vendre de biens de luxe et marchandises à bon marché, équipements d'accueil, hôteliers, culturels et sportifs.

Comment tout cela peut influencer les valeurs de la terre, c'est une question à laquelle il est difficile de répondre par des règles générales. En d'autres mots, il est impossible d'expliquer les valeurs immobilières dans les centres urbains à travers un seul facteur mais par quelques facteurs représentatifs, comme l'augmentation de la rente qui se trouve être parmi les plus significatifs.

Voici, trois différentes méthodes:

Méthode A. Les valeurs immobilières dans les centres urbains peuvent être expliquées sur la base du revenu de la surface de plancher, dans le sol-sol et au premier étage. Des analyses de régression multiple ont démontré que les valeurs immobilières suivent le revenu de la surface de plancher dans les plus petites villes avec un facteur linéaire d'environ 30.-200.

Méthode B. De nombreuses estimations adoptent le soi-disant méthode résiduelle qui déduit les coûts de construction de la valeur de la propriété après sa complète transformation. Cela amène à des valeurs individuelles en accord avec le concept de développement.

Méthode C. Une autre méthode pour évaluer les changements dans les valeurs immobilières fait référence à la situation du trafic dans les centres urbains et praticable en observant la situation économique (voir l'exemple de Bonn).

Bien sûr, tout dépend du développement complet urbain, à savoir si et comment se développent les rentes (ou les loyers).

La situation du trafic n'est qu'un facteur et dans de nombreux cas

pas le seul. Si les valeurs immobilières montent ou baissent, c'est le résultat du développement urbain local ainsi que de l'économie générale et de la situation sociale.

L'impact du processus de motorisation sur les valeurs immobilières des centres urbains sera le résultat des politiques locales et leur capacité à trouver des solutions sophistiquées.