

**International Research Project
on Urban Development (1949-1999)**

The Case of Zwickau

(A city successfully withstanding two transformations)

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1. Introductory Remarks.

Any text about eastern German cities should take into account the functional deficits of these cities. An observer from the West would perceive these deficits differently to an eastern German, because he would compare what he sees to the West German cities he is already familiar with, whereas the East German would compare his present observations to the memories of what his city looked like ten years ago, and would thus only have eyes for the positive changes that have occurred in the urban landscape since then. By trying to reduce these perceptual differences, this paper will attempt to define clearly the goals desirable for the further development of eastern German cities.

At the present time, East German cities contrast themselves considerably from West German cities. In the East, there is much more building construction going on: whole neighbourhoods are being torn down and rebuilt. Other neighbourhoods seem less urban and appear to be disused and neglected. Unemployment is higher than average. The individual purchasing power of the consumers and the retail sales volume in East Germany are lower than the national average. Local and state tax revenues are not sufficient to cover the necessary expenditures. In the foreseeable future, local government bodies will have to depend on outside public funds. In addition, they are registering a significant population loss, while smaller communities lying on the outskirts of the larger cities are growing in population.

This paper will provide a regional -economic investigation of the changes that are now taking place in East German cities. Since 1989 these cities have been in the midst of a complex transformational process. Occurring under the unique conditions of German unification, this process has been determined by the multifarious economic, social and political behavioural patterns of the participants involved.

In this paper, "city" will be understood as the outcome of a complex economic and political development process that occurs over an extended period of time. The economic processes that lead to the creation of a city are the cumulative result of a large number of individual investment decisions in the private goods sector. These decisions

have been made under conditions of trial and error. In addition, the decisions made collectively regarding the allocation of public goods and the resolution of land use conflicts also make a significant contribution to the urban outcome. This paper assumes the applicability of Central Place Theory. According to this theory, individual and collective decisions have aggregated themselves in an economy in the course of time into central place systems. Depending on their location and function, individual cities have attained a certain significance as a central place for the territory surrounding them. High order central places (HOCP) in a system of central places distinguish themselves by the fact that they are crystallisation centres for innovation. It is in HOCPs that new products and methods are first developed. Major centres boast the most complex bundle of private and public goods. HOCPs, medium order central places (MOCP), and low order central places (LOCP) are dependent on each other. HOCPs grow when surrounding territory is enjoying growth in wealth and population. The MOCPs and LOCPs can only develop when the dominant centres can adequately provide them with major centre goods. Thus a kind of regional equilibrium comes into being.

Past general economic conditions and the data produced through the political process of German reunification are the points of departure for a post factum prediction. The point in time of this diagnosis is 1999, ten years after reunification.

The scientific analysis of such complex transformational processes entails a number of methodological difficulties. It is difficult to predict the behavioural patterns of the actors, because of course there can be no empirically tested hypotheses due to the uniqueness of the events described. The different types of actors are too heterogeneous: First of all, there are the East Germans, who up to 1989 lived in a completely different economic and social system and who have now had to accommodate themselves to a fully new order. Secondly, there are the West Germans entrepreneurs, who have gone to the East because they believed that they could benefit from the situation of upheaval. Among them, there were certainly a few fortune-hunters, who had failed in the West with their disreputable business practices, but had short-lived success in the East, because at the beginning of such periods of upheaval there are no common rules and it takes time for such rules to develop. Thirdly, there are those from the West, who believed that

they could incorporate their utopian ideas of a better society into the transformational process of the East. Finally, there are the movers and shakers from the West, who have performed important functions in the development of both the private and public sectors. Another methodological difficulty lay in the fact that systems of official statistics in the East and the West were not compatible with each other because they followed different purposes. The development of a common statistical base takes time, and it is only now after five years that data is finally becoming available , which can be used for comparative statistical observations and the analysis of time series.

2. Economic and Political Implications of Central Place Theory

At the beginning of our study a short review of the Central Place Theory will be given. This chapter will show the elementary principles of the growth and development of cities.

- Cities are first of all market places, where a great variety of goods are supplied by private firms under conditions of competition.
- This implies that property rights are granted. This means that investors who risk their own money in different sorts of investments have a fair chance to gain profit.
- Seen from an economist`s view, cities and central places will grow sustainable when competition among buyers and sellers is as good as possible.
- Central places also contain a more or less complex bundle of collective goods. These civic goods are of vital importance. The city needs good traffic conditions, a sound environment, good housing conditions and for instance, safety against criminality.
- The supply of these necessary collective goods is given by collective choice. People will elect politicians who will have to decide upon the quantity and quality of supply of these public goods at that specific location. First of all this contains the solution of land use conflicts in a manner which is accepted by the majority of voters. Secondly this requires decisions about the allocation of scarce resources.
- If the supply of public goods is insufficient then there will be a great negative influence upon the performance of the market system of a city.
- Supplying collective goods needs decisions about scarce resources. So city councillors must have the right to levy taxes.

- Central places of different kind of regional importance will evolve in the time. They differ in the spatial range of their bundle of goods and services.
- Cities stay in a permanent economic and political competition. The most successful among them will gain migration profits. The least successful will lose population.
- European cities proved to be the cradles of democracy, self-determination, self-responsibility and self-administration. They were the first to struggle with feudal structures.
- An important implication of this theory is that central places were the most influential agents in technical progress. They proved to be the test markets for all sorts of new ideas.
- The accessibility and the spatial volume of their markets is determined by the costs of transportation preferably measured in the consumption of time. Transportation costs are determined by the quality of transport media and by the capacity of the transport system.
- Central place systems will grow as long as the so-called agglomeration economies accrue.
- This growth comes to an end, when agglomeration diseconomies are increasing, i. e. if for instance pollution is growing, traffic jams can be seen during rush hour times and so on.

Urban development proceeds by the aggregation of millions of private and collective investment decisions in the course of time. Zwickau town councillors decided to build an artificial pond for breeding fish for nutritional purposes in 1450. This investment is still in effect: The Schwanenteich today is one of the most appreciated leisure activity areas in the centre of Zwickau. The historically interesting Gewandhaus - once a guild-hall of the textile manufacturers in Zwickau, today used as a theatre - is one of the tourist attractions situated on the central market in Zwickau.

The same applies to investments in all sorts of different fields: investors in housing, industry, trade, culture and communication facilities were the fathers of city development.

By their doing, investors identify with their city. By their activities investors contribute to the image of the city. If there is a high degree of identification with their city among the citizens there will be a splendid patronising of private donators.

During these historical processes there will be accumulation of know-how about how to compete successfully in markets as well as about how to resolve collective conflicts in a democratic manner. So central places are schools in market economics and democracy as well.

3. History of Zwickau

Zwickau was first mentioned in 1118 within the general frame-work of the so-called East colonisation period when the "Holy Roman Empire of the German Nation" spread eastward. In medieval times, this town proved to be a vital trading point at the intersection of three important trading routes - one going from Prague via Zwickau to Leipzig (Bohemian Connection), one going from Kassel via Eisenach, Gotha, Jena, Gera, Zwickau to Dresden (Central German Connection) and the third one going from Nuremberg via Bayreuth, Hof, Plauen and Zwickau (Frankonian Connection) to the East as well as to the North.

Zwickau is situated at the northern part of the Erzgebirge ("Ore Mountains"). The name of this relatively mountainous area stems from the rich ore- and silver mines which had been exploited since medieval times. Zwickau became an important trading centre for all sorts of raw and manufactured silver-ware. In the very beginning, as the city grew, it became famous for its wealth.

The development of Zwickau at this time can best be described in terms of Central Place Theory. There are interesting archaeological finds from this time discovered through excavations connected with the redevelopment of the inner city during the 1990`s.

The Zwickau city elders established a constitution and a municipal parliament which dealt with all the problems of common interest.

Nowadays you will find a rich variety of historically very interesting buildings. The Gothic church of St. Mary's is surrounded by the so called Priests Houses. There are only a few medieval stone houses like these north of the Alps. Their origin can be traced back to 1250. They are now under reconstruction.

Besides these historic buildings you will find much that bears witness to the medieval wealth of Zwickau. A wide variety of different textile manufacturers were situated in Zwickau.

In 1530 Zwickau had a population of 7.677 people. This is a considerable volume in medieval times, it shows that Zwickau had an important function at that time. The population went down to 2.693 people in 1640 according to the dreadful consequences of the thirty years` war. Zwickau regained its former medieval volume of population in the early 18th century as can be seen by **Fig. 1**. This development is paralleled by the growth of the pit-coal tonnage: a heap in the early 17th century was followed by a sharp reduction during the thirty years` war and then the early industrialisation during the late 18th and early 19th century let the pit-coal tonnage increase (**Fig. 2**). **Fig. 3** shows the development of industrial enterprises between 1872 and 1914/5. **Fig. 4** gives an impression of how the different types of engines used in the Zwickau industry developed in the ten years` span between 1904 and 1914. **Fig. 5** shows the population growth of Zwickau and its suburbs in a phase of rapid industrialisation (1834 - 1875). During this time the number of population in Zwickau rose from 7.239 people in 1837 to 44.198 people in 1890 and a torrid period of early industrialisation began. The coal-mines were working until the 1970-ies. As is shown in the report given by Fanny Schenke the mining conditions were rather poor, so the labour productivity of miners of the Zwickau and Lugau coal-fields was significantly lower in comparison to the German coal mining industry (**Fig. 6**). **Fig. 7** shows the pit-coal tonnage in the Zwickau region from 1835 to 1962. The maximum is reached just before the first world war, fell down until the end of the second world war and then a rather flat development began under Communist regime until the stocks went out in the seventies of this century.

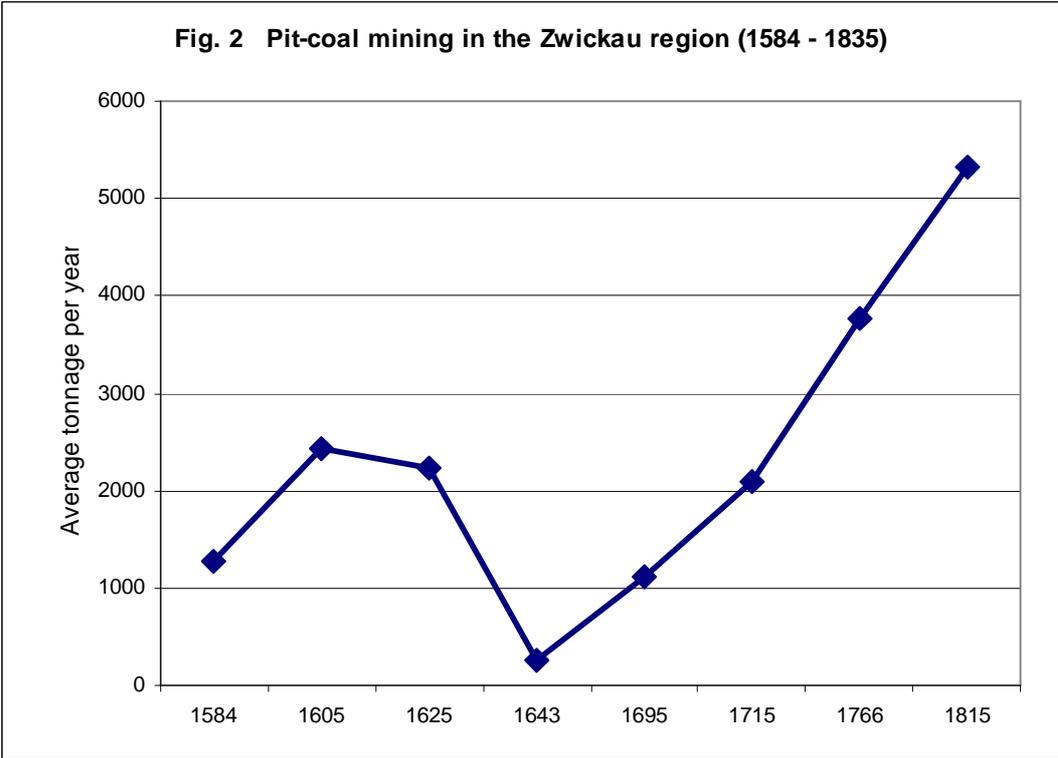
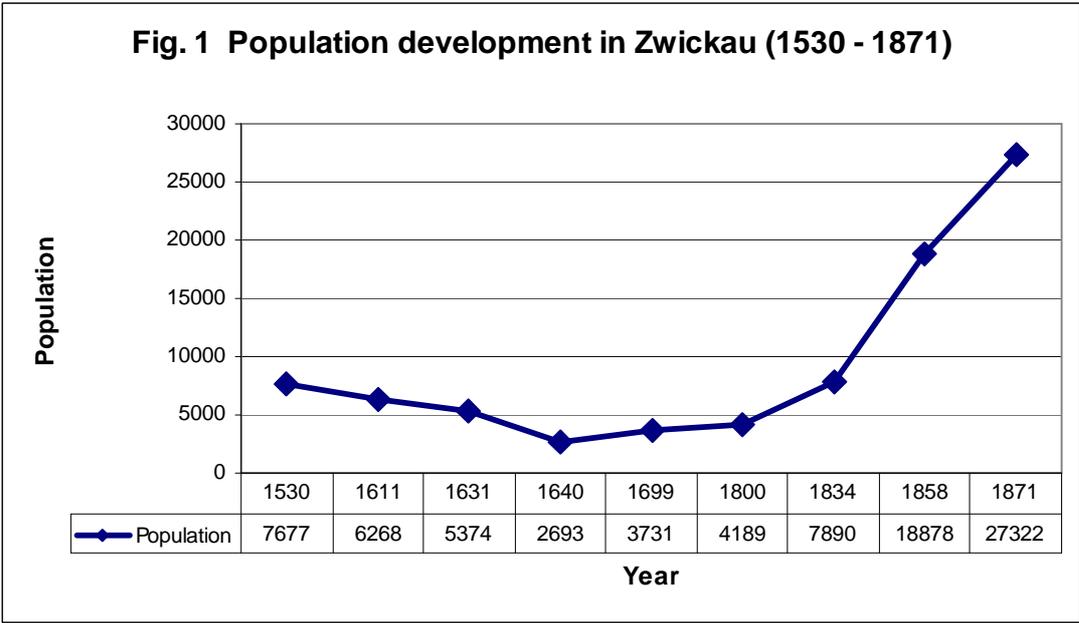


Fig. 3 Industrial enterprises in Zwickau (1872 and 1914/5)

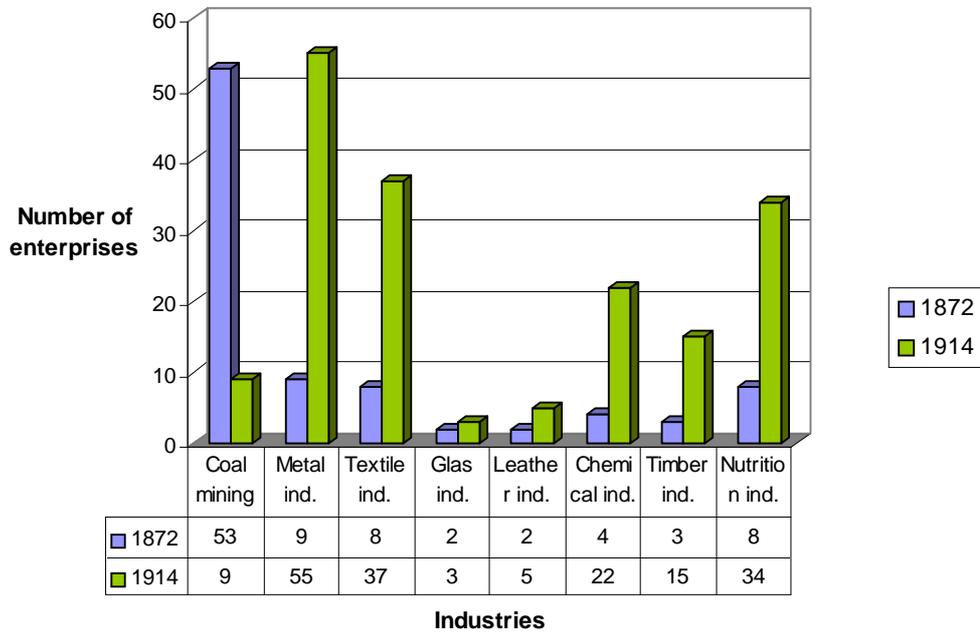


Fig. 4 Types of engines in the Zwickau industrial enterprises (coal mining excluded) from 1904 to 1914

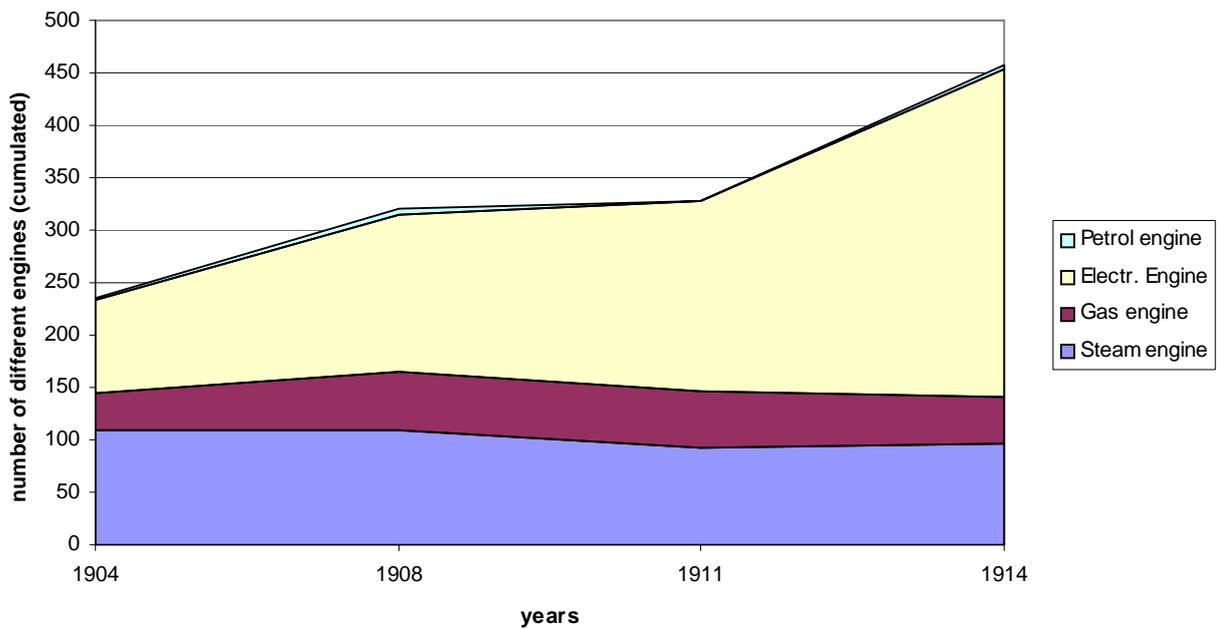


Fig. 5 Population growth of Zwickau and its suburbs (1871 - 1910)

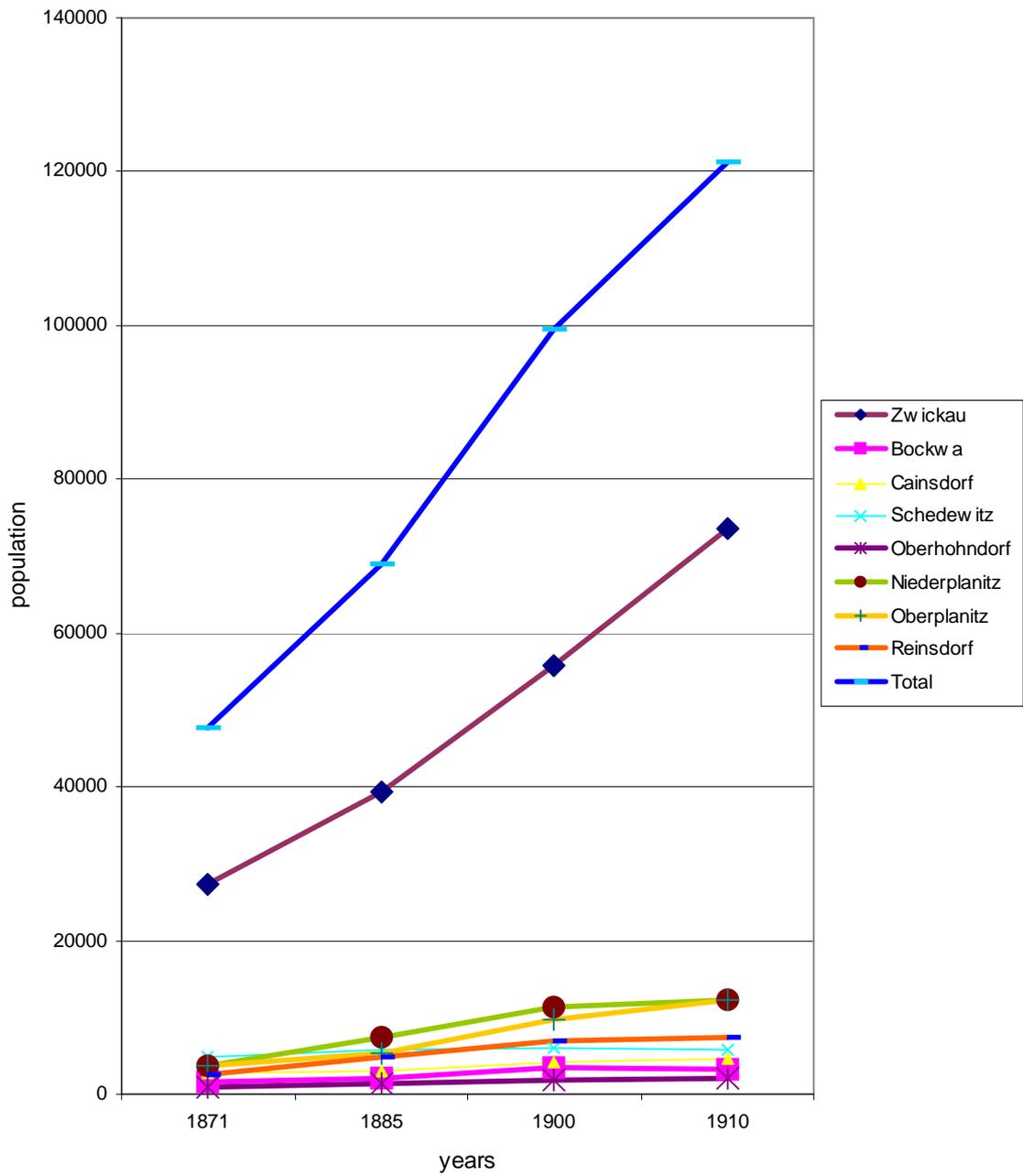


Fig. 6 Tons of pit-coal per year and employee (1904/1905)

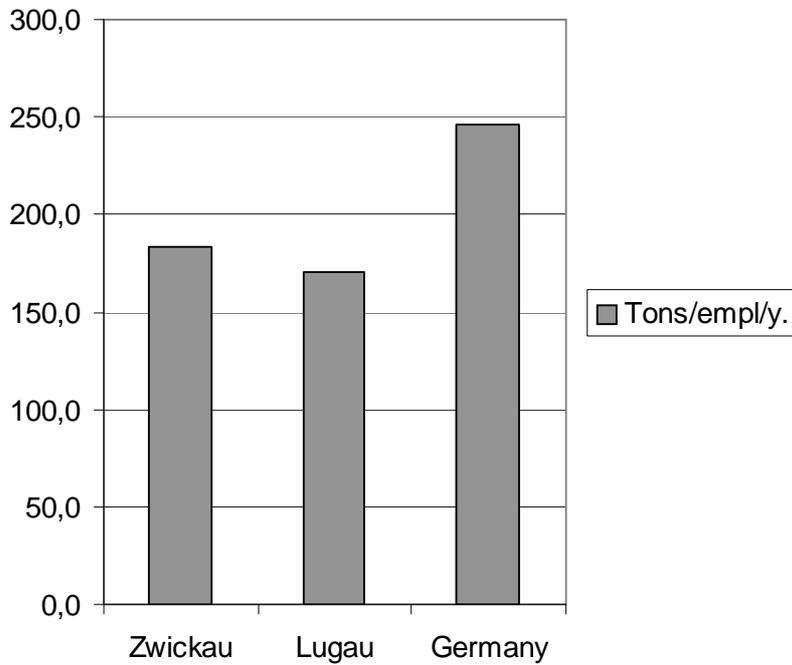
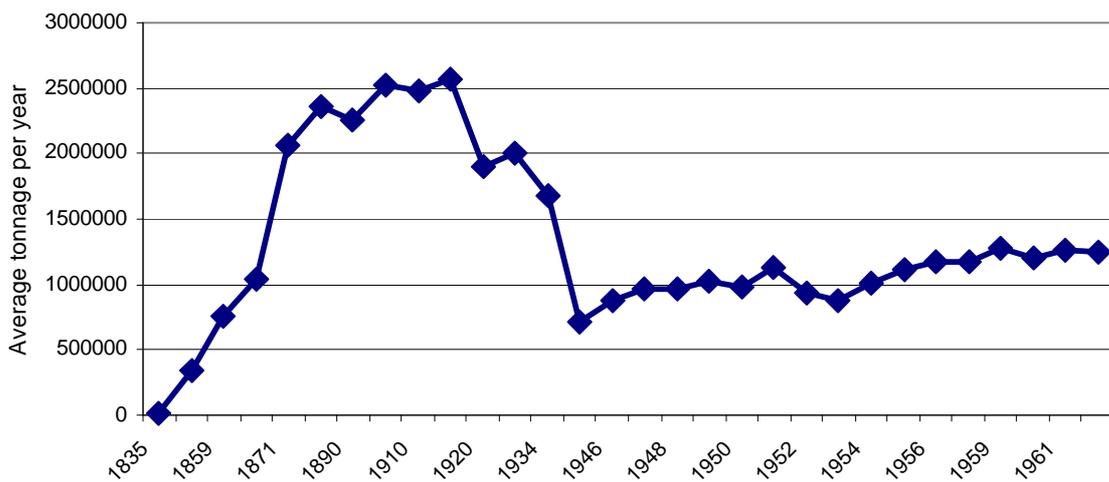


Fig. 7 Pit-coal tonnage in the Zwickau region 1835 - 1962



The area of Western Saxony is dominated by two major centres (Chemnitz with its 270.000 population and Zwickau with a 100.000 population) and much other towns of minor importance.

The whole West Saxon area proved to be one of the cradles of early industrialisation in Germany and had an importance comparable to other German industrial areas like the Rhine-Ruhr-district, the Rhine-Main-, Upper Silesian and Berlin area or the area around Stuttgart and Munich. Up to the Second World War, it had been one of the most dynamic economic and industrial growth poles in the Deutsches Reich.

Number of firms in Industry	1872	1914/5
Coal-mining	53	9
Metal-industry	9	55
Textile-industry	8	37
Glass-industry	2	3
Leather-industry	2	5
Chemical industry	4	22
Timber-industry	3	15
Nutrition-industry	8	34

Tab.1 Number of industrial firms

Number of employees Industry	1907	1938
Coal-Mining	6.574	7.952
Textile industry	4.078	5.608
Metal-industry	3.507	11.068

Tab.2 Number of employees

Over time, a great variety of industries developed in this area, especially in the automobile industry sector. Famous trade marks were: Wanderer (Chemnitz), the upperclass models of Horch and Audi (both in Zwickau) and the early "Volkswagen-typed" DKW (Zschopau). Like many other industries elsewhere, these firms suffered from the Great deflation in the twenties. They later on merged into the still existing Auto Union. Associated industries like all sorts of machine-tool-factories, textile industry and industry serving the coal-mining found the location in this area. There is a long industrial tradition and the education system in this area produced a high number of highly skilled

workers. The Zwickau Polytechnic - where our group is working and learning - is to be traced from these roots.

During the Second World War, the Zwickau industry had some strategic importance. Destruction by air raids during the Second World War were, all in all, not very high, although some Zwickau industries played an important role in the German war industry. There were two major air raids at the end of the war in which the Audi Works and the Zwickau Railway Maintenance Works (both will be described in more detail in one of the following chapters of this study) were hit severely. Apart from a little damage in the centre of Zwickau nearly all residential zones survived the war practically untouched.

3.1 End of World War II

It is understood that up to the first half of this century cities in eastern Germany developed along the political and economic lines described by Central Place Theory. With the end of World War II, however, there was a dramatic break with traditional urban development.

Zwickau`s further development after the Second World War was completely embedded into the macro-level history of the conflicts between East and West. At the end of the war Zwickau was situated exactly at the border between the areas being conquered by the Soviet and the US-Army. The small river Mulde was the border-line. Later on - in autumn 1945 - the US Army withdrew to the line, which had been fixed by the well known Jalta conference in 1944.

The new border between the two German states later on became the so called “Iron Curtain” separating two different political and economic systems.

The Soviet Army Administration began to reorganise the occupied country in a very radical way into a Soviet satellite. Conflicts among the Allies led to the aggregation of the three Western zones into one area of economic administration. The Deutsche Mark was introduced into the American, British and French zone in June 1948. A few days

later Berlin was cut off from its ties to the West by the Soviet blockade. The famous operation "Air-Lift" carried out by American and British planes lasted for more than 10 months until the Soviets gave up.

The separation of the two German parts became evident. In 1949 two German states were installed by the Allied Military Administration. The Soviets took away a lot of capital stock from the infrastructure and industrial capacity as war reparation.

Property rights were abolished. Important industries had to undergo a process of expropriation and nationalisation.

The Reichsmark currency had lost its function and a primitive form of barter economy was common place. The Soviets rigorously prosecuted owners and managers of small and middle-sized firms who desperately tried to keep their production going by storing and bartering all sorts of important raw materials and goods. A lot of tribunals were used as instruments of propaganda and intimidation. As a consequence of this, an important fraction of the managerial elites of the industries in the Soviet Zone fled to the West where they established new firms. The famous Audi-automobiles factory was only one victim among others suffering from this absurd economic policy. Audi found a new location in Ingolstadt (Bavaria). Practically the same happened to a lot of other middle-sized Zwickau firms. The Zwickau region as well as other regions in the Soviet zone suffered from war reparations. Machinery and other important capital assets were taken away to the Soviet Union.

3.2 The Wismut Complex

One of these reparations had an important and lasting influence on the Zwickau area. In autumn 1945 Soviet officers and specialists investigated archives in the famous University of Geological and Mining Sciences in Freiberg and found a lot of important information and material dealing with uranium. This metal had been found in that area in common with silver since medieval times. The Soviets found the mines worth exploiting for their purposes and started to establish a huge complex of uranium mines as well as a

wide range of associated industries to produce the so called yellow cake. This was an important input into the Soviet Nuclear Development Programme in the world-wide nuclear arms race. The name of "Wismut" was chosen to camouflage the real reasons for this programme against the Western countries.

A huge work force was recruited by "flying squadrons" all over the Soviet zone. Huge numbers of prisoners of war in Soviet PoW-camps were released earlier if they enlisted in the uranium mines. The area around Zwickau developed into a new and bursting "Klondike"-area. The population rose drastically. A considerable share of the Wismut miners began to live in Zwickau in extremely poor housing conditions. Former military barracks, all sorts of halls and even gymnasia of schools were used as multi-bedded sleeping accommodations for the miners.

A high amount of Soviet security forces was used to control the whole region against espionage and sabotage. You all can imagine that the WISMUT programme had a dramatic and lasting influence upon the further development of the Zwickau region. The report of Fanny Schenke will give you further information.

3.3 Installing a Communist regime in the Soviet Zone

The socialist central economy knew no decentralised self-reliant actors. All important political and economic decisions were made centrally. There was no market that could decentrally co-ordinate allocation decisions through pricing. Cities in the GDR were no longer "market places," where sovereign consumers could articulate their ideas wishes and where businesses could learn something about their market chances. Sovereign businesses, which made their production decisions according to perceived market chances, constituted an ideological contradiction to the system. Private investment decisions made according to market principles were also considered suspect.

Socialist territorial economics had an ambivalent attitude toward the city. On the one hand, Marx and Engels formulated the gradual reduction of the difference between city and land as a goal of communist society. In the eyes of socialist planners, cities were

seen as a consequence of the exploitative capitalist system. On the other hand, they believed that the settlement structure that had developed in the GDR offered "a relatively positive point of departure for a planned proportional development aimed at solving the main problems"¹. By simultaneously trying to guarantee the harmonious development of the cities as well as secure socialist living conditions for people living in rural areas, they attempted to further develop the existing structure. However, they also tried to realise the ideal of a socialist city by founding new cities such as Eisenhüttenstadt, Schwedt, and Hoyerswerda.

The planning of settlement structures was above all the responsibility of the central planners. Together with district planners, they were responsible for the long term plans for population, workforce, production, and infrastructure development of important cities². The role of local government was limited to the implementation of the central plans in the "Territories." For example, when the central planning commission decided to raise production at the automobile manufacturer, Sachsenring, in Zwickau, as well as at the nearby uranium mining and processing firm, Wismut AG, then territorial economists derived the necessary labour requirements from the production functions at Sachsenring and Wismut. If these requirements could not be filled by the local labour pool, then it was decided to build new housing units to attract a large enough number of new workers.

In the political economy of the GDR emphasis was laid on the development of industrial capacity. The service sector played a negligible role. The investments in the infrastructure needed to serve the residents, such as streets, public transportation, schools, and cultural facilities, were prescribed by the central government and made uniform throughout all the territories. Decisions about land use conflicts were made centrally. There was thus no need for local autonomous administrative bodies, as had been traditional in Germany. Decisions about the production of other goods were also made centrally at the highest political level, and the distribution of goods among the individual territories was made according to centrally administered indexes and regional

¹ R. Bönisch, G. Mohs, W. Ostwald (eds), *Territorialplanung*, Verlag die Wirtschaft, Ostberlin 1976, p.231

² *Ibid.*, p.246

balances. Similarly, political decisions were also made centrally. Political processes operating under the principles of democratic participation and the rule of law, which might have allowed local actors to mitigate, if not correct, centrally planned errors in allocation, simply did not exist in the GDR. As a result, political and economic actors in the GDR did not have the opportunity to acquire either the political or economic know-how required to function effectively in a free market economy and political society.

By abolishing all the constitutional features of a market economy and installing a centrally governed economic and political order, one of the most important determinants for the further progress of the Zwickau region was established. Since most of the scholars in Western tradition do not know how this kind of totalitarian system worked we would like to present a short analysis of the Communist economic planning system in theory and practice. The planning system of the GDR was only slightly different from the Soviet one. Then we would like to analyse the way in which the East German economy was completely cut off from its traditional Western industrial ties and was transformed into a highly subordinate satellite of the Soviet Economic Block.

Another important feature of the transformation process which led to a totalitarian system was the way in which the government system was installed. The traditional German federal system and the historical principle of local democracy were replaced by a strongly hierarchical totalitarian system.

Local administration became an integral part of central state organisation. So democratic participation of the citizens was entirely removed.

Besides the state government organisation there was a most influential Communist party organisation which exerted dominant influence on nearly all levels of State hierarchy. The traditional branches of democratic rule i.e. independent jurisdiction, clearly defined legislative and executive branches did not make any sense in a totalitarian system of the Marxian proletarian dictatorship. Since all these important circumstances are dominant throughout the forty years' scope of our object of research we decided to deal with this problem in a separate part of the study. The report will be given by Susan Tandel.

4. Performance of the Zwickau economic base

One of the major problems we have been confronted with is the lack of reliable empirical data regarding the economy over the complete horizon of the forty years of Communist reign until 1989. All important facts and figures were treated like official secrets.

Nevertheless we happened to find some internal papers in the town councils archives, which gave some rough insight into the economic performance of Zwickau industry.

4.1 Uranium Industry

The Wismut complex has been dealt with separately in the above mentioned study. Several plants of the Wismut complex were situated in Zwickau:

Plants	Employees (1962)
Mining machinery	1.000
Uranium refinery	2.400
Metallurgy	469
Welding	66
Transport machinery	60

Tab.3 Number of employees in Zwickau Wismut plants

4.2 Coal-mining

Another important branch is the coal-mining industry. Its impact on the regional economy was great in the early decades, when the industrial recovery of the East German industry needed steadily growing energy resources. But unfortunately, anthracite stocks came to an end and a process began in which pit-coal was substituted by brown coal. This had to be imported into the region from the Leipzig and Lausitz area. This part of the study has been done by Fanny Schenke.

Employees in coal mining and connected plants

Coal mining and energy	11.596
Miners safety lamps	1.453
Wire ropes	152
Shredder machines	329
Air compressors	796

Tab. 4 Number of employees in Zwickau coal mining industry and connected plants (1962)

In the report on coal mining industry given by Fanny Schenke you can see the way in which Socialist planners could deal with the special consequences of releasing labour force and finding of new occupations for them in new industries. By reallocating resources into new industries workers and miners of the old industry were guided into new occupations. Nearly the same happened to the coal industry in North-Rhine-Westfalia in the middle of the sixties and early seventies, but the answer was completely different. Decreasing demand in the coal industry according to the heavy structural change on the world energy market lead to rising subsidies in order to keep employment as much as possible on the given level.

4.3 Automobile Industry

The automobile industry became a dominant industry as soon as the GDR economy had to deal with rising consumer demand for private automobiles. This type of macroeconomic demand was of definitely lower priority in comparison with other products of major importance. The Soviets had a huge influence on these priorities in the COMECON, where according to Soviet philosophy heavy industries and energy had to be the most important sectors.

Due to the absence of any international competition the productivity and the technical standard of the production of vehicles proceeded on a very low level. The car`s bodies were made of fiber-synthetics with cotton wool, the motor was a low volume two-stroke one, and the over-all quality was of a comparably low standard, but a triumph of improvisation under the circumstances. In the last decade there were some international barter contracts with Citroen and Volkswagen. These contracts laid the foundations for a

later practised joint venture between the GDR-Sachsenring and the above West European car producers. (Reported by Marcus Georgi)

The number of employees in the Zwickau automobile industry had a volume of 8.476 people in 1962. There were some technical input-connections between Sachsenring and the above mentioned welding plant within the Wismut complex (469 employees), the plant for the miners` safety lamp (1453 employees).

4.4 Zwickau Railway Maintenance Works

Another important branch in the Zwickau economy was the Railway Maintenance Works of the Deutsche Reichsbahn, which employed 4.068 people in 1962. There were two reasons for the existence of this plant:

- During the war the traditional Railway Maintenance Activities in Leipzig and other important East German railway junctions were targets of severe air raids. So the strategic importance of the Zwickau Railway Maintenance Works grew.
- Additionally there was a very high demand for mass transport capacities as a consequence of the Wismut activities. All in all more than 200.000 tons of the highly refined and highly condensed yellow cake were transported to the Soviet union during Wismut`s existence. One can imagine that the induced raw material transport demand was much higher. The Railway Maintenance Works also specialised in the production of steam railway machines and important mechanical parts for the steam railway system, which was in permanent use in the GDR for a much longer time than in Western Germany. One of the reasons for this was the difficulty the GDR had in dealing with the structural shifts on the world energy market.

When activities at the Wismut complex came to an end the Zwickau Railway Maintenance Works lost economic importance. So this firm changed its production programme in the last period of the GDR. They specialised on the production of lorry and ship containers. (Reported by Marcus Georgi)

4.5 The non-industry sectors

Here are some figures describing the situation in the non-industry-sectors in 1958 and 1965.

Sector	Number of employees	
	1958	1965
Industry	39.383	37.962
Building	3.448	3.602
Handicraft	3.312	2.539
Farming/For.	1.285	1.014
Traffic/Comm.	6.894	8.247
Trade	10.401	9.484
Education	1.560	1.940
Culture	514	530
Publ. Admin.	602	562
Health System	2.150	2.456
Banking	910	925
Services	1.629	1.698
Parties&Mass.Org.	261	253
Other Inst.	1.322	670
Others	2.600	3.000

Tab.5 Number of employees (1958 and 1965) in different sectors of the Zwickau economic base

4.6 Middle-sized firms, Trading and Services

The transformation of the East German economy into a communist economy can be shown very clearly by the example of the middle-sized firms in private ownership. Massive propaganda and all sorts of legislative and administrative measures were undertaken to discourage private entrepreneurship. The statistics reporting this transformation process are rather poor. Our team had to undergo a difficult search for data in the city's archives. The report is not yet finished.

**Number of selling stations for industrial goods, nutrition, mixed products and gastronomy
(1958 - 1965) in Zwickau**

	Total		National.		Associat .		Commiss.		Private	
	58	65	58	65	58	65	58	65	58	65
Ind. Goods	667	497	68	91	29	38	23	240	547	128
Nutrition	934	744	255	262	101	115	10	250	568	117
Mixed prod.	180	125	24	3	22	13	-	70	134	39
Gastronomy	159	160	65	66	1	1	8	8	85	85
Total	1781	1366	347	356	152	166	33	560	1249	284

Tab. 6 Selling stations in Zwickau grouped into different forms of property (1958-1965)

After August 1961 - when the separation of the two German states was completed by the erection of the Berlin wall and the border regime between the two parts - the GDR economy came under even stronger ideological pressure since the government became aware that there wasn't any chance to vote with one's feet anymore. Between 1958 and 1965, the number of selling stations for different purposes sank by nearly 300 (**Fig. 8**). But within the aggregate there was a dramatic structural change. The number of nationalised stations and of those, which were organised in associations, grew slightly (**Fig. 9 and 10**) and the number of privately owned shops decreased by nearly 1.000 (**Fig. 11**). Those shops bound to a strict state control - so-called "commissionaries" - increased by more than 500 within this period of seven years. Commissioned traders were forced to become members of a wholesales company. The traders income was determined by a percentage share of their sales. Whereas private traders were in permanent trouble when solving problem of where to get the things the consumers wanted to have, commissioned traders were offered some privileges, they enjoyed an easier access to a wider span of products. Although they had to pay a high price - getting rid of their economic independence - a lot of traders decided to become a commissioned trader (**Fig. 12**). As can be seen from Tab.5 the total number of employees in the trade decreased during this period.

Fig. 8 Selling stations for different purposes in Zwickau (1958 and 1965)

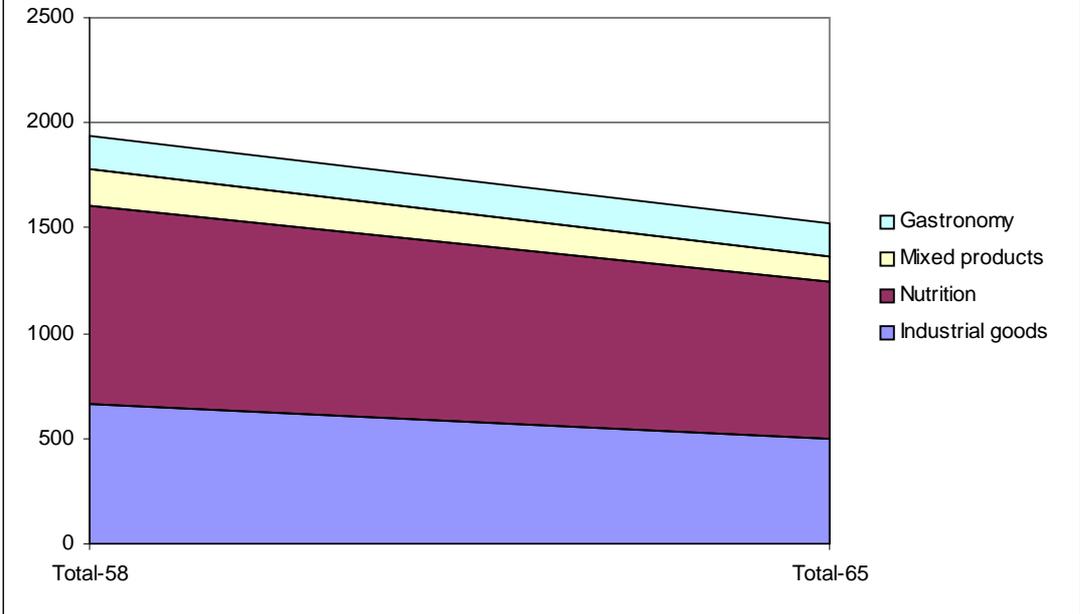


Fig. 9 Nationalised selling stations for different purposes in Zwickau 1958 and 1965

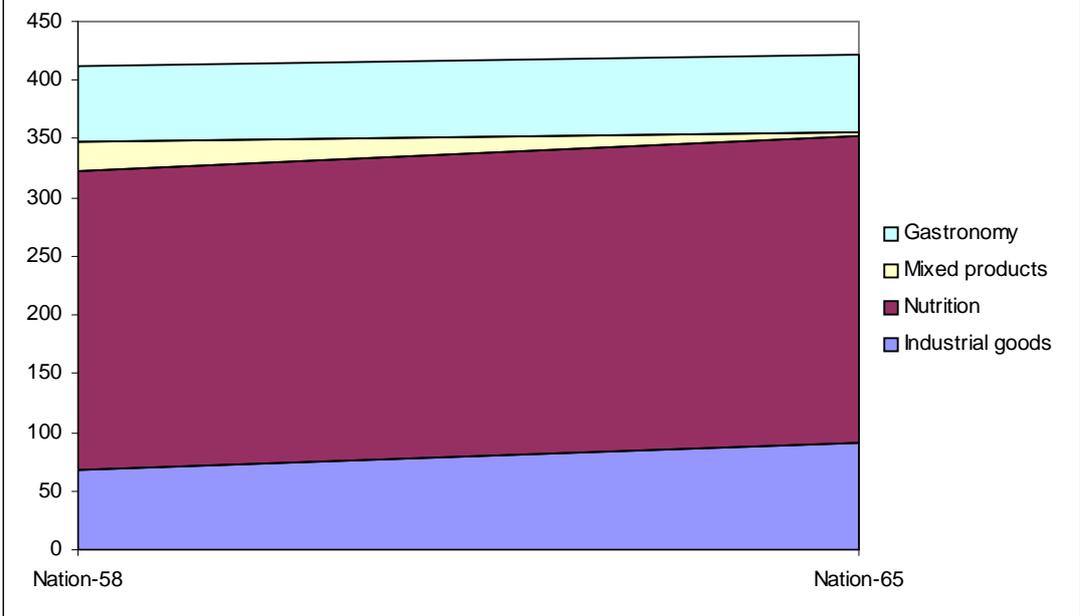


Fig. 10 Associated selling stations for different purposes in Zwickau 1958 and 1965

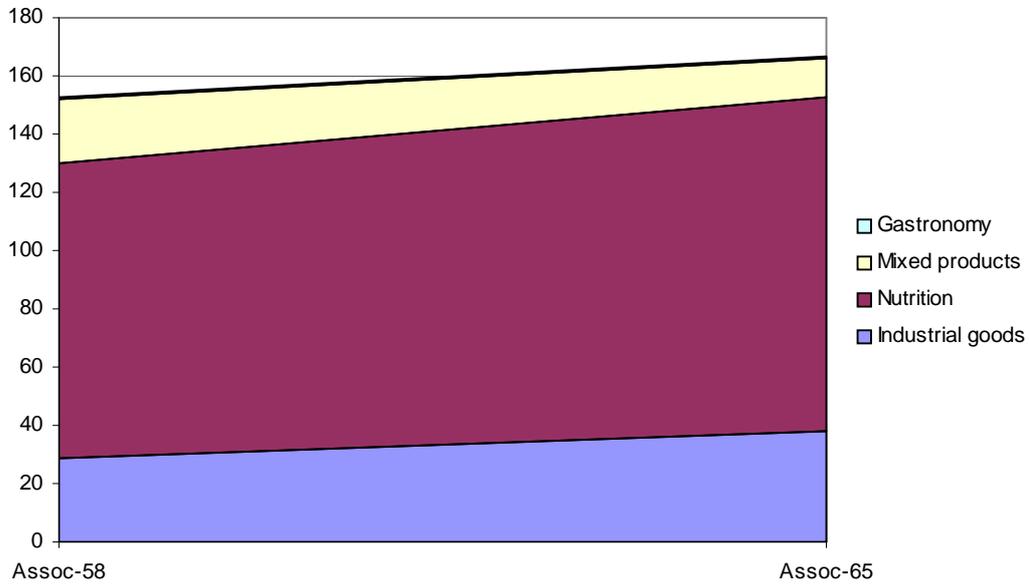


Fig. 11 Privately owned selling stations of different kind in Zwickau 1958 and 1965

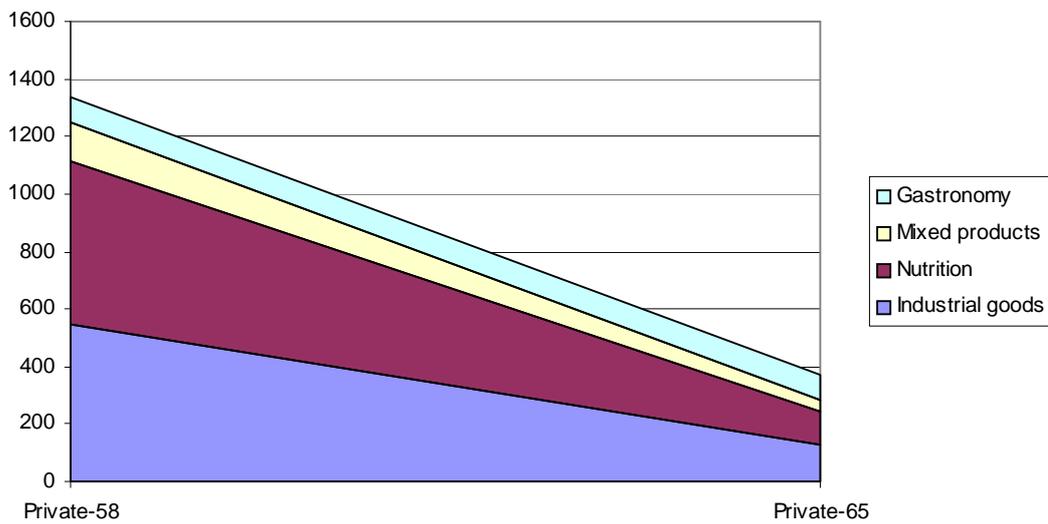
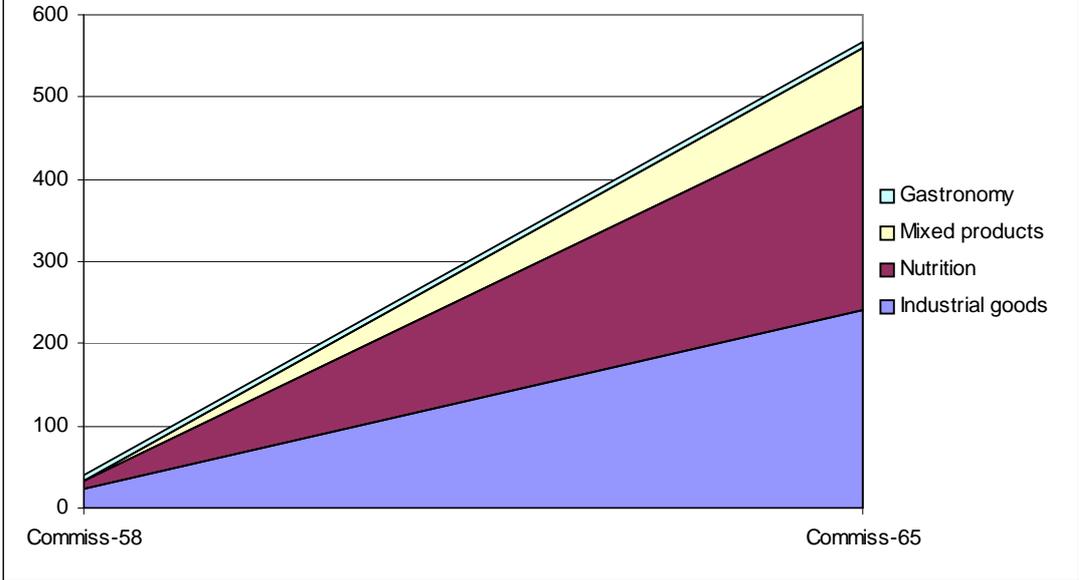


Fig. 12 Commissionary selling stations in Zwickau 1958 and 1965



5. Housing Market

The population development of Zwickau after the Second World War can be seen in **Fig. 13**. Within a very short time, after 1945 the population increased by about 40.000 people. There were several reasons for this:

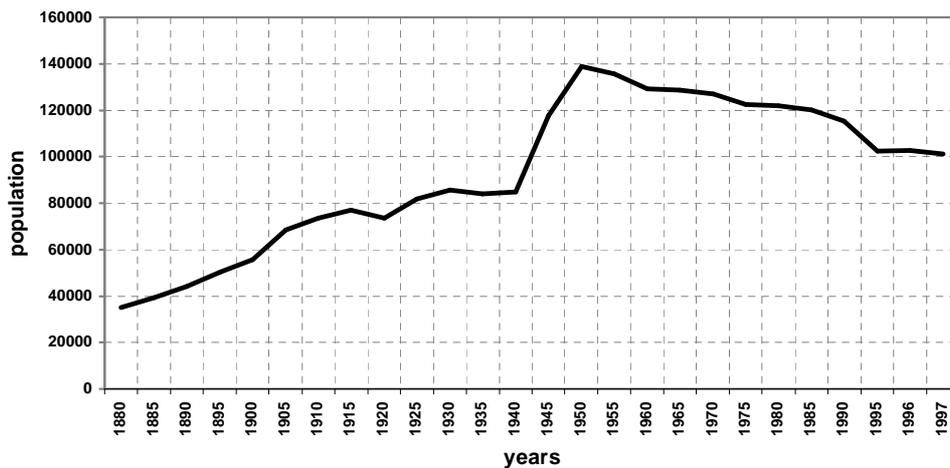


Fig. 13 Population development of Zwickau City 1880-1997

- The above mentioned founding of the Wismut complex led to rising immigration by miners and their families.
- The most important immigration came from very high numbers of refugees from those areas which have been taken over by Russia, Poland and Czecho-Slovakia just after the end of the war. The Germans had to leave their country.
- The same applied to those people who had emigrated to Romania, Hungary and Russia long before the Second World War began. They had to leave their homes and flee westward. A considerable number of them chose to live in the GDR or they didn't have the chance to choose.
- There is a phase from 1948 to 1961 in which a lot of people decided to go to the West.

Expropriation measures of the Soviet and later on by the GDR government exerted a crucial influence on the performance of the housing market.

The transformation of private property to collective property was the central political goal of the ruling ideology in the GDR. Private enterprises were abolished. The housing market was administered centrally, and rents were kept artificially low, which inevitably led to derelict housing and urban decay. By the late 1980s, four types of housing areas had developed in the GDR.

- Firstly, the traditional housing areas with small and middle-sized houses, which for the most part had been built long before 1945, could be found directly in or nearby the city (Type A). Depending on proximity to the city, the quarters are equipped to various degrees with tertiary functions. The qualitative state of the buildings vary according to their age and the structure of their ownership.
- Secondly, one finds younger high density housing areas with high rise apartment buildings that were built serially in satellite locations around the traditional city centres to the (Type B). These buildings are all more or less the same age and show only slight differences in their general state of disrepair.
- Thirdly, the high rise apartment buildings in Type-C areas are architecturally identical to those in Type B neighbourhoods, but distinguish themselves by their proximity to the centre city. In some cases, these high rise departments (Type C) overshadow the nearby traditional urban centres in size and population; in other cases, aesthetic and historical considerations prevailed, and the new projects were planned so that they would fit into the traditional architecture nearby. Due to their close proximity to the inner city, there was often little need to develop tertiary sector establishments in these neighbourhoods.
- Finally, we need to mention those housing areas with detached and semi-detached family homes that usually lie on the urban outskirts (Type D). The ownership claims upon these houses is usually clear, since they were either built just prior to World

War II or were built on land leased from the state during the GDR period. The breadth and availability of tertiary supply offered here depends on the size of the housing area.

In Type A areas there is wide differentiation in the size of individual residences. Small apartments dominate those inner-city locations that were built before this century. In neighbourhoods developed during this century you will find houses with generously large apartments that were built around the turn of the century next to houses with much smaller units built between the wars. But they all share the fact that they are in bad disrepair and have substandard sanitation and utility facilities.

In the GDR apartments in B and C quarters were in high demand because of their comparatively high housing standards: They were connected to a secondary heating net, and had a bath and toilet. But in comparison to West Germany, the standards were nevertheless low, since such a small amount of floor space per resident was allowed. These apartments were built either for territorial economic reasons -- as mentioned above -- or because of political pressure to alleviate the GDR's perpetual housing shortage.

The housing market in the GDR was always controlled. Segregation processes were caused by the distribution mechanism. For the most part, B and C quarters were inhabited by important officials and cadres from the party and state apparatus. There was also significant migration from outside the local area and from type A areas. Since the A-areas were not attractive and became more and more decrepit, they suffered a gradual but severe population loss. Thus social decline and physical deterioration went hand in hand.

Difficulties were enlarged by an extreme low-rent policy. This inflicted huge disparities on the regional and local "housing market". Resources for maintenance and modernisation of traditional housing areas decreased importantly.

The GDR faced the increasing housing demand of its population by building huge

amounts of prefabricated multiple-storied houses which were mainly situated on the outskirts of the cities.

During the four decades there was massive migration and segregation between the different urban quarters. B- and C-quarters were reserved for the nomenklatura and for those who were of some importance from a "territorial-economic" point of view, i.e. workers of Sachsenring, Wismut and Railway Maintenance Works were preferred after the housing demand of the nomenklatura was satisfied.

Type of quarter	Time of Construction	Size of dwelling unit	Number of storeys	Dwelling Standard	Tertiary Supply	
					Retailers	Others
A(1)	before 1850	small	2	low	per. supply	low
A(2)	1850-1914	big	2-3	low	no	no
A(3)	1850-1914	medium	3-5	low	per.+aper. supply	high/medium
A(4)	1914-1945	small	5-7	low	per. supply	no
B(1)	1950-1970	small	6	medium	per. supply	no
B(2)	1970-1989	small/ medium	>6	medium	per. supply	medium
C(1)	1970-1989	small	4	medium	no	no
C(2)	1970-1989	small/ medium	>6	low/ medium	per. supply	no
D(1)	before 1945	medium	1-2	medium/ low	no	no
D(2)	after 1945	small	1-2	low	no	no

Table 7. Characterisation of urban quarters in East German Cities

There was a steady process of filtering down in the A- and D-type quarters, although the process of qualitative filtering down in the D-quarters went on with a significantly lower speed because these areas were dominated by private ownership which had not yet been fully abolished.

The growing disparities in the housing market were accompanied by growing debts in the state run housing administration of the B- and C-sectors. People paid a monthly rent of only 0,90 Mark per square-meter, whereas the realistic monthly costs per square-meter reached a level of 8,50 Marks. The difference was paid by steadily growing low interest rate credits from the GDR-Staatsbank.

6. The Concept of Socialist Zwickau

In the municipal archives we found some material describing the concept of building up a Socialist town in Zwickau. We found this material a few weeks ago. It is full of surprising insights into the authoritarian way in which Communists tried to extinguish traditionally grown urban structures of Zwickau.

Fig. 14 shows Zwickau as it could be seen from satellite. The dark square in the centre is the above mentioned Schwanenteich, which has been built in 1450. The areas marked by E and N show the two B-type quarters (Eckersbach and Neuplanitz) whereas the area marked by M is the C-type quarter in the East part of the city centre.



Fig. 14 Satellite photo of Zwickau

Fig. 15 gives an impression of the building structure of the city centre. The area inside the ring is the area which has been built in medieval time. The East half of the inner city (marked by M) was cleared completely from the old buildings in the sixties.

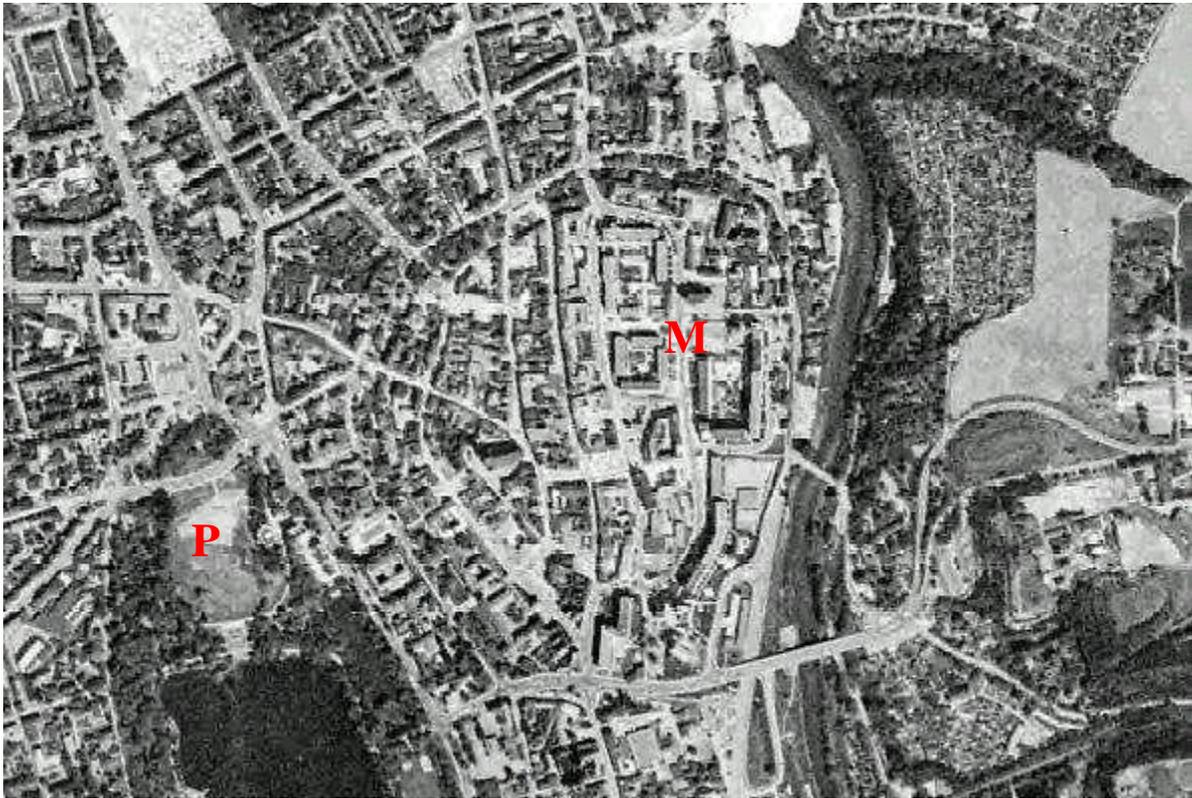


Fig. 15 Satellite photo of the Zwickau city centre

Several arguments were used to justify this drastic clearance.

- Firstly there were some problems with damages on the houses inflicted by hollows and depressions stemming from coal-mining activities just under this area. A map in the report on coal-mining by Fanny Schenke shows where the damaged buildings were located.
- Secondly a flood from the river Mulde caused severe damage in the late fifties.
- Dwelling standard was very low in these houses since most of them were built between the 18th and 19th century.

Communist policy makers decided not to repair and modernise these buildings. Their answer to this challenge was a programme of prefabricated multi-storeys high-risers for a population of about 3.500.

In addition to that two housing areas for nearly 50.000 people were established on green field sites in the outskirts of Zwickau (Eckersbach and Neuplanitz). **Fig. 16** and **Fig. 17** give an impression of these quarters.



Fig. 16 Satellite photo of Zwickau-Eckersbach



Fig. 17 Satellite photo of Zwickau-Neuplanitz

From the view point of Communist town planners the next steps in restructuring Zwickau concentrated on the Western part of the city centre. This area is marked by P in **Fig. 15**. We found some material in the archives which gave guide-lines to how the city centre was to be cleared and restructured completely.

In the year 1970 a development programme for further urban development was presented by the Town Planning Commission Zwickau. The starting point was a population forecast based on natural demographic components (births and death rates), but there were no predictions made about the future volume of migration. According to this forecast, a population of 125.921 inhabitants was to be expected for Zwickau in 1980. Compared with the actual value in the year of the forecast (1970) of 128,184 there was to be a clear loss in population. Since the development programme however aimed at a population of 130.000 people in the year 1980, there had to be an additional immigration of exactly 4.809 people.

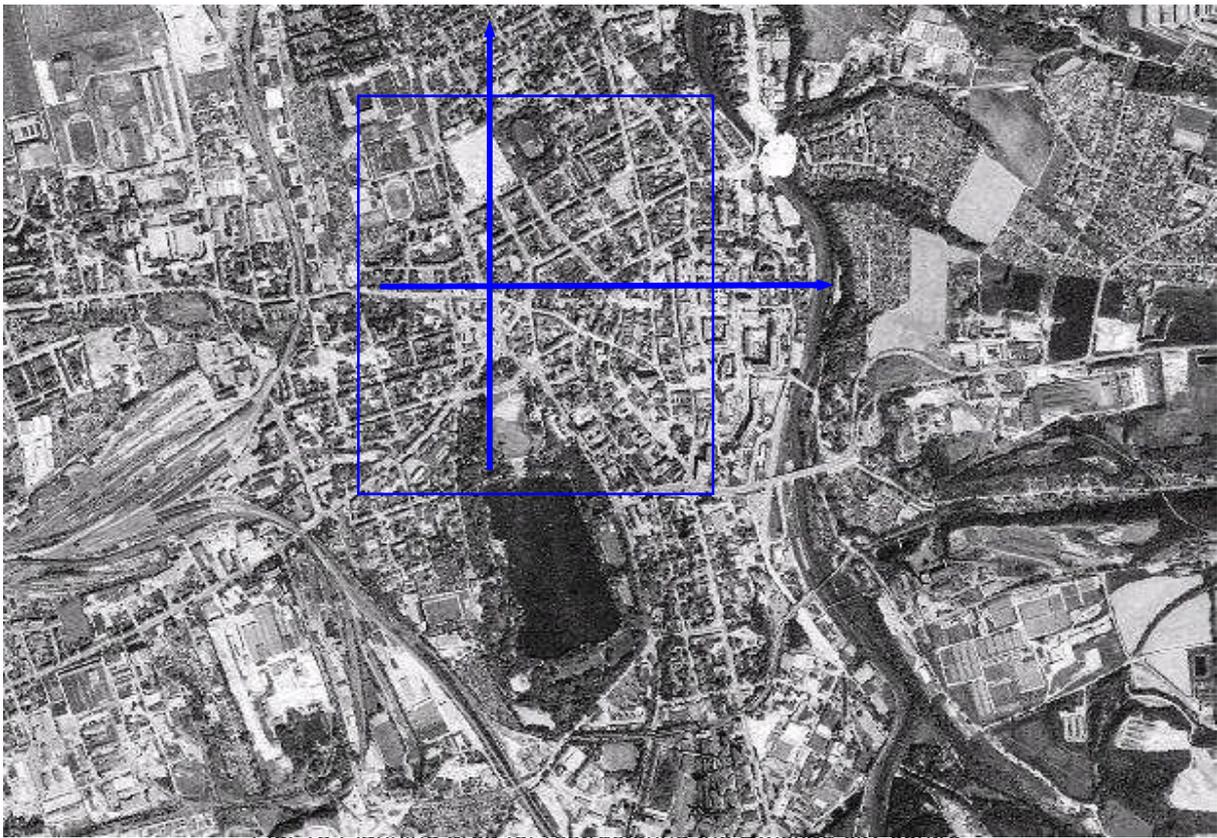
In order to achieve the ambitious target the Town Planning Commission found it necessary, to attract a fraction of the 16.000 people who used to commute into Zwickau "purposes associated with its profiling industry" to come and live in Zwickau.

This basic approach, that we found again and again in the available documents: The GDR planners thought commuting to be a clear signal of the misallocation of productive forces in the economic sense, responsible for inefficiencies in transport systems. The functions of "working" and "dwelling" should be located together as near to each other as possible, in order to save transportation time and transportation capacities. Working people ought to reduce the time, they usually spend for their daily trips to work, and to keep the over-all amount of time for these purposes as small as possible. Again and again we found arguments in the archives which were given by SED-party secretaries in different firms and "combinats" pointing out, that "working people spent too much time on their daily route to work and so there is no time left for social and political activity". Thus there was a many-fold interest in keeping the extent of commuting as small as possible.

Besides this, the planners thought it worthwhile to think over the suspension of the legal restriction of any immigration to Zwickau which apparently existed at that moment.

In later chapters of the programme, the town planners then turned to the problem of building new dwellings in order to attract more people.

In this programme you will find a description of arguments why the traditional shape of the city, deriving from medieval times inside the former fortification Ring should now be given up and shifted to the West. As a potential location for the new centre the area north of the Schwanenteich was proposed. The area of the city affected by the development programme for the new city centre can be seen in **Fig. 18**.



Close by to the north of the Schwanenteich a collection of three large building complexes was to be situated at a location, which formed a central place at the intersection of an administration axis (running from the South to the North) with a shopping axis (running from the West to the East) in direction of the old centre of Zwickau. The "place of standing demonstration" (parade ground) was to give further room for a theatre, a hotel with terraces, overlooking the Schwanenteich and a warehouse, whose entrance would open along the Shopping/axis into the inner city.

"The pulsating life of the future town will be concentrated in the area between Georgenplatz, Poetenweg, Stiftstraße, Crimmitschauer Straße, Äußere and Innere Schneeberger Straße, Hauptmarkt as well as Hauptstraße and Steinweg. This area is mainly occupied by scattered, partly two-storied houses or equipped with low quality buildings, so that sufficient building land for the new centre can be provided by adequate demolition."³

"The new centre lying on the connection between the main station and the traditional city centre will excellently fit into the existing organism of the city This fundamental guidance of both axes will above all be consistent with the philosophy of a socialistic centre."⁴

" ... From the city park Weissenborn a direct green connection to the centre is planned, which will lead via today's main cemetery, Crimmitschauer Straße to the Werdauer Straße. The main cemetery ought to be located elsewhere because of the problems of the high water table in this particular location. This area could provide amenities for amateur sporting activities and for the forthcoming entertainment park. Promenades will be located between these two main green connections."⁵

³ Generelle Stadtplanung (Generalbebauungsplan), 1970, p.326

⁴ Generelle Stadtplanung, p. 326

⁵ Generelle Stadtplanung, p. 326

The concept of the enlarged centre will consequently bring a clearer division of different urban functions. In the eyes of the Communist town planners these different land uses in Zwickau proved to be much too intermixed.⁶

In formulating a more detailed concept of the new city centre, planners did some investigation work dealing with the traffic situation. There were 4 different options to create traffic schemes in connection the above-mentioned central buildings.

"When doing this the following principles of the planning and formation of socialistic city centres were taken into account. These fundamental arguments clarify the general position and importance of a city centre in town planning:

1. Obtain an optimal concentration of buildings for central political and cultural facilities as well as for facilities for its supply, administration and social needs on a relatively small area and give sufficient room for other activities.
2. Afford the optimal accessibility for pedestrians and motor vehicles from other districts and simultaneously keep the individual car traffic to the periphery of the centre.
3. Afford short distances for pedestrians and exclude car traffic from the inner core, which in its shape, building masses and structure should correspond to human scale.
4. Design ground plans for the centre and its more frequented facilities (buildings) for two sided access and create clearly distinguished ways of access for pedestrians and car traffic.
5. Design open areas, roads and places and reorganise the architectural features to facilitate visibility of neighbouring districts."⁷

"The centre will be dominated by a tower-block which houses the People`s Deputies, juxtaposed to the historical cathedral area"⁸.

The "place of standing demonstration" will be complemented furthermore by a theatre, a hotel, whose terrace will overlook the Schwanenteich and a ware house, whose entrance opens along the shopping axis to the inner city."⁹

⁶ Generelle Stadtplanung, p. 326

⁷ Generelle Stadtplanung, p.327

"At present the area designed for the new centre still carries buildings of different types, which in part still have high functional value, but seem to be rather worthless from an architectural point of view. This conglomeration has to be torn down. If one considers, that this demolition will occur over the next 15 to 20 years, this is quite feasible."¹⁰

"The southern part of the area - close to the Schwanenteich - is the real central place, bordered on two sides, by the state buildings (a high-rise for local administration and party organisation as well as for the People`s Deputies) and the department store".¹¹

In detail, the Communist town planners had the following vision for the new centre.

- state buildings are enclosed in 42.500 sqm area, in there are
 1. The house of People`s Deputies: room for 200 deputies (in addition: max. 100 visitors) 27.000 sqm,
 2. The city council (1 plenum, 4 rooms for the Lord Mayor and representatives and their personal staffs, 20 rooms for the town planning commission, 20 rooms for the building administration, 10 rooms for the real estate office, 5 rooms for the internal administration and for the following different administrative departments: agriculture (3 rooms), trade and supply (10), finances (40), health service (20), price control (2), hygienic inspection (3), education (20), housing administration (10), culture (8), youth and sport (4), interior administration (10), SED-party-organisation (1), trade unions (1) and Free German Youth (1) with a total of 12.500 sqm.
 3. House of the SED-party-organisation for 100 employees with a total of 3.000 sqm.
- cultural buildings of central significance
 1. Theatre with 800 seats 24.000 sqm,
 2. Library 8.000 sqm,
 3. Town hall for a maximum of 5.000 people with 60.000 sqm,
 4. Schumann-Konservatorium and boarding school with 7.000 sqm,
 5. Adjoining building with 13.000 sqm.

⁸ Generelle Stadtplanung, p.330

⁹ Generelle Stadtplanung, p.330

¹⁰ Generelle Stadtplanung, p.330

¹¹ Generelle Stadtplanung, p.330

- Central catering, hotel, cafe,
 1. Restaurant with hotel of 120 beds 5.000 sqm.
 2. Cafe with 250 seats 350 sqm
- Central department store with 7.500 sqm¹²

The planners saw great problems in the organisation of the traffic axes in this area. Of the four discussed variants one of them had to be chosen. The preferred alternative was to be a tangent going westward from the new centre and also of the Schwanenteich. This connection passed residential areas, which were built before and around 1900. By accepting this alternative the planners apparently approved of the demolition of a huge number of buildings over a great area.

"The an architectural point of view 41 per cent of the buildings in the town are more than 70 years old. These over-aged buildings are concentrated in the city centre constituting between 80 and 100 per cent, but there is a significant over-ageing of buildings in other parts of the city, too (Schedewitz, Alt-Pölbitz, Weissenborn and Marienthal as well as Ober- and Niederplanitz)" ¹³.

In detail, the development plan for the enlarged city went hand in hand with a complete structural change of the housing stock in different parts of the city.

- in the inner city with its 3.200 existing dwellings 2.560 shall be demolished, 3.900 dwellings shall be newly built in 5- and multi-storied houses. So there will be a net gain of 700 dwellings in this area.
- In the Bahnhofsvorstadt area with its existing 2.300 dwellings 1.840 will be demolished. 4.900 newly built dwellings in 10- and more storied houses shall result in further 2.600 dwellings.
- In the Nordvorstadt area 2.000 of the still existing 2.500 dwellings will be demolished and 4.700 new dwellings in 10- and more storied houses shall be built. So there will be an addition of 2.200 dwellings.

¹² Generelle Stadtplanung, p.331-333

¹³ Generelle Stadtplanung, ibid., p. 332

- For the area of Planitz with its existing 3.850 dwellings 3.080 will be demolished. From a volume of 11.000 new dwellings a plus of 7.150 dwellings will result.
- For Marienthal with the existing 1.600 dwellings 1.280 will be demolished. By building 2.500 new dwellings in 5- and multi-storied houses 900 dwellings will be created in addition.¹⁴

At the end of this development a list is given, containing the prospective costs of all these activities:¹⁵

1. Investment in housing (150 - 160.000 people in the year 2000)	819 Mio Mark
2. Restructuring of the city centre (without housing, see 1.)	428 Mio Mark
3. Investments in industry	210 Mio Mark
4. Investments in social overhead capital	170 Mio Mark
5. Miscellaneous (Water resource, energy supply etc.)	280 Mio Mark

Total	1.907 Mio Mark
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The material we found in the archives also gives some very interesting insights into the qualitative standard of Zwickau residential areas, for example the incidence of telephones. The provision for residents of these important communication devices is moving on a very low rate (4 to 10 telephones per 100 people).

There was to be another part of the study dealing with the development of the urban infrastructure, but unfortunately time did not allow this. Since the per household ratio of vehicles was very low in comparison to the West German level there was a much lower demand for individual traffic by car. Additionally we should state that according to the permanent shortcuts in national energy supply most of the commercial and industrial transport was effected by the railway. So, lorries were rarely used in this part of the transport sector. In consequence there was a distinctly lower political pressure on modernising the road system. During the forty year GDR-regime in Zwickau you will find

¹⁴ Generelle Stadtplanung, p. 431 - 432

¹⁵ Generelle Stadtplanung, p. 457

only a few projects which had any influence on the road system in Zwickau. Apart from a few roads in the city centre which have been transformed into pedestrian zones you will find the pre-war urban road system rather untouched.

7. Transformation Process in Zwickau after 1989

Some politicians and naive economists thought that traditional cities would automatically and rapidly regain their traditional importance as central places as well as motors of innovation and nuclei of growth after the German unification. Important facts in several fields will show that this opinion should be revised.

Normally the transformation of a centrally steered economy and totalitarian state into a democratic society based on a market economy needs a lot of a society`s resources.

We can easily see the difficulties in the States of the former Soviet Union. Lacking constitutional foundations and inefficiently working institutions are the fathers of instability in nearly all aspects of political and economic life in Russia as well as Ukraine for instance. Compared with these countries, the German way proved to be less costly. The East Germans took over the West German package of "constitution and institutions" which had proved their political efficiency over a longer period of history. This was the easiest and shortest possible procedure.

Our study will deal with some aspects of the complex transformation process in three separate parts of our study. The following Table 8 will give you a rough impression of what happened with the economic base of the city of Zwickau. Within a five year period the number of employees went down by 30.000. There were severe losses in the producing sector (-21.000) as well as in the public services (-6.000) and in the primary sector (-4.000).

Sector	Number of employees		Rel. Change 1989=100
	1989	1993	
Primary sector	7.495	3.314	44,2
Producing sector	43.513	22.079	50,7
Retail, traffic, communic.	8.905	7.828	87,9
Private services	2.894	5.387	186,1
Public services	12.714	6.819	53,6
Total	75.521	45.427	60,1

Table 7. Employment of different sectors of the Zwickau economic base (1989,1993)

One of the consequences of the falling of the Wall was a remarkable loss in the population of Zwickau. The birth rate sank dramatically on account of prevailing uncertainties regarding the economic future. The death rate remained rather unchanged. So there were light population losses derived from the natural development of population. Secondly there were severe migration losses by people who turned to the West in the first two years after the revolution. Tab. 9 gives an impression of this.

Year	Inhabitants	Birth rate	Death rate	Net Migration
1989	118.914	10,88	13,88	-2.560
1990	115.434	11,47	14,08	-3.564
1991	112.565	6,77	14,32	-1.217
1992	110.583	5,82	13,60	-1.122
1993	105.667	4,38	13,54	-1.863

Tab. 9 Population development of Zwickau (1989 – 1993)

7.1 Institutional transformation

The transition from collective to private property had already been started by the last communist government of the GDR. The Treaty of Unification re-affirmed a commitment to private property rights and provided a legal framework for regulating conflicts about property that had been confiscated by the East German State. Instead of simply returning confiscated real estate to its previous owner, the Unification Treaty allowed for the present user of a property to become owner upon condition that he/she made investments in the property that secured or created jobs. In those instances where users attempted to take advantage of this allowance the settlement of claims was extremely difficult. Even where the present users did not make such claims, things were difficult enough. Since previous owners had often died before reunification, the ownership of many properties was divided among a group of heirs. Family feuding and dissonance of interests halted investments in many properties in central areas. In total, there were 1.7 million claims filed for re-appropriation of property, and there are still a number of court cases regarding these claims that are to appear before the German Supreme Court.

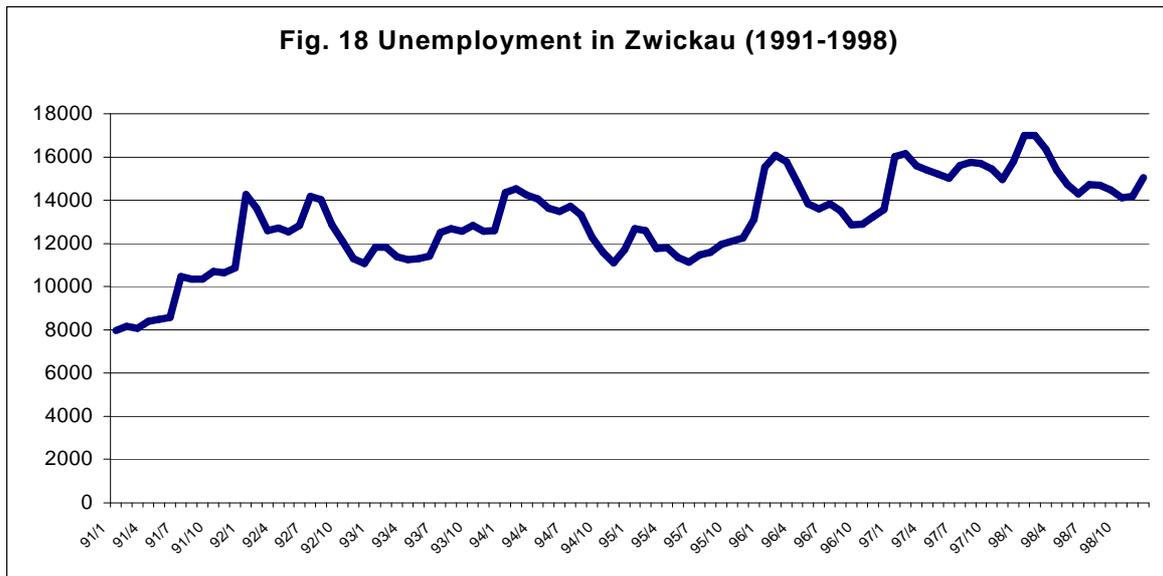
For the development of residential and commercial properties whose claims of ownership were simple to establish, local governments attempted to entice West German investors with low land prices and favourable zoning. In doing so, many government bodies were unable to pay much attention to important aspects of regional and city planning. During the initial phases of Re-unification, public administration bodies did not have the capacities of co-ordinating local developments within a region. The intensive competition among cities for outside investment and potential tax revenues forced local governments to make fast and not necessarily well considered decisions. To make things worse, local governments had little regional economic experience. All of this led to a propensity of mistakes in the making of developmental concepts and ensuing land-use plans. Unfortunately, decisions made at that time can be reversed only with great difficulty. Investors are pressuring for the realisation of building plans that were then authorised and threaten to take legal action asking for high damages if the cities now demand to revise those plans.

The first part which is done by Susan Tandel will deal with the institutional change from the above described totalitarian system to a system of local democracy and self-government. Transformation had to take place in the minds of the acting politicians and administrators. They had to learn the new rules in an extremely short time. They got substantial assistance by West German administrators especially in those administrative branches which you could not find in the traditional socialist town administration. Inevitably there has been made a huge sum of errors and mistakes: at first by the Western "experts" who failed in knowing all the necessary details in the East. Then a lot of mistakes were made by inexperienced Easterners. And there were a lot of "fortune hunters" - people stemming from the West exploiting the un-experienced Easterners. Of course there was a two year period of anarchy until political conditions began to settle.

7.2 Economic transformation

But there were a lot of economic problems arising from the fact that two completely different economies were united under a unique political order.

There were huge discrepancies in economic productivity.



- The introduction of the DM into the GDR not only induced a massive revalorization of the former GDR-Mark but also caused a really devastating deflation of the East German capital stock.
- Due to a very low accumulation of capital in private hands during the socialist reign there was a high need for capital imports from the West.

The foreseeable result was massive unemployment (**Fig. 18**). Tax revenues decreased in consequence, unemployment and social security transfers increased immensely. Deficits in public budget are still growing very fast. Tax rates had to be raised, total disposable income went down and unemployment even in the Western parts of Germany began to grow.

The behaviour of the actors in East Germany is still strongly determined by the general economic conditions under which German unification occurred. On the 1st of July 1990, three months before political unification, the GDR adopted the economic, monetary and social systems of the German Federal Republic. The most important task was monetary reform. It aimed at the quick installation of a functioning monetary order on the basis of a mixed banking system with all the necessary presuppositions for a stability-oriented monetary policy.

With the introduction of the Economy-Currency-and Social Union (ECSU) between the two German states on 1st of July 1990 the essential legal fundamentals have been created relatively quickly. Thereby the reader must keep in mind, that this important new order has been introduced before there was an agreement on the other three important sections of the new order i.e. there was no agreement on the property rights, juridical and administrative order. The reasons why both partners chose this way will be clear if we consider the fact, that the GDR-economy according to its fundamental deficiencies in allocation policy suffered from massive steering and co-ordinating problems throughout its 40 years of existence. The economic performance of the GDR-economy was far below the West-German. The over-all productivity of the GDR-economy was estimated to have reached only 25 to 30 percent level of the West German economy.

The GDR-economy had important export-markets in the COMECON but it could compete with its products only by massive price cutting which could only be managed by substantial state subsidies. On the other hand, Western foreign currencies were urgently needed to finance the import of modern capital goods from the Western economies. So one can not assume that all those GDR-firms with potential exports to the Western markets had a real chance on the Western markets.

Bearing in mind the above, most evident differences in productivity and furthermore a serious lack of fundamental pre-conditions such a currency union with an exchange rate of 1 to 1 between the two German currencies could not be justified from an economic point of view. Despite all these serious obstacles the FRG decided on an immediate currency union with the GDR under the conditions of total convertibility. Wages and income were exchanged 1 to 1, savings deposits above a certain limit with a 1 to 2 rate and deposits of non-GDR people were exchanged at a 1 to 3 rate. The weighted average of the exchange rate of 1 to 1,82 which has been stated by the FRG government after criticism by the Chairman of the German Federal Bank and many other critics has no substantial economic meaning. This was a mere political answer and did not recognise that the most important exchange rate for flow quantities such as income and wages was 1 to 1.

This revalorization of about 300 to 400 percent made the average costs and prices in the GDR-economy rise dramatically. Imagine what realistic and long run chances on the world market a 30000 GDR-mark Wartburg had after the new price of 30.000 had to be paid in DM after the currency union. The revalorization of the GDR-Mark was followed by a massive deflation of the East German capital stock.

7.2.1 Market for consumer goods in the East

At first all producers of consumer goods in the GDR suffered from revalorization and deflation of their capital stock. Looking at the performance of the consumer goods market in the GDR, the behaviour of three decision-makers is to be considered. Decisions made by consumers and producers of consumer goods in the East and the West German oligopolistic traders have to be analysed.

From the view of the consumers in the GDR there are five important effects:

1. Since the DM proved to be a very successful "second currency" in the GDR a sort of DM-illusion arose in the brains of East German consumers. When paying in DM people could fulfil nearly all their desires.
2. There was a general shortage in the supply of selected goods - such as bananas, oranges, coffee, chocolate and modern medicines - because the GDR-economy suffered from the above mentioned currency problems.
3. In the minds of GDR-consumers, there were considerable differences in quality between West- and East-German goods. Subjective preferences as well as interest in new products which most of the consumers experienced for the first time in their life played an important role although the differences in quality were much closer when seen from an objective point of view.
4. According to the above mentioned rise in average costs and prices inflicted by the new currency exchange rate there were significant price differences between West- and East -German products. Some of these price differences accrue from the subsidising practise which was used in the GDR. Food for instance was subsidised in a two-fold way: producers received massive help from the state and consumer prices for food were cut by subsidies. On the

other hand there were a lot of prohibitively high prices for automobiles, TV's and other technical goods.

5. In vast areas of consumer goods the GDR used to solve the problem of scarcity not by flexible prices but by letting people wait in so-called "socialist waiting queues". Buyers of the famous Trabant automobiles had to wait for 14 years.

When looking at the suppliers of consumer goods in the new market a remarkable change was to be observed in the trading and delivering structure of the GDR: producers, wholesalers and retail traders were organised monopolistically in a three-stage system. One can speak of cemented channels of distribution. Whereas the market for consumer goods in the FRG was an oligopolistic one with an intense competition, where the wholesalers experienced the loss of considerable shares on the supply-side. Big chains of retail traders very successfully began to form a two-stage system of distribution by directly contracting with the producer.

They made profit of the well-known economies of large scale by granting continuously high quantities, taking over the costs of transport from the factories and being responsible for all the necessary marketing activities by themselves. By this the manufacturers enjoyed essential relief to their costs. So agreements on rebates between the two partners were settled quite easily. Compared to this modern system of co-operation between producers and retailers in the West the traditional East German trading structure was old fashioned - it really had no chance to survive.

In the mass media of the East you could very often read that East German consumers were responsible for the breaking down of the East German consumer goods industry because of their presumed aversion against East German goods. This is not correct: actors in the newly installed trading system had to take into consideration, that East German producers - as a consequence of the average cost shock and the substitution effect - were not very reliant in the view of West German oligopolists. Instead they preferred to order their products at West German producers although transport costs were immense. Additionally one must consider that communication facilities in East

Germany were extremely poor at that early stage. Even if West German trading chains tried to find East-German producers as partners it was not clear whether they could offer similar favourable conditions. The trading chains acted rationally and without any doubts they did not underestimate the apparent disadvantages of the much longer transportation routes and times.

The hugely rising demand for consumer goods in East Germany was met by quickly growing imports from West Germany. This shift of purchasing power from inland production to imports caused substantial losses in income and employment of the GDR-economy in a strict Keynesian sense. The expected multiplier effect became much greater than normal since the East German marginal propensity to consume was very high.

7.2.2 Markets for export and investment goods

For the industries producing investment and export goods similar expectations would prevail. Besides the average cost shock as a consequence of the revalorization of the GDR-currency there were four important factors characterising the industries' situation:

1. Since the GDR-wages began to rise - although they didn't reach West German level and
2. East German labour productivity remained low - mainly because increasing productivity needs a considerable time of improvement in the capital stock
3. East Germany became a high-wage country. So product prices could not be low enough to compete with those of the Western countries.
4. Traditional trading partners in the former COMECON block were in nearly the same situation. They had to cope with transformation problems, too. So it was quite natural that they all were short of hard currency and consequently the East German export markets in Eastern Europe broke down in a very short period of time.

The all in all effect of both the introduction of the DM as well as of the immediate convertibility imposed the breakdown of the GDR-economy and this in turn led to a dramatic rise in unemployment. This process was calmed down by numerous state

interventions - people were allowed to retire earlier or were caught up by several employment programmes.

A further consequence of the introduction of the DM was a considerable shrinking of tax revenues in the public households. This and heavily rising government expenditures induced deficits at first in the social security systems and later on in the budgets of federal states and municipalities. For a very long time public budgets in the East were and will be unbalanced. This can only be described by fiscal depression. Local authorities and the states in the East need transfers of public funds in order to pay for all these necessary things.

The immediate adoption of the West German currency caused a catastrophic structural depression because of the obsolete production methods in East German firms. Not up to the quality standards of the world market, East German goods were not competitive. The cost shock resulting from the introduction of the DM led to a massive drop in production, which in turn caused a dramatic increase in unemployment, a sizeable decrease in purchasing power by rising income tax and rising payments for the social security systems and high transfers of resources from the West to the East.

In the moment the German economy is in a situation, where unemployment induces further unemployment.

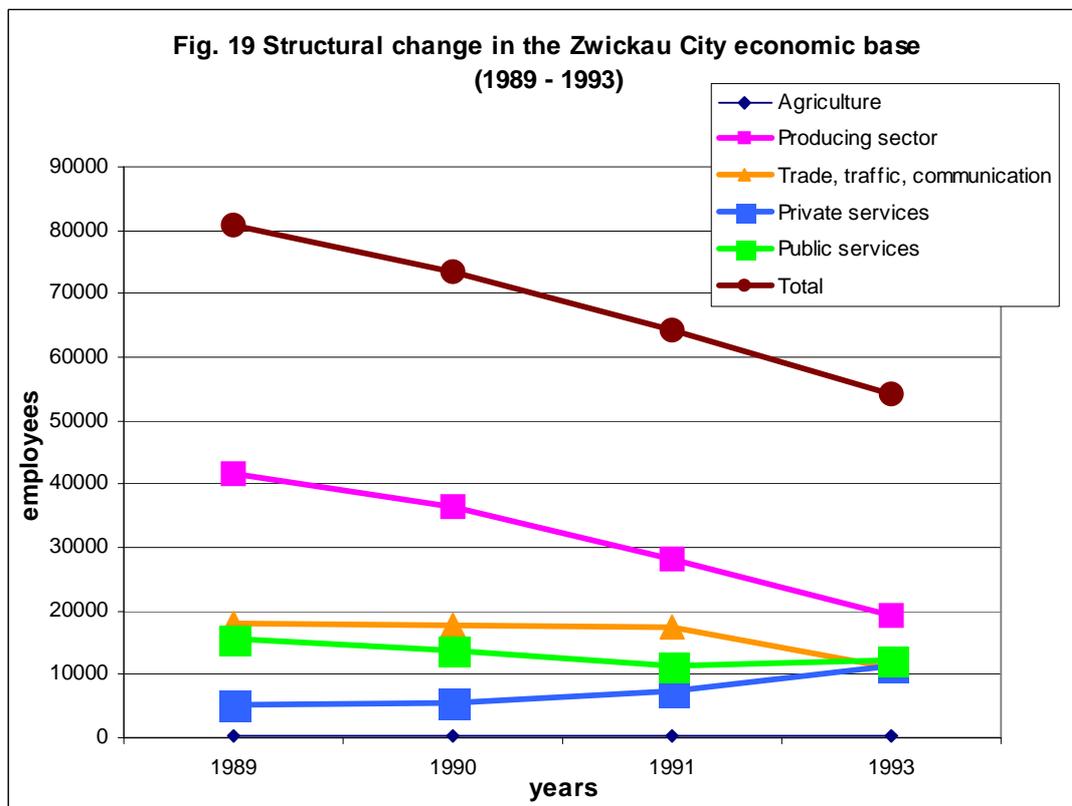
Although the huge transfers of capital to the East caused considerable political resentment in the West, the desolate economic conditions in the East made such transfers necessary. For all practical purposes, capital had not been accumulated in the East since the end of World War II. Only small firms, which were relatively few in number, were able to make any significant capital accumulations during the GDR regime, but even they had to see their assets drop in value with the introduction of the West German currency in 1990.

The state-owned industrial firms were in dire need of capital in 1990. After reunification they were put under the administration of a public holding trust (Treuhand), which had

been mandated to expedite their privatisation. Being in limbo, waiting for new owners, such firms did not attract capital investment as long as they were administered by the Treuhand. The capital needs in the East were made even more urgent by the catastrophic state of the housing market and the public infrastructure. Only West Germany, with its large capital base, was in the position to provide the capital necessary for resuscitating the industry, modernising the infrastructure, and developing the housing in East Germany.

Another important factor in the economic development of the East was the rapid increase of wages there. After re-unification there were understandably strong political pressure to have wages in the East approach the level of those in the West. These demands were intensified by the explosive price increases that inevitably occurred after the demise of the extensive GDR subsidy programs. Adding even more pressure for economically unsound wage increases was the lack of a coherent collective bargaining framework that reflected the delicate economic situation in the East. Inexperienced labour leaders from the East and labour leaders from the West, who sought the same wage increases as they had in their previous negotiations in the West, faced employer representatives across the negotiating table, who were also from the West and thus tended to represent the interests of West German firms rather than the specific interests of East German firms. The end result was that wages increased much faster than labour productivity. And although real wages were lower than in West Germany, labour costs per unit of production came to surpass those in West Germany. So in a very short period of time, East Germany became a high wage country with all the problems for development which that entails.

Practically all industries in Zwickau suffered from the same disease (**Fig. 19**). Since the overall labour productivity only reached 35 per cent of the respective value in Western Germany the New States were in a terribly bad position. As soon as the East German wage level proved to approach the Western standard in a very rapid movement industries in the New States lost their competitiveness.



At the same moment as the factual rate of interest on capital invested in the New States was lowered by public subsidies to a nearly zero-level, excessively growing nominal wages in East Germany had an important impact on the factor-price relation between labour and capital. Labour saving investments were preferred by rationally-acting investors which in turn made the unemployment rate increase.

The chances for a quick and sustainable recovery of the former GDR-economy and intensive accumulation of capital by East German people under normal circumstances were not very favourable for a long time. The extraordinarily high need for private capital to be used in the restructuring of the economy could be covered only by capital imports from the West. One important argument for investors is the factor-price relation between labour and capital. As it was outlined above, East Germany proved to be a high-wage area on account of the relatively low labour-productivity. By East German wages rapidly approaching the West German level and ongoing sluggishness in productivity there is some certainty, that the wages will rise faster than productivity. Investors will subsequently keep away from any activities.

Another important aspect in the entrepreneurial calculus is the expected marginal productivity of capital in the East German states. Above all, the quality of the judicative, administrative, social and technical infrastructure plays an important role in entrepreneurial decisions. Knowing this, the federal and state governments decided to give incentives to invest by financial subsidies and considerable tax relief schemes. This turned the factor-price relation between labour and capital in favour of capital. Consequently private investments were mostly labour-saving which made a quick solution of the unemployment problem impossible.

7.2.3 Restructuring Social Overhead Capital

Parallel to the above outlined problems dealing with constitutional and institutional deficits the reconstruction of a badly damaged social overhead capital was one of the main focuses of the developmental policy for East Germany . The GDR-society used to live for decades from the substance of its social overhead capital without undertaking any substantial re-investment. The communications network of the old Deutsche Post, the railway system of the German Reichsbahn, roads, bridgeworks, channels and a lot of other technical infrastructure capital were in a very bad condition. Large amounts of commercial transport volume were carried out by the railway. Also public passenger transport by railway had a high share of the total passenger transport volume.

As a consequence of the German division nearly all traffic connections between East and West Germany were interrupted. Partly, it was on both sides of the border between the two German states that governments refrained from renewing investments which led to the ruination of communications connections. The technical condition of drinking water bubblers, purification plants and of a lot of other important fields of the ecological public utilities did not correspond to West German standards. In this field projects with particularly high urgency had to be solved within a short time.

Even in the so-called cultural social overhead capital there were considerable deficits. The school supervisory authorities and university system was to a great extent

organised to satisfy the totalitarian demands of the SED regime. Teachers in ideologically determined departments were to be re-educated. For the universities there was the necessity of remodelling to the new constitutionally prevailing conditions. Curricula in history, social, juridical, economics and educational sciences were to be modified in order to meet the new challenges.

The same is valid for the social infrastructure. The medical system in the GDR for instance, suffered for many years from ideological sclerosis and a permanent lack of funds. The medical supply was crucial, because physicians and clinics lacked the necessary constructional prerequisites of a modern medical service.

As we all know, investments in social overhead capital projects need a huge amount of financial resources and it takes a long time until the investment is working. There is required a high administrative effort in planning and preparation time as well as a long period before these come to function.

The financing of social overhead capital is a typical public sector task.

In West Germany a system of mixed financing for these types of public tasks evolved. That is at the central state and federal state level resources will be provided for these purposes in different budgets for different executive branches. The key-issue is, to achieve equality of living conditions in all parts of the country. Theoretically, all local governments in Germany will equally have access to these budgets. But as a matter of fact, East German municipalities had apparently worse chances to access these wellsprings. Resources from these budgetary sources will only flow, if investors can grant a considerable sum paid from their own budget.

For reasons, which were outlined earlier, a fiscal depression spread out among the East German municipalities. Tax revenues went down drastically, whereas in the same moment public expenditures increased. Subsidies in the housing market and in the public transport systems and expenses for social purposes grew.

Additionally, East German municipalities were at first unable to levy important taxes from land use. The real estate tax could not be implemented immediately because the real estate administration was not in a position to deal with the determination of the real estate value.

A functioning social overhead capital is one of the most essential prerequisites for private investments to follow. Functional deficiencies in this area will clearly have the effect of decisively lowering the private propensity to invest .

7.2.4 Transformation of the Zwickau industry

Zwickau industry suffered from the same transformation problems as any other industry in East Germany. Sharply rising costs and lingering low productivity inflicted a substantial loss of potential markets in Germany as well as traditional markets elsewhere especially in the former COMECON.

A recently published study on the structural change of Saxon industry will be reported in our study. This is the only reliable source at the moment. The study deals with the complete industrial basis in Saxony from 1991 to 1997.¹⁶ According to these findings the following essentials can be stated:

1. The number of plants increased from 3.400 (1991) to 5.200 (1997). The number of employed people in the industry decreased from 564.000 to 217.000 people in the same period.
2. From 1991 to 1997 the industry output increased from 25.900 Mio DM to 47600 Mio DM. Output per capita increased from 46.000 DM to 219.000 DM.
3. There has been a dramatic structural change, which changed the composition of the different branches as well as the composition of the size of the plants in a very strong way.

Plant size	1991		1997	
	plants	employees	plants	employees
< 19	1.010	9.683	2.823	20.593
20 - 49	758	24.673	1.340	42.335
50 - 99	553	39.809	590	40.751
100 - 199	412	58.898	281	38.165
200 - 499	373	116.274	146	42.299
500 - 999	174	120.681	24	15.512
> 1.000	104	194.130	11	17.373

Tab. 10 Structural changes in the size and employment of Saxon industry (1991 - 1997)

4. There are remarkable differences between those plants who managed to survive (old plants) and those plants who were newly established (new plants).

- The number of old plants decreased from 3.384 in 1991 to 1.347 in 1997 and their labour force went down from 546.148 to 112.091.
- The number of new plants started from 657 in 1992 to 3.868 in 1997. Their respective labour force started with 16.331 in 1992 up to 104.938.
- The old plants` output per capita increased from 45.878 DM in 1991 to 203.168 DM.
- The new plants` output per capita increased from 159.987 DM in 1992 up to 236.908 DM in 1997. The output per capita in the new plants is significantly greater, but the differences to the comparable old plants are becoming gradually smaller in the course of the time.¹⁷

There are two important branches which we will deal with:

- The Zwickau automobile industry is making good progress. Volkswagen enlarged its activities in Mosel. One of the most modern and highly productive car factories in Europe was built in Zwickau. The former Sachsenring was taken over by West German entrepreneurs. They specialised in the development and production of car-modules. A considerable number of further investors copied Sachsenring`s strategy. Now we find a lot of firms designing and producing car-modules not only for Volkswagen`s purposes but also for nearly all European automobile trade marks.

¹⁶ Sächsisches Staatsministerium für Wirtschaft und Arbeit (ed.), Michael Fritsch, Johannes Bröker (authors), Entwicklungsdynamik der Betriebe des Verarbeitenden Gewerbes im Freistaat Sachsen von 191 bis 1997, Dresden January 1999

Labour productivity in these factories is far above European standard, so these firms have good chances on the world market. Such production needs highly qualified personnel. Vitally important for these firms is an extremely good customer orientation. Employees attitudes should be geared to producing the highest quality and delivering punctually.

- Another important branch which has developed successfully in the last decade is the environment technology sector. Since the region had a lot of problems in dealing with the WISMUT heritage a lot of firms specialised in clearing technologies of uranium industry traces.

7.2.5 Transformation of the trading sector

Whereas regional and urban structures in West Germany have been undergoing dynamic change in West Germany in the last fifty years, the regional distribution of settlements and cities in the GDR - with the exception of the newly founded cities mentioned above - had remained relatively static since before World War II. On a large scale the proportions between the individual settlement areas in East Germany remained stable. So it seems reasonable to assume that Central Place Theory, which defines centres as converging points of innovation and capital accumulation, is an appropriate theory for discussing economic and social developments in Eastern Germany. As will be shown in the following remarks we have to assume that induced by the peculiarities of the Communist economic and political system it came to a breakdown of central place structures.

7.2.5.1 Complexity of the “Bundle of Goods and Services”

As mentioned above, the GDR economy did not recognise private property nor did it allow actors to behave decentrally based on their own sovereign decisions. But both property rights and sovereign actors are necessary preconditions for maintaining and developing central place structures. Thus it is not surprising that central place structures really deteriorated within the forty year history of the GDR. Of course, there were a few

¹⁷ Ibid., p.15

exceptions, most noticeably, Berlin and Leipzig, which whether as capital city or as trade centre, remained well maintained throughout the GDR period because they played central roles in the GDR's self-portrayal to the rest of the world. But in nearly all the other cities of the GDR the supply and standard of services in the tertiary sector were nearly identical in their paucity.

In all GDR cities deficits in investments for building modernisation and maintenance grew steadily because of the ageing of the buildings as well as the lack of accumulation of private capital and the perpetual shortage of public financing. Inner city accommodation deteriorated and gradually, traditional urban residential areas became empty, which then led to a decrease of local purchasing power and finally to an inevitable loss of central function.

7.2.5.2 Supply Area and Accessibility

On the other hand, the relatively large supply areas of the urban centres and their well developed public transportation systems supported the central functions of the cities. Inner city locations were easily accessible with public transportation, and with the low density of automobiles in the GDR it was not necessary to invest a lot of resources into roadways for non-commercial traffic. So the street system in the GDR remained more or less as it had been in the Weimar Republic. Furthermore there was little need to account for parking space needs in urban planning. Pedestrian zones modelled after those in West Germany were established. But only enough parking places to serve local residents were built. So during the GDR period the cities were only able to maintain their central functions. Any growth in central functions that may have taken place was negligible.

The accessibility of central places and the ensuing size of their market areas is determined by the capabilities of their traffic systems. Aspects of demand seem to play a greater role here than considerations of supply. The demand for traffic services is not only determined by the demands of individual local traffic, but also by the demands of long range freight traffic. During the GDR period freight carriage was strongly

concentrated onto the rail system; carriage by truck was much less significant in the GDR than in West Germany mainly because the GDR had to keep its consumption of imported oil as low as possible in order to protect its hard currency reserves. In response to the oil crises of the 1970s, the GDR invested significant resources into electrifying large portions of its rail-network. By doing so, it took away resources that could have been used to maintain and improve its freight-carrying road system. As a result, the road system in eastern Germany at the beginning of the 1990s looked very much as it did in the 1930s. From the point of view of Central Place Theory, the transportation policy of the GDR could not serve to reinforce the central core functions of major and medium centres.

7.2.5.3 Growth in Central Place Systems

Growth opportunities in major and medium centres are significantly determined by the purchasing demands of the surrounding area. These in turn are determined by their population volume and per capital income. But the agglomeration economies of a market oriented central place system did not exist in the centrally planned economy of the GDR. Economic agents were not able to make use of the various advantages that major centres have to offer. Market size, supply area, purchasing power, and positive external effects were all irrelevant in the centrally planned economy because prices had lost their co-ordinating and steering functions.

Releasing market forces in the private sector lead to a remarkable increase in consumer's purchasing power. The traditional trading system of the East became obsolete. On the other hand there was a strong impact on the oligopolistic traders from the West to infiltrate the new territories as quickly as possible in order to gain substantial market shares.

Under normal circumstances these investors would have tried to look at locations within agglomerations. But a lot of facts stood against this. The restitution of property rights became very complicated especially in urban areas.

- Firstly: there were massive juridic obstacles against a quick and propes solution.

- Secondly: important speculation motives became apparent which lead to quickly rising prices in real assets especially in urban areas. This in turn made the juridical problems more complex since all actors expected high returns.
- Thirdly: as a consequence of a time-span of two-years in which administrative anarchy was prevailing actors on the real estate market in rural areas had significantly better chances in selling their land to the traders.

As a result of all these reasons we find a lot of trading supply capacities on the green field sites.

7.3 Transformation of the Housing Market

The situation for investors in the housing market is partly determined by one factor that applies equally throughout eastern Germany, i.e., the massive state intervention in the housing market during the GDR era, which led to major allocative distortions that are now difficult to compensate.

7.3.1 Debt Problems and Rent Control

As was told in the above remarks about the housing market under communist reign, the private and public suppliers of housing were not able to adequately maintain the buildings they owned. Many private suppliers had no choice but to surrender the ownership of their real estate to state housing authorities. This, however, did not hinder further deterioration of the buildings. Meanwhile, the state siphoned off revenues from the housing authorities and made compensation in the form of an exceptionally low-interest state loan.

In the Unification Treaty these loans were treated as normal mortgage debt. Private West German banks, which had taken over certain aspects of the GDR State Bank, procured these loans. They prolonged the loans but at going market interest rates. The Federal Government partly forgave the debt to the institutions succeeding the GDR housing authorities if these institutions were able to privatise a certain percentage of their holdings within a certain period of time. For co-operative housing ventures, which

had played a significant role in the GDR, this ruling by the Federal Government was absolutely incomprehensible.

All housing suppliers found themselves in a difficult situation. In reaction to the high maintenance and modernisation costs as well as the costs of servicing the old GDR debt, suppliers should have actually increased rents. But for political reasons a raise in rents was impossible to implement. Mass unemployment, the disparity in income between East and West and the politicisation of the problem in the string of local, state and federal elections that have occurred since 1990 have all contributed to a politically motivated and artificially low ceiling on rent. As a result, one can assume that in the long term the housing units in older structures will have to be rented out at a price well below cost and market value. The successors to the GDR state housing authorities will therefore have to survive a very dangerous business environment for a long time.

7.3.2 Segregation

Under market conditions segregation in eastern German cities is increasing. Those that have survived and prospered through the radical structural changes brought about by unification are becoming more and more similar to their West German counterparts in their demands for housing. With rising household income, the demands for living space and standards are increasing. The question now is where in relation to central places these demands are being satisfied.

In type-B and C quarters there are hardly any possibilities of creating supplies that satisfy the demand. The concentrated usage of space together with rent controls and the GDR debt burden make it extremely difficult for housing suppliers operating here. Even after five years they have not been able to implement modernisation and maintenance programs, which makes these areas particularly unattractive to potential investors. To make matters worse, the concentration of people living here who have been economically disadvantaged by structural changes of unification is extremely high, leading to high losses in purchasing power.

In type-A quarters there is a reconstruction boom among those properties that have no restitution problems. Public reconstruction societies and private developers have been active in making many dilapidated buildings once again habitable. The financial costs are very high, but somewhat compensated for by tax incentives and speculative expectations. The high rent costs have driven out a number of the traditional inhabitants. Whereas many higher-income inhabitants of these areas are seeking out new locations in outlying suburban areas, the poor living here are left little choice: Either they can give into the demands for high rent or they can look for cheaper living quarters in type-B or C areas.

Adding further risk for investors in type-A quarters is the fact that potential buyers and renters do not necessarily share the investors' expectations that such neighbourhoods will be revitalised in the foreseeable future. The continuous construction makes people nervous, and nobody knows what the neighbourhoods will look like once the construction boom is finally over. Now one only notices with dismay the smell of residential furnaces burning soft coal, the bad traffic, and the lack of parking. In addition, the tertiary investment, which supports successful urban development has not been made to the extent that had been expected. A final limitation to the development of city areas is the fact that they are losing population fast. Who, after all, wants to live in an empty and desolate inner city? Already newly modernised properties in type-A areas have suffered occupancy and price declines. Accordingly, the interest of western German capital investors has decreased.

Type-D quarters could be of interest to people who are looking to re-locate from areas A, B, and C, since most of the properties in D areas are not hampered with restitution problems. Some of the older buildings here have come onto the market, but the sellers are demanding unrealistically high prices and there is often disagreement between buyers and sellers about the extent to which repairs are needed. The few empty lots to be found in these areas are also expensive; in some cases, the asking price is higher than for comparable lots in West Germany. In some but not all of these areas there has been an increase in population.

One of the most significant disadvantages of the traditional urban areas is the competition with the green field sites besides the price-rising result of the unresolvable restitution problem was the rising inaccessibility of the inner urban regions in East German cities. This was mainly due to the limited capacity of the inner urban traffic-routes, which had to cope with rapidly growing masses of privately owned vehicles. Within a few month the East German per household ratio of private cars ascended to West German level. Additionally there was a substantial shift of commercial traffic away from the traditional railway onto the road. As a result of all these trends there was an important shrinking of the isochrones around the inner urban areas.

The last but not least argument for shrinking isochrones around the inner urban centres can be found in the fact that the highly insufficient technical infrastructure i. e. roads, bridges, communication nets, gas and water pipelines and all similar urgently needed preconditions for a comprehensive urban renewal underwent repair and reconstruction. So vast areas of inner urban space have been blocked by these activities for a more or less longer span of time.

7.4 Migration and Suburbanisation

The transformation from a centrally planned system to a free market economy created major problems for major and medium centres in eastern Germany.

The market area of eastern German centres decreased dramatically after Reunification. East German consumers quickly bought the private automobiles that had been unavailable in the GDR. The road system proved unable to handle the high volume of automobile traffic. At the same time, use of the public transportation system decreased dramatically. Falling passenger volume caused the closing of certain stretches of rail, while reducing the frequency of trains on others. This led to a loss of centrality for East German cities. The structure of freight traffic also changed dramatically: Demand moved almost completely from rails to roads. The pre-war road system of The GDR could not handle the increased demand. The costs of overcoming distance rose rapidly, and the isochrones around the central places shrunk dramatically. Necessary measures

to modernise the infrastructure (bridges, communication system, sewage disposal, etc.) caused road closings and extensive detours.

In addition, the number of parking places in inner-city areas did not increase. They were not even adequate to handle the parking needs of the low-use parts of the day. In large areas of the inner city street parking was open only to residents. Tourists, shoppers, and other potential consumers travelling by car from outside the city as well as from other areas of the city were essentially locked out of the inner city area. The situation was made worse by the financial distress of the city local authorities. They discovered that parking fines were a lucrative source of revenue and publicly acclaimed the positive relationship between the gross monthly income of the meter maids and the revenues brought in by the parking tickets they wrote.

Through massive capital subsidies the Federal Government attempted to decrease the systemic deficits in private and public capital accumulation in eastern Germany. Normally, one would have assumed that private investors in eastern Germany would have taken advantage of the existing regional settlement structure and preferred to invest in places with a high degree of centrality. Sharply rising investments in major and middle centres along with an increase in local capital accumulation were expected. But because the acquisition of subsidies was dependent on proof of adequate capital resources, the average investor from the East, who had a small equity capital base and difficulties in securing loans because of the restitution problems, was at a clear disadvantage to his competitors from the West. With equal expectations of demand, the discounted expected revenues would be the same for both investors. The risk posed by future cost developments, whereby actual costs may be higher than expected costs, gives the capital- rich investor from the West a clear advantage to his eastern counterpart, since he will be able to write off any losses he incurs from his taxes. This supposition is true for all economic sectors, including the tertiary sector, which plays a very important role in the central place functions of cities. Political decision makers have only recently discovered this problem and are now attempting to redesign public investment incentive programs so that they more adequately meet regional needs.

The restitution problematic discussed above naturally had an influence on the spatial distribution of investment and therefore on centrality. Due to economic developments, restitution problems have occurred much more frequently in major and medium centres than in other places. It was to be expected that centrally located properties under restitution litigation were apt to be more frequent, smaller in size, and more valuable per square meter than litigate properties situated elsewhere. Transferring their experience with comparable properties in the West, western German investors expected very high profits from these centrally located properties, while eastern property owners let themselves get caught up in these expectations. The ensuing speculative boom in centrally located real estate prices increased the stake involved in restitution conflicts there and made them that much more difficult to resolve.

This section treats the investment decisions of certain actors in eastern Germany. The secondary sector will be excluded from the discussion because a usable data basis is missing. All in all, one can observe a trend in which commercial space has increased with a simultaneous increase in unemployment. Naturally the secondary sector is important for East German urban economies: It creates jobs, income, and purchasing power upon which the activities of the tertiary sector can build.

But the problematic of the revitalisation of East German cities depends above all on two other sectors: namely, the retail trade and the housing market. Developments in these two sectors set the course for developments in general. An economic recovery in the tertiary sector would support the development of healthy central place structures. Wrong-headed developments in the housing and retail markets, however, will be difficult to correct even if the secondary sector recovers more quickly than expected. Urban development policies that favour the tertiary sectors are thus of the highest priority. Increased employment is to be expected in both public and private service sectors. It is to be expected that even a weak tertiary sector will have a greater economic impact than a flourishing industrial sector.

To a great extent there was a monopolistic system of the distributions of goods in the GDR. Wholesalers functioned as regional monopolies connecting producers to retailers.

In contrast, an intensive oligopolistic competition has been raging in the West German retail market now for some decades. Retailers deal directly with the producers. They guarantee the producers large turnovers. They assume important marketing functions and use their overall position to force large discounts from the producers. West German retailers have a significantly higher turnover per square meter of store space and per employee as well as a larger average store space per location than do their East German counterparts. With German unification, these two incompatible systems collided.

The traditional suppliers to East German wholesalers did not offer goods demanded by consumers. This together with the cost shock caused by the currency union drove many East German wholesalers into the red even though there was a surging demand for consumer products among East Germans. The West German oligopolists recognised the important market opportunities in the East and attempted to enter the newly opened markets there before any of their competitors did. Wholesalers and retailers of the traditional GDR distribution centre were not at all able to play a significant role in the grab for shares of the new market.

The West German retail investors were interested in quickly developing their supply capacity. Above all, they were interested in locations close to central places. The restitution problematic and the distorted conditions of the real estate market, however, made many to bet on the rising mobility caused by increased access to automobiles and decided to locate on undeveloped land on the periphery. The bet paid off. Retail consumption patterns changed dramatically with consumers opting to drive to the newly developed shopping malls on the periphery to satiate their demand. The cars they used to get to the shopping centres together with the trucks the West German oligopolists used to import the goods sold there contributed further to the decline of central places by making such places less accessible.

With the loss of accessibility as well as the limited availability of real estate and parking, central place locations were at a definite disadvantage in the eyes of retail investors. Urban households from major and medium centres that satiated their demand on the

periphery turned local demand to import demand. Households from outside the centres that shopped at the new malls also caused a fall in export demand. All in all, there was a weakening of local demand, an increase of import demand, and a loss of export demand for suppliers in the medium and major centres. This all led to an economically significant decline in central place function, which had to have consequences for the location decisions of suppliers in inner city areas. Attracted by the relatively low rent and the high foot traffic at the malls, many investors in this sector partially or completely relocated there. In addition, other malls with other chain stores located themselves in the direct vicinity. All benefited from an agglomeration effect.

Thus, retailers in Easter German central places are threatened from two sides. The loss of demand limits their opportunities to develop, and the relocation of supply caused by the initial investments of West German oligopolists can lead to a long term urban process of decline, which will not be so easily corrected once its path has been poured in concrete.

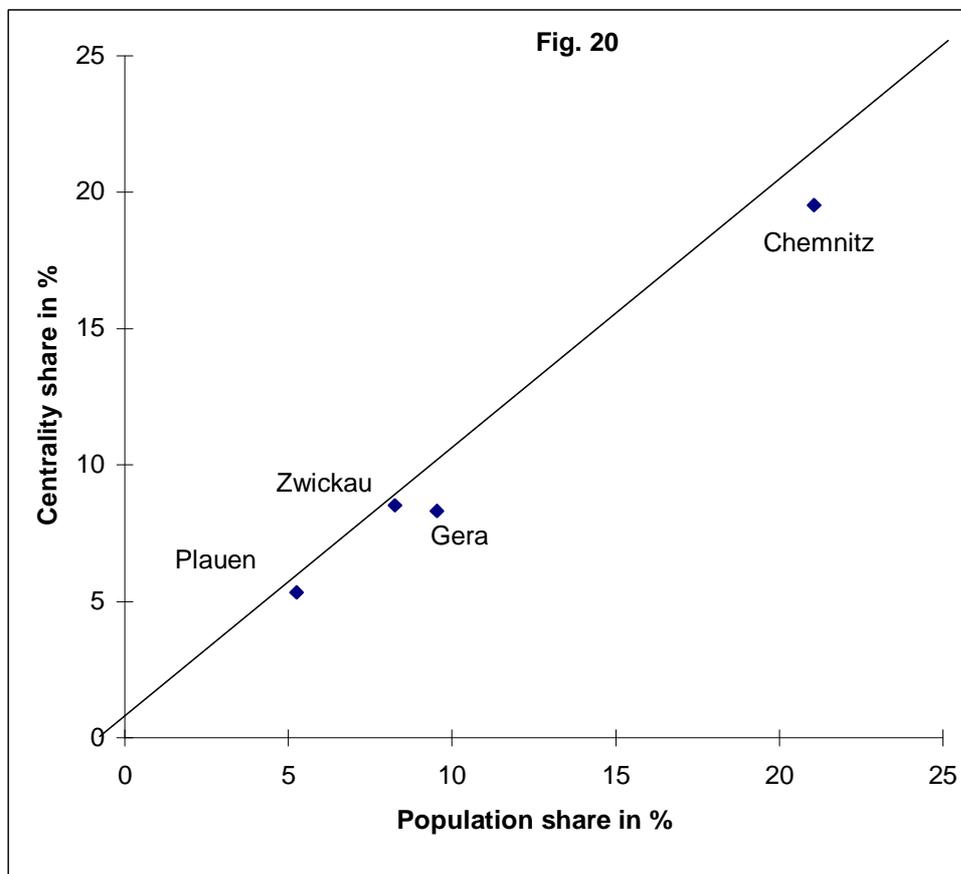
7.5 Central place structures

Central place structures can be measured by empirical investigations. This has been firstly done by the German geographer Christaller and later on there has been a great number of regional economists who proceeded in the same manner. In our study we used a catalogue of items who in summary constitute the complexity of the bundle of private and collective goods which you can find within the city`s borders.

Three years ago an empirical study was made on the spatial diversion of typical central place activities in the Zwickau region. The results were astonishing:

- Those dominant cities in the region with the highest population shares realised only relatively low shares of the central place index.
- Middle-sized central places of this region were scattered just around the line of equal distribution of population and central-place-index.
- Small-sized central places of minor regional importance found themselves just under the equal distribution line.

Similar investigations within normally developed and well functioning central place systems - as in the regions of Hannover, the area around Münster/Osnabrück and several regions in the state of Hesse - show that, according to the expectations of central place theory, the major-dominant centres will be positioned clearly above the equal distribution line. This can be explained by the fact, that their supply capacities are wanted by a population of the region which apparently is much greater than the city's population (**Fig. 20**).



So the diagnosis is clear: Major-dominant central places in East Germany suffer from:

- The reminders of four decades, in which market economy and local democracy didn't exist.
- The substantially shrunk isochrones around their city centres, due to the explosion of traffic volume as well as to the inadequate road capacities.
- The massive location of great trading centres in the outskirts of agglomerations, mainly due to the above mentioned shortages of adequate space for investment in the inner city areas.

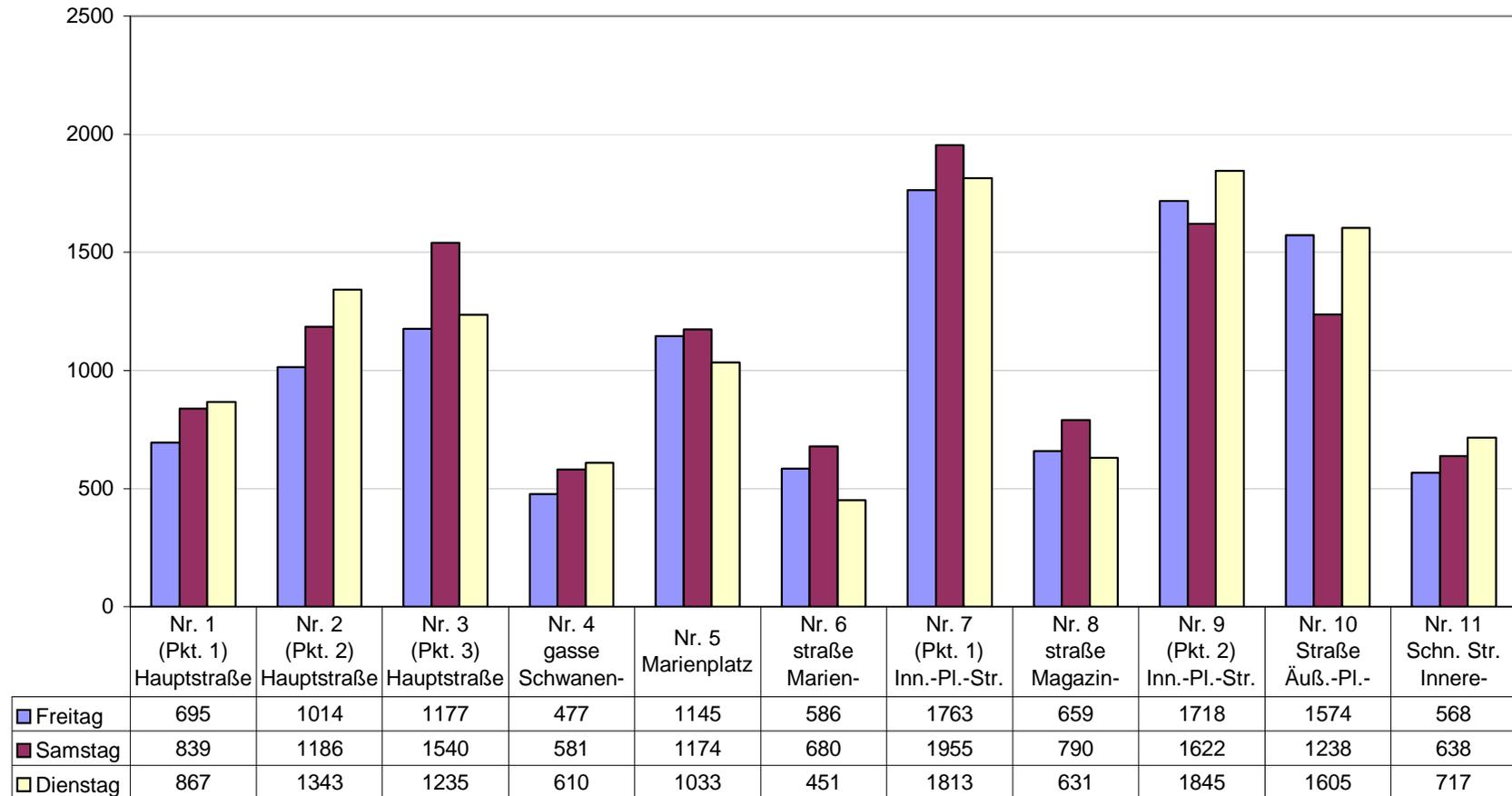
Since the study of the transformation problems in Zwickau is one of the topics of our scientific work, we can give you reports on:

- the customer's frequencies on inner city routes of Zwickau during different days of the week (**Fig. 21**),
- the qualitative and quantitative measures of shops in the inner city of Zwickau. In 1991 there were only a few ware-houses in the city centre (**Fig. 22**). The up-to-date status of shops in the same area are shown in **Fig. 23**.
- frequencies on different parking places in the reach of the city of Zwickau.

Some students made research on the question of how much people in Zwickau and its neighbouring towns and villages know about the shopping facilities, gastronomy and leisure activities in the inner city of Zwickau. The results are quite similar to those which have been achieved by the above mentioned measurements of central place endowments:

Like nearly all the other cities in East Germany Zwickau is suffering from severe dysfunctionalities.

Fig 21 Frequency profile
(pro h)



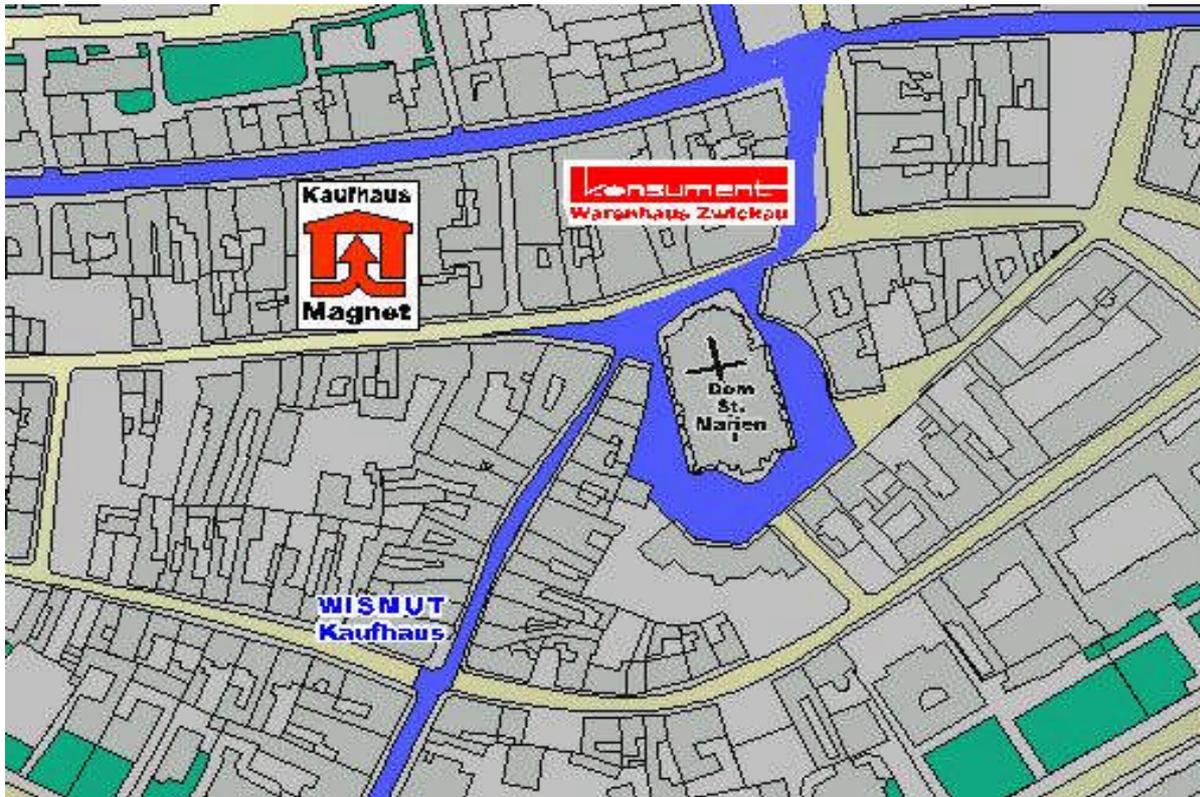


Fig. 22 Ware-houses in the Zwickau centre 1991

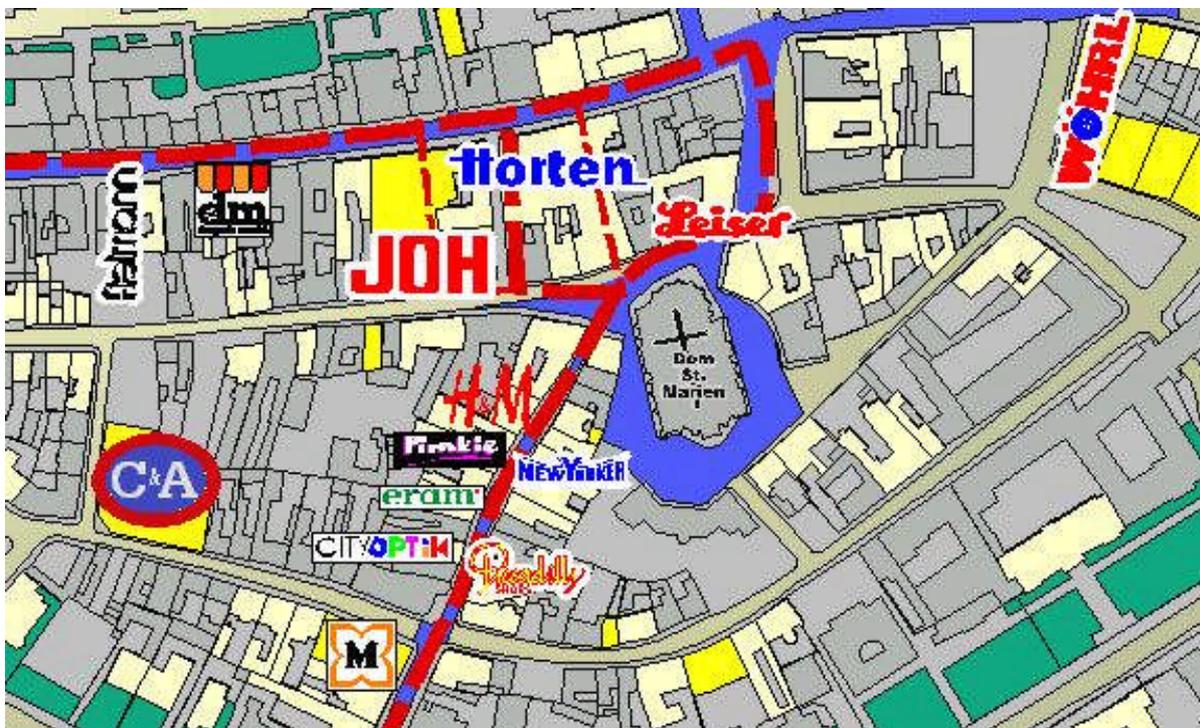


Fig. 23 Ware-houses in the Zwickau centre 1991

7.6 Inefficiencies in urban public decision making

It needed a longer time before the politicians and administrators got acquainted with the newly imported set of rules and regulations to cope with the whole platform of urban problems. Besides the lack of political and administrative know-how, one could find remarkable deficiencies in the private actors' articulation and formulation of vested interests.

Traders in inner urban locations for instance could not articulate their commercial and political interests until their property problems were unresolved. So the town councillors often decided on partial development plans or urban renewal plans and/or land using concepts without knowing what private investors would like to do under normal circumstances.

Very often these plans have been formulated by land developers. Their interests were to a very high degree not identical with the inner urban traders.

7.7 Dealing with urban unemployment

Local administrators and politicians had an awful lot of problems in dealing with the ubiquitous mass unemployment. Without any experience in the performance of urban market economics they were misguided by the Federal government's approach of paying subsidies to unemployed people on the so-called second labour market. The more successful option of financing the gap between the market wage and the wage - oriented at the marginal productivity of labour - which could be paid by the firms would have been a much more successful strategy in the view of any experienced scholar of regional economics.

Another decisive hindrance in the cities winning more economic competitiveness was the still apparent dominance of socialist thinking in the brains of those people who had to decide on economic questions in the urban administration. Civil servants - of mostly engineering science breed - who were in charge under the socialist regime completed

their careers uninterruptedly under the new conditions. Economic advisers - with a Western horizon - from the Zwickau Polytechnic had rather negligible chances to present alternatives to the "Ingenieurökonomien" of GDR-breed and to work out economically feasible options for widening the urban economic base. They simply didn't understand each other.

8. Regaining of central urban functions

The development of real estate and housing markets in the new eastern countries in Germany offers an extraordinarily interesting field of investigation to any economist dealing with regional and housing economics.

After a forty year period of time, in which the essential economic and political rules and institutions for the conservation and maintenance of housing assets at a national economic level have been denied for ideological reasons, the wants and needs of sovereign consumers of habitation are breaking free again.

One of the consequences of the transformation from a socialistic economy into a social market economy is a strong rise in the households income.

As a result of rising living standards, we realise a tendency towards modifying the consumer's preferences to dwelling very intensely:

- the per-capita-demand for dwelling size rises with different speeds to West-German level,
- the average size of households is sinking decisively,
- the demand for dwelling comfort is increasing very strongly,
- the households begin to clearly articulate rising wants regarding dwelling environment,
- households of higher income levels are going to let their dream of living in their own four walls become reality more and more,

- and mutual discontent with the way of dwelling can now (fully different than in the time 10 years before) be answered by "voting with removal van"

The consumers of housing show an exceptionally high mobility. In the last year Zwickau with its slightly more than 100.000 inhabitants had - according to newest data of the Office for Statistics and Elections - registered a total of about 12.000 citizens who had left their home. These figures show an extremely high fluctuation and regional mobility.

The transformation process on the supply-side of the estate market used to perform with its typical temporal lags.

- The making of planning laws and building regulations,
- the planning of the commercial uses,
- the provision of own capital and capital from outside sources,
- the provision of social overhead capital supply and
- the actual construction time

require more or less, a longer period of time. The temporal sequence of these phases on the market for new housing in the rural areas of new Eastern States is significantly shorter than on the comparable housing markets in the traditional urban quarters, in which reconstruction primarily appeared. But there were some further delaying moments

- the often to be clarified unresolved property rights and
- additionally the problem, that parts of the buildings going to be reconstructed were still inhabited and
- therefore it had to be taken into consideration that the moving out of people needed a further span of time.

At the Thuringian Innenstadt-congress in Gera in December 1998 when experts in regional science talked about the difficulties and problems of the East-German cities , you could often hear the diagnosis "suburbanization".

Following this the problem apparently seems to be quite simple:

- East German cities are losing inhabitants. The migration goes from the inner core into the suburbs.
- It is necessary, to revitalize city centres.
- In order to advise the somewhat perplex municipalities and local politicians a greater number of consulting firms mainly dominated by geographers (of Western breed) offered their firms' assistance.

One of them happened to be the organizer of this congress.

"Suburbanization" in the Western linguistic usage of regional economists means, that the urban functions of housing and trading are moving from the urban areas into the suburbs. This process often occurs under regular market-economy conditions, because there are massive conflicts about the usage of land in urban areas, which are reflected in rising land prices and/or rents.

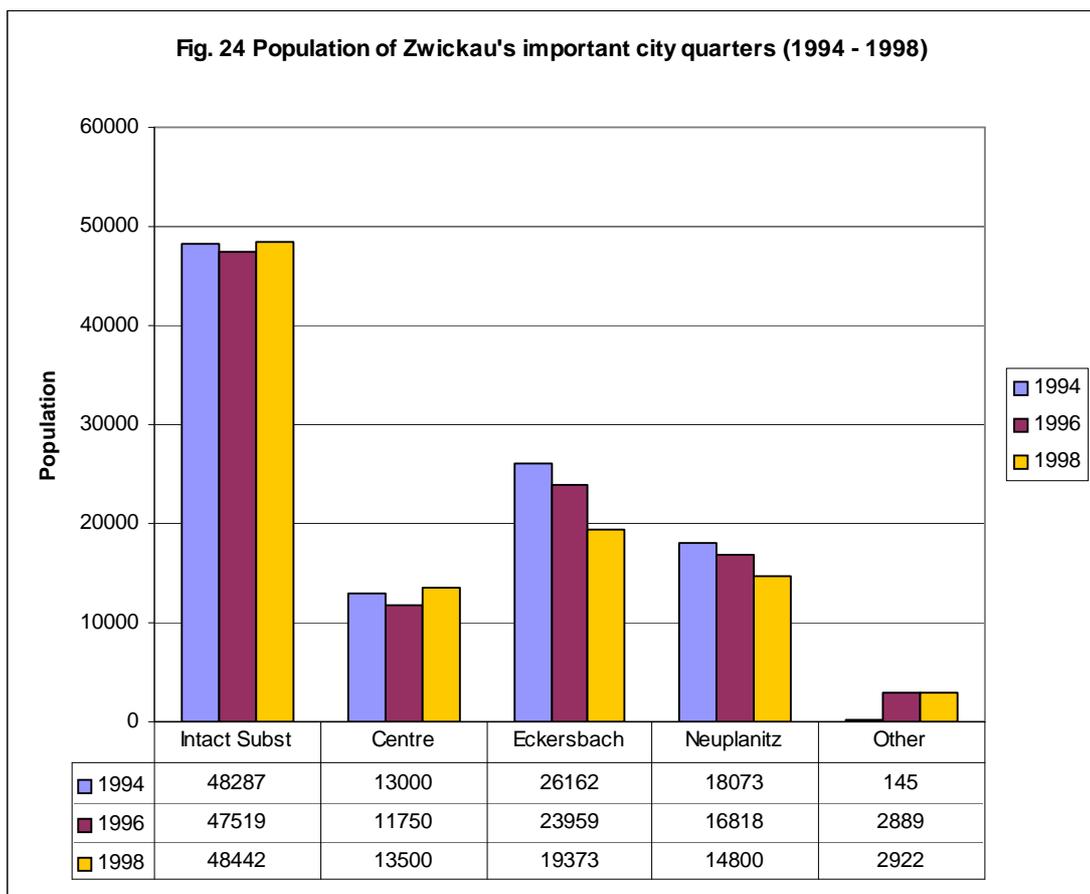
Businesses with an intensively high value added will expand their activities in the centre whereas businesses with less important value added will move into the periphery of the urban areas. Under the conditions of a "normal" suburbanization the inner urban city as well as the surrounding countryside will enjoy growing economic activities.

In most East German regions you really cannot speak of such a suburbanization:

- they are all losing population and
- in comparison with corresponding West-German towns these cities are looking desolate and vacuous.
- So the land prices and rents in East German city centres after a period of heavy speculation have now turned down decisively towards normal levels. The mainly West-German actors and their East German imitators have all done the same diagnostic mistakes as the above mentioned experts on the revitalization of cities at that "Innenstadt"-congress in Gera.
- The city and the surrounding countryside as a whole are not growing.
- The growth of the surrounding land around the East German cities occurs at the expense of the cities.

It is possible to measure the impacts of all these adjustments in statistical figures:

- the Zwickau population went down from 1989 (118.876 inhabitants) to 1998 (99.037) by about 19.000 people.
- If you look at the annual changes and differentiate according to different urban districts, then you will find some interesting results:
 1. Districts with living conditions in rather good order (Nieder- and Oberplanitz, Marienthal, and Weissenborn) have kept their population or even recorded some slight increases.
 2. Districts with condensed residential buildings in pre-fabricated manner (first of all Eckersbach, Neuplanitz) record heavy losses.
 3. Inner-city areas lost population in the first years (due to extensive rebuilding activities) - but starting from 1995 recorded afresh clear population growth.



The developmental processes in East German city regions are marked by intense disparities on the real estate markets. First of all, this applies to the housing market:

- the strong qualitative and quantitative diversification of the demand side of the market since the end of the GDR could be met successfully only by those residential quarters which were in good order. These areas were first of all those with lower or medium-sized housing density and secondly those with comparatively high ownership ratios (**Fig. 24**).
- Housing areas with a defective supply (compared to the newly gained housing standards) have only got a chance in competition with other quarters, if they could regain a high dwelling quality and a wide supply spectrum within a shorter period of time. These are mainly those urban areas situated very near to traditional inner core sites.
- The critical problem for these housing quarters lies in the time lags, which are typical for the housing market. It takes a considerable time, to regain competitiveness for these urban areas.

Residential areas with a standardized, highly condensed and qualitatively low supply could only be upgraded by extremely high efforts to cope with the disaffection of the consumers. This also relates to a more intense competition pressure for prefabricated dwellings in the inner city .

With respect to the market for commercial estates - especially in the trading sector - different rules will be effective:

- Powerful increases in purchasing power evolved into rising demand for business premises. The intrinsically most favourable inner core areas were unachievable for most of the investors. (Reasons: Problems with the restitution of property rights and bad traffic accessibility). In the moment an inner-city area will be restructured by a new investment, which will give strong support towards revitalisation of the city. **Fig. 25** shows the Zwickau-Arcades, which are now under construction. This shopping mall will be opened within the next few months.

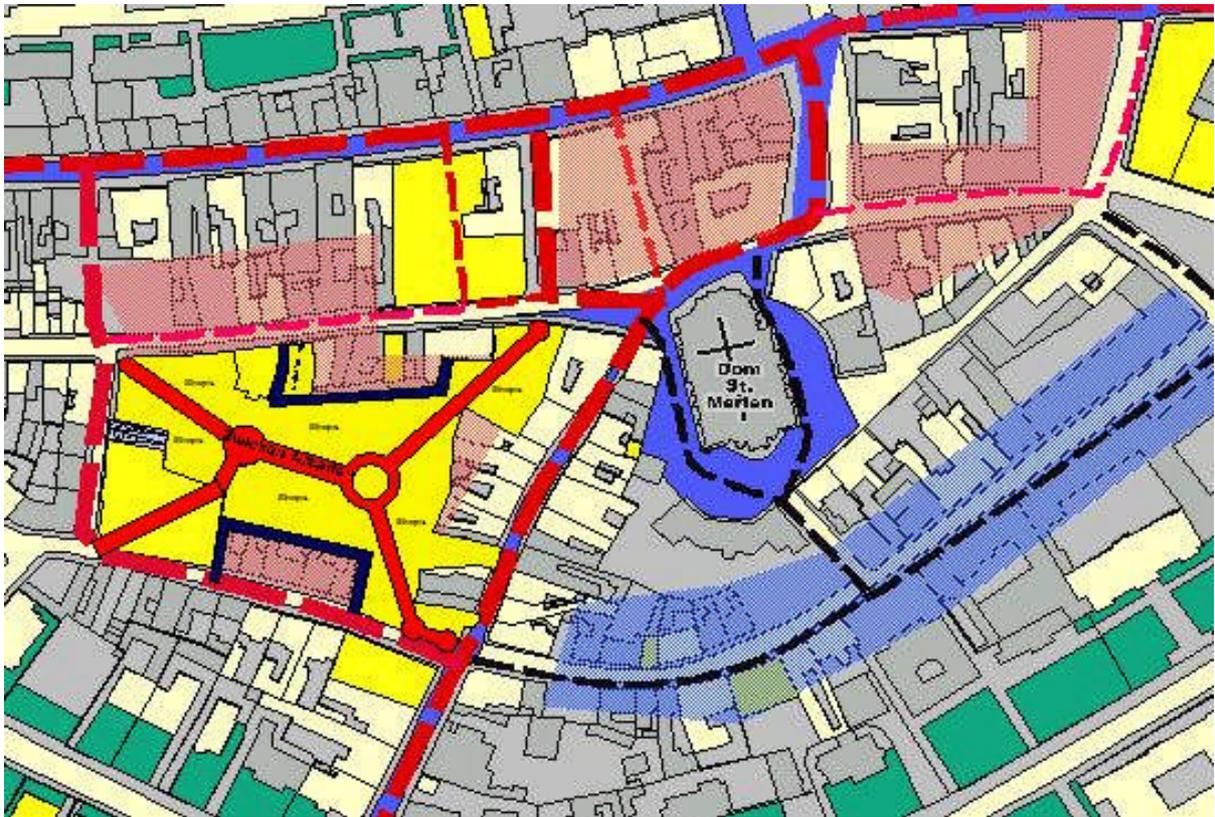


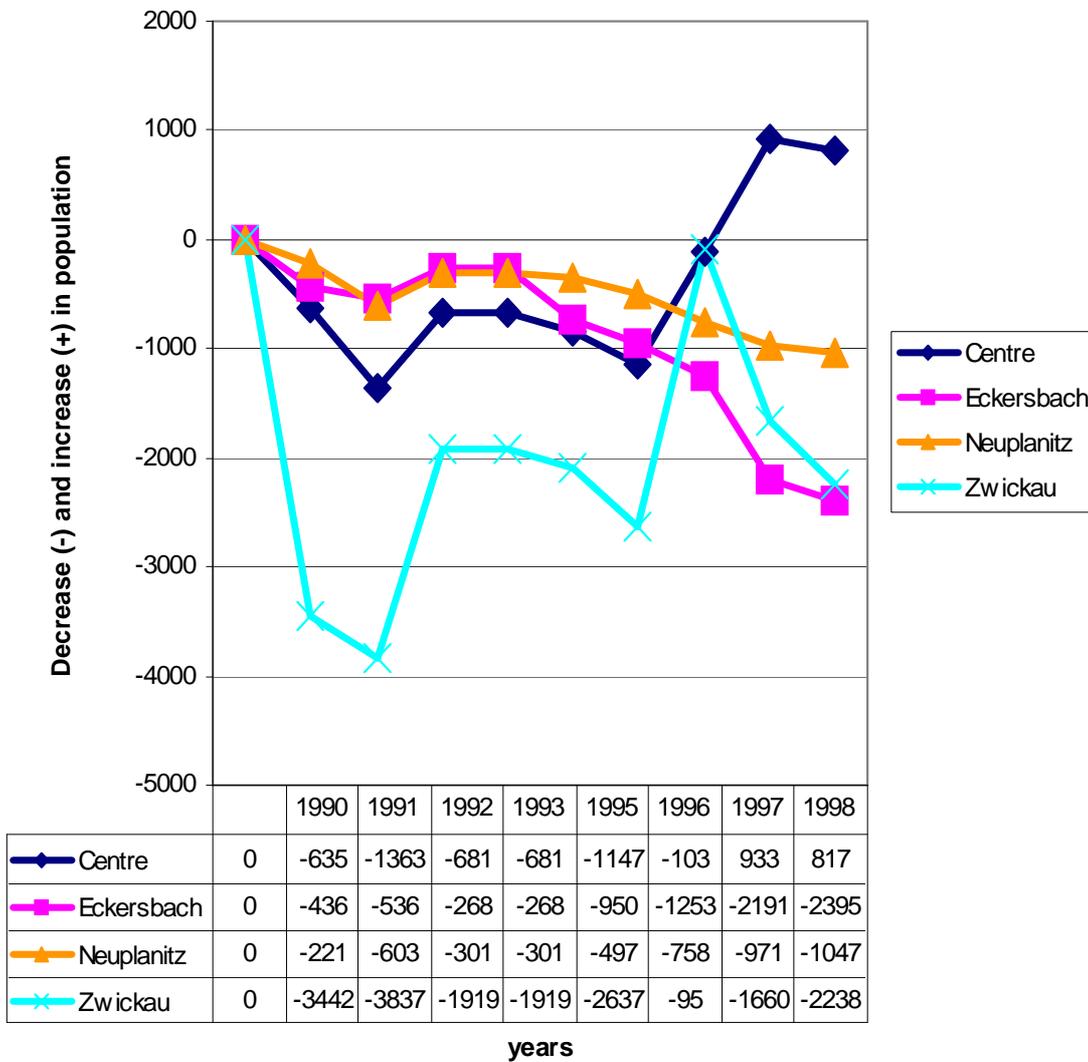
Fig. 25 Zwickau Arcades

- With the extraordinarily hard oligopolistic competition among the West-German trading chains the "green field sites" in the shortest possible distance from the city centres were preferred. It is quite obvious, that some of these investors could probably revise their decision in favour of a location closer to the city centre. Along with an increasingly regained functionality of the traditional trading quarters it may happen that the location economies of the "green field sites" in particular for the small-sized traders and retailers as well as the big chain traders are going to decrease.

The reestablishment of the operative readiness of its city centres is one of the main objectives of future of urban development policy:

- An improvement of the dwelling situation by comprehensive reconstruction of old houses is apparently appreciated by the population. This can be shown clearly by the growth rate of population in the inner city of Zwickau within the last two years(Fig.26).

Fig. 26 Changes in population of Zwickau's important city quarters (1990 - 1998)



- Modernised old houses proved to perform successfully in the competition against prefabricated dwelling-machines. This can be shown by the origins of migration into these newly reconstructed quarters .
- Households, moving into the inner city quarters, belong to comparatively higher income groups. So a rise in purchasing power for the traders, gastronomy etc will be the consequence.
- Households moving into the restored inner city centres are pretentious and urban

thinking actors. They prefer these accommodations, since urban variety is slowly evolving in these quarters.

- Increased housing land use in traditional inner city centres and an increasing usage by commerce, gastronomy, culture and services will compete with each other: rising demands for traffic accessibility will come into conflict with the demands for housing and parking needs of inner urban residents. The urban land-use in the inner city needs attainability not only for the inhabitants of directly bordering areas, but also for customers from the rest of the town and from the outer sphere of influence of the Zwickau centre .

If these conflicts remain unresolved, then both land-uses will affect each other negatively. Urban land-use in the inner urban area would have no chance of growth, the attractiveness of the inner city housing areas will suffer severely. Purchasing power will not be realised in the city centre, instead it will migrate into competing centres or into alternative peripheral areas.

The tendency towards increasing housing use in the inner city area will not continue, alternative locations in bordering parishes will be preferred. There will be further losses in population in Zwickau. Losing population is always connected with a lower purchasing demand and thus will endanger jobs in the different urban functions of the city centre.

Urban policy, which aims at the creation of the necessary infrastructural preconditions, will be in accordance with better economic performance especially on the labour market.

Where are the potential dangers for the further revitalisation of the inner city of Zwickau?

Under optimal conditions the future change towards more urban quality would proceed from the intrinsic area of the city centre in an urban compaction along the following four directions (**Fig. 27**):



Fig. 27 Developmental axes in the Zwickau city

1. The developmental axis towards Bahnhofsvorstadt. There ought to be built an easy-to-walk interconnection from the Äußeren Plauenschen Straße via the Georgenplatz towards Bahnhofstraße.
2. The developmental axis going to the North along the Leipzigerstrasse. This axis should also be developed into a connection between Hauptstrasse and the area around the Neumarkt, which is acceptable and desired by pedestrians.
3. The developmental axis towards the south. Here again a connection between the Inneren and the Äussere Schneebergerstrasse should be especially constructed for pedestrians without any annoyances by traffic.

4. Furthermore the Schwanenteich area which is important for its the urban functions should be made conveniently attainable again for pedestrians from the bordering quarters.

These requirements are not fulfilled in the moment (**Fig. 28**):



Fig. 28 Intersection of developmental axes in Zwickau

- above all the extremely heavy traffic loads crisscrosses the "natural" developmental axes and cut the connections between the inner urban area and the surrounding city quarters.
- There are massive annoyances that stem from that high share of transit traffic going via these inner city roads. This is due to the fact that all radial traffic routes from Western, Eastern and Southern districts to the inner city centre approach here and converge at a very narrow space.
- These inner urban road crossings very easily realise daily traffic volumes, that are

obviously above the level of other well-known crossings in the outskirts. One of these crossings lying at the Wildenfelser Straße is very well known as the so-called "Bermuda triangle".

- Lack of parking space plus - a still prevailing - false placement of multi-storey car-parks for individual car drivers at a distance from the city centre that will be accepted by customers and/or residents will reduce the accessibility of the city centre, and will consequently induce unnecessary traffic by car drivers who are seeking parking space. These additional annoyances will be loaded onto these highly frequented axes (**Fig. 29**).



Fig. 29 Traffic loads in residential zones of the city of Zwickau

You can calm down the situation on the entries into the city centre, on the Ring and on the "natural" developmental axes into the downtown area and gain comfortable attainability and access to the centre by appropriate road investments.

1. The construction of an efficient inner tangential road system, which will be able to absorb the transit traffic from the area around the inner city and, additionally, the traffic from the radial roads.

2. Further parking garages should be developed in the area where the northern and western developmental axis intersect the borders of the inner core, i. e. near the Bahnhofstraße/Georgenplatz and the Hauptstrasse/Neumarkt. The new parking garages should exclusively be accessed from the tangential road system which has been described under 1.

3. There are further investments to be made, in order to give sufficient parking space to the residents living in the downtown dwelling quarters so that seeking traffic which is induced by these people can be reduced as much as possible (**Fig. 30**).

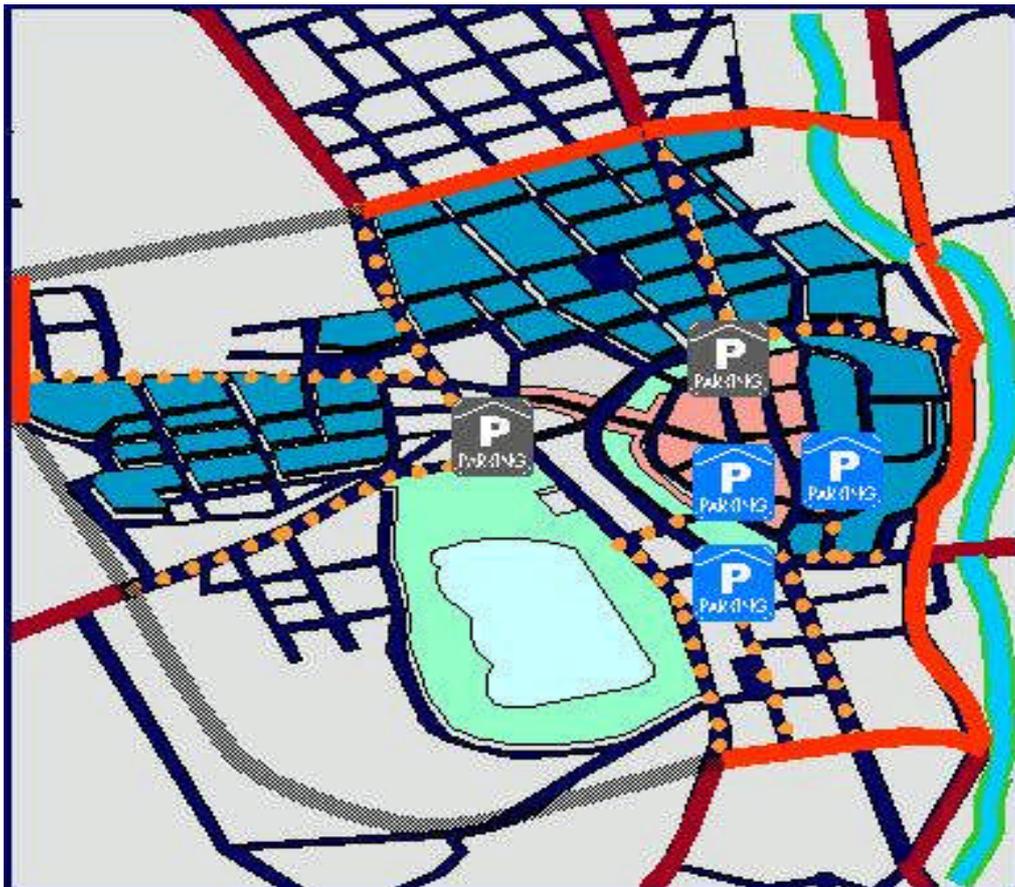


Fig. 30 Future shape of the Zwickau tangential road system