DEVELOPMENT AND INTEGRATION: POLAND AND LOWER SILESIA
A STUDY OF LOWER SILESIA'S DEVELOPMENT AS A REGION OF POLAND AFTER 1945

ZBIGNIEW HAJŁASZ

UNIVERSITY COLLEGE LONDON
SCHOOL OF SLAVONIC AND EAST EUROPEAN STUDIES

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Abstract

This work is about the development of Lower Silesia and Poland as a case study for the eventual integration of Poland into the European Union. The focus and the evidence are concentrated on Lower Silesia, but many of the generalisations apply to Poland as a whole.

It is assumed that there is no universal model of economic growth. Various factors, in different historical contexts, may decide, in different ways, about the economic development of an area. As regards methodology, this is an interdisciplinary approach, which includes geography, history, economics, political and legal system. It brings together the three levels: local, regional and national and how they work with each other. The thesis is firmly located within the field of transition economies. We demonstrate those features of the transition, which are not conducive to the economic development of Poland and her regions, and may even impede the process. At the heart of many of the problems is the underutilisation of the existing resources.

The objective of economic development of Poland and its regions is the expansion of the economy and a continuous improvement of the living standards of Polish society. We discuss economic policies in particular of the years 1990-2000. A great deal has been started but not completed or has been done in a way which is not in the best interest of the population, or in some cases not even attempted. There has been progress in overcoming the legacy of the communist past but a great deal remains to be done. There is a tug-of-war in Polish society and politics between those who want the radical changes needed and those who want to retain the status quo inherited from the communist period. The role of the state and the political establishment is crucial. Who will win this tug-of-war is uncertain as is the success of this transformation.
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INTRODUCTION

This work is about the development of Lower Silesia and Poland as a case study for the eventual integration of Poland into the European Union. Lower Silesia has been chosen as a case study because this is the author's native region of which he has extensive knowledge acquired in the course of his work. As regards the choice of the case study methodology, we have chosen the regional level because such an observation point enables the capture of processes which are going on both on the larger national scale and also in the local communities and commercial companies. This helps to explain how all these levels interrelate; on the one hand, we can observe the central government policies and their impact on the developments of a region, local communities and companies; on the other hand, we can see what are the developmental needs of communities and companies and whether Warsaw policy meets these needs.

The focus and the evidence are concentrated on Lower Silesia, but many of the generalisations will apply to the problems of Poland as a whole. Lower Silesia is a Polish region and most of the general conditions affecting it are common to the rest of Poland.

As for the conceptual approach, it is assumed that there is no universal model of economic growth. There is no single recipe for economic growth. In other words, various factors, in different historical contexts, may decide, in different ways, about the economic development of an area. However, there are factors which, when permitted to operate, usually are conducive to economic development. They are the following:

A favourable natural environment, including mineral resources; a rational type of organisation of public life in the region, (Scully G., 1988); an efficient system of capital accumulation and also investment, (Solow R., 1988); the ability to produce and distribute energy, (Mokyr J., 1990); a developed infrastructure, in particular an
appropriate educational and developed information environment and transportation, (Castells M., 1997).

Therefore the development of a region should be based on the following principles:

1. Each of the factors of development must be firmly established, since the effective establishment of any one of them may be beneficial for the region.

2. If all of these factors are fully integrated so that none is working in a vacuum, and they all reinforce each other, then the highest dynamic of development can be obtained. In this way the mutual enrichment causes the sum to be greater than the parts.

3. In organising a particular programme it is therefore desirable that as many of the factors for economic development as possible may be pursued and at the same time.

The objective of economic development of Poland and its regions is the expansion of the economy and a continuous improvement of the living standards of Polish society. The achievement of that objective requires the organisation of the whole process. We will discuss the economic policies, in particular of the years 1990-2000 and the extent to which the above factors of development were applied.

As regards methodology, this is an interdisciplinary approach, which includes geography, history, economics, political and legal system. It brings together the three levels: local, regional and national and how they work with each other. The research is based on both primary and secondary sources. It used statistical data of both international and Polish institutions at national, regional and local levels. Case studies are also based upon data collected directly in companies and various institutions through interviews, examination of unpublished documents such as balance sheets, reports and the author’s observations. This is, to my knowledge, the first case study of the region of Lower Silesia, either in Polish or English.
As for the theoretical debate, the thesis is firmly located within the field of transition economies and it often draws on its vast literature in most of the chapters. Lower Silesia is subject to processes, which are occurring throughout the whole country. In the sphere of politics it concerns the transition from one-party dictatorship towards multi-party democracy. In the sphere of economics - from the system of collective ownership and the rationing of goods and services to private property and the open market economy. The purpose of this work is to demonstrate those features of the process which are not conducive to the economic development of Poland and her regions, and may even impede the process.

This thesis is not directly concerned with the Polish negotiations with the EU and EU requirements but these are referred to only when relevant to the topic of integration into the EU in the broader sense. The whole thesis implies EU accession.

The thesis begins with a historical survey of Lower Silesia up to 1945, which points out specific features of the region which distinguish it from other parts of Poland, such as a higher level of urbanisation, dense network of roads and railways and mineral riches. It is also a borderland with frontiers with the Czech Republic and Germany. The present situation is so unprecedented that it seems doubtful whether the past is any guide to the future.

The natural, human and capital resources of Lower Silesia are presented in Appendix I. It discusses the significance of those resources for this region's further development.

Chapter 2 is concerned with the analysis of the Lower Silesian economy during the communist period and its legacy. It explains the working of the regional economy, its specific features, lost opportunities and final results. The legacy of that time is many-sided and it is not easy to give a fair balance sheet. This legacy is political, legal, social, economic and cultural. The thesis attempts to show how these fields were interconnected.
Chapter 3 refers to the problems of economic transition in Poland illustrated with examples from Lower Silesia. We analyse the changes of economic structure during the 1990s, how firmly factors of economic growth, indicated above, were established, and we indicate further necessary reforms. It is demonstrated that at the heart of many of the problems is the underutilisation of the resources. The reasons are many; political, social, economic, institutional and general cultural. It is a part of the argument of this thesis that privatisation of property has proceeded at far too slow a pace. The financial system should develop and be conducive to economic growth, thus it should provide more credit to small and medium size enterprises than is the case at present. If more people owned houses and other forms of private property, it would be easier to obtain the risk credit.

The whole chapter 4 is a case study of Lower Silesia. We discuss the evolution of its economy after 1989, its growth, foreign trade and how investment was guided. The role of foreign investment for regional development is analysed. We present two case studies to illustrate our contention that a company’s success does not so much depend on the form of ownership as on the ability of the management to adapt to the new economy and the needs of the consumer. This is to underline the critical importance of company managers, whether the companies are state owned or not. We illustrate the pattern of adaptation of a highly successful state owned company in the new economic environment and also its importance for the restructuring of the regional economy, provided it has good management. The growth of FDI in Lower Silesia and its impact on the regional economy is analysed. In this chapter we discuss these problems on the regional and local level and how they are interrelated. We discuss the evolution of the government regional policies and their results.

In chapter 5 which draws on the analysis of all the previous chapters we attempt to summarise both the achievements and some of the main problems which Poland still faces during her transformation. We begin with the legacy of the communist period and the need for integrated approach. Then we discuss legal and political systems and their deficiencies. The thesis discusses the question of the financial resources for privatisation. The experience of the last decade indicates that much
privatisation was financed by already well-off Poles and foreign investors. It failed to make use of other available resources, such as the considerable savings of Poles. Domestic capital has to be created; through restitution, privatisation of flats and houses, allotments, etc. and this could create capital or a collateral for it. Public budget limitations further emphasise this need. The work demonstrates that privatisation by itself is not a panacea for economic development. Privatisation should be pragmatic and directed to greater economic efficiency. Property law is in urgent need of reform. At the end of the chapter we examine the rural question and its problems. In conclusion we discuss the role of education in present-day Poland. Democracy and market economy have one thing in common: they are about making choices. Poles should learn to make rational choices.

To conclude, the core of the thesis consists of the following propositions:

- A great deal has been started but not completed or has been done in a way which is not in the best interest of the population, or in some cases not even attempted.
- There has been progress in overcoming the legacy of the communist past but a great deal remains to be done. The time span of a dozen years is short, but it is our contention that more could have been done.
- There is a tug-of-war in Polish society and politics between those who want the radical changes needed and those who want to retain the status quo inherited from the communist period. This seems to be the essence of the whole transition process including politics. Who will win this tug-of-war is uncertain. The role of the state and the political establishment is crucial. The Polish state has unusual responsibilities, heavy financial obligations and great expectations are placed on it, and yet often it seems weak and ineffective.
- This work is not about the process of negotiations for entry into the EU but about the long-term transformation of Polish society to adapt to membership of the EU.
- The success of this transformation remains uncertain.
- In all these respects Lower Silesia is both typical and untypical of Poland.
Chapter I. HISTORICAL EVOLUTION OF LOWER SILESIA

Introduction

Lower Silesia is a part of the historical region of Silesia. Throughout history Silesia has belonged to Poland, to the Bohemian Crown Lands, to Austria, Prussia and Germany in their various political configurations.¹

The borders of Lower Silesia

The western border of Silesia is the Oder River which is also the border between Poland and Germany. It does not fully represent the historical extent of the Silesian lands, for in the medieval period Silesia went only to the rivers Bóbr and Kwisa with a few small enclaves to the West, where the Lusatian region was situated. (Marczak T., Suleja W., 1993).

In post-1945 publications the region of Lower Silesia was identified with the Wroclaw Province in its then administrative extent. In distinguishing Lower Silesia from the other Silesian lands most authors accept the administrative criterion - whether an area did or did not belong to Wroclaw Province after its creation in June 1946 at the time of Polish settlement. (Marczak T., Suleja W., 1993).

The identity of the former Zielona Góra district is still being debated. It seems to be right not to include this area in Lower Silesia. According to the above administrative criterion, however historically the Silesian Zielona Góra district, after WW II was not included in the Wroclaw Province but the Poznań one. The northern border of Silesia represents the districts of Glogów, Żagań, Szprotawa, Żary and Kożuchów.

There are few uncertainties about the eastern border of Lower Silesia, because it has remained almost unchanged since XIII century. The slight correction of the border

¹ This chapter has been based on the authority of works by F. Carter, G. Craig, N. Davies, F.I. Hamilton, T. Kemp, H. Koch, F. Koneczny, K. Maleczyński, J. Skodlarski and others who are mentioned in the text.
after the WW I, when the Ambassadors Conference decided to transfer a few villages of the Rawicz District and part of Syców and Namysłów districts from Germany to Poland. (*Dz. Praw Państwa Polskiego* Nr 64, poz. 385). The above decision was based upon the fact those areas were inhabited by Poles. The rest of the border between Lower Silesia and Wielkopolska and also between Upper Silesia and Małopolska has only slightly changed for 700 years, except for the Silesian Duchies of Oświęcim and Zator.

In conclusion, the northeastern border of Silesia was drawn up before 1939, which was than the Polish-German border, and also the former border between the Kingdom of Poland and Prussia. And on the southeastern part it is the former eastern border of the Habsburg Monarchy in the Great Duchy of Cieszyn.

After 1945 Silesia was divided into the three administrative regions (Województwo) - Katowice, Opole and Wrocław - related respectively to their historical and social differences. Therefore the Katowice Region covered the area of Upper Silesia with a majority of native inhabitants for whom this was their homeland for a number of generations. The Opole Region was a mixture of the indigenous population and of people who after the war moved from the former eastern part of Poland. The Wrocław Region acquired over 90 % of a new settlement from Eastern and Central Poland in place of Germans resettled as a result of the Agreements of Jalta and Potsdam. One of the special features of the Wrocław Region, in time identified with Lower Silesia, is that, since 1945, it is the only region, apart from Pomorze (Pomerania) in Northern Poland, in modern Europe where 90 % of population was changed.

In 1975 the Lower Silesia Region was divided into the four administrative units (województwa): Jelenia Góra, Wałbrzych, Legnica and Wrocław. There is a consensus now among researchers that such division is entirely artificial because the only reasons for it, which no longer exist, were the then temporary conflicts within the ruling party. On January 1, 1999 a new administrative division of Poland was introduced. Therefore the present borders of Lower Silesia consist of the four
former Provinces (Województw) - Wrocław, Jelenia Góra, Walbrzych, Legnica - with 19 571 km², and the population of 2.92 mn. And this area will be subject of this research.

During its history Silesia represented differing degrees of importance for its rulers and neighbours. It was the rich mineral resources and a flourishing economy that both attracted migration from other parts of Europe and encouraged neighbouring powers to take over this territory. Also religious freedom brought refugees looking for peace and stability. Additionally, especially in the last century, Silesia had considerable strategic importance.

Politically Silesia changed hands many times. Because in the course of its history it was first of all a borderland, different cultural, economic and political influences were always present. In this chapter we try to present the essentials of these influences and their impact on the region. There are still heated discussions, especially between Polish and German historians, about the nature and results of the various ways of ruling and administering the region. Mostly they represent ethnocentric views, and tend to emphasise the successes caused by their own nation and the failures of others.

Silesia has never been an independent political unit but it has always been connected with a larger neighbouring political unit. (Maleczyński K., 1960). Therefore we propose to consider the history of Silesia by periods, each connected with the different regime.

1.1. The Slavonic period: VI - X century

In this period the form of the society was a pre-Christian tribal Slavonic organisation.

The geographical position of Silesia was important for its economic development. Major trade routes east-west (The Black Sea - along the Dniestr River - Kiev -
Lwow - Cracow - Wroclaw - Dresden - Erfurt - ...), and north-south (the Amber route: from the Baltic to the Mediterranean Sea) crossed in Cracow (Polonia Minor) and in Wroclaw. Routes to the south went through the Moravian Gate and the Klodzko Valley, and to the west - through the Lusatian Gate. These routes have been of major economic importance until the present times and the initial development of Silesia, including early settlement, was probably associated with them, as well as the four following factors: first, the Oder River and its tributaries created an abundance of water supply; the soil, especially in Lower Silesia, provided fertile arable land, additionally rich in timber; the third basic factor is also related to the river – the Oder facilitated the transportation of persons and goods; and the fourth but not least factor was that the river created the environment for a more effective fortification of settlements. (Christaller W., 1972), (Barraclough G., 1994), (Carter FW, 1994).

1.2. The Polish period: X - XIII century

In the course of the 10th century Silesia became a dependency of the Polish Kingdom whose establishment is usually associated with date 966 and the baptism of Duke Mieszko I, of the Piast dynasty. (Šreniowski S., 1948). This led to the establishment of the archdiocese of Gniezno in Greater Poland (Wielkopolska) in the year 1000, and subsequently dioceses were also established in Cracow for Małopolska, Kolobrzeg for Pomerania (Pomorze), and Wroclaw for Silesia. (Davies N., 1982). Then in 1025 the son of Mieszko I - Boleslaw the Brave - was crowned King of Poland. The country was united and the shape of Poland was thus formed - it included the provinces of the Greater Poland, Lesser Poland, Pomerania and Silesia which was divided into a number of duchies. (Carter FW, 1994).

In the 13th century there were population changes of great significance. The Tartar invasions of that century depopulated the country. To repopulate the country the various duchies opened the country to new settlement and for this purpose introduced new laws. The most important and effective of these was the Magdeburg colonisation law. (Skodlarski J., 1995). It concerned the establishment of
both towns and villages, and it consisted of provisions which brought various privileges and benefits to the settlers.

All this resulted in an influx of new settlers, mainly Germans and Czechs. There were also small groups of Walloons and Flemings. The Walloons lived in Dzierżoniów, and the Flemish community in Bielawa. They were skilful craftsmen, especially as weavers or toolmakers. They did a great deal to develop the Silesian textile industry in the following centuries. This emigration into Silesia resulted in the growth of its cities in the XIII century, and there was an accompanying development of local commerce based on improved agricultural yields and the demands of the growing population for specialised craft services and imported goods and materials. (Skodlarski J., ib., pp. 39-55).

The medieval prosperity of Silesia is evidenced by the surviving gothic churches, monasteries and cathedrals in the Silesian towns. The monasteries, on the other hand, especially those of the Benedictines (Ora et Labora of St Benedict) and Cistercians, such as abbeys in Lubiąż (est. 1163), Trzebnica (est. 1202) and Henryków played a great role as organisers of economic and social life. They were great landlords, employers, and pioneers of new methods in farming, animal rearing and fruit growing; they drained swamps and developed crafts; they provided education by establishing schools and libraries; they supported the arts. The Silesian bishops created, on a large scale, a new status of peasant landowners with full inheritance rights.

Cities, especially those which were fortified, drew traders and craftsmen. Wrocław, situated at the east-west and south-north (the Amber Route) cross roads, was already an important trading centre in the XI century. It had the right to hold a market and in 1242 obtained other commercial rights, e.g. a staple rights (compulsory storage and display of goods by passing merchants), which according to Professor Carter in practical terms it meant that much of Germany's trade with Poland went through Wrocław, which at this time had far more contacts with Toruń and northern Poland than with Cracow; these rights turned out to be significant for the development of local
autonomy and the further economic growth of the city. (Carter F. W., ib. p. 77), (Piwarski K., 1947). Wrocław was not only a transit city but it also was a centre of food production and processing, as well as of metal, leather, textiles, wax and other manufacture and crafts. According to Carter, its commerce dealt also with such products as timber, beer and wine, fish, livestock, furs, cereals, salt, spices, etc. (Carter FW, ib. pp. 132, 149, 150, 162, 241, 246, 317, 318). Other major Silesian cities of this time were Legnica, Głogów, Olawa, Trzebnica, Świdnica, Brzeg, Olesno, Cieszyn, which were local trade centres, manufacturing and military garrisons.

The Piast dynasty ceased to rule Poland by 1370 while in Silesia there were Piast dukes until 1675. (Koneczny F., 1931).

1.3. The Silesian period: XIII - XIV century

In the 14th century Silesia greatly benefited from the prosperity of the neighbouring kingdoms of Poland and Bohemia. This is particularly true of Bohemia and the reign of Charles the IV (1346-1378) and Casimir the Great in Poland. Bohemia became prosperous through the discovery of silver mines and reform of the currency which, according to Carter, provided a stable coinage throughout much of Central Europe. (Carter FW, ib. p.75). At the same time two gold mines were working in Złotoryja and Silesian Lwówek in the Sudeten foothills in the southern part of Silesia.

In Poland the King Casimir the Great greatly stimulated the trade with the East by fortifying cities, introduction of privileges for trade centres and protecting trade routes.

Silesia, because of its geographical position at the great cross roads and on the Oder River was able to benefit from this prosperity. The river, being navigable 11 months of the year and connecting Silesia with the Baltic and North Sea trading towns, facilitated the physical movement of goods. Poland profited from the opening of the Baltic Sea route by the Hanseatic League (1358) merchants and became a major

A very special role was played by the city of Wroclaw which in the 14th century was already built with brick and stone. In 1340 it had about 17 000 inhabitants, in comparison to the Polish capital city - Cracow - with about 14 000; and the other Silesian city of Głogów - 11 000. The largest German cities of that time, such as Augsburg and Cologne possessed about 22 000 inhabitants. (Skodlarski J. ib. p. 48), (Barraclough G., ib., p.117).

In 1357 Wroclaw obtained the mint right from Charles IV. Also in this time the Wroclaw Municipality was permitted to have its own starosta, also it carried out the functions of an office of the Wroclaw Duchy. It meant that the position of the City of Wroclaw was almost an equal to that of a duke. (Śreniowski S., 1948). At the beginning of 14th century Silesia consisted of 20 sovereign duchies. (Śreniowski S. ib., p.30), (Skodlarski J. ib., p. 53).

In conclusion, the well-being of Silesia in this period seems to have been the result of the combination of these major factors: the geographical position of the region, great industrial innovation brought in by western immigrants, the introduction of effective institutions included municipal autonomy, and the economic growth of neighbouring states such as Poland and Bohemia.

1.4. The Bohemian Crown and the Habsburg Monarchy period: 1368 - 1740

Although the Bohemian Crown and the Habsburg Monarchy were two very different political units in terms of time, territory and their character, in this chapter we place them in one period. The reason is that from the economic point of view

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2 In the years 1351 - 1353 the burghers of Wroclaw founded the third great church built there in the 14th century. It was built in memory of the meeting of the three kings - Casimir the Great of Poland and Charles IV King of Bohemia and Roman Emperor of German Nation - that took place in the Wroclaw Townhall in 1351. Because of that, the patron saints of this church were Stanislaus - a Pole, Vaclav - a Czech and Dorothy - a German.
the latter state represented a considerable continuation of the policy of the Bohemian Kingdom. (Śreniowski S. ib., p.14).

In the 14\textsuperscript{th} century Poland was affected by a long lasting war with the Order of Teutonic Knights. To gain support in the war, or at least the neutrality of its neighbours, the Polish King Casimir the Great was forced to make concessions to them. In the years 1335 - 1339 Poland gave up her rights to Silesia to John of Luxembourg of Bohemia. (Śreniowski S. ib., p.13).

During the 15\textsuperscript{th} century step by step Bohemian royal supremacy became well established. By the end of the century the autonomy of the Silesian duchies was seriously limited. The Bohemian King introduced central administration in all lands which belonged to the Bohemian Crown. He exercised powers of taxation and legislation, often in consultation with diets and controlled the administration of justice.

According to Professor Frank Carter, in the fourth decade of the fourteenth century relations between Wroclaw and Cracow deteriorated, mainly over problems of customs duty and trade connections with the route eastwards to Ruthenia and the towns of W\l\odzimierz and Lwow. The only route went via Cracow. (Carter FW, ib., pp. 79-80). This started a trade war in which both cities closed their borders to each other: Cracow cut off Silesian merchants from the eastern trade, and Wroclaw restrained Cracow access to German markets. This war lasted, with varying intensity, until the beginning of the 16\textsuperscript{th} century, which is over 150 years, with, as Carter says, disastrous results for transit cities like Wroclaw. This war must have had a great influence on the geographical re-orientation of the trade of Wroclaw and, often following it, other Silesian cities. Until this conflict started, Wroclaw's trade geographical distribution, however varied in time, was more or less equally spread on south-north and east-west directions. In a conflict situation with a major city, such as Cracow, in the east-west trade, Wroclaw's merchants were forced to develop and exploit other routes for their commerce. This
may help to explain how Silesian economy and trade became integrated with that of the Bohemian Crown lands.

However, as a result of this war, the commercial turnover of Wroclaw and other Silesian cities rapidly declined, but their already accumulated economic vigour, based on both local and international trade, prevented them from collapse. New trade routes through Lithuania to the east were established and commercial contacts with the Bohemian Lands intensified. Silesia was an important supplier of raw materials, especially for the textile industry, providing linen and wool for Bohemian manufactures situated around Prague. Wroclaw was a centre of the metallurgical industry where iron, zinc and lead were processed for tools of various kinds and armaments. Also it was a manufacturing centre for luxury furniture and jewellery. Building stone was excavated in Sobótka, in the Klodzko Valley and many other sites. Also rich Silesian resources of ceramic clay enabled the development of pottery manufacture in some cities, particularly in Wałbrzych, Jaworzyna and Ziębice. (The Museum of Ceramics in The Wałbrzych Porcelain Manufacture, 1997), (The Wroclaw National Museum, 1997). Since the 15th century Lower Silesia was an important centre for producing military equipment such as cannon, armour, etc.

This economic development was accompanied by the cultural development of Wroclaw. The first printing press in Silesia was set up in Wroclaw in 1475. In the following century three gymnasia were established there. In 1702 the Emperor Leopold gave an existing Jesuit College the status of university – The Academia Leopoldina. This university exists to this day.

In the 16th century the Habsburgs introduced a new administrative scheme for Silesia, which involved making a distinction between the regions of Upper and Lower Silesia. This distinction survived to the present day.

As in other parts of the Central Europe, the Protestant Reformation came to Silesia in the 16th century. This caused upheaval and religious conflicts which neither were especially violent nor had a serious impact on economic development. The Thirty
Years' War which brought a great deal of damage to the Silesian economy was brought into Silesia from the outside.

The second reason essential for the economic decline of Silesia in the second quarter of the 17th century was the Thirty Years' War with the consequent collapse of the manufacture and commerce of the Bohemian Crown and the Germanic states.  

The Thirty Years' War (1618-1648) was an economic disaster for Silesia as well as for Bohemia and Germany. Between the years 1626 and 1648 different armies occupied Silesia many times - in 1626, 1634 and 1639. Whether these armies were Swedish or Habsburg these occupations entailed compulsory supplies of food, clothing and cash for troops by local civilians, enormous violence and plundering. The arable fields became neglected, towns and villages ruined, trade connections broken, mining declined. There was a shortage of labour. According to Piwarski K., in 1648 the outcome of the war was terrible. The population of Silesia dropped by about 200 000, which was a third of the pre-war state. The persecution of Protestants caused their flight from the country further increasing the shortage of manpower.

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3 This is much disputed among scholars; some of them, e.g. Fritz Kaphahn present the view that both the production and credit of German towns were declining by 1600, and their organisation then collapsed during the war; the opposing view was taken by Johann F. Dür who argued that "many areas of Germany were prosperous until hit by the war", drawing his evidence from the town of Heilbronn. Rabb T. *The Thirty Years War. Problems of Motive, Extent and Effect*, pp. 42-51, Harvard University, Boston 1968. Yet most authors agree that the Thirty Years' War was one of the worst catastrophes in the history of Europe.

4 An example could be the fate of Jelenia Góra (Hirschberg) in 1639 occupied in turn by Swedish or Habsburg armies so many times that in the end of the war what "remained from the rich and wealthy city was a few poor craftsmen", Piwarski, ib. In addition in 1634 there was an outbreak of plague (connected to the war) in Silesia, which killed tens of thousands of people (in Wrocław alone - up to 13 000).

5 In some regions, such Pszczyna Duchy in the Upper Silesia, only 1/4 of the population remained. There were towns, such as Bolkow, Kamienna Gora, Świerzawa, or Jawor, destroyed almost completely. In Swidnica from 1 300 buildings there remained 118. In Silesian Lwówek before the war there were 6 500 inhabitants, including 1 700 citizens of the city, of this number remained 40. In Głogów before the war, it was 2 500 citizens, already in 1638 there was only 122. In the Duchy of Swidnica, it was reported after the war that the 26 villages were entirely empty, and the 20 more had only a few dwellers.
Only the capital city of Wroclaw, which was well fortified with walls, remained safe. Several times the city had to pay ransom to the various generals; it was becoming poor because trade stopped and the country was a ruin - but it did not let in either the Emperor’s nor Swedish troops. Since it did not suffer direct material destruction like many other Silesian cities, after the war it was in a more advantageous position as an economic and cultural centre of the region.

At the Peace of Westphalia of 1648, the Habsburg Emperors recognised the secularisation of all church lands effected between 1555 and 1624, and granted full toleration to Lutheran and Calvinist secular rulers.

In the post 1648 period there were further external events which affected the Silesian economy. The Hanseatic cities to which Wroclaw belonged, once dominant in the Baltic and the North Sea, suffered economic decline and, failing to resist the growing power of the Dutch cities, dissolved the League in 1669. There was a temporary increase of Silesian trade with Poland just afterwards but it dropped at the beginning of the 18th century during the Northern War (1700-1721).

As the consequence of this war Peter the Great gained access to the Baltic ports for Russia, which resulted in redirection of Russian trade with the West through the Baltic, while giving up the inland routes via Poland and Silesia. This caused a significant loss of trade for Silesia. Therefore Wroclaw’s merchants tried to reinforce their links with the Baltic cities, in particular with Szczecin and Hamburg, but Prussian state policy made this difficult, mainly by means of tariff barriers. After 1719, Prussia captured the city of Szczecin from Sweden and gained control over the major Baltic outlets of Silesian trade and extended the tariff barriers. This necessitated for the Silesian merchants a further reorientation of their trade towards the South.

After the Thirty Years’ War Silesia recovered from the devastation. There was a great deal of new building in the course of the Counter-Reformation. The
population began to grow again, existing cities expanded, new settlements were founded and many new schools established. This contributed to the development of the papermaking industry and crafts as well as arts associated with the production of books.

The consequent employment provided by builders attracted many craftsmen, artisans and artists of different fields from Western and Southern Europe; in particular, it attracted such people from the Netherlands and their influence can still be seen in many of the buildings in the area. Thus this migration raised the standards of building, decoration, furniture and luxury goods to the high European level.

This building boom would not have been possible without the abundance of local mineral resources; rich scattered deposits of clay, including kaolin, mainly in Lower Silesia, enabled the massive production of bricks and ceramic tiles demanded by the market. Excavating industries, based on the Silesian sand stone, granite, marble, developed fast; quartz deposits of the Sudeten foothills helped to establish the glass making industry; iron, lead, silver and zinc were mined in various metal works, and also processed, however not on a large scale, in Upper Silesia; coal was mined there on the scale allowed by the then available technology. Coal mining in Lower Silesia is well documented already from Walbrzych in 1561. (Szyperski A., 1976).

Meanwhile in the countryside of both parts of Silesia, the agricultural situation remained similar to that of the rest of Central Europe. However, within this area there were internal variations of standards and types of production. The Sudeten foothills created an almost ideal pastoral area - mild climate, deforested gentle hills among densely populated valleys which were connected with both local and transnational trade routes, helped to develop extensive sheep farming. Combined with the strong demand for wool in Central and Western Europe in the end of the 18th

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6 One may still admire today architectural achievements of this period in the form of the baroque and rococo shrines, churches, monasteries, manor houses and various public buildings, e.g. the University of Wrocław.
century, it provided exports of wool for Bohemia, Austria, Saxony, as well as the Netherlands and Britain. (Koch H.W., 1989). This was accompanied by textile manufactures, which were highly developed and specialised in finishing, dying, spinning and weaving.

Although in Lower Silesian farms and estates were smaller than in Upper Silesia, yet its soil was richer and more fertile; because of this, the Lower Silesian landowners managed to produce some surplus of livestock and grain for export to western and central Germany. Also, due to the abundance of lakes and rivers, some areas, e.g. Milicz vicinity, were ideally suited for fish farming. Such farms, established at the beginning of the 17th century, and developed in the following years, were very profitable. (Skodlarski J. ib., p.67).

The social structure in Silesia was still very much of a feudal type; the nobility kept their dominant position based on serfdom and they were not greatly interested in industrial enterprise. In time landlords, when they realised that contract agreements with peasants were more effective than compulsory labour services, changed the type of relations for a payment in cash or kind. This evolution was encouraged by the growth of trade, towns and the spread of a money economy. The autonomy of the cities was not quite consistent with the feudal system. The tradition of self-government was a significant factor for the development of trade, commerce and craftsmanship and thus for the cities’ well being.

In Upper Silesia, where the estates were larger, the landlords had more capital at their disposal from agriculture; thus landowners more often engaged in industrial ventures, particularly in coal mining and metal processing on their estates.

This economic activity and prosperity was of great significance not only to Silesia, but also to the Habsburg Monarchy. This significance may be summarised thus:

Silesia, as a well-developed and prosperous land, was a very important source of taxation for the Habsburg Monarchy; its loss would increase the tax burdens for the
rest of the Imperial territory, in order to satisfy the requirements of the state. According to Blanning, "Silesia's population was over a million and the whole province had paid 25 per cent of all direct taxation collected from Bohemian and Austrian lands". (Blanning T.C.W., 1970). Its acquisition gave to the Habsburg Monarchy control over the more important of the two existing East-West trade routes (the less important being the one that went through Poznań) to the north from the Carpathians. It also gave access to the north European trade route through the River Oder and the Baltic.

The Habsburgs as more or less hereditary rulers of the Holy Roman Empire, were also leaders of the German political world. Valuable as Silesia was to them, her subsequent loss of 1741 and the failure to recapture it after two wars, was a serious blow to the Habsburgs' prestige among German princes. In particular, the balance of power changed greatly in favour of Prussia, which became a competitor for leadership. The economic and political consequences of this affected not only the Habsburg Monarchy at the time, but also the whole of Europe.

1.5. The Prussian period 1741 - 1945

The death of the Habsburg Emperor in 1740 created a temporary weakness at the head of the Austrian Empire. This presented an immediate opportunity for Prussia to march into Silesia. And the opportunity was not lost. According to Professor Koch, *it became the greatest bloodletting which Central Europe experienced between the Thirty Years' War and Wars of Napoleon.* (Koch H.W. ib., p. 109). According to Piwarski, during the Silesian Wars (1740-8 and 1756-63) Silesia lost 150 000 of its population. (Piwarski K. ib., p. 267). The Prussian army took over Silesia with the exception of the Duchies of Teschen (Cieszyn) and Opawa which remained in the Habsburg Monarchy.

Owing to the political uncertainty for the immediate future of this new territorial acquisition, Prussia was unwilling to pour investment funds into it until the end of the Seven Years' War in 1763 (the Treaty of Hubertusburg in which Maria Theresa
finally recognised Frederick's II rights to Silesia). Before that treaty the Prussian policy towards Silesia was one of systematic economic exploitation. This consisted of the effective looting of the natural resources of the area. According to Professor Koch, Frederick II was eager to opening up Silesia resources for the benefit of the entire Prussian state. ... Since it was difficult to recruit labour to these iron works soldiers were drafted in, but in the long run skilled workers were attracted by special privileges such as reduced taxation, welfare benefits and exemption from military service. The benefit of the additional output of the new ironworks was substantially felt by Prussian's army during the Seven Years' War. (Koch H.W., ib., p. 115).

Heavy taxation introduced by Prussia significantly reduced living standards. Also the forced recruitment to the Prussian army caused thousands of young Silesians to escape from Silesia, mainly to Poland. At the same time the Prussian cancellation of municipal autonomy previously enjoyed by many of the cities was a further blow to the existing economy. The wars caused great damage to the cities and other centres of population. The only form of Prussian investment in this period was the establishment of fortification adjacent to the new frontier with Austria, such as in Klodzko and Srebrna Góra.

Since the transition of Silesia from an agrarian to an industrial society took place under the Prussian rule and also with the great influence of the state itself in this process, the interaction between economic change and political factors must be kept in mind. (Kemp T., 1985).

There have been discussions among historians about the role of the state for Prussia's territories economic development in the end of the 18th and the beginning of the 19th century. Professor Kemp holds the view that the Prussian experience down to 1848 gives little indication that the state bureaucracy desired to promote economic growth either to increase the incomes and welfare of its subjects or to enhance the power of the state. (Kemp, ib., p. 80). Professor Koch presents the opposite opinion, such as that for Frederick II first priority was to restore the economic life of the region as quickly as possible. (Koch H.W., ib., p. 115).
The period of economic stagnation was ended by the Treaty of 1763 and was followed by the reform of the legal system throughout the Prussian Kingdom. The new law, called *codex fridericianus*, included the civil and criminal laws, as well as administrative regulations and a new territorial division of the country. Initial economic policy focused on the improvement of the taxation system, involving a census of the population, its property, and economic activity.

By 1763 Silesia was an economically better developed and far richer province than the rest of Prussian territories altogether. At the end of the 18th century, in a short period of time, it became even better off, mainly because of the lowered tax burden. (Rostworowski E., 1984).

Due to the conquest of Silesia the population of Prussia, estimated at 2 400 000, increased by 1 600 000. (Gelles R., 1996). In 1742 the Prussians encouraged settlement from Bohemia, which resulted in about 3 000 Czech settlers, mainly in the southern part of Lower Silesia. (Piwarski, ib., pp. 266-267). Additionally, during the 1770s the Prussians encouraged new mostly peasant settlement from Germanic states; it resulted in over 60 000 new settlers mainly in Upper Silesia (Koźle, Zabrze, Bytom, Pszczyna, Opole), and in certain parts of Lower Silesia (Syców, Namysłów, Kluczbork, Olesno). (Lutman R., Popiolek K., 1948).

The mineral resources of Upper Silesia, such as coal, iron ore, lead, nickel and zinc were already exploited before the Prussians came. Since they were profitable and necessary to military equipment, the Prussian government was determined to develop them further. Thus Berlin invested in their improvement, e.g. a steam-pump was bought from the British and installed in a coal mine in Tarnowskie Góry (Upper Silesia) in 1788. According to Professor Popiolek, it was probably the first steam engine of this kind on the European continent. (Lutman R., Popiolek K., ib., p.74). Also, *by 1796 the Silesian mines and forges all had steam engines* (Koch R., ib., p. 223). By 1808 there were established 6 coke furnaces in Upper Silesia, of which the most modern was the Königshütte where between 1802-1819 four great furnaces were set
up. (Skodlarski J., ib., p. 152). In 1828 the Scotsman John Baildon established a modern iron works close to Katowice, and Henckel Von Donnersmarck did the same in Świętochłowice. New military technologies created fresh demand for zinc. Berlin established a modern zinc industry. 7

Thus, having mineral resources and upgraded technology, the Prussian government undertook the development of mining and metallurgy in Upper Silesia. Huge coal deposits were the bases for a growth of the mining industry, and even later shortages of local iron ore did not stop its further development. The demand for coal coming from the fast growing iron industry resulted in the development of the coal mining industry; this, in turn, stimulated the further growth of the steel industry and they became mutually inter-dependent; thus, on the bases of local deposits of zinc and lead, the metal-processing industry was created to meet the growing demand from various industrial applications. This process of industrialisation had many long term effects; it led to Upper Silesia becoming one of the most populous and prosperous regions of Europe.

In Lower Silesia in the early 19th century coal was mined even on a larger scale, according to Popiolek, in 1800 the Walbrzych coal centre produced twice as much coal as the Upper Silesian one. (Skodlarski J., ib., p. 211). Since its other important natural resources were ceramic clay, quartz, building stone and semi-precious stone, thus initially, they were the bases for industrial development of the region. These extractive industries, formerly run by the Austrians, were developed by the Prussian state and re-organised on a larger scale. Manufacturing industries based on then were superimposed on the existing economic potential of the region. Since until the beginning of the 19th century, Lower Silesia was far more urbanised and

7 Zinc was a constituent of many alloys, such as brass, bronze, German silver, and others, which in turn had many further industrial applications, particularly in armament production. The first furnaces for zinc melting were established in Wesola, close to the city of Tychy, in 1800 by Jan Ruhberg, the administrator of the Duchy of Pszczyna. The next built, at the beginning of the XIX c., were established by the Giesche family in Szardzie, Karol Godula in Ruda Śląska, and by the Prussian government in Königs Hütte. By 1830 there were established over 20 zinc works in Upper Silesia. Source: Skodlarski J. Zarys historii gospodarczej Polski do 1939 roku, p.152, PWN, Warszawa-Łódź 1995.
economically developed than Upper Silesia, these processes further advanced its diversity of economic activities. In contrast, Upper Silesia, from the beginning of its industrialisation, was developing as an industrial monoculture, based mainly on coal and iron.

In the absence of a developed banking system in Silesia there was little private capital available for investment. In such a situation Berlin invested in the development of heavy industry, particularly that of military importance. In 1763 Frederick II established The Land Credit Society - (Towarzystwo Kredytowe Ziemskie) - which granted loans to landlords mainly for the purpose of industrial investment, but also for property improvement. (Skodlarski J., ib., p. 94).

In 1785 Silesia represented over 60% of Prussian industry. Silesia's share in Prussian trade is estimated around 50% in 1750. In 1742 Wroclaw obtained the status of a capital and became the third Prussian city after Berlin and Konigsberg (Królewiec). It was the richest city of them all, e.g. in 1803 Wroclaw's revenues were 3.5 times those of Berlin and 4 times higher than those of Konigsberg. (Gelles R., ib., pp. 35-36). Thus, although Silesia was a mere recent acquisition to Prussian territories, its economic significance was totally disproportionate to its size. Its population was one third of the whole state, and its contribution to state revenues was at least half of the total. Therefore its further development was of enormous potential interest to its rulers. The processes that we have been describing transformed Silesia from a province of great economic significance, although of small political weight, to a region of considerable economic importance in the Prussian state.

During the Napoleonic occupation of Silesia, 1806-1808 demolition of the Wroclaw's military fortifications began and was completed in 1828. This had an impact on the spatial development of the city, since it allowed to incorporate surrounding towns and villages into Wroclaw and also improved its transport system.
Prussian Silesia was affected by the Stein reforms of 1808-1809. He introduced the reforms of municipal government in Silesia (Städteordnung), by which autonomy was granted to the towns; this created the legal framework for the development of the urban areas. This freed local government from state control and extended the participation of different social groups in urban life.

Also, as a part of the Stein reforms, peasant emancipation was begun. The peasants were granted new rights. They could now purchase that land on which they had previously worked as unpaid labour as well as being able to rent further land. This process was long and complex, because, as Professor Kemp says "the Junkers were in no hurry to implement changes which did not benefit them; they retained their judicial powers until mid-century and their police powers until 1872". (Kemp R., ib., p. 84). The landlords, on the other hand, were benefiting from this by enlarging their holdings and obtaining financial reserves from peasants paying for their emancipation. The Stein reforms left their permanent mark in economic and urban development of Silesia. This process was completed in the 1850s, when in 1850 and 1857 the Prussian government abolished the remaining manorial rights over the peasantry.

The process of emancipation enabled the peasants to purchase more land. On the other hand the subdivision of peasant holdings, due to the practice of multiple inheritance, continued. This provided a surplus of manpower in the rural areas and subsequently, an incentive for many of the newly-landless peasantry to leave the countryside. The combined effect of these agricultural changes was, by encouraging

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8 Minister Hardenberg, Stein's successor, introduced provisions to slow down the change under the pressure of the Junkers, who were concerned with the labour force for their farms and with compensations for the land. Thus peasants might, alternatively, either leave or to acquire the lost land by paying 25 years' rent. Additionally, "they might retain part of their holdings as private property in return for surrendering part to the lord". [22] Kemp, p. 84.

9 In the Habsburg Monarchy the peasant emancipation act was issued under the revolutionary pressure in 1848; the emancipation of serfs in the Kingdom of Poland, subordinated to Russia, proceeded by government decree in 1863; here, unlike in Prussia and Austria, the peasants did not have to pay off for the land which they had obtained; in France serfdom was abolished in 1789; in this process, the most advanced country was England, which had transformed its feudal agrarian structure at the beginning of the XVIII century. According to Skodlarski, p.118, in the result of this reform the average farm area in Silesia was estimated at 14 - 17 ha; in Greater Poland - 31 ha; in the Kingdom of Poland - 7 ha; in Galicia - 3 ha.
peasant migration to the towns, to accelerate the process of urbanisation, and its accompanying industrialisation.

Changes and progress in agricultural techniques were following the reforms. Since peasants owned their land, the level of agricultural efficiency improved, new farming tools occurred and new forms of work organisation. After 1815, there came a long period of peace. In the quiet times the demand for agricultural products went up. New agricultural products occurred; potato, cabbage, sugar beet and other productive crops were extensively cultivated. (Skodłarski J., ib. p. 131), (Kieniewicz S., 1982). In particular sugar beet production and its processing strongly influenced the Silesian countryside by the introduction of machines and new methods of work. In the second part of the 19th century when the competition with cane sugar increased, the sugar beet industry stimulated the growth of railways. 10

These processes were followed by rising living standards, expansion of medical knowledge and hygienic habits, and they resulted in the significant demographic growth during the 1820s and 1830s. All these changes meant that until the 1870s Silesia remained a net exporter of food.

Prussian state power required modern industrialisation. Silesia, with its existing industry based on the earlier development of its mining industries, played a major part in this. The expanding needs of Berlin provided a ready market for Silesian produce, to the advantage of the Silesian economy. However, at the same time Berlin, as the Prussian capital, grew and began to compete with Wroclaw as a trade and industrial centre.

Silesia, as the south-eastern part of the Prussian state, was a borderland, and that created great possibilities to benefit from trade with the neighbouring countries. Yet, because of custom barriers between Prussia and other states, there was a little economic use of this geographical feature of Silesia. Thus traditional commercial
links with Little Poland, especially with Cracow, and with Bohemia, declined; the Upper Silesian economy suffered seriously from this in particular. Therefore new markets had to be found. This coincided with the situation of trade and commerce between the German states. An extremely complicated system of tariffs maintained by numerous tiny territorial units, was the main feature of the German economy of the early 19th century. This caused an uneven rate of industrial change and sustained the underdevelopment of many these regions. According to T. Kemp, *The initiative came here from the Prussian bureaucracy whose policies, after 1815, were determined principally by administrative convenience rather than a desire to promote economic growth.* [...]* Administrative convenience suggested that tariff agreements should be concluded with neighbouring states, to bring them into the Prussian customs system. From the point of view of revenue collection such agreements proved to be mutually satisfactory.* (Kemp T., ib. p. 92).

From 1828 the Prussian government formed a serious of customs unions (Zollverein); the single German Zollverein was established in 1834 and in the following years it expanded with the development of the transport system including railways. The free flow of goods within the territory of the Zollverein was one of the major factors which influenced the economic development of Silesia. She was by herself too small an entity to utilise her abundant resources within the Prussian market. Silesia, as its economy grew, needed both larger markets and more investment outside Prussia.

Most economic historians agree that railways were 'the hero' of German industrialisation, both through the initial impetus to heavy industrial development, and as a basic infrastructure for economic integration. At that time long distance road transport was expensive, and there was not many roads. According to Koch, in 1816 Silesia had 466 km state-owned roads. The use of rivers, which were gradually regulated, especially the River Oder, and extended by canals, had geographic limitations. Therefore only railways could have provided transportation on a large

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10 The world first sugar refinery based on sugar beet was established in Konary village, Lower Silesia, in 1803.
scale. This is relevant to the economic growth of Silesia, although its development was very uneven.\textsuperscript{11}

After the creation of the German internal free market, merchants and goods producers realised the importance of the speed and convenience of transportation which could be provided by railways. A faster flow of goods meant a faster flow of money. There were also strategic considerations in mind on the part of the army. Railways offered a faster deployment of troops and, by eliminating long marches, ensured their good condition in a campaign. Also the army could be less dependent on the armaments and food supply from the permanent stores. Thus both army, industry and food producers though, according to Kemp, not without initial opposition to the novelty, eventually supported the development of railways. It started on a massive scale in the 1840s. (Kemp T., ib., p. 93).

In 1842 the first railway line in Silesia (Wrocław - Olawa) was established. During the next twenty years both Silesian major cities and industrial centres were connected by the railway network with the rest of Germany. Due to its industrial significance, and especially dense railway network was built in Upper Silesia, which additionally was well linked with Lower Silesia and Wielkopolska. In 1913 the Silesian railway network amounted 1927 km.

This caused an enormous long term demand for iron and other metals, as well as for coal as fuel. Silesia as well as the Ruhr Centre were the major suppliers for the

\textsuperscript{11} There were different patterns of economic and social development in Upper and Lower Silesia. The Lower Silesian population was more diversified than the Upper Silesian one in terms of occupational, national and religious structure. This is due to the different economic history of these regions and also to the mineral resources which were not the same in these areas. Upper Silesian industry was based on coal, iron, zinc and lead mining, and metal works. Also, since its geographical position, being rather to the side of major trade routes, in the past it did not develop such diverse economic activities as Lower Silesia. Upper Silesian soil was also less fertile, thus this region did not enjoy such dense settlement as the area along the Oder Valley. In consequence, until its industrialisation it was little urbanised in comparison to Lower Silesia. Its economic growth can be a classical example of a change from the early industrial area, which was brought to life by a rapid demand for iron and coal. The pattern of English or Welsh industrial centres, which had taken place 50 years earlier, was almost repeated in Upper Silesia. Similar, however smaller industrial centre was created in the Wałbrzych area, Lower Silesia.
railway development - the enterprise of a primary economic and military significance. Therefore new coal mines and iron works were established in Upper Silesia and in the Walbrzych centre, e.g. in the years 1851-1861 there were established 20 blast furnaces in Upper Silesia, in comparison with 44 in France (1843-1846). The heavy industry development was accompanied by the development of modern technologies. Iron, steel and coal were the bases for the growth of the machine industry. Thus Upper Silesia became a centre of machinery production for mining industries and metal works, in particular steel and zinc. Lower Silesia became a centre of the most sophisticated machinery production - modern transportation and agricultural equipment, such as train building (Linke-Hofman) was established in Wroclaw in 1856. Two shipyards were built there in the following years.

The needs of the Prussian army were another important factor for the expansion of Silesian iron and steel industries. In the years 1840-1870 Silesia was a major centre of Prussian military industries. Wars conducted by Prussia in the 1860s (1864 - against Denmark, 1866 - against Austria, 1870 - against France) were additional incentives for industrial development, which was stimulated by military orders. However, after the Franco-Prussian war of 1870 a large part of the heavy military industries were moved to Alsace, Lorraine and the Saarland; therefore Silesia lost its dominant position in military industry, but still remained an important armaments production centre for Germany.¹²

Meanwhile events in other branches of industry had their influence in Silesia. Industrialisation in the rest of Europe, fed by technological development, meant that Britain and others were able to produce textiles on a larger scale and more cheaply than the cottage industries which still characterised Silesia. The import of

¹² After the Franco-Prussian 1871 war a part of the reparations for Prussia was used for building of schools, hospitals, prisons, garrisons and government's offices in many Silesian cities, for example in Wroclaw, Opole, Swidnica, Walbrzych, Jelenia Góra.
cheaper textiles and the introduction of machines, which began in the 1840s, caused the decline of the Silesian cottage industries.\(^{13}\)

The textile industry was quick to learn the lesson of new machinery and gradually acquired the more efficient machinery of its faster developing competitors. Thus cottages gave way to factories in the Silesian textile industry. The geographic effect of this process was a shift of scattered textile production from the Sudeten foothills to larger population centres, such as Walbrzych, Bielawa, Dzieżoniów and Walim. This painful transition created a new situation in which the traditional guilds could have no place. The decline of the guilds in the textile industry was repeated throughout the economy. Silesia began to experience the same trends which had occurred in Britain during its industrial revolution. Factories became the new means by which production was occurring, and in them the production of machinery itself became the new necessity. Henceforth heavy industry was to no longer mean the production of consumer goods, but entailed the production of capital goods by means of which the consumer goods were produced.

In order to enable the massive transportation of coal, iron and machinery from Upper Silesia to Berlin and to central Germany, the Prussian government began to regulate the River Oder. Canals to the heart of Upper Silesia and to the Spree and Havel Rivers, linked the Oder to the Western European waterway system. Shipyards were established in larger cities on the Oder. Such cities as Wrocław, Kędzierzyn, Opole, Nowa Sól became major river ports, which subsequently developed barges and steamers construction industries. The Silesian road network greatly expanded from the middle of the 19\(^{\text{th}}\) century, when Silesia had only about 2,000 km of roads. All the main roads were built within the next twenty years. Thus Silesia’s further development was re-orientated geographically towards the west and north, to Berlin and central Germany.

\(^{13}\) This caused violent Luddite riots, e.g. in 1844 weavers in Lower Silesia smashed machinery in several textile factories in Bielawa and Pieszyce.
All of this development required vast infusions of investment capital. It was fortunate for Upper Silesia that there existed various sources for such capital. Apart from the fact that the government itself was eager to foster this development, and therefore provided funds from its own revenues for the state owned iron works and for the development of the railway system, there were other sources. Of considerable but secondary importance here was the government’s success in attracting foreign investment. Western European funds, attracted by the government’s promise of guaranteed profits, flowed in. With their funds these entrepreneurs also brought new knowledge of technical methods, which greatly enhanced the importance of their capital investment. All this further stimulated the growth of Silesian industry.

There was some local private capital available. The Junker magnates in Upper Silesia were willing to plough back their rental surpluses into the further development of the mining and productive industries on their own estates. Silesian landowners were willing to invest some funds into general investment, such as the purchase of shares issued by newly-emerging companies, and also in deposits in the banking system which was similarly active in providing finance for such new firms.

Certainly we should also answer the question what were the social and political bases for such a significant economic development of Silesia in the 19th century. There were mineral resources, but they were also in other places in Europe, which did not take off. There should have been the specific features of the society which resulted in such an economic dynamics.

The first important factor which created the social environment for industrial development was emancipation of the peasants. This process considerably increased the number of people entitled to economic activity for their own sake. Peasants were given the opportunity for economic and social promotion, or fall. The Junkers created the social context in which the peasant’s choices were limited. The Junkers were gradually transformed from soldiers to landlords, and shifted from warfare to agriculture and bureaucracy.
The effective Prussian system of education also contributed to Silesian economic growth. This system included a universal primary and university system in which technical education had a prominent place. This meant that there was ready supply of trained engineers and other technical workers for industry. There were also close links between academic research and industrial process, so that industry was fed with new techniques and new materials. Thus the industrial dynamics, with the development of one branch causing the establishment of another one, this accompanied by the trade development, and the parallel growth of the education system - secondary schools and technical universities - resulted in creating, within relatively short time of two generations in the second half of the 19th c., the Silesian middle class.

The ethnic composition of Silesia was not homogenous either in the 19th and earlier centuries as has been already indicated. It consisted of the Germans who were in the majority, also the Poles, especially in Upper Silesia, and Czechs. Prussia was not a homogenous national state. These ethnic groups had different social attitudes and behaviour, of which the Polish represented a rather individualistic tradition, while Germans were quicker to adapt to the social or state pressures. The population of Silesia still consisted of Protestants as well as Catholics, and these formed over 95 % of the population.

The Prussian state was authoritarian but a Rechtsstaat based on the rule of law. At the beginning of the 19th c, its characteristics were rather of religious tolerance and national indifference. All its inhabitants were the subjects of the King of Prussia and under the rule of law. This meant, that in the early stages of the industrial development of Silesia, its various inhabitants felt a regional identity of Silesians rather than a membership of any nation. There was than no question of sacrifice or struggle for either language or religion. The Prussian state expected them to be
obedient to the over-regulated laws concerned with preserving the existing social order. And they were expected to work. \(^{14}\)

In the first half of the 19\(^{th}\) c., the serious social conflicts in Silesia were not associated either with religion or nationalism. They were mainly related to the problems of the early industrial era, such as the hardship of the working class, both in agriculture and industry and decline of cottage industry. Nationalism came later, in the 1860s and 1870s, and at the beginning, apart from its oppressive face of Bismarck’s Kulturkampf, it took the form of a competition between the Germans and the Poles.\(^{15}\)

In the second part of the 19\(^{th}\) c., and in particular after 1870, the rapid urbanisation of Lower Silesia took place. According to the British economist Colin Clark, the counterpart of the diminishing agricultural sector is the growth of the industrial sector, and later, the service one. In Silesia this process occurred during the end of the 18\(^{th}\) century, to increase rapidly a half a century later, when the process of peasant emancipation was about to be completed. However, in Lower Silesia, as described earlier, the role of the agricultural sector during the 19\(^{th}\) century remained strong despite the growing importance of the industrial sector. (Craig G., 1981).

Thus, towards the middle of the 19\(^{th}\) c., the growth of the Silesian urban merchant class, and therefore the accumulation of capital, was slower than in Britain or the USA at the time, to accelerate rapidly after the introduction and development of the free trade area (Zollverein) which included most German states. Since the large market was created, and it included also agricultural products, the growth of the

\(^{14}\) There is much well documented evidence of the Silesian, both Polish and German, local patriotism (Landes-patriotismus) and the sense of Silesian identity which flourished in poetry, prose, songs and folk arts. Silesian Lands became a part of German literature mythology, similarly to the role of the Great Duchy of Lithuania for Poland.

\(^{15}\) The policy of Kulturkampf, essentially directed against Catholicism and Polonism, created antagonism between Poles and Germans, additionally reinforced by religious preferences of the Silesian population. Paradoxically, one of its results was the polonisation of many Germans. Source: Feldman J. *Bismarck a Polska*, p. 430, Warszawa 1980.
merchant class was accompanied by the reaffirmed position of the agricultural sector, represented by the Junkers and peasants. (Kemp T., ib., pp. 78-113).

Vast investment in the transport system, mainly railways, provided by the Prussian state, which started in the 1840s, significantly contributed to the growth of cities. Better transport facilitated the movement of peoples to the larger cities, which caused the smaller towns to lose their importance as trade centres. Fairs lost their attractiveness, and they became markets of rather local significance, trading mainly with food products. Their role was replaced by shops, mainly in the larger cities. The development of an inner urban infrastructure in larger cities, such as transportation, sewage, energy supply and telephones, further stimulated their growth. For example the first tram line in Wroclaw began in 1840, the first gas plant was established there in 1847, the first telephone line - in 1881. The beginning of electric street lightning took place in 1888, and in 1893 - the first electric streetcar.

There was a darker side to this economic growth. In the 1880s and 1890s there was a slow-down of economic growth, the emergence of social radicalism and a significant migration of Silesians mainly to the Rhineland and the USA. This was accompanied by an influx of Poles, mainly from Mazowsze (Mazovia) and Małopolska (Little Poland).

At the beginning of the 20th c. a variety of socio-economic functions in Silesia had developed. Upper Silesia, due to its mineral resources of iron, coal and zinc, rapidly expanded during the Industrial Revolution into a region with dominant heavy industries - excavation, metallurgy and machinery production. The main feature of this growth was slight differentiation of developed social and economic functions. In less than a century the region became one of the most densely populated areas of Europe and a great industrial agglomeration.

The characteristics of Lower Silesia were different. Fertile land and a long farming tradition gave the region the name of 'the food-basket of Germany'. Natural
resources, such as coal, lignite, zinc and others, strengthened the region's functions as a supplier of capital goods manufactured by industry. There existed three important industrial centres - the Sudeten Centre, the Wrocław Centre and the Zielona Góra-Zary one. Apart from them, there were several concentrations of industrial centres, such as Zgorzelec and Legnica, and many medium and small size clusters, which, in general, were based on the food processing, timber trade and building industries. (Ciok S., 1994).

Among these the fastest growing cities were those which had already in the past been the largest in Lower Silesia, those which were administrative as well as industrial centres, such as Wrocław, Zgorzelec, Legnica, Walbrzych, Świdnica, Jelenia Góra, Głogów. During the last three decades of the 19th century Wrocław became a centre of modern technology, especially in the fields of the electrical, chemical and metal industry.

The City of Wrocław which had in addition to the Leopoldinum Technical University, was an educational centre for Upper and Lower Silesia. The Sudeten Mountains, due to their mineral water resources and the beauty of the landscape, shifted from agricultural and industrial functions towards tourist and leisure services for the inhabitants of Silesia, Saxony and Brandenburg. The geographical position of Wrocław contributed to making this city the major trade centre for Eastern Germany as well as the international centre channelling the trade with the Eastern Europe.

Thus at the beginning of the 20th c. Lower Silesia was able to carry out various economic, educational, communication and administrative functions. Together with Upper Silesia, with which it was multifunctionally integrated, it represented a province of a significant economic potential, clearly visible on the map of Europe.

During WW I the strategic importance of Silesia was determined by its high industrial potential and geographical position - the army headquarters of Central Powers was based in Teschen in 1914. The post-war years were turbulent for Silesia.
Significant political changes in Central Europe created a new economic situation for the region. The disintegration of the Habsburg Monarchy resulted in fragmentation of territories towards the south of Silesia into several newly established states. It made this formerly single external market, which had extended to the Mediterranean, less available. The restoration of Poland on the political map of Europe, with Wielkopolska and a part of Pomorze, made access to the Baltic ports more difficult for Silesian produce. However, the most important change was the division of Silesia between Poland, Germany and, to a smaller extent, Czechoslovakia. The Silesian Uprisings of 1919, 1920, 1921 - which from the economic point of view may have proven the failure of Germany to utilise the development potential of the region - reinforced conflict between Germany and Poland. This resulted in making trade between them more difficult in the following years.

For the part of Upper Silesia within the Polish boundaries an autonomous province (Województwo Śląskie) was created, with its own Parliament (Sejm Śląski), Treasury (Skarb Śląski) and police. For this region the 1920s and 1930s were a period of further development based on the heavy industries - mining, metallurgy and machinery production. This region was economically integrated with Poland.

For Lower Silesia and the part of Upper Silesia which remained within Germany, it was the period of post-war economic crisis which caused serious social and political tensions. The main features of the post-WW I were the processes of gradual shift from the war economy to a peace time one, the overcoming of the 1929 economic crisis, and a rapid shift back of Germany to military orientated production in the late 1930s, which, combined with a significant development of public sector production and services, resulted in the raising of living standards of the Lower Silesia inhabitants.  

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16 The Weimar Republic did not create conditions for solving the social and economic problems of Germany after WW I. The inability of the Weimar Republic to solve the basic problems of the state led to political disaster for Germany and Silesia - power was gained by Adolph Hitler's Nazi Party. Parallel with the orientation of the German economy on the military needs the degradation of social and political life was taking place. Craig G. Germany 1866 - 1945, Oxford-New York 1981.
The second part of the 1930s and the beginning of the 1940s were marked by the significant success of the German economy, including Silesia, connected with the introduction of the war economy. The loss of Alsace and Lorraine with their industrial centres after WW I, restored the strategic and economic importance of Silesia for Germany. Massive state orders for steel, coal, food, ammunition and military equipment eliminated unemployment, thus resulting in the material improvement of the population. Military orders also influenced the development of technological centres in Silesia, e.g. in Wrocław, Świdnica, Dzierżoniów, Świebodzice, which were working for the army. The transport system also developed fast, e.g. a motorway from Brzeg in Lower Silesia to Berlin was built, main railway lines was electrified, e.g. Wrocław - Jelenia Góra, several airports were established, e.g. in Wrocław and Brzeg, so that the road and railway network became one of the most dense in Europe.

In 1921 the largest cities of Lower Silesia were (in thousands of inhabitants) Wrocław (557), Zgorzelec (86), Legnica (72), Walbrzych (44), Świdnica (30), Jelenia Góra (29), Glogów (26) and a further 13 towns with the number of inhabitants between 10 and 20 thousand. These developments created both industrial concentrations and agglomerations, establishing the pattern which has affected the present industrial structure of Lower Silesia. In 1939 Lower Silesia had 2.7 mn inhabitants, of whom 51 % lived in cities. Wrocław, with its population of 630 000, was over six times larger than the next largest city of Zgorzelec, where it was 94 000.

(Siok S., ib., pp. 17-19).

Silesia was one of the main areas from which the German invasion of Poland was launched in 1939. During the war the main functions of Silesia consisted in the provision of equipment and ammunition for the army, production of coal and energy, maintenance of communication routes, in particular East-West, and the provision of recruitment. Towards the end of the war the area of The Sowie Mountains (Góry Sowie) in Lower Silesia was foreseen as an evacuation shelter for
the Third Reich government from Berlin. WW II left Silesia, especially Lower Silesia, with massive destruction of industry and urban housing.

**Conclusion**

These are the main themes which seem to emerge from this historical survey over 10 centuries. That Silesia has never enjoyed as political unit independence nor has been a serious player in the politics of Central Europe. In may be compared in some respects to Alsace and Lorraine – as a border region between larger states, as a region of great economic and strategic importance which has changed hands many times, and with population whose mixture has made it an object of national competition, causing serious problems.

In contrast to its political insignificance, Silesia has had throughout all this centuries a prosperous economy and a long urban tradition; in earlier centuries – prosperous agriculture and commerce, in the 19th and 20th centuries to become a major industrial centre within Prussia and then United Germany. As a prosperous land it has often been an object of desire for its neighbours and therefore there have been a number of political changes of regime, the most important of which in modern history was the Prussian acquisition of Silesia in the 18th century.

In general the geopolitics of Central Europe have greatly affected and even decided the economic development of Silesia. Its population throughout the centuries has always been ethnically mixed which before the 19th century caused no political trouble, but in the 19th and 20th centuries stimulated national claims, especially Polish and German.

Once again Silesia is a province of a larger unit which is about to enter the European Union. And there is still the issue of how its specific historical characteristics and needs are to be fitted into the general Polish needs in the process of integration into the EU.
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Chapter II. LOWER SILESIA WITHIN THE CONTEXT OF POLISH ECONOMY IN THE YEARS 1945-1989

This chapter is concerned with the analysis of the communist period and its legacy. It explains the working of the regional economy, its specific features, lost opportunities and final results. The legacy of that time is many-sided and it is not easy to give a fair balance sheet. This legacy is political, legal, social, economic and cultural. The thesis attempts to show how these fields were interconnected.

2.1. Land without owners

When in January 1945 the Soviet army entered Lower Silesia, the future of this area had not been decided. The Yalta Conference, which ended on February 11, 1945, had not stated precisely which parts of Germany were to be transferred to Poland. (Albert A., 1991). In 1945 at least four states attempted to establish an interest in Lower Silesia: the Soviet Union, Poland, Germany and Czechoslovakia. The Germans wanted to restore their civil administration, the Soviets introduced military administration, the Poles established the civilian one, and the Czechs made preparations for annexing the Klodzko Valley. (Klopot S., 1996). None of these was the obvious owner of those lands. Their political status was not to be clearly defined for the next 45 years.

In the Potsdam Agreements of August 2, 1945, the Allies established that the new frontier between Poland and Germany should be along the line of the two rivers - Oder and Nysa (the Oder-Neisse line). However, these agreements stated that "until the western frontiers of Poland are finally established, the former German territories east of the Odra-Nysa Line (...) will remain under the administration of the Polish state, and for these purposes will not be regarded as part of the Soviet occupation zone in Germany". (Jacobsen H., Tomala A., 1992). According to these Agreements, the German population of those territories and of Poland was to be removed to Germany. (Wilpert von F., 1964). Thus the Germans were to be resettled from the east of the Oder-Neisse Line but at the same time the political status of these territories was left open - they remained neither German nor Polish. (Bühler P., 1990).
At the same time, the internal situation in Poland was politically turbulent. Polish communists, supported and supervised by the Soviet military forces, introduced their rule over Poland through the establishment of a new state of the People's Republic of Poland.\(^1\) This involved terror and massive killing.\(^2\) Also, the change of the state's political frontiers caused the migration of Poles from the lost territories in eastern Poland towards those newly acquired in the West and North. When WW II ended, many Poles were returning to Poland from all over Europe, either from the army or from their former settlements, e.g. in the Balkans and France. Thus the first years after WW II were a period of great turmoil and confusion.

Thus the main factors which significantly influenced the economic development of Poland and her regions after 1945 were the change of political frontiers and of regime so that it became a part of the Soviet Empire. The first factor caused an almost entire change of population in the northern and western territories of Poland, including Lower Silesia, and also necessitated the geographical re-orientation of the Lower Silesian economy. The second meant a radical break with the traditional existing patterns of economic development which were replaced by the Soviet model.

The third factor, which influenced the economic development of Lower Silesia during those years, could hardly be overestimated - the already mentioned unclearly defined political status of the region. For Poles who settled in Lower Silesia, replacing Germans, the message was clear - it meant that the political status of this territory could be reversible. And as a consequence of this the inhabitants lacked that sense of stability which enables people to think ahead and to plan and do things for the future. (Janczak J., 1995).

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\(^{1}\) The Yalta Agreements resulted in the establishment of an entirely new state - the People's Republic of Poland, run by the government created in Moscow. That was followed by recognition of that state by the Allies. Source: Lojek J. *Kalendarz Historyczny, Połanieczna historia Polski*, Wydawnictwo Alfa, Warszawa 1996.

\(^{2}\) According to Jerzy Lojek, between 1944 and 1948, apart from the war with Germany, about 50 000 people were killed in Poland by the communists. ib. p.552.
The insecurity of the new settlers, and the consequent assumption that it might not be a permanent possession, was a characteristic of the following years. Thus the psychological effect of the post-war enthusiasm and ability for hard work was lost, while the incentive to work which private ownership provides was also lost. This fundamental uncertainty encouraged the treatment of the region as a temporary conquest.

The 'Oder-Neisse problem' remained alive for 45 years, mainly in Poland and the Federal Republic of Germany - countries that were in no political position to solve it, because of the occupying powers. It created some significant international problems which, in turn, had an impact on Lower Silesian development. It gave the pretext and justification for the Soviet army to stay in Poland - in order to defend it against 'Germans who might come back'; as a result, the Soviet troops stayed in Lower Silesia for 48 years, until 1993, maintaining a significant influence on its regional development.

The last agreement about this conflict was the 2 + 4 Conference in Paris in July 1990, and following it the Border Treaty between Poland and Germany, signed in Warsaw on November 14, 1990. The participants of the Paris Conference, apart from Poland and Germany, were the Foreign Ministers of France, the UK, USA and the Soviet Union. They established that a United Germany would include the territories of the Federal Republic of Germany, the Democratic Republic of Germany and Berlin, thus determining the definite external frontiers of this state; also United Germany and Poland accepted the existing border as valid for the purposes of international law.

In conclusion, the international legal status of Lower Silesia was clearly established in 1990. This was the end of the political insecurity which had undermined the life of her inhabitants for 45 years. Only from 1990, therefore, could opportunities be created for the long-term development strategy of Lower Silesia.

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3 According to H.H. Kopietz, this unsettled political climate, which undermined all activities, was very similar to the spirit of the 1950s, 1960s and 1970s in Israel, until 1979. Dr H. H. Kopietz, a
2.2. War destruction

In 1945 the new settlers found the region severely, yet selectively destroyed by the war. (Miszewska B., 1994).

Destruction was concentrated in areas of prolonged fighting and where German defence was particularly strong. According to S. Klopot, in rural areas about 42 700 farms suffered more than 10 % damage to the property. There were 70 towns destroyed up to 30 %, 22 towns - 50 %, 10 towns - up to 70 %, and 8 towns - more than 70 %. That means that only 36 of the total 106 Lower Silesian towns were not affected by the war. The largest urban destruction was concentrated in Wrocław and Głogów, which had been transformed by the Germans into fortresses (Festung Breslau, Glogau). For example, in Wrocław alone 32 000 of residential buildings, 19 000 of industrial and 620 of public ones were destroyed.

In rural areas of total 131 755 farms, 42 654 were destroyed or damaged to more than 15 %. This resulted in significant shortage of farm buildings during the new settlement. Thus many farms had to be co-occupied by several families. For example, in 1961 9 800 farms were still occupied by 33 500 families. Also, since much of the agricultural land had been mined during the war, it was not usable by the settlers. The mine decommissioning was basically completed by 1948.

Destruction of roads and railways was also significant. As a result of war activities 30 % of the road surface in Lower Silesia and 40 % of bridges were destroyed. According to estimates, the railway network, which had been well developed before the war, had 60 % of total railway track destroyed, as well as 294 bridges. Of a total of 870 steam locomotives, only one in ten was working. The new Polish administration registered only 32 passenger railway cars and 234 wagons, which could be immediately used. (Kociszewski J., 1976).

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German born 1945 in Lower Silesia, an expert in the Middle East Security Affairs.
Apart from all this also much of the industry was destroyed. In July 1945, of total 3,008 factories in Lower Silesia only 120 could be immediately restarted. The reduction of industrial production potential in the region was estimated at 50-80% of the existing potential. (Sznajder M.C., 1979).

As a result of the strategic rather than economic considerations of wartime, some parts of the industry had changed their production profile from civil to the military. Complete data on this subject is not available, thus it is not possible to estimate precisely the level of militarisation of the Lower Silesian industry. It is known however, that changes in production profile mainly affected manufacturing of metals, machinery, electronics and chemicals, e.g. some textile factories had been transformed into armaments production. (Kociszewski, op.cit., pp. 57-90). Also, according to Kociszewski, the intensive exploitation of factories during the war resulted in their higher depreciation, e.g. for the mining industry it was estimated at 36-51%.

Some destruction continued after the war. The weakness of the new Polish administration in Lower Silesia did not prevent looting and plundering of industrial and other property in the immediate post-war years. The Agreement of July 26, 1945, between the new Polish government and the Soviets stated that in the area behind the front line the Polish administration was subordinated to the Soviet army. Also, some of dismantling activities had been started by the Germans who, with the advance of the front line, dismantled certain factories and machinery in order to transport them towards the west. Precise data on this subject is not available. (Klopot, op. cit., pp. 34-67). These activities included the dismantling and transportation of many industrial enterprises and other goods, such as livestock and horses, from Lower Silesia to the Soviet Union. E.g. the nickel factory in Szklary, the rolling stock manufacture Linke-Hofman in Wroclaw. Another example was the massive dismantling of the railways, in order to obtain steel and copper, e.g. a total rail track between Wroclaw and Jelenia Góra, where 110 km had been electrified by the Germans before 1939. A separate issue was the individual behaviour of victorious Soviet soldiers. Plundering was often accompanied by mindless
destruction of buildings, technical infrastructure and machinery. The loss resulted from that is not possible to estimate.

Additional losses were caused by the incoherent policy of the Polish government. On one hand it attempted to accelerate new settlement and restart the Lower Silesian economy, and on the other hand it treated the region as a source of machinery for the reconstruction of enterprises in other parts of Poland. The scale of this policy can be illustrated by the fact that between December 1945 and October 1947, the Ministry of Trade and Industry issued 21 691 permits for dismantling and transportation of various facilities from Lower Silesia to other parts of Poland. 4

Many of the above consequences of the war and post-war destruction of Lower Silesian assets are difficult to estimate, but they should be included in the balance sheet of loss. This also may help to explain conditions at the starting point for the rebuilding of the economy.

2.3. Migrations

The history of modern Europe has few examples of such a radical population change as took place in the western and northern part of Poland after WW II. Before the war the Germans represented about 82 % of population in these territories.

In 1944 and early 1945, with the advance of the Soviet military offensive, the westward movements of German refugees started. When the war ended the process of resettlement of Germans was organised by the Polish authorities. It was accompanied by a simultaneous influx of Poles, migrating from different parts of the pre-war Poland, and by the émigré Poles who returned from abroad. The large

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4 The distribution of centres of Polish settlement before WW II was very uneven, e.g. Poles represented 59 % of the population in the Opole Silesia, and below 5 % in the Szczecin area. Source: Pałucki W. (Błoński A.) Ziemie Odkrywane. Szkice Historyczne, p.43, F. Mildner & Sons, Herbal Hill, London 1947. Wrocław 1996.
scale of population exchange needed planning, therefore a special State Repatriation Office (Państwowy Urząd Repatriacyjny) was established by the Polish government. This office planned and coordinated the resettlement process in order to accelerate it and also to facilitate the adaptation of new settlers to the new environment. Therefore it was the practice to keep the entire population of villages and towns together while resettling them. Also, the intention was to settle the newcomers into an environment as far as possible similar to the one in which they had lived. (Hamilton F.E.I., 1975).

According to J. Kokot, in 1939 Lower Silesia was inhabited by about 2.7 mn people, while in 1946 it had 1.8 mn inhabitants. Thus, the population density dropped from 140 in 1939 to 93 persons/km² in 1946. This reduced density was not sufficient for the existing economic infrastructure and development then being considered. The shortage of skilled workers and engineers was a serious obstacle for the development of the area.

The process of creating a new Lower Silesian population lasted about five years and it was basically completed by 1950. About 15 000 indigenous inhabitants, were permitted to stay. The rest, regarded as Germans, were forced to resettle in Germany. According to the estimate by Sz. Bronsztejn, 1.05 - 1.1 mn Germans left Lower Silesia. (WUS Wrocław, 1967). The table below presents the change of the size of population in Lower Silesia in the years 1946-1950.

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5 Kokot J., Brożek A., Rauzinski R., Stosunki narodowościowe i społeczne na Ziemiach Zachodnich i Północnych na tle stosunków przed II wojny światowej, in Problemy demograficzne Ziem Zachodnich i Północnych PRL, p. 35, Warszawa 1969. Data provided here was based on the registration from 17 May 1939, when the Lower Silesian population was 2.68 mn, and the registration of 14 February 1946, there were 1.769 mn people. Different data is provided by Z. Szaz whose estimate of the Lower Silesian population in 1939 was 3.01 mn. Szaz Z. Germany’s Eastern Frontiers, The Problem of the Oder-Neisse Line, p.4, Henry Regnery Company, Chicago 1960. The difference in figures may be explained by Szaz’s inclusion into Lower Silesia a part of Lusatia which before 1945 was within administrative boundaries on this region.

6 Similar, however not exactly the same figures, are provided by other authors, e.g. A. Breitkopf estimated the number of autochthons in Lower Silesia at 17 000. Breitkopf A. The Population of Silesia, in Lower Silesia and the City of Wrocław, Silesian Institute Branch in Wrocław, Wrocław 1948.

Klopot S. op. cit.
Table 3.1: The number of inhabitants in Lower Silesia in 1946-50, in thousands. Estimate.

<table>
<thead>
<tr>
<th>year</th>
<th>Lower Silesia</th>
<th>Wroclaw City</th>
<th>Voivodship of Wroclaw</th>
</tr>
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<tbody>
<tr>
<td>1946</td>
<td>1 782.8</td>
<td>184.8</td>
<td>1 598.0</td>
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<tr>
<td>1947</td>
<td>1 618.8</td>
<td>224.8</td>
<td>1 394.0</td>
</tr>
<tr>
<td>1948</td>
<td>1 645.9</td>
<td>256.5</td>
<td>1 398.4</td>
</tr>
<tr>
<td>1949</td>
<td>1 751.7</td>
<td>279.4</td>
<td>1 472.3</td>
</tr>
<tr>
<td>1950</td>
<td>1 698.9</td>
<td>308.9</td>
<td>1 390.0</td>
</tr>
</tbody>
</table>


The table shows the subsequent waves of the resettlement of the Germans. As we can see the Lower Silesian population in 1950 was smaller than it was in 1946. There was an even greater difference between the size of the region's population in the years 1939, when it was, at the lowest estimate, 2.68 mn inhabitants and 1950 with a mere 1.7 mn. Thus a 37% demographic deficit in its population had been created.

The registration which took place in 1950 indicated that 5.1% of the population were indigenous, 53.7% came from Central and Southern Poland, 34.9% from the territories ceded to the Soviet Union, 0.8% from the Western and Northern areas, and 5.5% (about 50 000 people from France, 18 000 from Yugoslavia, 10 000 from Germany, about 4 000 from Romania) from abroad. (Wrzesiński W., 1995).

The great diversity of the origins of the new settlers meant a great variety of social attitudes, technical culture and environmental experience. According to many authors, none of the above mentioned groups dominated the whole region. Some of these migrants for a short period of time prevailed in certain areas, such as the reemigrants from France - in Walbrzych, the Jews - in Bielawa, Dzierżoniow and Pieszyce, the intelligentsia from Lvov - in Wroclaw. Ibidem. Since Lower Silesia was a new environment for the newcomers, thus the utilisation of regional resources was a new experience for them. The indigenous population was too small to have a significant impact on patterns of technical culture and management. There was no
social group strong enough to influence significantly the creation of new cultural patterns in a new environment. Therefore the adaptation to the new environment inevitably involved ineffectiveness and waste in the utilisation of resources. Furthermore, the adaptation took place in the situation of a strong political confrontation (new communist regime versus the underground Polish state), resentment against the Germans which resulted from the war, and police terror conducted by the new authorities and the Soviet special services. Thus the new authorities applied political rather than professional criteria in their employment policy for the administration. The growing terror also effectively discouraged citizens from participation in public affairs. In such circumstances the services of many educated people were not properly used, to the disadvantage of both social and economic life. This may help to explain frequent incompetence of the new administration in Lower Silesia.7

Another significant change in the socio-economic characteristics between the pre- and post-war population of Lower Silesia refers to the differences in urban and industrial environment. Before the war the region was more both urbanised and industrialised than most of the areas of origin of its new settlers. In 1939 some 72.4% of Lower Silesian economically active population earned their living from non-agricultural activities.8 While the new post-1945 settlers, however greatly differentiated by the place of origin, were composed of about 60% of agricultural and 20% of industrial population.9

7 Klopot emphasises 'notorious lack of qualifications' in the new administration and the bad consequences for the regional development.
8 The service sector (including the army) employed the largest percentage of population - 37.5%, industry and craftsmanship - 34.9% and agriculture -27.6%. Source: Kociszewski J. Proces zasiedlania i zagospodarowania Dolnego Slaska, in Rocznik Dolnoślaski, Vol. IV, pp.57-90, PWN, Warszawa-Wroclaw 1976.
9 Precise data about qualifications of all new settlers is not available, since the figures refer to the population characteristics in 1939 in Poland. They should be adjusted by the changes which occurred during WW II, when Poland lost 37.5% of its university graduates and 53.3% of those with technical and vocational education. Thus the post-war figure of 20% of industrial population is rather overstated. Sources: Leszczycki S., Domanski R. Geografia Polski Społeczno-Ekonomiczna, p. 25, PWN, Warszawa 1995; Licinska D. Geografia. Polska, p.113, Wydawnictwa Szkolne i Pedagogiczne, Warszawa 1992.
This meant significant differences in the qualifications of manpower in Lower Silesia between the pre- and post-1945 population, particularly the shortage of skilled labour in services and industry, which was essential if the then existing economic potential was to be fully used. The urban and industrial characteristics of Lower Silesia and the limited amount of available land forced many people coming from rural areas to settle down in towns and undertake non-agricultural activities. Thus while in 1946 the urban population of the region had been 40.3 %, by 1950 it increased to 49.7 %. And also by 1950 already 60 % of the regional population earned their living from non-agricultural activities.

Due to the effects of the war on demography and the age characteristics of immigrants, this new population was relatively young and economically active. At the beginning of the 1950s Lower Silesia had a very good age and sex balance: an economically active population of one million, with a slight preponderance of females. Such demographic characteristics of the labour force were favourable for the economic reconstruction of the region.

2.4. Direct limitations on economic development

The presence of the Soviet army in Lower Silesia meant significant direct constraints on the economy. First, there was the seizure of many industrial complexes by the Soviets. This was only partially reversed in the years 1947-48, when the Soviets returned to the Polish administration about 70 % of the nearly 500 industrial enterprises which they had been exploiting. Also in 1947 they returned over 2 440 buildings and many garrison buildings, which they had been using for their own purposes (Potyrała B., 1996). The temporary Soviet ownership of all those resources meant of course that they could not be available for the development of the Lower Silesian economy.
Also, the communication functions of Lower Silesia seemed to be of particular importance for the Soviet army. Some main roads and railway routes were beyond control of the Polish authorities until the beginning of 1950s.\(^\text{10}\)

The airways, which had been developed before and during the war, were excluded from civilian use until the beginning of the 1960s, when Wroclaw Airport started public domestic flights. A large part of the forests (Bory Dolnośląskie) along the border with Germany was excluded from the jurisdiction of the Polish state - they were military exercise grounds for the Warsaw Pact army. This activity, resulting in significant environmental destruction of those areas, became public knowledge after the withdrawal of Soviet troops from Poland in 1993.

2.5. The post-war reconstruction

In 1945 the central Spatial Planning Office was established in Warsaw. This resulted in the production of the National Spatial Plan which established developmental goals for 25 years. The first 5 year Plan was for the post-war reconstruction of the country, to be followed by the two 10-year plans, the first of which envisaged the industrialisation of Poland and the second the development of the service sector. For Lower Silesia in the reconstruction period the planned goals were primarily concerned with the completion of the settlement, the reconstruction of industry, and the integration of the region's economy with the rest of Poland.

In the immediate post-war period Lower Silesian economic development was greatly assisted by the possession of such mineral resources as coal, lignite, copper, nickel, and zinc ore, raw materials for the chemical, glass and ceramic industries, and rock minerals for building and road construction. For this reason, despite the fact that its industry had been severely affected by the war, the former profile of production was quickly resumed. In addition to the industries based on mineral resources, pre-war Lower Silesia had specialised in the production of goods associated with the means

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10 According to Potyrala, "Out of any control [of the Polish state] were also communication routes on the Polish territory, with transit functions between the Soviet Union and its army in Germany." Potyrala B. Status i Rola Polityczna Północnej Grupy Wojsk Radzieckich, in Dolny Śląsk 2/96, p. 149, DTSK, Wroclaw 1996.
of transportation, such as rolling-stock for rail and tramways, river shipping, the
defence industry, the electro-machinery industry, and the paper and textile
industries. However, rapid restarting of these industries was difficult because of
significant shortage of manpower and the lack of qualified engineers and managers.
For this reason some German qualified staff was not permitted to migrate in the
first wave, and was engaged in the restarting of factories.

The main financial sources for the reconstruction of Lower Silesian industry came
from the Industrial Investment Fund of the Recovered Lands (Fundusz
Inwestycyjno-Obrotowy Ziem Odzyskanych), which was established by the
authorities in August 1945. The fund itself gained resources from the sale of
industrial products which had been found in factories and warehouses after the war.

Coexisting with industry was a developed agriculture based on the fertile land,
particularly of the Silesian Plain and the Sudeten foothills. Developed livestock
production was also a significant part of this in the mountainous subregion of the
area. A further feature was the developed tourist and leisure industry, especially in
the Sudeten Mountains. Since, in addition, many towns, in particular the small ones,
survived the war without major destruction, there was a sewage and water supply
infrastructure. This, with the existing houses, was able to supply the basis for new
settlement. There also existed buildings for educational and cultural functions which
enabled a resumption of these activities immediately after the war.

The exchange of population was accompanied by the spontaneous activity of new
settlers to re-establish various economic, communication, educational and social
activities. Many enterprises were quickly restarted. Trade developed fast. Schools -
primary, secondary and those of higher education - were established on the basis of
the Polish pre-war teachers and system, e.g. the University of Wroclaw had already
started in the autumn of 1945. This was the foundation for the educational
revolution, which took place in the whole country in the following years, not only
eliminating illiteracy but also providing a qualified labour force for the economy.
Parallel to this, the administration of the new state was being organised.

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Urban reconstruction depended on the state of existing infrastructure and level of destruction. The immediate need was to remove ruins, make damaged houses inhabitable and restore the use of roads and railways. The authorities also started selective urban rebuilding, e.g. in Wroclaw and Opole, which was accompanied by the plundering and destruction of other buildings. Some of the architectural heritage of the area was allowed to fall into disrepair and decay. This was mainly due to the shortage of financial resources for the reconstruction of ruined towns, since the competitive needs were to restart the industry and rebuild the technical infrastructure. Another factor was the hostile attitude of the communist authorities towards the historical heritage of Silesia because so much of it was associated with the Germans and feudalism. The main exception was the Church property which the Church rebuilt and maintained on its own initiative and resources. (Przylęcki M., 1996), (Dobesz J., 1996).

The most important economic reform was the nationalisation of industry, which was implemented by the Act of January 3, 1946. The state became the owner, without compensation for previous owners, of industrial companies, mines, transport and telecommunication, insurance and banks. This Act recognised private ownership of companies and guaranteed support for private enterprises. In practice, however, private industrial companies were systematically suppressed by fiscal policy and state administration. According to Kaliński, during the years 1947-48 the average fiscal burden on private companies doubled. (Kaliński J., 1995). The suppression of private industrial companies was also facilitated by the lack of regulated ownership titles. Most of those entrepreneurs hired buildings for the production of goods and services from the state. Since in 1947 the rent for those buildings had been significantly raised, this also contributed to the bankruptcy of many companies. Thus while in 1947 in Lower Silesia there were 764 private industrial companies which employed 9,018 people, by 1949 there remained only 471 companies with the 2,229 employed. As a result of these economic reforms, already in 1947 56.1 % of the Polish national product came from the public sector. At that time the three-sectoral division of the economy – private, cooperative and
state owned enterprises was introduced. The latter two were named 'social' or 'public' sectors of production.

Immediately after the war the most rapidly developing economic activity was commerce, especially of small food shops. There were also many private warehouses, retailers selling industrial products, and craftsmen. E.g. in 1946 in Lower Silesia there were 11,944 private commercial enterprises and 10,304 workshops employing craftsmen. (Klopot, op. cit.). In 1946 private entrepreneurs represented about 80% of wholesale and 89% of retail activities in Poland and similarly in Lower Silesia. (Kalinski, op. cit., p.25). Cooperatives owned 10% of wholesale enterprises and 8% of retail, while state ownership was 1% and 12% respectively. In 1946 the government introduced many regulations which limited private commercial activity (the communist slogan of that time was the struggle for the ownership of shops). The main instruments of this policy were the licensing of commercial companies, fiscal pressure, strict price control and restrictions on access to credit. The result of such a policy was the mass bankruptcy of private commercial activity in the following years. Already in 1949, nearly 100% of wholesale trade and 38% of retail were concentrated in the public sector. Thus the policy was enormously successful in its endeavours to replace private ownership with public. Similar policies were applied to private industrial activities. (Jankowski S., 1982).

The only sector of the economy which was not restricted by the state was craftsmanship. This activity survived in its pre-war shape as almost completely private, including specialised guilds. Foreign trade was legally monopolised by the state already in 1944 on Polish territory, although it was not formally introduced until the Constitutional Act in 1952.\footnote{Until 1952 it was based on legal provisions which had been introduced by the Polish government at the beginning of WW II.}

\footnote{In the view of J. Kalinski this "success" was largely responsible for the severe food shortages, which were endemic throughout Poland in the immediately subsequent years.}
Agricultural land was also the subject of nationalisation. Agricultural reform was based on the Act of Sept. 6, 1944. The government nationalised all the land holdings of more than 100 ha, plus those where the holding consisted of 50 ha of arable land, as well as almost all forest land. This was so that the newly acquired state owned land could then be distributed in small holdings in Silesia to the new arrivals. By 1948 171 900 families were settled in farms and for most of them the property rights were recognised by the state. By 1949 the creation of the new agricultural structure had been completed. It was a result of political rather than economic considerations, in particular, the communist need for the peasants' support, and thus the domination of small farms prevailed. The evolution of size structure of farms is presented in the table below.

Table 3.2. The size structure of farms in Lower Silesia, 1939-50, in %. Estimate.

<table>
<thead>
<tr>
<th>Size of Farm</th>
<th>Lower Silesia in 1939</th>
<th>Lower Silesia in 1950</th>
<th>Poland* in 1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 ha</td>
<td>41.2</td>
<td>42.6</td>
<td>57.2</td>
</tr>
<tr>
<td>5 - 10 ha</td>
<td>27.2</td>
<td>51.4</td>
<td>30.8</td>
</tr>
<tr>
<td>10 - 20 ha</td>
<td>19.3</td>
<td>5.9</td>
<td>10.7</td>
</tr>
<tr>
<td>20 - 100 ha</td>
<td>10.4</td>
<td>0.1</td>
<td>1.3</td>
</tr>
<tr>
<td>100 ha and over</td>
<td>1.7</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Only private farms. Source: Klopot S. Zniszczenia wojenne, trudnosci odbudowy (1945 - 1995), in Dolny Slask 2/96, p. 38, DTSK, Wroclaw 1996 after Malý Rocznik Statystyczny 1939 and Rocznik Statystyczny Polski 1955. Since the author has not mentioned whether he had taken into account small changes of the size of Lower Silesia territory between 1939 and 1945 (a part of Lusatia and a part of the Zielona Góra district, together about 2 000 km², were excluded from the region in 1945), the above data should be treated as an estimate.

In comparing the Lower Silesia situation in 1950 with that which had prevailed before the war, we see that the almost total destruction of the holdings of more than 10 hectares was the price paid for the enormous increase in the proportion of holdings between 5 to 10 hectares. It is also necessary to point out that although the proportion of the less than 5 ha size was almost unchanged, this fact understates the severity of the new conditions, since the farms of this size were in the latter period in practice condemned to subsistence farming. This was not favourable for mass agricultural production. Furthermore, such a situation preserved the outdated social structure and created overpopulated rural areas. As we can see, by comparison with
Lower Silesia, Poland as a whole had an even less favourable situation with her 57.2% of small farms. However, Poland had almost 20% of farms of the size 5-10 ha more than Lower Silesia and nearly twice of those with 10-20 ha of land. This latter fact may help to explain why Lower Silesian farms in comparison with Polish average were less productive in the following years. The consequences remain to this day. See chapter 5.

Towards the end of the 1940s the government started the promotion of collective farming, which was accompanied by discrimination against individual farmers. The main instruments of such policy were taxation and limitation of access to means of production. Thus individual farmers were more heavily taxed and had very limited access to credits, seed, machinery, than the cooperatives. Such a policy caused many individual farmers to abandon farming and move to the towns. Already in 1948 in Lower Silesia 5,747 farmers abandoned their farms. (Klopot, op. cit.).

At the same time there was an increasing number of collective farms. In 1948 in Lower Silesia there were 80 cooperatives (spółdzielnie parcelacyjno-osadnicze) and 346 'production groups' (grupy produkcyjne). They consisted of 5,497 families, which utilised 53,850 ha of land. By 1954 there were already 1,589 cooperatives, consisted of 41,200 families. They owned 307,000 ha of land. These clearly indicate the governmental preference for collective farming as against individual.

It is important to notice that, despite significantly higher input into collective in comparison with individual farming, the economic efficiency of the latter tended to be higher during the whole period until 1990. (Kopeć B., Mittlestaed T., 1976), (Dziurżyński P., 1983). This refers not only to Lower Silesia but also to the whole of Poland. This may indicate that collective as compared to individual farming has acquired little respect in Polish society.

In 1947 the three-year Plan for Economic Reconstruction (Plan Odbudowy Gospodarczej) was introduced. Essentially, the purpose of the three-year Plan had two main objectives. In the first place it was intended to make and carry out plans for the resumption of production in the factories and other business units, which

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13 In 1950 in Poland the hidden unemployment in the country was estimated at 1.3 mn people.
had been inactive or partly destroyed during the war. The second requirement was the creation of at least a rudimentary transport infrastructure through which these new establishments could obtain their raw materials and distribute their products. At the same time the function of this transport infrastructure was not to be confined to the internal needs of Lower Silesia, but was intended to integrate the area with the rest of Poland.

In the pursuit of the first of these two aims, it must be acknowledged that the authorities did, in terms of volume of output, achieved significant success. Since the industry in the region started working, its share of the total output of Polish industry grew fast. Already in 1949 the Lower Silesian industry was the main supplier in Poland of glass, ceramics, sanitary porcelain, paper and paper machinery, radios, radio lamps, rail rolling stock, lignite and coke. (Bemaś B., 1996).

This success did not entirely extend to the second aim. Although the existing roads, railways and waterways were repaired, little was done to integrate them with the whole transportation system in Poland. In the situation of inevitable shortage of resources prevailing at the time, priorities were necessary, and this meant that the emphasis given to factory production was at the expense of the transport policy. The inadequate integration of the transportation system at this time remained as it was, since it could at least function, however inadequately.

One of the main intentions of the Plan was the balanced development of 'group A goods' (producer goods) and 'group B goods' (those for consumption), since it could have led to the significant economic development of the country without sacrificing the standard of living of the society. (Misiak W., 1996). This was not fully completed, since in 1948 the Plan for Economic Reconstruction was adjusted by emphasising the development of industry at the expense of consumer goods and agriculture. This reflected the consolidation of communist power in Poland together with increased Soviet influence. (Secomski K., 1955). The result was that at the end of the three-year Plan for Reconstruction - the ratio of production between the two groups had moved from the desired 50/50 to 54/46. It is therefore not surprising that the ultimate result of these policies was that in 1949 salaries and real incomes
per head had fallen below the level of 1938; however, consumption per head was slightly above the pre-war level. This permitted the ending of food rationing.

At the conclusion of this period, goals, which had been established in 1945 by the central Spatial Planning Office in the Physical Planning Act of 1946, were reached only in part by 1949. For Lower Silesia these goals primarily included the completion of the resettlement plans, the reconstruction of industry, and the integration of the region’s economy with the rest of Poland. As for the settlement it may be said that it was completed very much according to the plan. As for the reconstruction of industry, it was disrupted from the very beginning of this period by several factors: apart from the war destruction, the most important of these were the underpopulation of the region, the shortage of qualified labour and difficulties in planning and management of the region which had neither clearly established ownership nor political status.

Nationalisation enabled the concentration of limited resources but was encumbered by severe constraints for entrepreneurship. It could be argued that the excessive dominance of the state in the ownership structure and the accompanying promotion of collective forms of economic activity delayed the reconstruction of the economy. Evidence for this is to be found in the above-mentioned comparison of the efficiency of private and collective farming. A further example is the reconstruction of houses: since they had become state or municipal property, instead of being privately owned, there was little incentive for their inhabitants to invest in their maintenance. On the contrary, the absence of security of tenure for house and flat dwellers encouraged the exploitation of those houses with little care for their maintenance and improvement. As for industrial entrepreneurs, their ideologically driven suppression by the state flew against common sense in the utilisation of resources. Many of these, as well as their employees, had to abandon production in their own enterprises and seek employment in state factories, thus leaving their machinery unproductive and contributing to the future over-employment in those factories. No new manufactures were established in this period. The growing emphasis on capital goods failed to significantly influence
either the industrial branch or the spatial structure of Lower Silesian industry, which tended to retain its previous characteristics.

The third requirement of the Plan - the integration of the regional economy with the rest of Poland - was, as said above, not met at all, since the transportation infrastructure remained subordinated to strategic rather than economic considerations. In 1949, there being no equivalents in the Soviet Union to the Polish regional planning offices, these institutions were abolished.

2.6. The years 1950 - 1955

In 1950 the geographical borders of Lower Silesia were altered as were those of other areas redefined for administrative reasons. For Lower Silesia this meant that a part of the province of Opole and some northern areas were no longer part of the Lower Silesian administrative area, which was reduced from 24,400 km² to 18,900 km². There is no available data, which would allow an estimate of the influence of that change on the economy of the area. However, since there are no natural boundaries in Silesia, the change could not be justified geographically. This decision went against the existing internal integration of the Silesian transport system. There were neither significant social or cultural reasons in favour of that change. An argument for that change could have been to facilitate the development of the Opole and Zielona Góra cities, in order to create more dense network of service centres in south-western Poland. The subsequent developments of those cities, which in the following years became regional centres of administrative, educational, cultural and social services, support this view.

Also in 1950 the new Six-Year Plan of economic development was established by the central authorities.¹⁴

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¹⁴ By the end of the 1940s there were eliminated from the Polish political scene all those parties which had not been absorbed into the ambit of the communist party. In general, this was achieved by the falsification of election and referendum results, and terror by the political police. Łojek J. Kalendär Historyczny, pp. 547-571, Wydawnictwo Alfa, Warszawa 1996. The Soviet military administration maintained its jurisdiction (e.g. rights of arrest, trial, imprisonment, deportation to concentration camps in the SU) over Polish citizens until 1952. Potyrała B. Status i Rola Polityczna Północnej Grupy Wojsk Radzieckich, in Dolny Śląsk 2/96, p.148, DTSK, Wrocław 1996. That meant the subordination of the economic development of the country, including Lower Silesia, initially to
This plan was very much modelled on the Soviet pattern of development of the 1930s. (Dawson A., 1975). Its main intention was a radical transformation of the Polish economy, which was to be based on intensive industrialisation. A particular emphasis was placed on the production of capital goods. Developed industry was designed to provide machinery and facilities for the development of other branches of the economy. The development of coal mining was to lead to larger energy production, which, combined with the development of the iron and steel industry, would result in the electrification of the country and the growth of such industries as electromachinery, ship, truck, tractor and rolling stock production. The development of the chemical industry was intended to lead to the further development of fuel production, the pharmaceutical industry and also fertilisers, pesticides and herbicides for agriculture. Private consumption, although taken into account, was to be satisfied at the very end of this plan.

The second major requirement of the Six-Year Plan was the urbanisation of the country, in order to reduce the rural overpopulation and provide manpower for the development of industry which was to be based on the growing importance of large factories and the accompanied reduction of small ones.\(^{15}\)

For Lower Silesia that plan primarily meant the aim of a significant increase of coal production in the Walbrzych area, lignite, in the Turoszów centre and the development of machinery production in the industrial centres of Wroclaw and Walbrzych. This was combined with the necessity to relocate the population and productive activities from rural areas to towns.

A significant element of this plan was the method of its implementation, often called the Soviet model of economic development. The Soviet economic system was totally different from anything which had existed in pre-war Poland. One

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\(^{15}\) The requirement of large companies, both industrial and agricultural, originated from an ideological requirement to create a large proletarian class.
outstanding difference was the subordination of the economy to the political and military, requirements of those who exercised power. Thus the development of all production in Poland was subject to the political instructions of the Soviet Union. (Davies N., 1991). There have been many studies on the details of Soviet communism, e.g. by Leszek Kolakowski, Richard Pipes and others, and it is not the purpose here to provide repetition of such studies. It is merely necessary to note the observations made above, so that a more detailed explanation can be offered on the situation as it applied to Poland and Lower Silesia in particular. Since one of the main principles of the economic development of the Soviet Union became the reinforcement of its military power, this subsequently influenced the pattern of economic development - industries singled out for development, location pattern of industrial centres, sectors of economy privileged in investment, and the accompanying neglect of individual consumption needs, which resulted from the subordination of the individual to ideological requirements. Thus not only the economy but also the citizens of the state were to be transformed into instruments of that ideology. These principles were applied to all the Soviet satellite countries, and this now included Poland. (Kolakowski L., 1988), (Jaroszewicz P., 1994).

Large scale nationalisation meant that most of the resources were employed by the state, whose central plan was intended to integrate all economic activity to its requirements. Thus factors of production, such as land, labour, capital, entrepreneurship and management, were brought under the control of the state. Market forces played no part in this plan and the workers became therefore state servants producing what a plan required - but with no incentive to use enterprise or initiative to increase production beyond what was required. Companies had been divided into 2 categories: the key ones (kluczowe) which included some 60% of the whole economy, and the territorial ones (terenowe). Each company of the key category had its own internal military department. This in turn was in the overall context of strict state control over social life; the main instruments of that control was police terror, political censorship in all spheres of public life and the socialist system of rationing of all goods. (Szczepański J., 1978), (Davies, op. cit., p. 751).
Such an etatisation of economic activity created a situation of permanent shortages of goods, particularly consumer goods. The new methods of food production were to be based on the system of collective farms. Large scale production became based on the central plan in which commercial incentives were replaced by central directives. Within the rest of the economy similar central plans existed. Under such circumstances the population became so intimidated by the authorities that it became dangerous to express critical opinions in public. Thus a discussion of the defects of the current economic system was impossible.

During the early 1950s the Six-Year Plan was several times adjusted in favour of further emphasis for the development of heavy industries and a significant increase of military production. The scale of those adjustments can be illustrated by changes in investment. Thus while in 1950 the industrial investment in the production of capital goods was 31.6 % of total investment and 10.6 % in consumer goods, in 1951 the respective figures were 34.3 % and 7.3 %. At that time complex programmes for the development of various branches of the defence industry were established, e.g. the production of aircraft parts in the PZL manufacture in Wroclaw. Also production in many factories was converted partly or wholly from the civilian to the military one, e.g. the Pilmet in Wroclaw, which used to produce metal tools, began ammunition production, the Diora in Dzierżoniów (a producer of radios) reorientated its production to radio equipment for tanks and aeroplanes. The best quality raw materials were directed to the defence industry, research and development centres were modified for military production.

The militarisation of the economy influenced the direction of regional development. The originally planned development of various industries, which had included consumer needs and the reconstruction of agriculture, was simply abandoned. It was replaced by a secret plan to develop heavy and machinery industries related to defence, and the production of fuel and raw materials. (Kaliński, op. cit., p. 54). This change of direction

16 That was in order to provide the equipment for the Soviet army deployed in Eastern Germany and Poland in Jaroszewicz P. Przerwaniu milczenie 1939-1989, p.117, Warszawa 1994.
distorted the plans for investment and created serious problems for the whole economy. These problems were a lack of cooperation between various branches of industry, temporary shortages of raw materials, and frequent power cuts. These resulted from the inadequate production of energy, since the whole economy was overburdened by heavy industries with their high consumption of energy. Low investment in agriculture had already caused serious food shortages in 1951. Industry, in turn, was affected by the shortage of raw materials from agriculture. Since most of the limited resources of hard currency were used for imports to supply heavy industries, other industrial branches, e.g. textile production, suffered a lack of raw materials. (Paszkiewicz W., 1976).

During that period the economic development of the Lower Silesian economy was weighted towards reconstruction and it basically retained its pre-war and wartime profile of production. However, the structure of production and employment changed: a number of small manufactures were replaced by larger factories with concentration of manpower and a larger scale of production. The dominance of mining, metallurgy and machinery industries increased; also the production of coal in the Walbrzych centre, lignite in Turoszów, rolling stock, such as locomotives, wagons, buses and lorries and river barges in Wrocław and Jelcz. (Ciok S., 1994). This dominance of heavy industry, with a relatively low level of technology, was accompanied by the neglect of technological development, agriculture and services.

However, due to the policy orientated towards reconstruction, it was possible to obtain a significant increase in production at relatively low expense. In the first part of the 1950s the percentage of Lower Silesian output in the total Polish economy was an average 9.1 %, while the average investment in Lower Silesia was 6.3 % of the total Polish investment. This means that during that period Lower Silesia was providing resources for the development of the rest of Poland. (Benaś, op. cit.)

In urban planning and architecture the years 1950-56 were characterised by continuous reconstruction. However, little investment in new buildings was taking place in this field. Some urban complexes, which had remained relatively well
preserved, deteriorated, due to the lack of any maintenance. Examples of this are to be found in the town hall squares of Wroclaw, Jelenia Góra, Legnica, Kłodzko, Ząbkowice Śląskie, Lwówek Śląski. No new urban centres were built in that period in Lower Silesia. A few new buildings had been constructed in a new style, often called socialist realism. They were solid, monumental and functional buildings. Examples of this architecture are buildings D1 and D2 of the Technical University of Wroclaw, the Voivod Office and the Kościuszko Square in Wroclaw.

At that time important changes were occurring in the demographic structure of the region. During the 1950s Lower Silesia enjoyed a rapid population growth from 1.7 mn in 1950 to 2.2 mn in 1960. This was mainly the result of the usual pattern of population replacement after severe population loss. There occurred an increase in the number of both births and marriages, many of which had been postponed because of the war. In the late 1940s and the early 1950s there occurred the post-war baby boom, of similar growth rates to the rest of Poland. For example, in 1951 the birth rate was 3.1 %. The natural increase, i.e. the difference between the number of births and deaths, reached its maximum, 1.95 % in 1955, to decelerate subsequently until the late 1960s, when the birth rate began to rise again as an echo-effect of the baby boom. (Leszczycki S., Domański R., 1995). This post-war process of the repopulation was encouraged by the government which introduced financial inducements for families and better medical care. (Hamilton op. cit., p. 17).

2.7. The years 1956 - 70

In 1956 the government attempted to reform its economic policy. The new overall goals were to harmonise the development of the Polish regions and also to develop different sectors of the economy in different proportions from the previous period. This meant the intention to develop industry in rural areas, mainly in Eastern Poland, and also, in order to increase living standards, more emphasis was to be put on the production of consumer goods. In agriculture there occurred the spontaneous reprivatisation of many of the collective farms, which were parcelled
out by the farmers among themselves. Due to the rooted opposition of farmers to collectivisation, the government did not dare to return to the status quo ante.

However, those initial plans for economic reform were short-lived and, since Poland's political framework had not changed significantly, the main principles of the former period were to prevail. Thus industrialisation of the country, with stress on the further development of the 'smoke-stack' industries, to the disadvantage of service and agricultural sectors, remained priorities. This was accompanied by urbanisation strongly encouraged by the government.

For Lower Silesia the implementation of such policy was demonstrated in the late 1950s by the increased investment in new industries: the lignite mines which produced fuel for the power plant in the Turoszow centre and also the copper mines and copper works in the Legnica-Głogów centre (LGOM - Legnicko-Głogowskie Centrum Miedziowe). (KW PZPR Jelenia Góra, 1976), (Chamer R., 1979). Since these were inadequately accompanied by investment in other sectors of the economy, the dominance of heavy industries in the regional economy further increased.

Urbanisation of the region, similarly to the rest of Poland, was very intensive in that period. Between 1950 and 1970 the urbanisation rate in Lower Silesia grew from 50% to 65%, compared to the average Polish rate - from 37% to 52%. Population was attracted from rural areas to centres of industry, such as Legnica, Głogów, Turoszów. Since the heavy industries were growing fastest, the result was the concentration of settlement around them. New factories provided new centres of population for which little social or cultural facilities were provided. Thus a new suburbia was to be created around these centres which had nothing much except the factories. The above mentioned lignite and copper centres are the largest examples of that process. All this created the drab and empty environment in which people lived and worked; an environment which resembled the 19th c. industrialisation in which population had been concentrated around a site of raw materials, such as coal or metal ore, and the settlement standard had been
determined by the principle of the 'maximum-output' at the 'least-cost'. (Hamilton F.E.I., 1978a).

In the countryside the situation was even worse. Compulsory deliveries of food products to the state, at fixed low prices, continued until the end 1971. (The World Bank, 1987). The authorities, in order to accelerate migration to towns, often withdrew educational and medical services from villages and smaller towns. Farmers were encouraged to transfer their land to the state in order to obtain a pension. (Ogorzalek A., 1994). Small private factories and crafts (e.g. ironmongers, shoemakers, carpenters, mechanical workshops, water plants, water mills) were under strong administrative pressure and had to compete with larger factories. 17

Lack of shops and inadequate provision of public transportation to towns was also typical for rural areas. These produced pressures to abandon the intolerable situation thus created, so that there was an impetus towards the existing unattractive factory-towns despite their lack of social provision. This was accompanied by intensive propaganda for the urban life style, so that social advancement became associated exclusively with cities. Such a situation caused many farmers to leave their land and houses and move to the city flats which they did not own. (Hasiński W., 1993).

In such circumstances economic, social and cultural life in rural areas could not develop successfully. The internal migrations thus encouraged had a major impact on the economic and social development of Lower Silesia. The accelerated urbanisation influenced negatively the growth of agriculture, since rapidly growing cities attracted newcomers, causing depopulation of some parts of the country, and this was not always compensated by the improved agricultural methods and production. Some cities, e.g. Wrocław, Jelenia Góra, suffered a large influx not only from villages but also from towns. This, in particular, happened in the Sudeten foothills and a part of the Klodzko Valley, and endangered the economic development of this area.
In December 1970 the government's announcement of price rises for food resulted in social unrest and workers' strikes occurred in several Polish cities, e.g. Gdańsk, Szczecin, Wrocław. The authorities suppressed the striking workers by the army, causing about 200 dead.\textsuperscript{18} These incidents resulted in the change of political leadership in Poland. The year 1971 brought about the governmental attempt to modify economic policy. The declared main intentions were: a shift from the heavy industrial pattern of development to the one based on science and technology, a significant investment in production of machinery, electronics, chemicals, textiles and metallurgy - in order to increase exports, mainly to the COMECON countries, and to create employment for the generation of the post-war baby-boom, which was just about to enter the labour market. In agriculture the aim was the general increase of production, which was to be achieved by further enlargement of collective, to the disadvantage of private, farming. Also, in order to improve living standards, a larger production of consumer goods was intended, e.g. in 1971 the investment in the production of consumer goods was to increase by 98 %. (Kalinski, op. cit.). An example of this more consumer oriented policy were the plans for large investment in housing. However, the principle of faster growth of capital goods was maintained. The basic finance for the implementation of these plans was to come from the capital of state enterprises and from foreign loans.

Until 1975 national production was planned to rise by 38-39 %, industrial production by 48-50 % and agricultural one by 18-21 %. Thus during the years 1971-75 investment in Poland grew on the average by 21 % per year. In Lower Silesia it was directed mainly to such branches as copper excavation and processing, the enlargement of the power plant in the Turoszów centre, chemicals production, computer and software production in Wrocław, electromachinery production and industries producing consumer goods. As a result of that policy, during the years

\textsuperscript{17} According to A. Ogorzalek, during the 1960s the authorities planned the complete liquidation of over 60 settlements in Lower Silesia, mainly in the Sudeten Mountains.

\textsuperscript{18} The precise figure is unknown, since some people were recognised as missing.
1971-75 Lower Silesian output, similarly to Polish, was growing fast, on average 9.8 % per year. That was mainly due to the growth of non-agricultural output.¹⁹

A positive result of that policy at the end of this period was that the value of fixed assets grew by 33 %, mainly in machinery, technical facilities and transportation means. This enabled significant modernisation of the economic potential of the region. The annual growth of industrial output in the years 1971-75 was 10.5 %, while in the years 1966-70 it was 8.4 %. An important change in the industrial production profile was the development of consumer orientated industries and therefore larger provision of consumer goods. Lower Silesia played an important role in the production of those goods for the Polish and COMECON markets.

Examples of significant growth of production output in Lower Silesia were:

- radios and tape recorders (the Diora company in Dzierżoniów),
- lorries and buses (the JZS in Jelcz),
- computers and software (the ELWRO in Wrocław),
- refrigerators (the Polar in Wrocław),
- gas cookers (the Wrozamet in Wrocław),
- rolling stock (the Pafawag in Wrocław, Świdnica, Oleśnica),
- electrical power engines (the Dolmel in Wrocław),
- electrical and gas boilers (the Termet in Świebodzice),
- carpets (the Kowary),
- chemicals (the Rokita in Brzeg),
- washing powder and cosmetics (the Pollena in Wrocław),
- pharmaceuticals (the Polfa in Jelenia Góra),
- furniture (the WFM in Wrocław and SFM in Strzelin),
- textiles and cloth (the Polmoda in Wrocław, Bielbaw in Bielawa, the Renifer in Świdnica),
- copper (the KGHM in the Legnica-Głogów centre),
- lignite (the Turow in the Turoszów centre).

¹⁹ The structure of Polish output in 1975: industry - 50.4 %, construction - 13 %, agriculture - 15.2 %, transport and telecommunication - 7.6 %, trade - 10.5 %, others -3.9 %.
A further positive result of the 1970s policy was the change in the structure of industrial output between mining and processing industries, which in Lower Silesia, similarly to the rest of Poland, shifted in favour of the latter. More resources were devoted to capital than to consumer goods. (Kalinski, ibid., p.159). The pattern of employment changed so that there were fewer workers in mining and metallurgy and more in the electromachinery industry. (GUS, 1984).

In terms of spatial distribution of industry, the 1970s meant further concentration of manufacturing in the regional largest urban areas, such as the Wroclaw, Walbrzych and Legnica-Głogów centres. This was mainly due to the change in the method of industrial management in Poland. Huge socialist concerns were created (the WOGs - wielkie organizacje gospodarcze), which concentrated the management of companies which until than had been individually managed. Until 1975 there 110 WOGs were created, which provided 65 % of the industrial output of the country. At that time 49 % of the industrial labour force worked in companies which employed over 1000 persons. This was accompanied by a gradual closing down of small and medium size factories in minor towns, which in this way were deprived of significant factors of growth. Thus by 1980 72 % of the Polish labour force was employed in companies with over 1000 employees, and 1/4 in those of over 5000 employees. (Kaliński, op. cit., p. 185).

In agriculture the investment was predominantly directed to collective farms. Thus in the 1970s the annual average output grew by 19.8 %, mainly in the production of livestock. (GUS, 1981). Individual farmers obtained very little support, thus many of them remained on the subsistence level. This can be illustrated by the fact that 40 % of farmers had additional full employment in industry (worker-peasants, chłoporobotnicy), since their farms brought very little income. (Kaliński, op. cit., p.164). This in turn caused the young people to leave the countryside to seek better employment opportunities in the towns. Thus family farms, deprived of young manpower, further tended to reduce production or even to abandon it by transferring the land to the state in exchange for pensions.
In 1974 the territorial division of the country was changed. Lower Silesia was divided into four administrative units (voivodships), which were named after their largest cities which became capitals of those units: Jelenia Góra, Legnica, Walbrzych and Wroclaw. Many authors agree that the new administrative division of Poland was based primarily on political considerations and that there was neither socio-economic nor historical justification for this decision.

The second half of the 1970s was marked by the fall of investment in Poland by about 11%. The reason for that was the shortage of financial resources. Production plans from 1971 were not completed and the whole economy suffered serious managerial problems. There was a pressure to pay off foreign debts, while the Polish exports were below the level which had been expected. For comparison, in 1975 Polish export per capita was 369 USD;

- in Hungary - 508 USD,
- in Czechoslovakia - 528 USD,
- in Holland - 2 523 USD.

In 1980 Polish export per capita was 478 USD;

- in Czechoslovakia - 944 USD,
- in DDR - 1 053 USD,
- in FRG - 3 315 USD,
- in Holland - 5 228 USD.

In 1980 the percentage of exports in the Polish GDP was 12.2%, while the world average was 16.9% and the European average (without the SU) - 22.4%. These figures indicate low rank of exports in the Polish economy. This also provides evidence that its structure inadequately fitted into the world economic trends of the time. (GUS, Statistical Yearbooks 1976, 1977, 19878, 1979, 1980, 1981).

The managerial problems seem to lie at the very heart of the command economy. Overcentralised planning and difficulties in the management of gigantic socialist concerns produced inadequate cooperation between companies, frequently resulting
in a shortage of raw materials and delayed deliveries. Also, since the whole economy was overburdened by the high consumption of energy and raw materials by heavy industries, frequent power cuts kept on causing the disruption of production. These caused a chain reaction of breakdowns of production in a number of companies. Such an obviously ineffective use of labour and material resources undermined the general work ethic and resulted in demoralisation of the workers at all levels.

The command economy was not capable of co-ordinating the complex interrelations between different sectors of the economy, e.g. the necessity for balanced development of industry, agriculture and services, each of them producing inputs to each other. This may help to explain the permanent shortages in the provision of goods and services, which was the feature of the command economy. An extreme example of unbalanced economic development was the situation of agriculture. In 1976, despite the increased investment in agriculture in the previous years, a shortage of certain food items occurred and the authorities introduced the rationing of meat and sugar.

The scale of inaccurate planning and inadequate structure of the economy can be illustrated by the fact that in 1975 62.6 % of total investment in Poland was delayed, which in terms of value meant that 21.6 % of the invested capital (book value) was frozen. In 1980 the respective figures were 68.6 % and 26.3 %. (Kalinski, op. cit., pp. 180-181). Especially the construction industry was not able to fulfil the required plans. This meant significant loss for the economy, since the incomplete investment was either working only partly, or was thoroughly unproductive. Shortage of resources for the completion of projects that had been begun caused the government to abandon many of them. Thus in 1980 some 776 projects were terminated (most of them were below 20 % of their intended development). Most of them concerned the production of machinery; however, in terms of value, major cuts affected investment in mining and metallurgy. In 1979 the Polish economy experienced, for the first time since 1945, the fall of the national output by 2.3 %, followed in 1980 by a further fall of 5.4 %. (GUS, 1982).
In the urbanisation of the 1970s the earlier practice of building factory towns was continued. This meant the massive construction of dormitory towns, which was based on the new technology of uniform concrete blocks (wielka plyta W70). The main feature of this technology was that the urban structure thus created consisted almost exclusively of flats. Massive flats lacked any service amenities. The planners did not foresee the need for other services, since the technology almost eliminated the possibility of developing other services such as shops and car parks.\footnote{Although cultural centres mostly existed at the planning stage, they were never built. The spatial structure created by the W70 technology was often called by Polish architects ‘the crane-rail structure’ (struktura torowiska dzwigu), since it was very much determined by the route and extent of a construction crane.}

The assumption of the planners was that the standard of living of the inhabitants would not rise, for example that the inhabitants of these new blocs would not own cars. The occupants of such flats could not purchase their dwellings. Examples of the largest dormitory towns in Lower Silesia can be found in Wroclaw (osiedla Popowice, Gądow, Huby) where 1/4 of the city population live, and in Walbrzych (osiedle Piaskowa Góra). The use of that technology ended in 1993 with the last building of the settlement Huby in Wroclaw.

Another significant change in urban structure was the introduction of industrial activities into the city centres, e.g. the power plant in Wroclaw, thus rearranging the traditional form of those centres. The immediate effects were the increase of traffic congestion and serious environmental pollution of densely populated areas.

In the 1970s the authorities began to make compromises towards satisfying the demands for consumer goods. The larger production of certain items became possible for the first time since 1945. This change was accompanied by a small concession in the direction of increased personal liberties, such as making it permissible for individuals to travel outside of Poland, mainly in Western Europe. This had no direct economic consequence, but there were some small indirect effects. The majority of those availing themselves of this opportunity were the young educated people. This meant that among those who had prospects of a
professional career in Poland there were now a number who realised how much better conditions were in the open societies of Western Europe. Inevitably, in the long run this would change people's views of the outside world within the closed communist system.


The beginning of the 1980s was marked by a further fall in the Polish national output (by 22% in 1981) and also social unrest caused by the fall in living standards. This contributed to the establishment of the independent trade union Solidarity and the change of government.

Solidarity's programme did not question the political fundamentals of the communist system and it sought no restoration of the 'capitalist system'. Basically its programme emphasised the need for the development of territorial, economic and professional self-government. This trade union demanded autonomy for economic enterprises and the creation of a competitive environment for them. (NSSZ Solidarność, 1981).

The most important result of the negotiations between the government and Solidarity was the introduction of the Parliamentary Bill On the state enterprises in September 1981. This new law significantly reinforced the role of employees' self-government in the management of state enterprises. This included the influence of employees on the financial policy of their company and also on personnel decision making, such as the nomination of directors. As a result of this Bill, Workers' Councils (Rady Pracownicze), whose members were freely elected by the employees,

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21 Data about the number of Poles who travelled abroad during the 1970s is not available. The author's experience from the Technical University of Wroclaw enables him to estimate that 5% - 8% of students of that time travelled to Western Europe. It may be assumed that such an experience could help to restore 'the sense of reality', since these travellers had seen that 'it could be the other way' - personal liberties, relatively rational socio-economic system, comparative economic efficiency and affluent society.

22 It is interesting to notice that the largest spontaneous social movement in Poland since 1945 (over 10 mn members) established itself according to the territorial division of the country with respect for its traditional socio-economic regions, thus ignoring the then existing official administrative structures. E.g. in Lower Silesia the union's organisational structure covered the whole historical area of the region, similarly in Upper Silesia, Little Poland, Mazovia, etc.

were established in state companies. They became a forum for public discussion about the company's affairs. In the following years they influenced the employees' attitude towards their companies through promoting work ethic and efficiency.

In 1980 and 1981 the system of rationing of consumer goods was widened. Apart from meat products and sugar, rationing affected the provision of butter, lard, oil, grain products, milk, washing powder, shoes, alcohol, cigarettes and petrol. The new government economic programme from June 1981 did not include significant changes in economic policy either in the provision of consumer goods or in the structure of economy. This programme merely continued the long-standing emphasis on investment in the heavy and defence industries. During the years 1982-85 the budget for military production increased by 12-13 % annually. This significantly changed in the second half of the 1980s, when the percentage of military production in the Polish economy fell from 12.2% of output in 1986 to 5.7 % in 1989.

During the 1981-85 the Polish national output fell annually on the average by 0.8 %. In the years 1986-89 it rose on the average by 2.9 % annually. The figures on Lower Silesia show a similar pattern. The regulations of Martial Law, which was introduced on Dec.13, 1981 and abolished in 1983, did not have a significant impact on the Polish economy. The 1980s in Poland were marked by the gradual liberalisation of the economy. In 1982 the parliamentary bills on joint ventures with foreign capital were introduced. This enabled limited foreign investment in Poland. In the early 1980s many restrictions on private farmers were abolished, e.g. as regards the acquisition of land and rights of inheritance. Also there was a partial elimination of restrictions on private shopkeepers, e.g. administrative and tax pressures were eased. This was followed by the amendments to the Polish Constitution in 1986, when private economic activity was recognised as a formal element of the legal system. The result was that the percentage of private shops increased from 10.5 % in 1980 to 28.8 % in 1989. In 1986 Poland joined the IMF. This was followed by the abandonment of the state monopoly in foreign trade. In 1988 the reform of the
banking system brought about the establishment of 9 commercial banks based on the capital transferred from the National Bank of Poland. In 1988 the Parliamentary Bill on Economic Activity eliminated nearly all legal obstacles to private enterprise. This started a new era for private entrepreneurship and the Polish economy.

The policy of Warsaw towards Lower Silesia varied greatly through the period of 1945-1989. It may be said that in general the region was neither favoured nor discriminated against by Warsaw. In the years 1945-1956 the wealth of the region was used to develop other parts of Poland, e.g. some industrial plants were dismantled and moved to other parts of Poland and existing buildings were also dismantled for materials, such as bricks, to rebuild Warsaw. This exploitation stopped in the late 1950s. Until 1970 the Lower Silesian share in Polish GDP was proportionally larger per head of population than the Polish average.

It is doubtful whether Warsaw had any specific policy about Lower Silesia. It seems that the region was treated like any other Polish region, i.e. its resources were utilised according to the general principles of the government policy. For example, the development of the copper industry in Lower Silesia since the late 1950s could be compared with the development of the sulphur industry in Tarnobrzeg in Eastern Poland, the principle being the development of heavy industry, including mining.

Lower Silesia benefited from, what was called, the socialist division of labour. The region specialised in electronic industry to serve the whole Warsaw Pact. The ELWRO company was established in 1959, to be followed by the establishment of the electronic department in the Technical University of Wroclaw, to which many students came from all over the Soviet Bloc. The same applies to the expansion of mining and chemistry departments in the TUW. All this created a good background for the development of high technology research in later years.

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25 Ustawa z dnia 23 grudnia 1988 O działalności gospodarczej.
2.10. Statistical summary

1. Population

Between 1950 and 1990 the population in Poland grew by 65%, while in Lower Silesia by 59%, as in the table below. The slower growth in Lower Silesia can be explained by the fact of greater urbanisation and industrialisation rates in the region in comparison to the Polish average at the beginning of and throughout the whole period. However, the percentage of Lower Silesian population in the total Polish grew from 6.8% to 7.6%.

Table 3.3. Population and urbanisation rate in Poland and Lower Silesia in the years 1950-1993

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population of Poland, [mn]</td>
<td>25</td>
<td>29.7</td>
<td>32.7</td>
<td>35.7</td>
<td>37.3</td>
<td>38.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Population of Lower Silesia</td>
<td>1.7</td>
<td>2.2</td>
<td>2.5</td>
<td>2.8</td>
<td>2.8</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Population of the LS as % of Poland</td>
<td>6.8</td>
<td>8.0</td>
<td>7.6</td>
<td>7.8</td>
<td>7.5</td>
<td>7.6</td>
<td>7.5</td>
</tr>
<tr>
<td>Urbanisation rate in Poland</td>
<td>0.37</td>
<td>0.48</td>
<td>0.52</td>
<td>0.59</td>
<td>0.60</td>
<td>0.62</td>
<td>0.62</td>
</tr>
<tr>
<td>Urbanisation rate in Lower Silesia</td>
<td>0.50</td>
<td>0.61</td>
<td>0.65</td>
<td>0.68</td>
<td>0.69</td>
<td>0.70</td>
<td>0.71</td>
</tr>
</tbody>
</table>


As the above table shows, in the 1950s the proportion of Lower Silesian population in the total Polish rapidly increased from 6.8% to 8.0%, to decrease gradually in the following years. The growth of the 1950s resulted from intensive migration within Poland and the baby boom, which was mentioned earlier. These migrations were associated with progressive industrialisation and also with collectivisation of agriculture in Poland.

Although the urbanisation in Poland as a whole developed more quickly (growth by 40% until 1990) than in Lower Silesia (growth by 29%), nonetheless in 1990 Lower Silesia was 8% more urbanised than Poland as a whole. This significant difference

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26 In those years the average number of newcomers to Lower Silesia was 173 000 annually. At the same time, annually about 53 000 people emigrated from the region. Thus 120 000 persons annually settled down in Lower Silesia. Source: Cieslak M., Kuropka I., p.91.
was a reflection of the fact that Lower Silesia had already been highly urbanised before 1945.

The table below shows that in the years 1950-1990 the population growth in Lower Silesia further varied. As we can see the population changes were not uniform throughout Lower Silesia, but varied between the different voivodships. The variation applied not only to areas but also to periods. The largest proportional growth took place in the Legnica Voivodship (by 143 %), followed by the Wroclaw Voivodship (by 82 %), the Jelenia Góra (by 60 %), and the Walbrzych one (by 42 %). The major factor which influenced such a high population growth in the Legnica Voivodship (which more than doubled its population between 1950 and 1980) was related to the discovery of rich copper deposits, followed by the rapid development of the industrial centre based on those resources.

Table 3.4. Lower Silesian population growth in the years 1950 - 1993 in the four voivodships.

<table>
<thead>
<tr>
<th>years</th>
<th>Jelenia Góra</th>
<th>Legnica</th>
<th>Walbrzych</th>
<th>Wroclaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>327 000</td>
<td>214 300</td>
<td>523 000</td>
<td>623 100</td>
</tr>
<tr>
<td>1960</td>
<td>435 000</td>
<td>303 100</td>
<td>658 800</td>
<td>839 100</td>
</tr>
<tr>
<td>1970</td>
<td>474 100</td>
<td>366 800</td>
<td>701 900</td>
<td>969 300</td>
</tr>
<tr>
<td>1975</td>
<td>485 000</td>
<td>410 000</td>
<td>712 000</td>
<td>1 020 100</td>
</tr>
<tr>
<td>1980</td>
<td>491 700</td>
<td>454 400</td>
<td>715 600</td>
<td>1 071 400</td>
</tr>
<tr>
<td>1985</td>
<td>508 600</td>
<td>487 700</td>
<td>733 300</td>
<td>1 112 700</td>
</tr>
<tr>
<td>1990</td>
<td>517 900</td>
<td>515 800</td>
<td>740 900</td>
<td>1 128 800</td>
</tr>
<tr>
<td>1993</td>
<td>522 200</td>
<td>521 000</td>
<td>741 700</td>
<td>1 132 700</td>
</tr>
</tbody>
</table>


The pattern of population growth in the Wroclaw area seems very different from the Legnica one. This process was dominated by the increase of population in the city of Wroclaw from 309 000 in 1950 to 643 000 in 1990. In that period its population increased by 334 000, while the whole Legnica Voivodship by 301 000. This can be explained by the fact that Wroclaw, as a multifunctional service/industrial centre, offered for a larger number of people than in the Legnica industrial centre both better work opportunities and a higher living standard.

In the last part of the above period (1990 - 1993) the annual average population increase was positive but very small - from 1 700 persons in the Legnica Voivodship
to 300 persons in the Walbrzych one. It indicates that the Lower Silesian population is entering a period of stagnation, similar to the rest of Poland.

2. Employment

The table below shows the evolution of employment structure in Poland and Lower Silesia in the years 1950 - 1996.

Table 3.5. Employment structure: Poland and Lower Silesia in the years 1950-1996, estimate, in %.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of employed [mn]</th>
<th>Agriculture, forestry and fishing, in %</th>
<th>Industry* in %</th>
<th>Construction in %</th>
<th>Others** in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>10.1</td>
<td>54.5</td>
<td>20.8</td>
<td>5.0</td>
<td>19.9</td>
</tr>
<tr>
<td>1960</td>
<td>12.2</td>
<td>44.3</td>
<td>25.4</td>
<td>6.6</td>
<td>23.7</td>
</tr>
<tr>
<td>1970</td>
<td>14.8</td>
<td>36.9</td>
<td>29.1</td>
<td>7.4</td>
<td>26.6</td>
</tr>
<tr>
<td>1980</td>
<td>17.3</td>
<td>30.6</td>
<td>30.0</td>
<td>7.5</td>
<td>31.9</td>
</tr>
<tr>
<td>1988</td>
<td>17.1</td>
<td>28.7</td>
<td>28.7</td>
<td>7.9</td>
<td>34.7</td>
</tr>
<tr>
<td>1990</td>
<td>16.5</td>
<td>29.4</td>
<td>26.4</td>
<td>6.7</td>
<td>37.2</td>
</tr>
<tr>
<td>1996</td>
<td>15.5</td>
<td>28.1</td>
<td>24.3</td>
<td>5.6</td>
<td>42.0</td>
</tr>
</tbody>
</table>

**The table below shows the evolution of employment structure in Poland and Lower Silesia in the years 1950 - 1996.

Poland

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of employed [mn]</th>
<th>Agriculture, forestry and fishing, in %</th>
<th>Industry* in %</th>
<th>Construction in %</th>
<th>Others** in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>10.1</td>
<td>54.5</td>
<td>20.8</td>
<td>5.0</td>
<td>19.9</td>
</tr>
<tr>
<td>1960</td>
<td>12.2</td>
<td>44.3</td>
<td>25.4</td>
<td>6.6</td>
<td>23.7</td>
</tr>
<tr>
<td>1970</td>
<td>14.8</td>
<td>36.9</td>
<td>29.1</td>
<td>7.4</td>
<td>26.6</td>
</tr>
<tr>
<td>1980</td>
<td>17.3</td>
<td>30.6</td>
<td>30.0</td>
<td>7.5</td>
<td>31.9</td>
</tr>
<tr>
<td>1988</td>
<td>17.1</td>
<td>28.7</td>
<td>28.7</td>
<td>7.9</td>
<td>34.7</td>
</tr>
<tr>
<td>1990</td>
<td>16.5</td>
<td>29.4</td>
<td>26.4</td>
<td>6.7</td>
<td>37.2</td>
</tr>
<tr>
<td>1996</td>
<td>15.5</td>
<td>28.1</td>
<td>24.3</td>
<td>5.6</td>
<td>42.0</td>
</tr>
</tbody>
</table>

**Lower Silesia

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of employed [mn]</th>
<th>Agriculture, forestry and fishing, in %</th>
<th>Industry* in %</th>
<th>Construction in %</th>
<th>Others** in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>0.9</td>
<td>40.3</td>
<td>40.0</td>
<td>5.1</td>
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<td>1970</td>
<td>1.1</td>
<td>19.5</td>
<td>41.8</td>
<td>7.5</td>
<td>31.2</td>
</tr>
<tr>
<td>1980</td>
<td>1.3</td>
<td>19.0</td>
<td>40.1</td>
<td>8.0</td>
<td>32.9</td>
</tr>
<tr>
<td>1989</td>
<td>1.3</td>
<td>17.4</td>
<td>30.2</td>
<td>6.5</td>
<td>45.9</td>
</tr>
<tr>
<td>1990</td>
<td>1.2</td>
<td>18.7</td>
<td>32.3</td>
<td>7.0</td>
<td>42.0</td>
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<tr>
<td>1996</td>
<td>1.0</td>
<td>15.4</td>
<td>29.0</td>
<td>6.9</td>
<td>48.7</td>
</tr>
</tbody>
</table>

*Industry includes mining, manufacturing and provision of electricity, gas and water.


Features of this evolution which are common for Poland and Lower Silesia are the gradual and an almost constant reduction of agricultural employment and, fairly
constant importance of construction sector throughout the period and a constant
growth of service sector. However, very different was the scale and speed of these
changes. Between 1950 and 1990 Poland reduced the percentage of agricultural
employment in the total employment from 54.5 % to 29.4 %. At the same time
Lower Silesia reduced it from 40.3 % to 18.7 %. Particularly fast was the change in
Lower Silesia during the 1950s and 1960s, when the percentage of agricultural
employment was nearly halved and service sector employment more than doubled
to 31.2 %. At that time the service sector in Poland grew only from 19.9 % to 26.6
%. Thus at that time Lower Silesia had both larger industrial and service sectors
than the average Polish region.

This is connected with the most striking difference in employment evolution
between Lower Silesia and the whole of Poland which took place in the industrial
sector. In Poland industrial employment grew between 1950 and 1980 from 20.8 %
to 30 % of the total, to decrease in the 1980s to 26.4 %. In Lower Silesia industrial
employment slowly grew from 40 % in 1950 to 41.8 % in 1970 and decreased during
the following years to 32.3 % in 1990. This indicates both larger and longer
influence of industry on the development of Lower Silesia than in most of Poland.
In 1988 a significant difference in industrial employment between a part of Lower
Silesia and the whole of Poland was this region's larger percentage of mining sector.
While on the average about 4 % of the Polish industrial sector was in mining, in the
Walbrzych and Jelenia Góra voivodships this was 13 %. (Atlas Śląska Dolnego i
Opolskiego, 1997).

The comparison of these trends with those of the advanced market economies
indicates that both Lower Silesia and the whole of Poland developed in a different
direction from those economies. Since the 1960s in the most advanced economies
the fastest growing sector was the service one, at the expense of both the industrial
and agricultural.27 In the last decade of the planned economy there was a massive
reduction of personnel employed in the state system of financial services.

---
27 For example, in Britain in 1985 the service sector employed 60 % of the economically active
population, USA - 66 %, Norway - 64 %, Sweden - 64 %, while Poland - 36 %. Source: Rocznik
According to Statistisches Bundesamt and Eurostat, in 1980 this sector employed 188,000 people in Poland and by 1990 it was reduced by 80,000 persons. (Statistisches Bundesamt and Eurostat, 1994).

Thus in 1990 Poland, in comparison with world trends, had a significantly underdeveloped service sector and overmanned agriculture. As regards Lower Silesia, the above table provides evidence that this region with its 40% strong industrial employment in 1950 was unnecessarily further industrialised in the following years. Instead, had the service sector developed, it should have accelerated further growth of industry and agriculture. The same refers to the policies which were needed at the end of the 1980s.

3. Production of private and public sectors

The table below shows the severe fall in the proportion of the Polish output produced by the private sector in the years 1960-1980. It also shows an emerging new trend, since the early 1980s.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Public sector</td>
<td>62.5</td>
<td>74.6</td>
<td>82.8</td>
<td>84.4</td>
<td>81.9</td>
<td>82</td>
</tr>
<tr>
<td>Private sector</td>
<td>37.5</td>
<td>25.4</td>
<td>17.2</td>
<td>15.6</td>
<td>18.1</td>
<td>18</td>
</tr>
</tbody>
</table>


The earlier trend was due to the restrictions described earlier and official hostility to the concept of private property. It was the gradual change in those restrictions, and also in the official attitude, during the 1980s, which reversed that trend. The fundamental communist hostility towards private ownership and enterprise did not change. The result of that domination was that an already reduced private sector was halved in the period under consideration.
If we assume that a growing private sector is beneficial for increasing national prosperity, then clearly the above situation needs to be reversed. Some form of privatisation was clearly necessary for this purpose. Furthermore, the existence of state monopoly described earlier needed to be ended. It follows that the form of privatisation needed was one which ensures not merely a transfer of ownership but also its wide dispersal. Privatised monopolies are still monopolies.

4. The standard of living

GDP per capita and purchasing power parity can illustrate the standard of living of the Polish population. In 1990 the GDP per capita in Poland was 1,547 USD, similarly in Lower Silesia. For comparison, at the same time it was:

- in Hungary 3,189 USD,
- in Britain - 16,947 USD,
- in Germany - 20,665 USD,
- in USA - 21,966 USD. (GUS Rocznik Statystyki Miedzynarodowej, 1997).

Indices of purchasing power parity in Poland is available only since 1991, when it was 4,466 USD. At the same time it was:

- in Hungary 5,911 USD,
- in Britain - 15,588 USD,
- in Germany - 16,993 USD,
- in USA - 22,389 USD. (ibid., pp. 455-456).

As we can see both indices illustrate significant difference in standard of living between Poland and advanced economies at the beginning of the 1990s, e.g. in Germany GDP per capita was over 13 times larger than in Poland, the German PPP was nearly four times of the Polish. E.g. one of the most important indices of living standards refers to the availability of houses/flats, in particular for young couples. A statistical illustration of this availability can be a number of newly built houses per 100 new marriages in a year. In Poland in 1990 only every other newly married

28 Data for earlier years is not available.
couple had a chance for a house/flat. (Bernas, op. cit., p. 185). Another example is availability of telephones and cars. In 1987 there was 74 cars and 122 telephones per 1,000 inhabitants in Poland, while in the OECD countries it was respectively 385 and 542. (ECSC-EEC-EAEC, 1990).

2.11. Conclusions

1. All of this created immediate social demands and expectations for the improvement of living standards. What was wanted was better housing, a greater choice of food and other consumer goods, including telephones and cars. This was combined with the traditional parental desire to secure good education for children. As we can see from the above figures, the significant obstacle to meet these expectations was the very low purchasing power of Poles. This indicates that what was needed in the late 1980s was to increase this purchasing power and at the same time to improve the provision of consumer goods and services.

2. In spite of economic liberalisation the economy in the 1980s was not functioning well enough to satisfy the basic consumer needs of the population, such as food, clothing and accommodation.

3. The servicing of the huge Western debt accumulated in the 1970s was a large burden in the economy.

4. Poland suffered from the defects of the whole Soviet Bloc’s economic system, such as inefficient agriculture, overmanned and outdated industry and underdeveloped service sector.

5. The crisis was accompanied by runaway inflation in 1989. The growing dissatisfaction of people was demonstrated in more and more strikes all over Poland which occurred in 1987-88.

The first talks between government and opposition took place in the mid 1980s, but they did not go very far, and only resulted in selective licensed opposition.29 The

29 Several authors described methods of this selection. One way was the Jaruzelski Advisory Council (Rada Konsultacyjna przy W. Jaruzelskim) established in 1986, which included some opposition leaders, e.g. W. Siła-Nowicki. Sources: Kurski J. Semka P. Lata czerniowy, interviews with Jarosław Kaczyński, pp. 18-19, with Adam Glański, pp. 110-112, and with Antoni Mazierwicz, pp. 198-
1988-89 discussions were much more serious, because the whole political and economic crisis had grown much greater. This crisis was so serious that Jaruzelski and his advisers recognised the need to absorb some of the opposition into the government: this was in order to stabilise the system and to gain some public support, which otherwise was completely lacking. The communists intended to remain in power in a modified system. This was before the general collapse of the Eastern Bloc in autumn 1989. The general collapse of the Eastern Bloc in late 1989 changed the whole Polish political scene. What was intended to be a rescue operation of the communist system turned out to be the prelude to its demise. On the whole the collapse of communism in the Eastern Bloc was without violence. This was also true of Poland, thus there was a peaceful transition from the old to the new system. One consequence relevant to this thesis is that there was a great continuity of senior personnel after 1989. (Wnuk-Lipiński E. 1996), (Wnuk-Lipiński E., 1993), (Kurski J. Semka P., 1995). The other main consequence was that the new system inherited the whole range of difficult problems which the old had failed to resolve.
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KW PZPR Jelenia Góra; Efektywność wykorzystania potencjalu produkcyjnego oraz kierunki modernizacji przemysłu województwa jeleniogórskiego, Materiały na Plenum KW PZPR w Jeleniej Górze, 1976.


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Chapter III. ECONOMIC TRANSITION IN POLAND;
THE NECESSARY REFORMS

This chapter examines the problems of economic transition in Poland. We analyse the changes of economic structure during the 1990s, how firmly factors of economic growth, indicated above, were established, and we indicate further necessary reforms. It is demonstrated that at the heart of many of the problems is the underutilisation of the resources. The reasons are many; political, social, economic, institutional and general cultural. Though much progress has been made during last decade, much of the pre-1989 legacy has remained. The state and the municipalities remain big owners of property, which not only is lying idle but also often has to be maintained at public expense. It is a part of the argument of this thesis that privatisation of this property has proceeded at far too slow a pace. And much of the privatisation which has taken place was not conducted in a way which is in the best interests of the population. The reasons are many and complicated, as we have attempted to show in this thesis. One reason for this state of affairs is strong vested interests which tend to preserve the status quo. This is true both of the state and municipal authorities.

3.1. The context of economic change

The reasons for the transformation of the political and economic system in Poland are complex and existed long before the break-through in 1989. They are concerned both with the internal situation in Poland, and with the international context. The economic factor, namely the inefficiency of the command economy in comparison with the market economy, has been widely recognised as one of the major causes of the transformation. (Kuczyński W, 1996).

Therefore, the collapse of the command economy can be seen as one of the causes for which the communists have undertaken the economic reforms of the 1980s. If this had not been undertaken, it could seriously have endangered the communists position as rulers. Thus the major political argument for the transformation of the
communist system as a whole, seems to come from the fact that the communist elite was losing its ability to achieve its political aims, in particular the possession of power. (Lenin W., 1956), (Kolakowski L., 1988), (Heller M., Niekricz A., 1987).

However, it should not be assumed that the only possible method of transformation from a one-party state with a command economy is towards democracy and a market economy. This is not true, since an example of a one-party state which has introduced elements of the market economy is China. Thus post-communist countries can evolve towards various systems which range between democracy and dictatorship and between market and planned economy.

There is some evidence of a significant role of the Pope, John Paul II, in the change of cultural climate in Poland during the 1980s. His visits to Poland in 1979 and 1984 gathered millions of people. The teaching of Christian values helped to revive the spiritual ground for independent thought, which in turn contributed to the rise of public expectations for higher standards of performance in public life. The Church often supported unofficial production of books, thus filling the educational gap caused by the censorship. (Zybertowicz A., 1994).

Within Poland a further reason for the declining strength of the communist system can be found in social developments. The declining living standards in the 1980s were causing dissatisfaction leading to popular resentment. The Solidarity movement drew its strength from this resentment which also manifested itself in increasing voices of resistance from the Church.\(^1\)

It must be mentioned that, although the collapse of communism in various Eastern European countries happened in a relatively short period of time within two years, the experience of all those countries was different. The study of that process is beyond the scope of this work and this is for political historians to examine. However, a feature of the Polish transition, namely the existence of organised
political opposition on the national scale was unusual in the Soviet bloc and it had an impact on future developments, also on the economy. The Solidarity movement was an organisation outside the sphere of the communist party. It gathered people who knew each other and had been working together, across sections of Polish society. They gained some organisational experience, including commercial activity, however often unofficial and against the state. It may be said that Poland during the 1980s was on the way to organise a fully underground state. This was a part of Polish tradition.

In Poland, as in the rest of the former Soviet bloc, a peaceful transition took place. This transition was without violence; a consequence of this was a considerable continuity of the ruling elite. As a further consequence of the continuity of personnel, a good deal of the old command economy mentality survived into the new period. The command economy mentality means a belief that economy must be regulated centrally and in detail. In practice this means that central bureaucrats decide what can or cannot be done. Such an attitude contradicts the development of the rule of law as a system based on a set of stable regulations in which conflicts are solved by an independent court. Under the rule of law system, regulations can be changed gradually either by the legislature or perhaps modified by the judges, while under the command economy bureaucrats can make decisions at will. Therefore the general security of the legal system is missing.

This continuity also means a prolonged distrust of private enterprise and the profit motive, reluctance to privatise land and property, and clinging to bureaucratic methods which distort business activity. This also created a breeding ground for a system of favours, connections and patronage that favoured the few against the many.

---

1 For example, Fr St. Małkowski in Warsaw, Fr Jankowski in Gdańsk, Fr Wiśniewski in Wrocław). This was to culminate in the upsurge of protest at the events surrounding the murder of Fr
3.2. Economic policies

3.2.1. Growth in the years 1990-2000

The Polish economic reforms in 1990 were accompanied by permanent shortages of goods, in particular consumer goods, which had been the feature of the planned economy, and high inflation, which in the end of that year reached 585.8%. The policy which was applied consisted of a stabilisation programme (credit rationing, raised interest rates, tight fiscal policies), liberalisation of prices and the opening up the economy to the foreign trade as well as introducing the partial convertibility of the currency.

Polish GDP, investment and the ratio between investment and GDP in the years 1990 - 2000 are presented in the table below.

Table 4.1. GDP, investment and unemployment in Poland in 1990 -2000 in USD and in zl, current prices. Rounded figures.

<table>
<thead>
<tr>
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<td>34.5</td>
<td>34.5</td>
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</tr>
</tbody>
</table>


As we can see GDP fell in the years 1990 and 1991 respectively by 11.6% and 7%. In 1992 it started growing to reach the highest growth rate of 7% in 1995 only to slow down in the following years with the growth rate of 4.1% in 1999 and 2000.
The fall of investment share in GDP in 1991 and 1992 can be partly explained by the growing social and political instability, which resulted from popular dissatisfaction with the applied reforms. Standards of living were falling. Unemployment, which had been practically unknown before 1989, was growing fast. This was accompanied by a number of strikes, particularly in the SOEs, and also by frequent changes of government (there were four changes of government between 1989 and 1993, however without the post-communists). All this undermined trust in the system's stability, thus discouraging investment. This also led to the post-communists' (Sojusz Lewicy Demokratycznej) victory in the 1993 general elections, which remained the government for the next four years.

Another factor contributing to the fall of investment in 1991 and 1992 was associated with the anti-inflation policy implemented in 1990. The main instruments of this policy were credit rationing, tight fiscal pressures on the growth of wages and reduction of the amount of money printed to balance the state budget deficit. An expensive bank credit and rigid bank requirements forced companies not only to rationalise their financial policies but also often discouraged them from borrowing money. (Calvo G., Coricelli F., 1992), (Lehtonen K., 1997). This led to the low amount of capital at firms' disposal, which caused difficulties in buying inputs, paying wages and investing. Thus some productive capacity was left unused and also output decreased, as shown in the above table.

The main causes of GDP fall in 1990 and 1991 seem to be associated with the abandonment of the planned economy and the introduction of the market economy.

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2 In 1990 the real monthly salary fell by 30%, in 1991 - by 1%, in 1992 - by 3%, in 1993 - by 3%
3 E.g. in 1990 there was 1.1 mn unemployed, in 1991 - 2.2 mn, in 1992 - 2.5 mn, in 1993 - 2.9 mn;
4 Also, it could be observed at that time that the banking management was not always familiar with the newly introduced methods of business and feasibility plans, which were required while applying for credit. This resulted in rejecting loans for firms or caused lengthy credit negotiations. The potential borrowers often had to teach the bank staff to conduct loans. Examples of such situation were state owned farms' credit applications in the Wroclaw Voivodship. This is the author's personal experience as a supervisor then of some 180 SOEs in that area.
on a much larger scale than it had been before. This exposed producers to the market which replaced the central planner. This meant the necessity to stop the production of goods which market did not buy.

In a macroeconomic scale this revealed that the structure of Polish economy did not match the new situation. In particular, many producers’ immediate experience was disorientation and lack of any guidance, since for the SOEs any concept of market was hardly known. In such a situation the inadequacy of services such as market research, financial services and business consultancy was exposed. The evidence that demand for services was strong lies in the fact that prices in this sector rose faster than prices in other sectors, except agriculture and energy. (Lehtonen, op. cit., p.38).

All this meant for many SOEs that, although they had productive capacity, they did not know how to sell and how to manage their companies in a new competitive environment, e.g. how to adjust production to changing consumer needs, how to find new markets. This may help to explain the fall of output as a result of the demand-shift effect. Therefore, although it is difficult to establish a precise impact of the insufficiently developed services on the fall of production in 1990 and 1991, it should be taken into account as contributing to that fall.

Price changes also seem to have contributed to the fall of value of output. When inputs for the production of a product are of higher price than the price of output, it

5 As shown in the previous chapter, the Polish economy in the years 1945-1989, although dominated by state ownership and central planning, also included private economic activities, e.g. farming, crafts or small scale production, which operated according to the demand-supply mechanism, however distorted by the administrative system of pricing.

6 The disbelief of many SOEs' directors that the state did not care any more about their production, employment or even the existence of their companies was a feature of that time. Source: The author's personal experience, while organising managerial training for SOEs.

7 Some services, which can exist only in the market environment, such as a variety of financial activities, e.g. stock exchange or investment companies, property consultancy had not developed at all.

8 "When demand shifts from one type of good to another, resources have to be redeployed from production of the former to the latter. There is typically a delay between their release and reabsorption in a different activity, and in the meantime they produce nothing and in consequence output declines." Williamson J. Why Did Output Fall in Eastern Europe ?, pp. 25-39, Institute for International Economics, Washington DC. 1992.
results in negative value-added. This compels the enterprise to cease production of that item. Such a situation happened in Poland when energy prices rose in 1990.9

The 1991 collapse of Comecon as a factor behind the fall of production was widely recognised.10 It resulted in broken trade links and increased energy prices in Poland. This particularly affected those industries in which Poland specialised within Comecon, e.g. the production of ships, rolling stock, tractors, etc. (Kleer J., 1978), (Kauf L., 1997). According to J. Williamson, the fall of output in Poland thus caused was 1.6 % of GDP. (Williamson J., 1992).

In this context, also the 1991 disintegration of the Warsaw Pact must be mentioned, since military production used to be an important part of the Polish economy.11 Also, some firms had been involved in military production indirectly or partly, e.g. the ELWRO in Wroclaw (computers and software), Diora in Dzierżoniów (radios, tape recorders). Much of that production had been bought by the Warsaw Pact, thus the end of military orders put those enterprises, and often those co-operating with them, e.g. steel works, into financial problems, or even resulted in their bankruptcy, e.g. ELWRO, Diora.12

---

9 J. Williamson provides an estimate by Hughes and Hare that in Poland, Czechoslovakia and Hungary, between 19 % to 24 % of industrial production had negative value-added. Source: Williamson J. Why Did Output Fall in Eastern Europe ?, p. 32, Institute for International Economics, Washington DC. 1992, after Hughes G., Hare P. Competitiveness and Industrial restructuring in Czechoslovakia, Hungary and Poland, European Economy 2, 1991.


11 For example, between 1965 and 1990 Poland produced 11 000 tanks, 6 000 helicopters, 1.5 mn guns. During the 1980s the military sector in Poland consisted of over 80 enterprises with 260 000 employed. Between 1983 and 1988 Poland was the world seventh largest exporter of arms. In the years 1979 - 1989 the earnings from exports of tanks alone amounted at 2.5 bn USD. Source: Kaliński J. Gospodarka Polski w latach 1944-1989, p.243, PWE Warszawa 1995.

12 During the discussions in 1993, the management of the ELWRO and Diora indicated that the most significant direct loss for their companies resulted from the loss of the military market. Sales dropped while costs of maintenance of production did not. It took time to reduce manpower and sell some machinery and stocks, while the companies were going into debt. As a second important factor of their companies' failure, the lack of any form of industrial policy in technologically advanced branches was indicated - in 1990 Poland was opened for the importation of goods which those companies also could produce at comparable quality and price, but no bank was willing to lend them money.
Although the precise data about the impact of the collapse of the Warsaw Pact on the Polish economy is not available, the disappearance of that market should also be taken into account as contributing to the fall of production in 1990 and 1991.

Unemployment rose fast from 6.3 % in 1990 to 16.4 % in 1993, than went down in the following years to the level of 10.3 % in 1997 and grew again in 1998 and 1999 respectively to 10.4 % and 15 %. Unemployment growth in 1998 and 1999 took place despite the rise of investment both in absolute terms and its share in GDP. This was accompanied by the sharp fall by 2 % of GDP growth rate in 1998 and by its further fall by 0.7 % in 1999. Additionally, the trend of a steady growth of GDP per capita was broken when it fell from 4 095 USD in 1998 to 4 023 USD in 1999. (Ministerstwo Gospodarki, 2000). This means that investment policies in those years failed to create workplaces. At the end of 2002 the unemployment rate in Poland was 19.9 %, which was the highest among the OECD countries. (OECD, Main Economic Indicators, September 2003).

3.2.2. Prospects of economic growth

The Polish economy started growing in 1992, by 2.6 % of GDP, from 52.121 bn zł in 1991 to 53.489 bn zł in 1992. The growth continued in the following years with the rate of 3.8 % in 1993, 5.2 % in 1994, 7.0 % in 1995 and 6.0 % in 1996. The average growth of GDP in the years 1992-1996 was 4.92 %.

In 1996 the Central Planning Office (CUP) in Poland estimated that if Polish GDP grows by 7-9 % a year and the EU average growth is 2.3 % a year, Poland can achieve 70 % of the average income per capita of the EU in 2010.13 Comparable figures are provided by the World Bank, which estimates that the 6.4 % growth rate accompanied by the annual investment at the level of 1996 (see table 4.1.), could bring Poland to 75 % of the average income per capita in the EU in about 20 years. (World Bank, 1997).

---

13 In 1995 Polish GDP (measured in PPP terms) was 30 % of the average EU. Sources: Strategia rozwoju społeczno-gospodarczego Polski do 2010 roku, CUP, Warszawa 1996.
Another estimate of various scenarios of Polish economic growth was made by the Polish Parliamentary Studies and Analysis Office (Biuro Studiów i Expertyz Kancelarii Sejmu). The aim of this estimate was to establish the conditions and time of convergence of the Polish economy with the average OECD countries. The analysis was based on the assumption that the average annual growth rate in the OECD countries is 2.5% and the GDP per capita in Poland in 1995 was 5 500 USD while in the OECD countries it was 18 700 USD. The result of that analysis was that if Polish GDP grows at the rate of 5% a year, Poland could converge to the OECD average income per capita by 2046, and if its annual growth rate is 10% it would be in the year 2012. (Polarczyk K., 1996).

The common feature of the above estimates is that if Poland continues its present economic growth, it may bring standards of living in line with the EU level, but not in the near future. Some authors conclude that Poland should therefore seek a faster path of growth.\textsuperscript{14}

In my opinion, Poland should first make sure that the present growth is stable. This means the development of all sectors of the economy, which will insure social stability, in contrast to the situation of a rapid development of some sectors accompanied by stagnation or decline of others. This means that the distribution of investment should lead to such a development.

Although the quantity of investment is important, what is emphasised here its quality and how it is directed. An increased investment, in itself, may not lead to economic growth. A widely recognised example of such a case is Poland in the first half of the 1970s. The then high level of investment, excessively guided towards the industrial sector, proved to be disastrous for the Polish economy.\textsuperscript{15}


\textsuperscript{15} In 1975 the share of the total fixed investment in national income reached 40.1% and industrial investment was 17.7% of national income (44% of the total fixed investment). Source: \textit{Economics and Politics in Transition}, p.49, Ed: Saunders C.T., The Vienna Institute for Comparative Economic Studies, Vienna 1990.
As presented in the previous chapter, that misallocation of resources resulted in the further distortion of the structure of the Polish economy. It deepened the underdevelopment of the service sector and strengthened capital-intensive branches of the industrial sector. That, in turn, contributed to the significant decline of national income which in the years 1978-1982 fell by nearly 25%. Another long-lasting result of that misguided investment has been the high international debt of Poland, which yet remains to be paid off after over 20 years. Therefore, in this respect, it is of the utmost importance for the Polish economy that investment should be directed according to the needs of this economy. This is examined in the next section.

3.2.3. Investment policies in the years 1991-1999

This section is concerned with investment policies in Poland in the years 1991-1999 and their impact on the Polish economy. Our purpose is to establish whether those policies created conditions for stable economic growth of the Polish economy and how they could be improved.\(^{16}\) The table below shows the investment structure in Poland in the years 1991-1999.

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\(^{16}\) According to EBRD, the key priority for the Polish government in 2002 should be to accelerate structural reforms. 'To achieve this, Poland must: accelerate investment in infrastructure at both national and local levels; attract foreign investment, which is not high enough to spur economic growth and alleviate regional disparities; facilitate new business creation; improve the value-added of Polish output and facilitate to more diverstive markets; restructure and privatise public utilities; and complete the modernisation of non-competitive state-owned banks and industrial companies that continue to strain the central budget. Little has changed in the large agricultural sector so that deep restructuring and substantial investment are needed to address its requirements'. *Strategy for Poland, 2002*, p.3.
Table 4.2. Sectoral Breakdown of Investment in Poland in the years 1991 - 1999,
Total amount and in %. Current prices, rounded figures.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>20 160</td>
<td>24 716</td>
<td>33 865</td>
<td>47 145</td>
<td>65 622</td>
<td>90 438</td>
<td>112 814</td>
<td>125 954</td>
</tr>
<tr>
<td><strong>Of which, in %</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, hunting and fishing</td>
<td>5.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.1</td>
<td>3.3</td>
<td>3.7</td>
<td>2.9</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Industry</td>
<td>37.9</td>
<td>39.6</td>
<td>38.7</td>
<td>43.4</td>
<td>42.3</td>
<td>42.4</td>
<td>38.9</td>
<td>36.9</td>
<td>32.9</td>
</tr>
<tr>
<td></td>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• mining</td>
<td>4.1</td>
<td>4.4</td>
<td>4.2</td>
<td>4.3</td>
<td>3.6</td>
<td>2.8</td>
<td>1.5</td>
<td>1.0</td>
<td>1.9</td>
</tr>
<tr>
<td>• manufacturing</td>
<td>23.9</td>
<td>22.7</td>
<td>20.1</td>
<td>24.8</td>
<td>24.9</td>
<td>26.2</td>
<td>25.5</td>
<td>25.8</td>
<td>22.6</td>
</tr>
<tr>
<td>• electricity, gas and water supply</td>
<td>9.9</td>
<td>12.4</td>
<td>14.4</td>
<td>14.4</td>
<td>13.4</td>
<td>11.1</td>
<td>9.1</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>4.0</td>
<td>4.7</td>
<td>4.1</td>
<td>4.6</td>
<td>4.6</td>
<td>5.9</td>
<td>6.1</td>
<td>6.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Trade and repair</td>
<td>3.9</td>
<td>5.8</td>
<td>6.8</td>
<td>6.2</td>
<td>8.1</td>
<td>5.8</td>
<td>8.7</td>
<td>9.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>1.1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.1</td>
<td>1.0</td>
<td>0.1</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Transport, storage and communications</td>
<td>7.5</td>
<td>8.7</td>
<td>9.8</td>
<td>9.7</td>
<td>10.8</td>
<td>12.0</td>
<td>12.6</td>
<td>11.7</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• mail and telecommunication</td>
<td>4.0</td>
<td>6.0</td>
<td>5.1</td>
<td>5.5</td>
<td>6.0</td>
<td>7.2</td>
<td>7.4</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Financial services</td>
<td>2.5</td>
<td>3.6</td>
<td>3.9</td>
<td>4.7</td>
<td>4.9</td>
<td>4.7</td>
<td>6.0</td>
<td>7.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Property and business services</td>
<td>28.7</td>
<td>24.1</td>
<td>18.9</td>
<td>14.9</td>
<td>12.7</td>
<td>11.4</td>
<td>11.5</td>
<td>13.1</td>
<td>15.2</td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>2.1</td>
<td>1.0</td>
<td>1.5</td>
<td>1.6</td>
<td>1.3</td>
<td>1.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Education</td>
<td>2.8</td>
<td>2.4</td>
<td>2.7</td>
<td>2.2</td>
<td>2.3</td>
<td>2.6</td>
<td>2.7</td>
<td>2.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Health and social care</td>
<td>2.2</td>
<td>2.2</td>
<td>2.8</td>
<td>2.6</td>
<td>2.8</td>
<td>2.9</td>
<td>2.7</td>
<td>2.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Other services</td>
<td>2.0</td>
<td>3.9</td>
<td>6.1</td>
<td>5.9</td>
<td>5.2</td>
<td>5.2</td>
<td>5.5</td>
<td>5.1</td>
<td>4.9</td>
</tr>
</tbody>
</table>


1. **Agriculture**

We can see in the above table that the proportion of investment devoted to agriculture fell quite significantly during the 1990s from 5.2 % in 1991 to 2.0 % in 1999, which is a decline of some 60 %. This, combined with the fall of agricultural
share in GDP from 7% in 1991 to 3.4% in 1999 clearly indicates the declining importance of this sector for the Polish economy. On the other hand this decline may be, apart from other factors, the result of the lack of properly targeted investment. The table below shows that the Polish agricultural sector experienced a significant change during the 1990s. The most striking change indicated in this table is an enormous adverse turnaround of 681mn USD in agricultural trade balance between 1989 and 1995. Trade balance of food industry between 1997 and 1999 experienced even higher adverse turnaround of 1.436 bn zl. What these indicate that is that Poland has become a large scale importer of food from being an exporter.

Table 4.3. Selected agricultural data, 1989-2000.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of agricultural in total employment in %</td>
<td>26.4</td>
<td>26.0</td>
<td>26.7</td>
<td>25.8</td>
<td>25.1</td>
<td>25.7</td>
<td></td>
</tr>
<tr>
<td>Agricultural and food trade balance, [mn USD]</td>
<td>255</td>
<td>-426</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trade balance of food industry (mn zl)</td>
<td>-</td>
<td>-</td>
<td>1105.8</td>
<td>307.1</td>
<td>-329.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trade balance of agricultural products (mn zl)</td>
<td>-</td>
<td>-</td>
<td>-2291.6</td>
<td>-2475.6</td>
<td>-2099.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trade balance of food and live animals (mn zl)</td>
<td>-565.5</td>
<td>1848.9</td>
<td>571.6</td>
<td>-445.4</td>
<td>-817.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Average size of a private farm, [ha]</td>
<td>7.1</td>
<td>7.6</td>
<td>7.9</td>
<td>7.8</td>
<td>7.7</td>
<td>7.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Share of private agricultural land in total agricultural land, in %</td>
<td>76.0</td>
<td>81.7</td>
<td>82.1</td>
<td>82.9</td>
<td>83.5</td>
<td>83.7</td>
<td>83.9</td>
</tr>
<tr>
<td>% change of agricultural output, in real terms, previous year = 100</td>
<td>101.5</td>
<td>110.7</td>
<td>100.7</td>
<td>99.8</td>
<td>105.9</td>
<td>94.8</td>
<td></td>
</tr>
</tbody>
</table>


These figures show that during the 1990s this sector presented significant potential for investment. But instead, Poland allowed huge imports of food products, both processed and primary ones, such as live animals. This means not only lost opportunities for investment but also growing social problems in rural areas. What should have been done is to invest more in agriculture, in a way that increase productivity, so that the domestic market could be satisfied without large food
imports. This applies especially to the food processing industry. Agriculture still employs a quarter of the labour force. This investment is required to increase productivity and decrease the percentage of labour force in agriculture. Many authors indicate that in such a case investment in rural areas infrastructure is vital. In particular, the development of water and sewage system, telecommunications and transport system, which need improvement in order to facilitate the growth of productivity in agriculture. This would help to improve the efficiency of agriculture at the same time reducing this sector's overpopulation, since the developing rural infrastructure and services would absorb a part of the labour force. (EBRD, *Strategy for Poland*, 2002). The social dimension of this problem is discussed in chapter 5.

The encouraging signs in this sector were a slight increase in the average size of private farms, from 7.1 ha in 1989 to 8.1 ha in 2000, and a significant increase in the proportion of farm land in private ownership, from 76 % in 1989 to 83.9 % in 2000.

2. Construction

Investment in construction for most of this period stayed very much at the same level, between 4.0 % of the total in 1991 and 4.6 % in 1995, to grow in the second half of the 1990s to 6.9 % in 1998 and to fall to 6.8 % in 1999. At the same time the share of this sector in the GDP fell from 10.7 % in 1991 to 5.7 % in 1994 to reach 7.6 % in 1999.

There is still a severe shortage of private accommodation. It was shown in the previous chapter that in 1990 only 2 % of newly weds could hope for a flat or house. Since then the new housing supply further decreased, e.g. in 1994, according

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17 According to the above mentioned World Bank Report, in 1996 land productivity in Poland was 1/3 of that of the EU and labour productivity was 1/10 of that of the EU. ib. p.80.

18 According to the World Bank the poor rural infrastructure is one of the main reasons for low land and labour productivity of agriculture. The World Bank also points out other factors behind that low productivity: inefficient land and rural markets, weak managerial skills and small average size of farms. Also, much of the rural population live at a subsistence level, since low earnings from agriculture force them to seek additional sources of income. "Only a third of the 4 mn people employed in agriculture have agriculture as the main source of income. The other two-thirds are part-time farmers, or pensioners with non-farm sources of income, including social security allowances". World Bank, ib, pp. 80-81.
to the World Bank, only 74,000 dwellings were completed, which was half of the 1990 figure. This may well have contributed to the low labour mobility in Poland, further perpetuating the higher levels of unemployment in the less prosperous areas, which can be illustrated by large differences in unemployment rates between neighbouring areas.\textsuperscript{19} In such a situation there are high prices for houses in more prosperous areas, which prevents labour migration.\textsuperscript{20}

All this points towards the need for increased investment in the housing construction sector.

3. Industry

We can see in the table 4.2. a significant and almost steadily growing proportion of investment for industrial purposes from 37.9% in 1991 to 42.4% of the total in 1996 and a sharp fall in the following years to 32.9% in 1999. Within this sector almost all of the initial increase can be explained by the change in the proportion taken up by electricity, gas and water supply, which rose by 3.5% from 9.9% in 1991 to 13.4% in 1996. The remaining 1% increase, together with a reduction of 1.3% in excavation (from 4.1% to 2.8%) gave a 3.3% increase in manufacturing (from 23.9% to 26.2%). This shift of emphasis in industrial investment in favour of manufacturing and power is an encouraging development away from primary activities. At the same time the share of this sector in GDP fell sharply from 41% in 1991 to 23.6% in 1999. This was accompanied by growing investment in services.

\textsuperscript{19} E.g. The Wroclaw and Walbrzych Voivodships where registered unemployment rates in 1997 were respectively 9.8% and 21.7%. Source: \textit{Rocznik Statystyczny Województw 1997}, p.115, Warszawa 1997. According to the World Bank "In 1994 the interregional migration rate was equal 0.42% of the population in the previous year, while in the EU its typical range is between 1% and 2.6%." ib.

\textsuperscript{20} E.g. in Wroclaw in 1997 the average price for 1m\textsuperscript{2} of a flat for sale was 1,400 zl, while in Walbrzych, which is 80 km distance, it was 800 zl.
4. Services

In the first part of the 1990s the total proportion of investment in the service sector fell from 52.8% in 1991 to 47.1% in 1996. This may indicate a trend for the development of the industrial sector to the disadvantage of the service one. This trend was the exact opposite of the pattern of development which have been experienced by most advanced economies.\(^{21}\)

As shown in the previous chapter, in terms of employment structure, in 1990 Poland in comparison with world trends had an underdeveloped service sector and overpopulated agriculture. The same feature can be illustrated by the structure of national product. Presently, in the economically advanced countries the service sector is the fastest growing one.\(^{22}\)

The evolution of sectoral structure of Polish national product in the recent years is presented in the table below.

### Table 4.4: The percentage composition of Polish national product in the years 1987-2000, by sectors.

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>12.1</td>
<td>13.1</td>
<td>12.9</td>
<td>8.9</td>
<td>7.0</td>
<td>6.7</td>
<td>6.6</td>
<td>6.3</td>
<td>6.0</td>
<td>5.3</td>
<td>4.8</td>
<td>4.1</td>
<td>3.4</td>
<td>-</td>
</tr>
<tr>
<td>Industry</td>
<td>41.6</td>
<td>41.7</td>
<td>44.1</td>
<td>47.4</td>
<td>41.0</td>
<td>34.0</td>
<td>32.9</td>
<td>28.3</td>
<td>27.6</td>
<td>26.1</td>
<td>25.6</td>
<td>24.2</td>
<td>23.6</td>
<td>24.3</td>
</tr>
<tr>
<td>Construction</td>
<td>10.5</td>
<td>10.7</td>
<td>8.2</td>
<td>9.7</td>
<td>10.7</td>
<td>7.8</td>
<td>6.5</td>
<td>5.7</td>
<td>6.3</td>
<td>6.5</td>
<td>6.9</td>
<td>7.6</td>
<td>7.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Services total</td>
<td>35.7</td>
<td>34.5</td>
<td>34.7</td>
<td>34.5</td>
<td>43.5</td>
<td>47.3</td>
<td>46.1</td>
<td>45.1</td>
<td>47.2</td>
<td>48.7</td>
<td>49.9</td>
<td>51.7</td>
<td>52.6</td>
<td>-</td>
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<tr>
<td>Market services</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.1</td>
<td>4.5</td>
<td>4.0</td>
<td>3.4</td>
<td>2.9</td>
<td>2.0</td>
<td>1.6</td>
<td>1.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Custom duties</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.3</td>
<td>7.1</td>
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<td>7.2</td>
<td>7.8</td>
<td>7.7</td>
<td>7.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>value-added Tax</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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\(^{21}\) According to A. Maddison, the industrial sector grows until it reaches its maximum, after which it begins to reduce its share of the overall economic output, in favour of the service sector. *Phases of Capitalist Development*, Oxford and New York 1982.

\(^{22}\) For example, in the USA between 1985 and 1991 the share of the service sector in the GDP grew by 4.2%, up to 71% in the total GDP. In the years 1985 -1993 in Germany the share of the service sector in GDP grew by 6.1%, in Italy by 5.3%. In those countries the service sector grew largely at the expense of industry. Source: *Rocznik Statystyki Miedzynarodowej* 1997, pp.456-457, GUS Warszawa.
As can be seen in the above table, the share of the service sector in GDP grew significantly from 35.7% in 1987 to 52.6% in 1999. The largest increase, by 9%, took place between 1990 and 1991, and between 1991 and 1992 by 3.8%, to fall by 1.2% in 1993 and by 1% in 1994, to rise again by 1.1% in 1995 and 1.2% in 1996.

The comparison of the above two tables indicates a lack of clear correlation between the structure of investment and the evolution of the structure of GDP.

In 1991 investment in services was 52.8% of the total and this was accompanied by the significant growth of the service sector in GDP (by 9%). In 1992 and 1993 investment in the service sector was respectively 52.7% and 53.5% of the total investment. At the same time the share of service sector in GDP was 47.3% in 1992 and 46.1% in 1993. Thus in 1993 this share fell by 1.2% despite larger investment by 0.8%. In 1994 investment in service sector fell by 4.7% from 53.5% to 48.8%, while its share in GDP fell by 1% from 46.1% to 45.1%. In 1995 and 1996 investment in service sector was respectively 49.2% and 47.1% of the total. At the same time the share of service sector in GDP was 47.2% and 48.7% respectively, thus it grew by 1.5% despite of the fall of proportion of investment in GDP by 2.1%.

Thus in those years the largest proportion of investment in services took place between 1991 and 1993, to fall below 50% of the total in the following years. However, the 1991 rapid increase of the service sector share in GDP was a result of not only a relatively high proportion of investment, but it also coincided with a significant fall of industrial production in that year. In 1991 industrial production fell by 8.5%, while the Polish national output fell by 7% and shares of agriculture and construction in the national output had not changed much. This indicates that the fall of industrial production in 1991 also contributed to the adjustment in line with
international trends and therefore a more balanced sectoral structure of Polish economy.

In the second half of the 1990s the share of investment in the service sector grew to reach 58.4 % of the total investment. This was accompanied by the growing importance of services in GDP. In 1999 the services brought 52.6 % of Polish GDP. Now we try to examine the growth of those services which enjoyed the largest proportion of investment.

**Property and business services**

In 1991 the largest proportion of investment in the service sector took place in the property and business services. As shown in the table 4.2. it amounted to 28.7 % of total investment. This investment can be largely explained by the need for services associated with the introduction of the market economy. They included various consultancy activities, such as market research, privatisation, managerial expertise, property transactions, etc. Both the SOEs and newly established private companies needed them. Thus that significant proportion of investment in the early 1990s, which mainly involved acquisition of offices, computers, software, cars and other office equipment, can be largely explained by a rapid demand for services facilitating the reorientation of companies from the command to the market economy. As can be seen in the table 4.2. in the following years the proportion of investment in those activities in the total investment was gradually falling to the level of 11.4 % in 1996, to grow again in the following years to reach 15.2 % in 1999. This recent growth can be partly explained by a larger than in the early 1990s inflow of foreign investors who often built new offices, gradually growing property market, since more people bought municipal flats and also more companies started the outsourcing of property services, such as their daily maintenance and protection, accountancy, courier services, etc. It must be mentioned that investment in those activities was not restrained by any administrative barriers. Thus the registration of a company intended to provide those services involved neither financial requirements nor licensing. The simple procedure involved the registration in court or municipality,
and in the statistical and tax offices. This facilitated free flow of investment into that sector. Similar changes took place in Lower Silesia, see chapter 5.

**Telecommunications**

As can be seen in the table 4.2, the investment in the 'transport, storage and telecommunications' was almost constantly growing from 7.5 % of total investment in 1991 to 12.0 % in 1999. In the telecommunication sector the result was an increase of telephones from 93 per 1 000 inhabitants in 1991 to 193 in 1999, which is double. Also the quality of telephones improved significantly. However, the comparison with the Western European countries, where there are on the average over 500 telephones per 1 000 inhabitants, indicates remaining a significant developmental distance.

Our argument here is that there was more scope for investment in the field of telecommunications which was not utilised, to the disadvantage of the development of this branch and the whole economy. There should be more scope for competition in telecommunications for private companies. Until 1997 long and medium distance (inter-state and inter-city) telephone services remained a state monopoly and they were run by the state company TP SA (Telekomunikacja Polska Spółka Akcyjna). Since then the competition was allowed for intercity services. Telecommunication services are at the moment expensive in Poland. One means of reducing costs to the customer could be to allow more private companies to compete with Polish Telecom. This would give far more people access to full range of telecommunications including internet.

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23 An example of entrepreneurs who attempted to invest in this sector's development can be found in Lower Silesia in 1991, when a newly established telecommunication company Dolnośląska Spółka Telekomunikacyjna, (Director - L. Lawera), asked the authorities for a licence to operate in the region. They offered prices over 30 % below those of the state company TP S.A. They expected TP S.A. to rent out its lines (as BT does in Britain) at the beginning of their activity and, after a few years of operation, they intended to develop their own network. However, although they had the support of the Wroclaw governor, they were not permitted by the state authorities to enter the market and the company did not take off.
In terms of the professional structure of the Polish population, the restricted development of telecommunications means that evolution of this structure is retarded. And this is not confined to the growth of information technology, but to nearly all services. For example the simple lack of telephones in the countryside strongly influences the decisions of young married couples, in particular graduates, about their future place of residence.\(^{24}\) In a hierarchy of needs most of them named a telephone before a car.

**Education**

A well educated workforce is often indicated as one of the major factors of economic growth, e.g. by EBRD and the World Bank.\(^{25}\) The main features of the Polish education system were described in chapter 2, as well as its needs, which include supply of books, international journals, equipment for laboratories, access to foreign libraries and databases. From the economic point of view, the objective of the educational system is to provide a qualified workforce with understanding of the requirements of a modern economy. It is not only economic knowledge which is needed, but also social, cultural, historical and technological. However, social sciences such as economics and business studies, sociology, history and political sciences in Poland, as in other former communist countries, need reform, since they were ideologically biased.

In 1991 investment in education was 2.8% of total investment. In 1992 it fell by 0.4% to 2.4% and in 1993 it grew by 0.3% to 2.7%, to grow again to 2.2% of total investment. In 1995 and 1996 it grew by 0.1% to 2.3% and by 0.3% to 2.6%

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\(^{24}\) Many of my students, during a discussion about their future careers, expressed the intention to settle down in the countryside, yet they are going to stay in the city, because they do not want to take the risk of being cut off from the world, in particular, from a doctor, in emergency.

\(^{25}\) *EBRD Transition Report 1997*, p.54, London 1997. The recent World Bank research pointed out the central role of qualified labour in economic growth. It estimated that the share of produced assets in global wealth was 16%, the share of natural resources - 20% and the share of qualified labour and science - 64%. Source: Kabaj M. *Ekspertyza na temat wybranych założeń projektu budżetu na rok 1997.* Kancelaria Sejmu, Biuro Studiów i Ekspertyz, p.6, Warszawa 1996.
respectively. These variations can be explained by changing, however rather low, priority given by subsequent governments for the development of this sector.\(^{26}\)

During those years Polish education expenditure in relation to GDP was comparable to that of Western Europe, e.g. in 1993 it was 5.5\% of GDP, while at the same time in Italy it was 5.2\%, in Germany - 4.8\%, in France - 5.8\%. Enrolment in primary and secondary education was on a par with that of advanced market economies. A significant difference was in the tertiary level of education, e.g. in 1993 in Poland there were 26\% of students of their age group, while in the high-income countries it was 55\%.

The above indicates that not only more investment is needed but also changes in the educational system. Budgetary limitations suggest that educational policy should be directed towards the improvement of the quality of teaching rather than towards increasing the number of students. Academic education could be perhaps addressed to a fewer number of students in order to redirect a part of the resources for the rapid improvement of standards of teaching, especially in technology and social sciences.

There is an urgent need to improve the standards of teaching in Poland. One effective means would be to import a number of first class academic teachers from Western Europe and North America to teach in Polish universities, either existing or new ones. The subject to be taught should be carefully selected because of the shortage of finance. And there should be a well organised programme to insure that over 5-10 years there are some Western academics teaching in Polish universities. Individual teachers may only come for a year or two. It is to be hoped that this scheme of academic exchange would restore the full connection of the Polish educational system with the European, such as existed prior to WW II. The only institution which could provide the finance for this scheme would be the European

\(^{26}\) E.g. in 1998 salaries of academic teachers range between £120 and £400 a month; while universities expanded the number of students, but their budgets remained very much the same. Source: Interview with A. Wiszniewski, the President of the Committee of Scientific Research
Union. This should be seen as a worthwhile extension of existing EU cultural exchange schemes.

More investment into the educational system could be encouraged by adjustments to the tax system in order to enable companies to sponsor students. The same applies to the local councils. This could improve the adequacy of education to the requirements of the economy. Thus both industrial and educational policies would work together. The motivation of students could improve if there is a prospect of better career opportunities. If the economy does not provide enough openings for the increased number of graduates they may go and work and perhaps settle abroad, thus their talents would be lost to Poland.

Financial services

The size and structure of the financial sector in Poland is presented in the table below.

Table 4.5. Structure of the Polish financial sector, 1997.

<table>
<thead>
<tr>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>82 commercial banks and 1490 small cooperative banks with total assets of 57 bn USD,</td>
</tr>
<tr>
<td>of which:</td>
</tr>
<tr>
<td>49 new private small banks possessing 11% of total bank assets;</td>
</tr>
<tr>
<td>21 new majority foreign owned banks with 5% of total bank assets;</td>
</tr>
<tr>
<td>4 commercial banks privatised to foreign investors (Śląski/ING, WBK/Allied Irish,</td>
</tr>
<tr>
<td>BPH Krakow/EBRD/Allied Irish,</td>
</tr>
<tr>
<td>Bank Handlowy/J.P.Morgan) with 19% of bank assets;</td>
</tr>
<tr>
<td>2 specialised banks (PKO BP - housing and saving bank, and BGZ - rural bank) with 26% of bank assets;</td>
</tr>
<tr>
<td>2 private domestic commercial bank groups (BIG Bank and Kredit Bank) with 7% of bank assets;</td>
</tr>
<tr>
<td>1490 savings cooperative banks with 3% of bank assets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance</th>
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</thead>
<tbody>
<tr>
<td>15 life insurance companies, of which 6 are foreign-owned, and 28 non-life insurance companies of which 6 are foreign-owned;</td>
</tr>
<tr>
<td>The largest state owned company, PZU, has 88% of life insurance premiums and 60% of the non-life insurance premiums;</td>
</tr>
<tr>
<td>Total investment portfolio by mid 1996 amounted at 1.9 bn USD;</td>
</tr>
</tbody>
</table>

(Komitet Badań Naukowych), a former rector of the Technical University of Wroclaw, August 1999.
Securities
Market capitalisation 8 bn USD, of which bank institutions account for 40%;
90 joint-stock companies traded in the Warsaw Stock Exchange, of which 12 are banks
and 1 is an insurance company;
52 brokerage houses of which 22 are bank owned.

Source: Poland. Country Economic Memorandum. Reform and Growth on the Road to the EU,

According to the World Bank, the size of the Polish financial sector was 5% of the
Spanish one, while the size of the Spanish economy was 4.7 times larger than the
size of the Polish.²⁷

The reasons for the relatively small size of this sector can be found both in the pre-
and post-1989 period. During the 1980s, whereas financial activities were growing in
most Western European countries, in Poland, as in other command economy
countries they were subordinated to the central plan and commercial services did
not develop. Banking reforms were started in 1989. The National Bank of Poland
(NBP) was given the role of the Central Bank. This basically includes defending the
value of the currency, the supervision of the banking system and protection of its
stability, and the development of the instruments of monetary policy. (Rzeczpospolita,
1994). Regional branches of NBP were excluded from its structure and 9 of them
were transformed into independent commercial banks. Private banks were
permitted. This sector is subject to licensing by NBP. Foreign banking was also
permitted. But, according to the World Bank, obtaining a licence was often
accompanied by the requirement to take over a Polish bank, usually with bad loans
and overmanned staff. (World Bank 1997, ib.).

Initially investment in the financial services was not very high, as shown in the table
4.2. In 1991 it was 2.5% of total investment in Poland. By comparison, it was over
11 times smaller than investment in the property and business services. And

²⁷ In 1995 Spanish GDP was 559.6 bn USD, while the Polish GDP was 119.4 bn USD. Sources:
Poland. Country Economic Memorandum. Reform and Growth on the Road to the EU, World Bank Report
No. 16858-POL, p.56, Washington D.C.1997; Rocznik Statystyki Miedzynarodowej 1997, p.452,
GUS Warszawa 1997. Poland and Spain have very much the same population size of less than 40
mn.
although in the following years the proportion of investment in the financial services grew, in 1996 it was still less than half of investment in the property and business services. Such a direction of investment indicates that the development of the financial sector was not given a very high priority by the government until 1997, when this investment started growing significantly, to reach 8% of the total investment in 1999. This growth was very much the result of deregulation of these services in 1996, that allowed the establishment of a number of small financial institutions, such as banks, insurance companies, pawnbrokers, leasing funds, etc. Foreign investors entered on a massive scale and by 2000 they took over some 80% of the assets of the Polish financial sector. In the opinion of some Polish experts, such a domination of foreign institutions may lead to the excessive concentration of financial services in a few hands, so would limit the customers’ freedom of choice. This is further discussed in the following chapter.

The important factor hampering the development of the financial sector seems to be the underdevelopment of the relevant institutional framework. This first of all means lack of regulations which could secure the autonomy of this sector, thus protecting it from political influence. With the exception of the National Bank of Poland, which is fairly independent, there are no clear regulations which could prevent managerial posts in the financial sector being held by those with political posts in the same sector, e.g. people from the Ministry of Finance are on the board of commercial banks.\(^\text{28}\) This clearly creates the situation where conflicts of interests and loyalty may occur. Also there are situations where the same persons are members of the Board or the Supervisory Board in several banks at the same time, or several insurance companies.\(^\text{29}\) This, combined with the requirement of the licensing of financial activities, creates the situation in which not only competition in this sector becomes a fiction, but also the establishment of new regulations may be easily influenced by the particular interest of some companies. Lack of proper

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\(^{28}\) According to the EBRD, 'the state continues to have a significant role in the sector through its control of PKO BP and BGZ as well as through minority states in other financial institutions'. EBRD Strategy for Poland 2002, p.36.

\(^{29}\) This could also indicate the shortage of qualified staff in this sector and the need for improvement.
regulations seems to have contributed to the fact that none of the largest financial scandals in the post-1989 period have been solved.\textsuperscript{30}

The scale of corruption thus facilitated can be illustrated by the fact that some persons who had been made legally responsible for scandals, were afterwards appointed to high governmental posts. The corrupting impact of such examples can hardly be overestimated. It promotes the crony and mafia-type capitalism and political culture in which the rule of law is a fairy tale for the naïve. It also indicates that public appointments are sinecures rather than involving personal responsibility for the work attached to those appointments. In such a muddled legal environment, it is not surprising that the financial sector in Poland remained small.

The Polish bank licensing standards are consistent with the EU ones. But much more should be done for the growth of this sector. Its growth should begin with adjustments to institutional framework in order to open the field for fair competition and efficiency. In this context, the required improvements involve:

1. The establishment of regulations which would separate in as clear a way as possible the sphere of governmental politics from the financial commercial sector, according to the principle of the elimination of conflicts of interests and loyalty;

2. A significant development of regulations relevant to personal responsibility for decision making. This includes adjustments to the civil, criminal and professional codes. Since the financial community is not yet able to police itself, some public regulatory body enforcing a code of ethics is needed.\textsuperscript{31}

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\textsuperscript{30} E.g. the FOZZ scandal, in which the preliminary estimate of the loss amounted to 3 bn USD, the court procedure lasting 7 years with no prospect of being completed, the Art B scandal with the loss of over 600 mn USD, the 'rubel' scandal with the loss of 1 bn USD. Sources: Isakiewicz E. \textit{Afery ? Mafia ? Edmund Krasowski ujawnia}, pp. 7-19, Wydawnictwo Antyk, Warszawa 1993; Bortnierz M. \textit{Jak dobija się gospodarkę polską od 1989 roku}, pp.134, 231, Publications M.B., Nicea 1995, Przystawa J. \textit{Via bank}, Manuscript, pp.3-11, Wroclaw 1995.

\textsuperscript{31} Until today there is a law in Poland that no one can be the president of a bank without five years of banking experience in Poland. Also EBRD recommends the raising of corporate
3.3. The necessary reforms

3.3.1. Promotion of savings and investment

The efficiency of the financial sector is at the core of new investment and creation of employment. The basic role of the financial sector is to mobilise savings and to transform them into efficient investment. According to the estimate of the World Bank, Poland in order to retain its economic growth needs an investment of 25 - 30 bn USD a year. (World Bank, ib., p.55). The present lending stock available for consumers and companies amounts at 18 bn USD. Thus there is a gap of 7 - 12 bn USD. This gap can be filled either by an increase of savings or foreign investment, or preferably, both. The level of savings remained at the very much the same in relation to GDP since 1991, as shown in the table below. The absolute value of savings increased along with increased GDP.

Table 4.6. Savings in Poland in the years 1991-1999 at current market prices, rounded figures.

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<tbody>
<tr>
<td>Gross Domestic Savings, [mn zl]</td>
<td>12824</td>
<td>17750</td>
<td>24559</td>
<td>45131</td>
<td>65448</td>
<td>80762</td>
<td>99085</td>
<td>122006</td>
</tr>
<tr>
<td>as % of GDP</td>
<td>15.9</td>
<td>15.4</td>
<td>15.8</td>
<td>20.0</td>
<td>21.2</td>
<td>20.8</td>
<td>21.0</td>
<td>22.0</td>
</tr>
</tbody>
</table>


The precondition for the increase of savings is again the macroeconomic stability of the country which permits expectations of benefits from the savings. If saving seems risky, it encourages immediate spending. On the other hand, high level of domestic savings can help in retaining macroeconomic stability. It may be especially desirable in a situation of large capital outflows, e.g. in response to disturbances on the international capital markets.32

32 E.g. according to Jeffrey Garten, "No one can predict where the next [financial] crisis might come from, or precisely when, but there are at least four reasons to suspect that trouble is on the way." He gives examples of financial crashes, such as the Latin American in the early 1980s, the Japan's in the 1990s, the East Asian one in 1997/8 and indicates the growing vulnerability of financial markets. Garten J.E. The International Financial System Is Crisis-Prone, in The International Herald Tribune, May 12, 1998.
The World Bank indicates that Poland needs an increase of saving rate to 25% of GDP in order to sustain its growth. (ibid. p. 24). There would be even more beneficial for the economy if the savings could be efficiently invested.

3.3.2. Reform of property law and privatisation

In the present conditions an enormous amount of property, such as land and housing, is lying idle. It cannot be properly maintained nor is it a source of capital, because it cannot be freely bought and sold.

As regards land, there is a need for the thorough reform of the property law in order to facilitate its acquisition. The main legal difficulty is that the legal process for purchasing the land is complicated and slow and may take at least a year to complete. Most of the land is still state and municipal owned and thus the procedure for acquiring the property is much slower than from the private owner. Under the pre-1989 system, land in Poland fell into various categories, such as mining land, agricultural, building, etc., and these categories still apply in Polish law until the present day. For example, an entrepreneur who wishes to build a hotel by any road, must begin with the Ministry of Agriculture in Warsaw to change the category from the agricultural to building land. And this only is the beginning of the long and complicated process. In this respect, in order to develop land market, there is an urgent need of the reform of the land law.

As regards housing, there is, and has been for several decades, a general very bad maintenance of state and municipal owned accommodation. The remedy to this state of affairs is the transfer of a considerable amount of those houses and flats to their occupants. The primary purpose is that privatisation will induce the new owners to use their own savings, or bank loans and other resources, to bring about improvements to their newly acquired property. This will significantly expand the property market in Poland and should lead to an expansion of those activities.
associated with property development (construction, building, decorating, renovation and relevant materials production).

3.3.3. Reform of legal framework for house building and property development

While promoting savings, national preferences for spending should be taken into account. This includes preferences for spending and/or saving in order to obtain needed goods or services. In Poland, as shown in the former chapters, one of the most needed goods is a house/flat. Therefore savings in this field could be encouraged by the creation of a legal framework favourable for investment in house building.

Poland needs a system of building societies to stimulate the purchase of houses and flats. It needs a system of mortgages which would address three problems. First, it would help to provide accommodation for people. Secondly, it would stimulate the growth of construction industry. Thirdly, it would contribute to the growth of the financial sector.

3.3.4. Reform of the tax system

Another means to stimulate savings and investment is reform of the tax system. In the present situation there is a vicious circle. Corporate and individual earnings are taxed at a high rate which can be argued is too high, so that it discourages business enterprise and encourages systematic and large scale tax evasion by individuals and businesses. The scale of this tax evasion in Poland in 1995 has been estimated by EBRD at 12.6% of GDP.\(^{33}\) The tax authorities assume that people evade on a large scale and taxpayers are guilty unless proven to be innocent. It seems likely that

\(^{33}\) EBRD Transition Report 1997, p.74, London 1997. However, several Polish accountants estimate the rate of the unofficial economy in Poland at about 20% of GDP. For comparison, the black economy in the EU is estimated at 16% of total GDP. In Italy, Greece, Spain and Belgium it is thought to be at least 20%. Sweden’s losses alone in tax revenues are estimated from $2.6 bn to $5.2 bn every year during the recent years. Source: Ghosh B. Tame Europe’s Black Economy, in
evasion is accompanied by considerable bribery of tax officials. The whole system is both demoralising and uneconomic. The government should consider reducing the rate of individual and corporate taxes in the hope that this would reduce the considerable amount of tax evasion so that the loss of revenue would be made up.

Another benefit is that the tax reduction would make it possible to save. And if the financial sector was reformed, it would encourage people to invest in ways which would be profitable for them and the whole economy. These factors working together, tax reduction, greater personal savings and reduction of corporate tax would do a lot to stimulate private enterprises.

3.4. The government expenditure in the years 1989-1999; constraints on government policy

As can be seen in the table below, there was a significant change in the Polish budget expenditure during the 1990s. Subsidies for the economy fell from 9.1% of the total expenditure in 1991 to 1.9% in 1999. Apart from that, expenditure on industry which in 1989 had 12.5% share in the total spending, virtually disappeared at the beginning of the 1990s. So did the support for trade and for municipalities. These reductions very much resulted from the introduction of the market economy and transferring some responsibilities from the central to local government. Spending for agriculture remained between 1.1% and 1.9% of the total spending. Spending for transport, went down from 4.4% in 1990 to 1.0% of the total in 1993, to increase in the following years up to 2.2% in 1998. This spending was mainly for the upgrading of main roads.

The share of spending for the development of science fell from 2.5% in 1991 to 1.7% in 1998. The share of spending for education remained at about the same level of 10% until 1995 when the responsibility for primary and secondary education was transferred to local governments so that in the following years the central government spending was halved. Expenditure for higher education during most of

this period remained below 3%, to go up in the late 1990s and reached 3.7% in 1999. This increase is a promising sign.

Table 4.7. Structure of budget expenditure in Poland in the years 1989-1999, in %. Rounded figures.

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</thead>
<tbody>
<tr>
<td><strong>Total [bn zł]</strong></td>
<td>29 618</td>
<td>17.2</td>
<td>24.2</td>
<td>38.2</td>
<td>50.2</td>
<td>68.9</td>
<td>91.2</td>
<td>108.8</td>
<td>125.7</td>
<td>139.8</td>
<td>158.4</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>12.5</td>
<td>8.9</td>
<td>0.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Agriculture</strong></td>
<td>2.8</td>
<td>1.9</td>
<td>1.6</td>
<td>1.2</td>
<td>1.1</td>
<td>1.6</td>
<td>1.7</td>
<td>1.9</td>
<td>1.8</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td>3.7</td>
<td>4.4</td>
<td>2.3</td>
<td>1.1</td>
<td>1.0</td>
<td>1.4</td>
<td>1.4</td>
<td>1.7</td>
<td>1.7</td>
<td>2.2</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Communications</strong></td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>12.8</td>
<td>2.6</td>
<td>1.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.5</td>
<td>0.0</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Material services</strong></td>
<td>-</td>
<td>-</td>
<td>0.6</td>
<td>0.4</td>
<td>0.3</td>
<td>0.5</td>
<td>0.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Municipal expenditure</strong></td>
<td>3.5</td>
<td>5.5</td>
<td>2.0</td>
<td>0.5</td>
<td>0.4</td>
<td>1.1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.2</td>
<td>1.3</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Housing and non-material municipal services</strong></td>
<td>4.6</td>
<td>6.9</td>
<td>0.7</td>
<td>0.3</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>0.0</td>
<td>0.0</td>
<td>2.5</td>
<td>1.8</td>
<td>1.6</td>
<td>1.7</td>
<td>1.6</td>
<td>1.7</td>
<td>1.7</td>
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<tr>
<td><strong>Education</strong></td>
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<td>12.8</td>
<td>11.6</td>
<td>10.3</td>
<td>10.2</td>
<td>11.2</td>
<td>11.3</td>
<td>4.9</td>
<td>5.2</td>
<td>5.0</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Higher education</strong></td>
<td>2.8</td>
<td>3.6</td>
<td>2.7</td>
<td>2.7</td>
<td>2.6</td>
<td>2.4</td>
<td>2.4</td>
<td>2.8</td>
<td>3.0</td>
<td>3.1</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Culture and arts</strong></td>
<td>2.2</td>
<td>1.8</td>
<td>1.0</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.1</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Health services</strong></td>
<td>13.6</td>
<td>19.0</td>
<td>16.1</td>
<td>14.8</td>
<td>14.0</td>
<td>13.8</td>
<td>14.4</td>
<td>15.4</td>
<td>15.0</td>
<td>15.0</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Welfare</strong></td>
<td>*</td>
<td>*</td>
<td>5.5</td>
<td>7.2</td>
<td>6.7</td>
<td>6.6</td>
<td>9.3</td>
<td>9.0</td>
<td>8.7</td>
<td>6.6</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Sport, tourism and leisure</strong></td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>State administration</strong></td>
<td>2.7</td>
<td>3.3</td>
<td>2.9</td>
<td>2.6</td>
<td>3.0</td>
<td>3.4</td>
<td>3.4</td>
<td>3.6</td>
<td>3.9</td>
<td>4.2</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>System of justice and prosecution</strong></td>
<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
<td>1.7</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Public safety</strong></td>
<td>3.0</td>
<td>3.4</td>
<td>3.5</td>
<td>3.9</td>
<td>4.2</td>
<td>3.9</td>
<td>3.7</td>
<td>4.0</td>
<td>3.9</td>
<td>4.0</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>Finance</strong></td>
<td>4.4</td>
<td>6.9</td>
<td>8.4</td>
<td>14.9</td>
<td>15.2</td>
<td>17.2</td>
<td>18.5</td>
<td>16.2</td>
<td>15.4</td>
<td>15.3</td>
<td>15.2</td>
</tr>
<tr>
<td><strong>Social insurance</strong></td>
<td>7.9</td>
<td>9.6</td>
<td>15.0</td>
<td>20.3</td>
<td>21.8</td>
<td>20.7</td>
<td>16.8</td>
<td>16.1</td>
<td>16.9</td>
<td>18.0</td>
<td>21.3</td>
</tr>
<tr>
<td><strong>Defence</strong></td>
<td>7.2</td>
<td>7.9</td>
<td>7.5</td>
<td>6.7</td>
<td>6.7</td>
<td>6.0</td>
<td>5.8</td>
<td>5.5</td>
<td>5.8</td>
<td>6.0</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>Subsidies for the economy</strong></td>
<td>-</td>
<td>-</td>
<td>9.1</td>
<td>5.5</td>
<td>4.1</td>
<td>3.2</td>
<td>3.0</td>
<td>2.3</td>
<td>2.1</td>
<td>1.5</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*In 1989 and 1990 figures for health care included also expenditure for welfare.

Data for 1999 should not be compared with the previous data because of the decentralisation of public finance which resulted from reforms of territorial division of Poland, national health and welfare services introduced in 1999.

The spending for health services mostly remained between 13.8 % and 16.1 % of the total to go down 4.6 % in 1999 when most of these services were handed over to the local authorities.

The spending for state administration tended to increase from 2.7 % in 1989 to 4.3 % in 1999. The same was true of the spending for the system of justice, whose share in the total spending grew from 1.1 % in 1989 to 2.8 % in 1999. The share of spending for the police and associated services went up from 3.0 % in 1989 to 4.7 % in 1999.

The share of expenditure to finance public debt grew significantly from 4.4 % in 1989 to 18.5 % in 1995 to go down to 15.2 % in 1999. The other huge increase of budget spending took place in the sphere of social insurance: from 7.9 % of the total in 1989 to 21.3 % in 1999. This means that more than 1/3 of annual government expenditure is taken out by these two items. Both of these budget items are the legacies from the communist period. In the case of the social security scheme, governments took a long time to reform the system which happened only in 1998. All of this indicates the narrow limits within which the government has to operate.

The general question is where the investment capital for various necessary purposes is going to come from, in particular the capital for the development of a modern economy. Even privatisation revenues, in some years up to 7 % of income, are temporary windfalls spent as soon as received on current expenditure, to patch the budget deficit.

Severe public debt have also had an impact on local and regional government. This is because of delayed and/or reduced central-regional and central-local transfers and reduced shared revenue. All this may lead to the reduction of regional and local governments capacity to borrow for investment and to the reduction of absorbing capacity of EU funds, which require beneficiary’s input of 25 % to 75 %.
3.5. Regional disparities

The transformation has had a considerable impact on the emergence of distinctive regions. Before 1989 Warsaw regarded them as administrative units and treated them alike. It only since 1989 that the regional differences became public knowledge. These differences can be seen in various fields, in particular in the different regional economies. This can be illustrated by differences of income and unemployment. The table below shows these differences between regions disparities in 2001. The highest monthly salary were in Mazowieckie and Śląskie regions, with 2 681.85 zl and 2 094.39 zl respectively. The lowest salaries were in Podkarpackie and Lubuskie regions, with 1 755.11 zl and 1 789.27 zl respectively. Thus the differences of income were significant, e.g. between Mazowieckie and Podkarpackie it was 826.74 zl (206 Euro).

Table 4.8. Average salary and unemployment rate in Poland, across regions in 2001.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Average monthly salary in 2001 in [zl]</th>
<th>Unemployment rate at the end of 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>2045.11</td>
<td>17.5</td>
</tr>
<tr>
<td>Dolnośląskie</td>
<td>1 973.44</td>
<td>21.5</td>
</tr>
<tr>
<td>Kujawsko-pomorskie</td>
<td>1 794.92</td>
<td>21.9</td>
</tr>
<tr>
<td>Lubelskie</td>
<td>1 797.02</td>
<td>15.7</td>
</tr>
<tr>
<td>Lubuskie</td>
<td>1 789.27</td>
<td>24.4</td>
</tr>
<tr>
<td>Łódzkie</td>
<td>1 782.98</td>
<td>18.1</td>
</tr>
<tr>
<td>Małopolskie</td>
<td>1 867.35</td>
<td>14.1</td>
</tr>
<tr>
<td>Mazowieckie</td>
<td>2 681.85</td>
<td>13.0</td>
</tr>
<tr>
<td>Opolskie</td>
<td>1 865.48</td>
<td>18.2</td>
</tr>
<tr>
<td>Podkarpackie</td>
<td>1 755.11</td>
<td>17.4</td>
</tr>
<tr>
<td>Podlaskie</td>
<td>1 787.42</td>
<td>15.1</td>
</tr>
<tr>
<td>Pomorskie</td>
<td>1 990.66</td>
<td>19.6</td>
</tr>
<tr>
<td>Śląskie</td>
<td>2 094.39</td>
<td>15.7</td>
</tr>
<tr>
<td>Świętokrzyskie</td>
<td>1 815.12</td>
<td>18.4</td>
</tr>
<tr>
<td>Warmińsko-mazurskie</td>
<td>1 797.27</td>
<td>28.9</td>
</tr>
<tr>
<td>Wielkopolskie</td>
<td>1 898.35</td>
<td>15.4</td>
</tr>
<tr>
<td>Zachodniopomorskie</td>
<td>1 896.67</td>
<td>24.7</td>
</tr>
</tbody>
</table>

Regions differed significantly in unemployment level. The lowest unemployment rate of 13.0 % was in Mazowieckie region, while the highest of 28.9 % – in Warminsko-Mazurskie, which was more than double.

This is to illustrate the point that, unlike before 1989, each region requires its own development plan. Furthermore, because of the burdens on the central government budget, the regions will have to draw as much as possible on their own resources to finance development. This is further discussed in chapter 5.

3.6. External environment

The transition of Poland from the planned to the market economy in the 1990s took place in the environment of external, both European and global factors, which had their impact on domestic affairs. The most important of these factors include:

- The geographical widening of the free flow of goods, services, capital and people in the world, which was promoted by the World Trade Organisation, OECD and others, to which Poland had already belonged. This helped to reduce trade barriers between countries and contributed to the growth of the financial sector, a greater mobility of capital and its more effective allocation.

- A considerable development of Information Technologies (e.g. computer, telephone, especially mobile, internet, television), which facilitate the flow of information and speed up communication between both people, companies and stock markets. A new large IT industry has grown up during the 1990s, which influences other economic sectors, overall business environment, as well as lifestyle all over the world. This economy, often called the postindustrial, requires new skills from labour, such as computer literacy, and puts a greater emphasis on the ability to process information.

- The growth of life sciences, biotechnology, micro- and nano-technologies are other examples of rapid technological and industrial change on a global scale.

- European economic and political integration, which is a worthwhile process, that at the same time requires careful preparation and costly economic adjustments.
All these processes have been influencing the Polish economy in various ways. For example, a rapid opening for foreign trade resulted in a large increase of imports of textiles, electronic and other household goods, especially from East Asia, as shown earlier in this chapter. This in turn contributed to the speed of decline of respective industries in Poland, with massive redundancies, eg. in the Walbrzych area in Lower Silesia. One may speculate whether had it been done gradually, regions would have had more time for necessary adjustment and modernisation.

In this context, the case of a large electronic company ELWRO in Wroclaw, may be viewed as a lost opportunity. In the communist period this company was a major supplier of computers and other electronic goods as well as software for the Warsaw Pact countries. It went bankrupt in 1991. Again, one may speculate, that if there was more rational and less dogmatic government policy at the beginning of the 1990s, in terms of monetary and industrial policy and commitment to privatisation, this company could have attracted enough investment to join up the globally growing IT sector to the advantage of both regional and Polish economy.

As for European integration before actual accession, there is no doubt that this has contributed to the improvement of the legal environment of Polish business and the opening of EU market for Polish goods and services.

In general Poland and its economy have successfully adapted to the new conditions of the external market, which is a remarkable achievement after four decades of communist rule.

Conclusion

In this chapter we have shown that that the investment policies in the 1990s failed to create employment and GDP growth rate sharply fell at the end the period, as did GDP per capita. It has been shown that bringing standards of living in Poland in line with the EU level is unlikely to occur in the near future, unless economic policy changes.
Poland should first make sure that the growth is stable. Misguided investment may be disastrous for the economy as in the 1970s. Investment should be directed according to the needs of the economy. In agriculture it has been shown that there were not only lost opportunities for investment in food production but also growing social problems in rural areas. Investment in construction would increase the labour mobility, and help to reduce unemployment. There should be more scope for competition in telecommunications. There is an urgent need to improve the standards of teaching in Poland.

What the recommended policies have in mind is to remove the legal and administrative obstacles that exist and thus to open Poland to investment in the future. Poland has some well qualified labour and mineral resources, but what is lacking, among other things, is restitution of property confiscated by the communists, slow privatisation, unreformed land and property law. (Restitution and privatisation discussed in chapter 5).

Although we cannot always indicate how much finance is needed or where it will come from, we will indicate how the Polish economy could operate.

This discussion is based upon the interaction between local, regional and national scales. In the next chapter we will discuss how the local, the regional and the national scales operate in the case of Lower Silesia. At the local level the objective is to stimulate local initiative to utilise local resources. Local initiative needs to be stimulated by the regional government. The regional authorities in turn need the support and the supervision of Warsaw, in order to prevent conflicts between the regions.

Neither the 'bottom-up' nor 'top-down' theory of development seems to have exclusive validity. (Sayer A., 1995). In the present situation in Poland there is need of both stimulation from above and initiative from below. The inheritance from the recent past means that people often expect the authorities to provide a great deal
and this may inhibit citizens' initiative. On the other hand individual initiative in the pre-1989 period was discouraged. Much of Polish private initiative was directed against the state authorities. And still, as shown in chapter 5, much of individual initiative remains limited by the legal framework, e.g. property law. In this context the ideal of civil society in which people can organise all kinds of activities themselves, without state interventions, and within legal limits, has an economic dimension.

Thus the basis for the development of the Poland is its human resources. This means a number of people with their individual skills even though they may be out of date, and other people with high technical qualifications. This means that people should be permitted and encouraged to utilise both natural resources and the infrastructure of the region. Thus economic success is to be based on the talents of individuals and communities.
Bibliography to chapter 3


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Chapter IV. ECONOMY OF LOWER SILESIA IN 1990-2000

In the previous chapters we have examined the resources of Lower Silesia and how they were utilised prior to 1989. In chapter 3 we have discussed the problems of economic development of the whole country after 1989, the structural changes as well as failures and further necessary reforms needed. In this chapter we discuss these problems on the regional and local level and how they are interrelated. We discuss the evolution of regional economy, the growth and structure of GDP as well as investment by sectors. Evolution of major regional output both industrial and agricultural is shown and analysed. We discuss the sectoral distribution of FDI, its growth over the years, its growing importance for the regional foreign trade, as well as the longer-term impact for the regional economy. Growth and structure of unemployment is shown and territorial pattern of unemployment distribution is analysed. We present two case studies to illustrate our contention that a company's success does not so much depend on the form of ownership as on the ability of the management to adapt to the new economy and the needs of the consumer. We analyse the pattern of adaptation of a highly successful state owned company in the new economic environment and also its importance for the restructuring of the regional economy, provided it has good management. We discuss the evolution of the government regional policies and their results. This whole chapter is a case study of a region on its way to the market economy and the integration of Poland into the European Union. To my knowledge, this is the first such study about Lower Silesia, either in Polish or English of this kind.

The specific features of Lower Silesia, not to be found in the rest of Poland, include its geographic position in the south western part of the country with borders with Germany and the Czech Republic, the warmest climate and more fertile land than the Polish average and a higher level of both industrialisation and urbanisation than the Polish average. Also, in contrast to the rest of Poland, the percentage of population living from agriculture is only about a half of Polish average, which is 26 %. Other specific features will be mentioned in the following sections when relevant.

4.1.1. Growth of GDP and investment

This section concerns macroeconomic changes in the regional output and investment. This is to establish the trend and determine the amount of financial resources likely to be available in the following years. Our aim is to sustain development, and perhaps improve it. Poland cannot rely on world wide sustained growth. She should rather focus on the regional scale. The necessary assumption of this study is that Warsaw controls inflation.

Table 5.1: Lower Silesian GDP and investment in the years 1990–1999. Current prices.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP [bn zl]</th>
<th>GDP in bn USD</th>
<th>as % of Polish GDP</th>
<th>Growth rate of GDP in Lower Silesia, in %</th>
<th>GDP per capita (zl) in Lower Silesia</th>
<th>GDP per capita (USD) in Lower Silesia</th>
<th>Investment [bn zl] of which: public</th>
<th>Investment as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>-</td>
<td>5.19</td>
<td>-</td>
<td>-</td>
<td>26.6</td>
<td>17.1</td>
<td>0.8</td>
<td>13.7</td>
</tr>
<tr>
<td>1991</td>
<td>-</td>
<td>10.0</td>
<td>6.1</td>
<td>-</td>
<td>20.0</td>
<td>1.1</td>
<td>1.1</td>
<td>17.1</td>
</tr>
<tr>
<td>1992</td>
<td>-</td>
<td>10.9</td>
<td>8.0</td>
<td>-</td>
<td>13.0</td>
<td>0.8</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>1993</td>
<td>-</td>
<td>10.7</td>
<td>8.1</td>
<td>-</td>
<td>-</td>
<td>3.3</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>1994</td>
<td>24.8</td>
<td>12.2</td>
<td>8.0</td>
<td>26.6</td>
<td>7.2</td>
<td>4.3</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1995</td>
<td>31.4</td>
<td>17.1</td>
<td>7.7</td>
<td>20.0</td>
<td>9.3</td>
<td>5.2</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>1996</td>
<td>37.7</td>
<td>19.1</td>
<td>13.0</td>
<td>13.0</td>
<td>10.7</td>
<td>4.9</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>1997</td>
<td>42.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


As can be seen in the table above, Lower Silesian GDP grew from 5.19 bn USD in 1992 to 10 bn USD in 1998, thus it doubled. Its share in total Polish GDP grew from 6.1% in 1992 to 8.1% in 1996, to go down to 8.0% in 1998 and 7.7% in 1998. This indicates that the importance of Lower Silesian economy for the total Polish economy grew in most of this period and in 1998 was higher than it was in 1992. The GDP growth rate at current prices in this period was significant: 26.6% in 1996, 20% in 1997 and 13.2% in 1998. GDP per capita grew from 1,745 USD in 1992 to 4,094.6 USD in 1998. All these trends indicate, both in terms of zloty and USD, the growing strength of the regional economy.

Investment in these years steadily grew from 0.8 bn Zl (0.84 bn USD) in 1990 to 9.3 bn Zl (2.7 bn USD) in 1998. A significant feature of the investment trend was the growing importance of private investment, which in 1995 amounted at 32% of the total investment, to reach 52% of the total in 1999. This indicates the increasing attractiveness of the region for private investment. We should not assume that these trends will continue over the next few years.

4.1.2. Export and import

The evolution of Lower Silesian international trade is shown in the table below.

Table 5.2: Lower Silesian export and import in the years 1994-2000 in mn Zl.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Export</td>
<td>3557.6</td>
<td>4882.2</td>
<td>5213.5</td>
<td>6686.5</td>
<td>7526.1</td>
<td>9651.9</td>
<td>14760.5</td>
</tr>
<tr>
<td>share of Polish, in %</td>
<td>9.1</td>
<td>8.8</td>
<td>7.9</td>
<td>7.9</td>
<td>7.6</td>
<td>8.9</td>
<td>10.7</td>
</tr>
<tr>
<td>Import</td>
<td>2472.6</td>
<td>3450.4</td>
<td>5169.0</td>
<td>6838.9</td>
<td>8463.1</td>
<td>11337.9</td>
<td>13851.0</td>
</tr>
<tr>
<td>share of Polish, in %</td>
<td>4.9</td>
<td>5.2</td>
<td>5.2</td>
<td>4.9</td>
<td>5.2</td>
<td>6.2</td>
<td>6.5</td>
</tr>
</tbody>
</table>

In the years 1994-2000 regional exports and imports both grew. Foreign trade balance was positive in the years 1994-1997, to become negative in 1998 i.e. -937 mn Zl, and in 1999 it was -1686 mn zl. In 2000 it became positive again, i.e. 909.5 mn Zl. Data that could help to explain these changes was not fully available. What may have contributed to the deficit of foreign trade in the years 1998-1999 was: a) the growing strength of Polish currency, which could have encouraged companies to redirect sales to the more profitable domestic market (in 1997 the average value of 1 USD = 3.57 zl, and in 1999 1 USD = 3.70 zl); b) copper prices in 1997 and their subsequent growth in 2000 seems to have had major impact because copper is the most important export product of Lower Silesia.

The share of Lower Silesian in total Polish export trade was falling in the years 1994-1998 from 9.1 % to 7.6 %, to grow in 1999 and 2000 to 8.9% and 10.7 % respectively. The share of regional in national imports grew from 5.0% in 1994 to 6.5 % in 2000. Thus in these years the importance of Lower Silesia for the national foreign trade grew both in exports and imports.

During the 1990s Lower Silesia exported mainly industrial products; for example in 1998 the share of industrial export in the total regional export was 70.4 %; of which the export of machines and vehicles was 16.5%, and chemical products was 5.4 %.

In terms of costs of production, in the years 1995-1997 the largest share in exports were raw material intensive products which on the average had 57 % of the export value, the capital intensive - 22%, the labour intensive - 17% and the technology intensive - 4%. ('Labour intensive' is understood in the sense that the largest share of the production cost is labour). (Source: Ciurla M., Urząd Marszalkowski, 2001). Such a high share of raw material intensive products in the regional export means that the value of this export significantly depends on the world prices of raw materials over which regional companies have no control. The low share of technology intensive products in exports indicates a considerable disadvantage of the Lower Silesian...
economy in comparison with those of developed industrial countries where this share is usually well above 25%, as for example in Germany, Britain, USA. Thus there is a need for policies to foster the development of industrial technologies, in order to make the regional economy less vulnerable to changes of international prices of commodity goods and to make it more competitive.

4.1.3. Investment in the years 1990-1999, by sectors

There is no complete data for investment breakdown in the service sector before 1994 when a new classification system was introduced. Data for investment in mining, electricity, gas and water supply is not available for the whole period.

Table 5.3. Investment structure in Lower Silesia in the years 1991 – 1999, by sectors.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total [mn zl]</td>
<td>1114.5</td>
<td>1405.7</td>
<td>1968.1</td>
<td>2516.8</td>
<td>3439.5</td>
<td>5253.2</td>
<td>7150.3</td>
<td>9143.6</td>
<td>10142.9</td>
</tr>
<tr>
<td>Total [mn USD]</td>
<td>1016.9</td>
<td>891.4</td>
<td>922.3</td>
<td>1032.7</td>
<td>1392.5</td>
<td>1826.6</td>
<td>2037.1</td>
<td>2619.9</td>
<td>2741.3</td>
</tr>
<tr>
<td>Of which, in %:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, hunting and fishing</td>
<td>5.4</td>
<td>5.3</td>
<td>6.2</td>
<td>1.0</td>
<td>2.1</td>
<td>2.6</td>
<td>1.6</td>
<td>2.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Industry</td>
<td>36.9</td>
<td>35.1</td>
<td>38.0</td>
<td>43.9</td>
<td>48.1</td>
<td>50.5</td>
<td>44.7</td>
<td>38.1</td>
<td>43.6</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• mining</td>
<td>-</td>
<td>-</td>
<td>7.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• manufacturing</td>
<td>-</td>
<td>-</td>
<td>24.4</td>
<td>21.3</td>
<td>23.6</td>
<td>18.8</td>
<td>16.8</td>
<td>16.8</td>
<td>22.9</td>
</tr>
<tr>
<td>• electricity, gas and water supply</td>
<td>12.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Construction</td>
<td>1.4</td>
<td>3.2</td>
<td>2.2</td>
<td>5.4</td>
<td>5.4</td>
<td>4.4</td>
<td>4.6</td>
<td>9.3</td>
<td>6.5</td>
</tr>
<tr>
<td>Trade and repair</td>
<td>2.8</td>
<td>4.3</td>
<td>5.7</td>
<td>2.1</td>
<td>6.7</td>
<td>5.2</td>
<td>6.6</td>
<td>8.5</td>
<td>8.7</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.8</td>
<td>1.0</td>
<td>1.5</td>
<td>1.2</td>
<td>1.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Transport, storage and communications</td>
<td>5.8</td>
<td>5.7</td>
<td>6.6</td>
<td>7.5</td>
<td>10.1</td>
<td>9.2</td>
<td>10.4</td>
<td>9.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Financial services</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9.2</td>
<td>4.5</td>
<td>5.2</td>
<td>6.8</td>
<td>8.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Property and business services</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>12.5</td>
<td>8.2</td>
<td>7.3</td>
<td>8.3</td>
<td>9.6</td>
<td>11.1</td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.4</td>
<td>1.3</td>
<td>2.0</td>
<td>2.2</td>
<td>1.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Education</td>
<td>3.4</td>
<td>2.1</td>
<td>3.5</td>
<td>2.3</td>
<td>3.1</td>
<td>2.8</td>
<td>3.0</td>
<td>3.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Health and social care</td>
<td>2.2</td>
<td>2.1</td>
<td>2.8</td>
<td>2.8</td>
<td>3.6</td>
<td>3.6</td>
<td>4.1</td>
<td>3.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Other services</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.1</td>
<td>5.9</td>
<td>5.7</td>
<td>6.5</td>
<td>5.3</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Data for 1991-1993 estimated, because of different classification (KGN), which in 1994 was replaced by EKD.
The proportion of agricultural in the total regional investment remained at the existing level in the years 1991-1993, to fall significantly in the years 1994-1998 and went up in 1999. The general trend has been clear: the proportion of agricultural investment to the total fell from 5.4 % in the 1991 to 3.7 % in 1999. This confirms the Polish overall tendency in the 1990s to reduce the share of agricultural investment in favour of other sectors of the economy. The effects are visible in the countryside; farm buildings have often been neither repaired nor painted for years, in particular those of former state farms. Repairs are made only when they are necessary to keep production going. Farmers often express the opinion that any major investment on their part could be extremely risky, therefore their policy is to exploit the already existing buildings and machinery. The evolution of agricultural output during the 1990s is shown in the table below.
Table 5.4. Change of agricultural output in Lower Silesia in the years 1990-2000.

Yields in thousands of tonnes

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zboża ogółem</td>
<td>1914,8</td>
<td>1832,8</td>
<td>2098,4</td>
</tr>
<tr>
<td>Pszenica</td>
<td>996,2</td>
<td>1091,7</td>
<td>1172,5</td>
</tr>
<tr>
<td>Żyto</td>
<td>166,3</td>
<td>202,0</td>
<td>147,0</td>
</tr>
<tr>
<td>Jęczmień</td>
<td>379,5</td>
<td>267,7</td>
<td>257,9</td>
</tr>
<tr>
<td>Owies</td>
<td>91,3</td>
<td>59,3</td>
<td>54,5</td>
</tr>
<tr>
<td>Ziemniaki</td>
<td>1228,6</td>
<td>972,8</td>
<td>1282,7</td>
</tr>
<tr>
<td>Buraki cukrowe</td>
<td>1334,5</td>
<td>1329,9</td>
<td>1272,4</td>
</tr>
<tr>
<td>Rzepak i rzepik</td>
<td>162,1</td>
<td>237,4</td>
<td>158,1</td>
</tr>
</tbody>
</table>

Sources: US Wroclaw 2001, "Roznictwo w woj. dolnośląskim w 2000 r."

As can be seen in the above table, during the 1990s the structure of crop output in the region has not changed much. The main products listed in this table have remained the same and no new products have been introduced. The largest increase of production was wheat, which increased by 10% and potatoes by 20%. This increase is mainly for exports. And the largest decrease was barley by 1/3. The size of the changes of animal output is shown in the tables below.
Table 5.5: Major animal output in Lower Silesia in the years 1990-2000, in thousands.

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bydlo</td>
<td>493,0</td>
<td>215,4</td>
<td>165,9</td>
</tr>
<tr>
<td>Trzoda chlewna</td>
<td>844,0</td>
<td>772,3</td>
<td>466,2</td>
</tr>
<tr>
<td>Owce</td>
<td>261,0</td>
<td>23,6</td>
<td>16,2</td>
</tr>
<tr>
<td>Konie</td>
<td>17,0</td>
<td>13,0</td>
<td>12,0</td>
</tr>
<tr>
<td>Kury</td>
<td>2030,0</td>
<td>3040,0</td>
<td>3910,4</td>
</tr>
</tbody>
</table>

Sources: as in the table above.

Table 5.6: Lower Silesia: animals for slaughter, in thousands tonnes, 1990-1999.

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ogółem</td>
<td>250,0</td>
<td>143,9</td>
<td>141,2</td>
</tr>
<tr>
<td>w tym:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bydlo (bez ciełat)</td>
<td>91,7</td>
<td>29,4</td>
<td>22,1</td>
</tr>
<tr>
<td>Trzoda chlewna</td>
<td>106,1</td>
<td>87,5</td>
<td>73,5</td>
</tr>
<tr>
<td>Owce</td>
<td>6,1</td>
<td>0,6</td>
<td>0,4</td>
</tr>
<tr>
<td>Konie</td>
<td>1,3</td>
<td>0,8</td>
<td>0,7</td>
</tr>
</tbody>
</table>

Sources: as above

What is most striking is the enormous reduction in the number of cattle, sheep and pigs and the increase in poultry. The main reason is the opening up the Polish agricultural market to foreign competition as never before, as shown in chapter 3. As regards the large increase in poultry production this may be caused by the low cost involved and a change of the consumer market because poultry is cheaper to buy than beef or pork. The other major reason was the reduction of agricultural investment by \( \frac{1}{2} \). The same trend may be seen in milk production, which has been reduced by 60%.

Table 5.7. Milk production in Lower Silesia in the years 1990-1999, in mn litres

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>649,0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>297,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>285,4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: as above.

The result is that milk available in the shops of many Lower Silesian cities comes from places as distant as 300 km – 500 km away, such as Kościan, Olsztyn and Biała.
Podlaska. This obviously influences the price of milk, because of transportation costs, to the disadvantage of customers. Processed food stuffs such as butter, yoghurt, cream, cheese, etc., come largely from other regions and from abroad. The same applies to meat products. The region loses both in terms of food prices and employment, in spite of its favourable natural conditions and the existing labour force. The evolution of the use of arable land in the 1990s presents table below.

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zboża ogółem</strong></td>
<td>471,5</td>
<td>479,6</td>
<td>566,3</td>
</tr>
<tr>
<td><strong>Pszenica</strong></td>
<td>227,7</td>
<td>258,0</td>
<td>301,5</td>
</tr>
<tr>
<td><strong>Zyto</strong></td>
<td>49,3</td>
<td>68,6</td>
<td>57,9</td>
</tr>
<tr>
<td><strong>Jęczmień</strong></td>
<td>91,2</td>
<td>72,2</td>
<td>81,9</td>
</tr>
<tr>
<td><strong>Owies</strong></td>
<td>25,9</td>
<td>19,6</td>
<td>20,2</td>
</tr>
<tr>
<td><strong>Ziemniaki</strong></td>
<td>65,8</td>
<td>54,9</td>
<td>55,1</td>
</tr>
<tr>
<td><strong>Buraki cukrowe</strong></td>
<td>42</td>
<td>37,7</td>
<td>31,1</td>
</tr>
<tr>
<td><strong>Rzepak i rzepik</strong></td>
<td>78,4</td>
<td>94,5</td>
<td>68,0</td>
</tr>
</tbody>
</table>

Sources: as above.

The main trend in this table is the increase of the total cereal production, of which wheat cultivated area increased by 73 000 ha which explains the increase of production.

The authorities seem to regard agricultural development as less important than other sectors of the economy. This can be illustrated by the fact that a number of agricultural research centres have been closed down or have reduced funds. Therefore less research is done to upgrade seeds or animals or to breed new ones. (Urząd Marszałkowski 2000). The result is that even the more enterprising farmers willing to test and introduce new products have very little or no support from the authorities. ¹

¹ An example is a farmer industrious enough to conduct 5-year research on growing soya beans in Lower Silesia. In the years 1996-2000 he worked out a new technology of growing soya beans so that the crop he obtained was higher than the world average, both in terms of land and investment productivity. There is no tradition of growing soya beans in Poland and both academics and authorities regard it as economically not viable. This farmer also created a new kind of animal feed, rich in proteins, including soya beans instead of ground bone. The result was that these two technologies enabled his farm to be economically viable and additionally eliminated the danger of BSE. He informed both central and regional government about his findings, asking for support to
All this indicates the need to reconsider governmental policy as regards agriculture. Its growth very much depends on the capacity to develop and absorb new technologies as well as on the ability of organisations to encourage farmers to use the new technologies. The social aspects of agriculture are discussed further in this chapter and in the chapter 5.

B. Industry

Between 1991 and 1999 the proportion of industrial investment in the total regional grew from 36.9% to 43.6%. It steadily grew in the years 1992-1996 when it amounted at 50.5% of the total, to go down in 1997 and 1998 and to go up in 1999. During this period about a half of this investment went to manufacturing. This resulted in changes of the industrial profile of the region, which can partly be illustrated by the table of major products of Lower Silesia in the years 1996-1999 presented in Appendix II. As can be seen from this table, copper mining in Poland has been and is still fully concentrated in Lower Silesia. Lignite mining in the years 1996-1999 has been reduced both in terms of volume and as a share in total national production, from 17.2% to 14.8%. Coal mining has virtually ceased in the region since most coal mines had been closed down in the first half of the 1990s. See chapter 2. Coke and semi-coke is still made from coal from Upper Silesia, but its production fell from 8.4% of the Polish total in 1996 to 7.8% in 1999.

The production volume of linen fabrics, which in the past had been well established in Lower Silesia, in 1997 amounted merely to 6,906 km (65.6% of total Polish production), to disappear in the following years, because of the bankruptcy of major producers in Bielawa and Dzierżoniów in the Walbrzych area. Lower Silesian silk fabric manufacturers also went bankrupt in 1998 and 1999. Regional production of cotton fabrics fell from 40.7% (96,000 km) of the total Polish production in 1996 to
32.7% (58 600 km) in 1999. These cases clearly illustrate that the textile industry, which used to be an important activity in Lower Silesia since the Middle Ages, has been rapidly diminishing in the 1990s.

Another example of a rapid change is tape recorder production by the Diora Company in Dzierżoniów. Until 1989 this manufacturer kept 70% of Polish market and a significant share in the provision of radios and tape recorders for COMECON countries. Because these former COMECON countries opened their market to international products, which were often cheaper or better quality or both, the Diora Company started losing its market. Until 1996 this company managed to keep 66% of the total Polish production of tape recorders although with an output of only 9 100 pieces, only to further reduce production by 2/3 in 1997 and go bankrupt in 1998.

Both these activities, textile and tape recorder production, illustrate how fast can be the change when international competition operates.

An example of a Lower Silesian branch which increased output and retained its position in the Polish market is manufacturing of washing and cleaning agents which keep ¼ of the national output. There are three major companies: Inco and Rokita which right from the beginning of the 1990s kept investing in new technologies, design and marketing, and also Pollena which was bought by Cussons.

The manufacturing of household goods, such as washing machines, refrigerators, freezers and kitchen stoves used to be concentrated in Lower Silesia since the socialist division of labour within the COMECON in the 1970s. Since the beginning of the 1990s most companies in this sector kept investing in new technologies, design and marketing. As regards washing machines production in Lower Silesia, during the years 1996-1999 it fell by 1/3, but its share in national production was 46%. During these years regional production of freezers and refrigerators increased slightly but its share in domestic total output (which grew by 24%) fell by 12.7% from 71.1% to 58.4%. Regional kitchen stoves production grew by 36% from 244
200 pieces in 1996 to 332,200 in 1999. So did regional share in domestic total production from 54.8% to 78%. This is accompanied by the production of electric heaters (48.1% of Polish production) in Świebodzice. This indicates that manufacturing of household goods in Poland continued to be highly concentrated in Lower Silesia, mainly in Wroclaw. The reasons for this existing concentration seem not to be governmental policy, privatisation nor foreign investment but favourable market situation and first of all good management which understood the new economy. This view can be illustrated by the case of the Wrozamet SA company.

The case of the WROZAMET SA - kitchen stove manufacture

In 1946 a former German metal foundry in Wroclaw was taken over by the state authorities and production was resumed. Over the following years its production profile changed; in 1951 the company launched the production of various enamel household goods; in 1962 it turned to the production of kitchen stoves (both coal and gas) and washing machines; in 1977 it started the production of modern kitchen gas stoves for the foreign company Philips and in time for the domestic market also; in 1988 the manufacture of electric stoves was launched. In 1990 the company had 31% of the Polish kitchen gas stove market and 28% in electric stoves. It had no exports. The company employed some 4,200 people. In 1991 the company was separated from a gigantic socialist concern which ran various enterprises from Warsaw. The state owned enterprise was transformed into a commercial company, the WROZAMET SA, still fully owned by the state. At that time it was in a bad financial situation because it had large debts and it was not creditworthy.

In 1991 the company started intensive management training at all levels. This training included finance, general management, marketing including design, and foreign languages. The marketing department was established from scratch. The company began the restructuring which largely consisted of massive downsizing, separating uneconomic property and selling it off. All this, combined with the market starved of consumer goods and because the trade unions were willing to accept redundancies, helped to stabilise the financial situation of the company,
increase the production and enlarge its share in the domestic market to 40% as regards kitchen stoves. The trade unions of the company labour force enabled through political contacts the company to obtain credits from state banks. This in turn allowed the company to get away from the labour intensive methods of production in favour of technology intensive. In 1995 the company introduced an entirely new modern design for kitchen stoves and at the same time introduced a new brand name for its products: Mastercook. This proved extremely successful. In 1997 regular marketing research showed that the public associated the company with all sorts of household goods including those which it did not actually produce. This showed that the company could profit from the brand stretching, therefore the Board of the company found the Spanish Fagor company which subsequently supplied various household goods, such as freezers, washing machines, etc. in order to resell them on the Polish market. Also, the company started exports to neighbouring countries, such as Germany, the Czech Republic, Ukraine, Hungary. By 2000 the Wrozamet SA company managed to have 46% of the Polish kitchen stove market and exports of over 100 000 kitchen stoves, mainly to Germany. At the same time it reduced its employment to some 1 200.

It is interesting to note that this company, which has been so successful, is still largely a state-owned company. There is a small amount of private capital and very little of that is foreign. This may raise the question of whether the privatisation of state enterprises is necessary for them to survive in the new economic environment; and also whether foreign investment is always so crucial. In this case neither of these took place. It may indicate that if the state enterprise has a management, which is sensitive to the needs of the new situation, along with other factors, the enterprise can not only survive but also flourish. A part of the reasons for the success was unusually good management - trade union relations. Therefore there was not a single strike in ten years and the trade unions accepted massive redundancies. It seems clear that the major factor was the unusually high quality of management, which understood modern marketing and design.
As for other products, which are important for the Lower Silesia economy, there is table porcelain output in the region, which increased by 20% in the 1990s and regional share in Polish output went up from 42.1% in 1996 to 44.8% in 1999. This activity has a long tradition in Lower Silesia, concentrated in Walbrzych and Jaworzyna Śląska. Crystal glass output in Lower Silesia increased, but its share in national output fell from 51.5% to 43.4% which is still quite a high proportion. The new regional product is salt which output in Lower Silesia increased from 131,200 tonnes in 1996 to 230,000 tonnes in 1999 to reach ¼ of Polish production. This began in 1992 as a hived-off company of the copper corporation. See case study below.

It may be said that although the industrial profile of the region has changed significantly during the last decade, its major products remained very much the same. What has disappeared or been reduced is heavy industry in small and medium towns. An example can be Walbrzych, which after closing the coal mines and much of coke works look like a town after a gold rush. The town of Boguszów looks very much the same, after the closing down of barite mine; in Szklary the zinc mine and mill were closed down. There also disappeared nearly all the big pollution makers, such as steelworks of Siechnice nearby Wrocław and the Celwiskoza in Jelenia Góra. There are emerging clusters of growth, such as Wrocław for household goods, the Legnica-Lubin centre for copper, Walbrzych for porcelain. There are also special economic zones in Legnica, Walbrzych and Kamienna Góra, which were established by the government to attract investment by the means of tax exemptions. But it is too early to predict their future and whether they could be centres of new industries. This subject and foreign investment will be discussed further in this chapter.

C. Construction

In 1991 construction investment in Lower Silesia amounted at 14 mn USD, which was 1.4% of the total regional investment. In the next years it tended to increase, to reach 244 mn USD (9.3% of the total) in 1998 and 250 mn USD (6.5% of the
total) in 1999. Thus during this decade the amount of investment into construction grew 18 times.

The main features of this development were initially new buildings filling the gaps in centres of bigger cities such as Wroclaw, Legnica, Jelena Góra, Świdnica, Głogów, which had never been fully rebuilt after WW II. These sites attracted investors since they were usually well linked with the rest of the city and had easy access to electricity, gas, water, sewage and telephone network. This process has not yet been completed. The second important feature is a gradual reduction of the construction of massive blocks of flats in favour of individual ones: detached, semidetached and terraced. The table below shows the change of the type of investor in housing during the 1990s.

Table 5.10: Number of flats built in Lower Silesia in the years 1991-2000, by investors.

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<tr>
<th></th>
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<tbody>
<tr>
<td>Total</td>
<td>8370</td>
<td>3653</td>
<td>5518</td>
<td>5891</td>
</tr>
<tr>
<td>Of which in towns</td>
<td>7653</td>
<td>3122</td>
<td>4802</td>
<td>5047</td>
</tr>
<tr>
<td>Housing co-operatives</td>
<td>6221</td>
<td>1841</td>
<td>1792</td>
<td>1756</td>
</tr>
<tr>
<td>Companies</td>
<td>749</td>
<td>273</td>
<td>153</td>
<td>221</td>
</tr>
<tr>
<td>Individuals</td>
<td>1197</td>
<td>1031</td>
<td>1891</td>
<td>1962</td>
</tr>
<tr>
<td>Municipalities</td>
<td>203</td>
<td>405</td>
<td>388</td>
<td>549</td>
</tr>
<tr>
<td>Others, including flats for sale, rent</td>
<td>0</td>
<td>103</td>
<td>1294</td>
<td>1403</td>
</tr>
</tbody>
</table>

GUS Rocznik Statystyczny Województw 1996.
GUS, Rocznik Statystyczny Województw 2000, Tablice wynikowe (dot. danych z 2000 r.).

The 1991 level resulted from a rapid reduction, but still continued, of the construction of massive blocks of flats. In the years 1992-1995 we can see a significant decrease of the number of new flats of all types of investors with the exception of municipal housing which doubled. Also there emerged a new type of investor such as a developer. The years 1996-2000 indicate a slowly growing trend in individual and municipal construction. There was a rapid growth of construction by developers, by 12 times, from 103 flats in 1995 to 1403 in 2000. This growth very
much financed by personal income tax deduction for the money spent on a new flat (deduction of up to 80,000 zl, which in practice was an opportunity only for the well off).

The trend in the whole decade seems clear; the number of flats built by housing cooperatives fell to 1/3 of the number in 1991, as did the houses built by the companies. Individual flat building nearly doubled, municipal one increased by 2.7 times. There are also visible improvements of old buildings' appearance: restored façades, often new doors and windows, accompanied by better pavements, new grass and plants.

Then major obstacles to further growth include:

- the present state of the property law; complicated and long lasting administrative procedure, especially in large towns; this can partly explain that the share of new houses built in rural areas remained on the very much the same level as in towns, because the administrative procedure is less complicated there;
- the lack of adequate financial system which would enable credits for buying flats;
- shortage of land with access to water, electricity and other amenities;
- maximum VAT rates for building materials (22%);
- lack of local plans of spatial development;
- lack of a regional plan for the spatial development of Lower Silesia (this plan has been approved by the Regional Board only in July 2001, and still has to be approved by the Regional Assembly);
- last but not least, slow privatisation of municipal housing.

D. Services

There is no complete data for investment structure in the service sector before 1994 when a new classification system was introduced. The table 5.2 shows that the share of investment in this sector in the regional total was the highest at the beginning of the 1990s, when it amounted at 56% of the total investment in Lower Silesia in
1991, 56.4% in 1992 and 53.6% in 1993, to go gradually down to 42.5% in 1996, mainly in favour of industrial investment. In 1997 and 1998 it rose again at the expense of the industrial, to go down to 46.2% of the total in 1999 in favour of industry and agriculture.

The proportion of trade and repair investment in the total grew from 2.8% in 1991 to 8.7% in 1999. Initially it mainly included investment that followed the privatisation of small shops in the years 1989-1992. This allowed new owners to restore shops, buy new furniture, cash machines, etc. An example of investment in repair services in that period can be the car workshops that were established to serve the second-hand cars imported from Western Europe. In 1993 first foreign supermarkets were set up in Lower Silesia, e.g. German HIT in Wroclaw. This can help to explain a rapid investment growth. The subsequent growth of investment in this section in the second half of the 1990s was very much connected with new foreign supermarkets (e.g. Tesco, Geant, Carefour, Real) and large shops selling specialised goods, such as Ikea (furniture and various home devices), Obi and Praktiker (tools, building materials, gardening) etc. Also luxury shops appeared in city centres, such as Dior, Armani. All this in turn forced local shopkeepers to improve their interiors, design and invest in staff training. Small shops open 24 hours emerged in all towns. Video and music shops as well as internet cafes belong to the new urban landscape. Then in the late 1990s chains of foreign medium size food and kitchen goods stores were established in major settlements, dormitory towns or nearby (e.g. Real, Biedronka, Plus, Rema 1000). All these were accompanied by a number of second-hand shops being established virtually in all urban settlements and a parallel considerable reduction of small crafts, such as cobblers, tailors, etc.

Also major car-makers from Europe, USA and Asia built a number of car shops in large and medium size towns, such as Volkswagen in Polkowice. This was accompanied by modern petrol stations, often set up by foreign companies, such as BP, Aral, Shell.
The proportion of investment in hotels and restaurants in total investment was not very high in the 1990s: 0.8% of the total in 1994 and 1.4% in 1999. Nevertheless changes are visible in the form of a number of new hotels built in larger cities, by both domestic investors and international hotel chains, such as Holiday Inn, Marriott, Plaza International, etc. Many new travel agencies were established. Also in towns, there are new restaurants, bars, cafes with gardens, beer halls at every step. Major tourist areas were visibly upgraded. These changes can be explained by the rapid development of both tourist traffic, including international, and also by the development of private companies whose employees travel a lot. See Appendix I.

The proportion of investment in transport, storage and telecommunications in total investment tended to increase during the first half of 1990s to stabilise between 9% and 10% of the total in the second half of decade. Initially it resulted mainly from general deregulation and decentralisation of the economy introduced by the Parliament Bill in December 1988 and from the opening of borders for private trade. Thus many small transport companies and private bus companies were established. At the same time private warehouses were set up. Almost overnight the taxi service became available 24 hours a day and the quality of services rapidly went up. Rapid increase of car numbers; the road development can not catch up with this increase.

The 1990 and 1991 decentralisation of public finances in favour of local communities (see chapter 5) allowed them to finance the improvement of local roads and pavements, as they gradually did. As regards main roads, which are run by the state, significant changes started in the second half of decade, e.g. the motorway Berlin-Cracow was half completed, the road Wroclaw-Klodzko-Kudowa-Prague—upgraded, the road Wroclaw-Poznań—partly improved, the road Wroclaw-Warsaw—little improved. It may be said that major investment in roads in the 1990s was directed towards improving communication between Poland and Czech Republic and Germany at the expense of the connection between Lower Silesia and central
Poland. Therefore in this respect the connection between Lower Silesia and the rest of Poland has weakened.

As regards railways, little investment can be observed; not only is there a lack of new lines but also many local lines have been closed down. This was largely due to: a) the rapid increase of private car, van, lorry and bus transport traffic which took over a considerable part of transport services; b) the government's lack of clear vision of the development of national transport system; c) strong railway trade unions which made negotiations difficult.

As regards waterways, the Oder waterway was significantly damaged by the flood of July 1997 and partly repaired afterwards. Its importance as a transportation route has been reduced in favour of road transport. As regards airways in 1991 there was established the International Airport in Wroclaw, including cargo terminal and as for 2001 there are 4 different airlines operating there.

As regards telecommunication, a considerable improvement was made in the number of telecom customers, which in 2001 were 260 per 1 000 inhabitants. Many new telephone booths were built and some improvement can be observed in the quality of customer services provided by the Polish Telecom, however the telephone enquiry services still are often either busy or not answering at all. Improvements of Polish Telecom services can be partly explained by the emergence of a new private telecommunication operator, the Dialog, which was established in 1997 in Wroclaw. In 1998 there were 11 local operators in Wroclaw. Other important changes include the introduction of mobile phones, the internet, and following them the development of electronic backbone networks, such as data transmission networks (wide area networks) and municipal area networks. The genuine bottleneck of the further development of information and telecommunication services seems to be the semi-monopoly of the Polish Telecom TP S.A. This result in various attempts to get around the shortage of wiring, such as the spontaneous emergence of small local

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1 They were both private and public: Cuprum, Poltegor i Galeriowiec, Telbank, Polsat, Centertel, Era Plus, Politechnika, PKP, Telen ego, Urząd Miejski Miasta Wrocławia, Port Lotniczy Wrocław. Source: Studium Park Technologiczny we Wrocławiu, p.27, Politechnika Wroclawska, Wrocław 1998.
networks, e.g. in blocks of flats young people establish computer or television and radio commercial systems. In this case the bottleneck is the limited number of licences given by Warsaw. There is no easy solution for telecommunication problems. On the one hand, fast and complete deregulation of this market could significantly accelerate the development of IT in the region and in Poland, since large international investors could enter the Polish market. On the other hand, this could be dangerous for the survival of new regional operators such as the Dialog.

As regards investment in financial services, data is available since 1994 when it was 9.2 % of the total investment. In 1995 it went down to 4.5 % of the total investment, to increase in the following years up to 8.3 % in 1999. The main cause of such changes is the gradual development of financial services in Poland. Investment at the beginning of the 1990s was mainly conducted by the existing institutions, largely state owned, and involved the purchase of computers, software, security devices, general restoration of buildings, etc. At the same time, along with the deregulation of these services, there emerged a number of small private financial institutions, such as banks, insurance companies, leasing funds, credit companies, as well as investment and pension funds. This was accompanied by the establishment of many new bank branches even in small towns. The second half of the decade is marked by the entry of foreign financial institutions into Poland, which either bought the privatised state banks or established their own branches in major cities. An example of such an investment was the purchase of the largest regional bank – the Bank Zachodni in Wroclaw – by the Irish Allied Group in 2000 for some 560 mn USD, according to official statements. A visible result of these investments of the late 1990s is the number of cash machines established even in small places.

In 2001 in Lower Silesia there were 44 commercial banks with 561 branches. This included the following foreign financial groups: the City Bank, the Irish Allied Group, the BNP Dresdner Bank, the Credit Agricole, Deutsche Bank, Fortis Bank Polska, GE Bank Mieszkaniowy, GE Capital Bank, Nordea Bank Polska, Reiffeisen Bank Polska, SB Societe Generale.
The following banks had their headquarters in Lower Silesia: The Bank Zachodni WBK, the Cuprum Bank, the Południowo-Zachodni Bank, Bank Rzemiosła we Wrocławiu, the Lukas Bank, The Cukrobank. Also the following leasing companies had their headquarter in Wrocław: Europejski Fundusz Leasingowy, Agencja Sprzedaży Ratalnej.

Although the fast development of financial services in the late 1990s can be partly explained by the entrance of foreign investors, also local entrepreneurs contributed to this development significantly. Since the mid 1990s Wrocław became the second largest centre, after Warsaw, of leasing services which developed on local capital and initiative. Now we present the second, after the Wrozamet, case study of a company, whose success had very little to do either with the form of ownership or foreign investment but it was a result of entrepreneurs who understood the new economy. This is the case of the Lukas Bank.

The case of Lukas Bank

In 1991 three Poles, two from Wrocław and one with an Australian passport established a wholesale company Lukas Ltd which specialised in electronics, such as radios, tape recorders, television sets, etc, which were imported from the Far East (Malaysia, Singapore). These products were imported in two ways: as finished goods and also in parts, which were subsequently assembled in Poland. The Australian Pole provided some seed money. This enabled them to employ educated personnel and gave the company a credit rating. At first the number of employees was seven. After the years of planned economy shortages of consumer goods, there was a huge demand for these products on the domestic market. Thus the sales boomed and the company enjoyed a successful take off right from the beginning. Already in 1991 it set up regional branches all over Poland, e.g. in Zabrze, Lublin.

In 1992 the company decided to introduce new sales methods - by instalments, in order to encourage the purchase of their goods by those who could not afford to pay the whole price in one go. For this the participation of a bank was necessary.
Since the purchase by instalments had been previously unknown, it was not easy to find a bank willing to cooperate. At that time banks operated very much like the state administration, unwilling to take risks or learn and work out new procedures even with the prospect of profits. Eventually the company found a bank ready to provide credit, in a small town of Biala Podlaska, 500 km away from Wroclaw. The idea soon proved to be successful. Sales went up again. This encouraged bigger banks to join, thus this company extended purchase by instalment plan all over Poland. This brought the idea that purchase by instalment plan could be applied to the sale of other products by other companies. Lukas decided to create a new product - *the purchase by instalment plan* - and to offer it to retailers.

Almost right from the beginning the company introduced close monitoring of sales, good and bad credit. They created a data bank about their clients. This allowed them to avoid bad credit for the same person. Also they created a separate department for the collection of debts from those who were not paying off. This department basically consisted of former militia men, who after 1989 were expelled from the police. These two elements allow them to minimise the business risk which therefore never exceeded 3%. In addition, a free home delivery service for purchased goods was in fact designed not only to encourage the purchase but also to examine on the spot whether the client was creditworthy, so that a delivery man was entitled to take the product back to the shop if he saw that the buyer's home looked too poor to be able to pay off the credit.

The company also introduced professional personnel training and a new type of salesmen: polite, kind, smiling, often offering a cup of tea, usually young and well dressed, sales-orientated. This new style was in sharp contrast to the pre-1989 rude and bad sales staff.

Later Lukas Ltd established a daughter company - the Financial Society Ltd (Towarzystwo Finansowe) as a financial intermediary between banks and shops which were selling all kinds of products, such as freezers, stoves, irons, household good, furniture, carpets, etc. Also, the second hand car dealers started to sell their
cars on the instalment plan. In 1995 Lukas Ltd dropped their wholesale activities and reorientated the company entirely into financial services. New branches were established all over the country.

In 1995 more capital was needed for further expansion. SL Ltd was transformed into SL plc, for easier acquisition of funds and to raise the capital, the company looked for an external investor. Investment funds were invited to join; thus the two American funds such as Enterprise Investor I and Enterprise Investor II bought 25% of the company shares. They however remained a passive investor and in the following years did not participate in the daily management of the company. These investors brought not only funds but also know-how. This gave them a chance to learn a lot about modern banking, which they eagerly did. By 1997 the Lukas company dealt with some 25 000 shops all over Poland. Also the company claims that was one of the first banks in Poland to introduce internet banking.

In order to further expand into banking, in 1998 the company bought with its own resources a small regional state bank in Kielce – the Świętokrzyski Bank SA. The new owner gradually moved the Bank Headquarter from Kielce to Wroclaw.

Also at that time a new concept appeared: retail banking, which is a financial service addressed to those with small and medium level income who can provide very little collateral for a bank loan; a fast simple procedure, so that a bank client can get a loan just after proving his/her identity and producing a certificate of a permanent income from the employer. This system was new on the Polish market. The Bank changed the name into the Świętokrzyski Lukas Bank plc and the new owners soon began the implementation of the retail banking system. During 1999 there were established 50 new offices of the Bank all over Poland. By August 2001 there were already 97 of them.

In May 2001 the Credit Agricole Bank bought 5/4 of the company for 350 mn USD. One of the three original major shareholders retains a quarter share of the bank.
This company had exceptional success and managed to avoid any major failures. The critical elements of the success of the company seem to have been a combination of a modern approach (data collection and analysis, communication skills, staff training, openness for new ideas such as the instalment plan, retail and internet banking) and a market starved of consumer goods. And also important was the initial seed money and Far Eastern contacts, which enabled the company to purchase large quantities of goods on credit there.

Both of these case studies, the Wrozamet and the Lucas Bank case studies illustrate our contention that a company’s success does not so much depend on the form of ownership as on the ability of the management to adapt to the new economy and the needs of the consumer. This underlines the critical importance of company managers, whether the companies are state owned or not, having the expertise to adapt and survive in the new economic environment. It might have been that more SOEs would have survived after 1990, if their management had been trained and equipped with the necessary knowledge about the market economy.

The specific feature of the present state of financial services in Poland is the domination of foreign financial institutions, so that some 80 % of the assets of Polish banks belong to foreigners. There are four main reasons for this; lack of Polish capital and modern banking expertise, the chronic government deficit which needs financing and the difficulty of who is to pay for bad banking debts. In the opinion of some Polish experts this domination of foreign financial institutions may lead to the excessive concentration of banking in a few hands. This would limit the customers’ freedom of choice, which could be to their detriment.

As regards the data on investment in property and business services, it is available since 1994 when it was 12.5 % of the total investment in the region, to go down to 8.2 % in 1995 and 7.3 % in 1996, and to rise in the next years and reach 11.1 % in 1999. Relevant data on investment in this section in the early 1990s is available only for Poland as a whole, when it was 28.7 % in 1991, 24.1 % in 1992 and 18.9 % in
1993. If we assume that regional investment in this section was at about the Polish average, it can be seen its largest share in the total Polish investment took place at the beginning of the decade. This investment can be partly explained by the need for services associated with the introduction of the market economy. They included various consultancy activities, such as market research, privatisation, managerial expertise, property transactions, etc. They were needed by both the SOEs and newly established private companies.

Thus this significant proportion of the investment involved the acquisition of offices, computers, software, cars and other office equipment, can be largely explained by a rapid demand for services facilitating the reorientation of companies from the command to the market economy. In the following years the proportion of investment in those activities in the total investment was gradually falling, to the level of 7.3% in 1996, which was a quarter of the 1991 level. One reason for such a fall was that the market for these services became gradually saturated. The major reason, however, seems to be associated with the growing tendency for the introduction of licensing of various activities by the government. In the early 1990s there were very few activities which required administrative licenses, so that the registration of a service company involved neither financial requirements nor licensing. The simple procedure involved the registration in court or municipality, and in the statistical and tax offices. This facilitated free flow of investment into that sector. Towards the end of the 1990s the government introduced more and more licensing for various activities. So that as for 2001 there were the following activities which required licensing:

- surveying, locating and exploiting of natural resources found under the earth surface, under water or stocking waste products underground;
- processing and trading in precious metals and stones as well as non-ferrous metals;
- manufacture and trade of explosives, weapons and munitions;
- production of alcohol, tobacco and tobacco related products;
- production of toxic or poisoning substances;
- air transportation and international surface transportation;
- production and trade in pharmaceutical goods;
- running a pharmacy,
A certain amount of regulations is certainly needed in any activity. As it works in Poland of the moment, it is a barrier to economic growth, because the procedures involve too much paper work and officials are often known to take bribes. Excessive regulation and the corruption of officials can be two sides of the same coin. A better way would be a more effective and speedy system of justice, where commercial cases are decided by independent judges. This will be further discussed in chapter 5.

Other activities of this economic sector, which developed during the 1990s from scratch include real estate agencies and advertising companies. Huge billboards,
unknown before 1989, became a part of the urban landscape. Also there was a considerable increase in publishing books, papers, magazines along with new bookshops, although many public libraries were closed down because of shortage of funds. Entertainment services, especially mass media, developed fast. Until 1989 there were 2 state owned television channels run from Warsaw and a regional branch of the Polish Television existed in Wroclaw. There were no private television channels and foreign TV channels, via satellite dishes, were hardly affordable for Poles. During the 1990s there was established a new private regional TV broadcasting station (TeDe) in Wroclaw. The regional branch of the state TV received its own channel, significantly developed and enlarged. In 2001 the inhabitants of Lower Silesia had easy access to 6 Polish TV channels of which 3 are private. Apart from that they could buy access to 10 - 60 cable tv channels. Some 20 % of Wroclaw dwellers use cable TV. In smaller towns as well as in the countryside cable TV is much less popular because the size of potential market does not match the wiring costs.

As regards radio, until 1989 there were 4 channels of state Polish Radio and no other domestic broadcasters. In 2001 in Wroclaw, apart from the existing and developed 4 state channels, there were 6 new private local broadcasting stations and 2 private nationwide broadcasters.

Also most of state cinemas were closed down, and several new private ones were established, usually located in large shopping centres. A feature of these years was also the establishment of a number of semi-legal brothels, which emerged in nearly all towns under the amusing name of social agencies.

Data on regional investment in public administration and defence is available since 1994 when it was 1.4 % of the total investment, to go up towards the end of the decade to reach 2.6 % in 1999. There are several reasons for the increase of this investment; the introduction of municipal police in larger cities in 1995; a new administrative division of the country introduced in 1999 which involved the establishment of the regional assembly (Sejmik Wojewódzki), the Marshal's Office
and also the counties (powiaty). All this caused the increase of expenditure for new employees in public administration and equipment of offices. However, apart from the necessary expenses, it may be said that much of the existing administration is overmanned and the same amount of work could be done by fewer employees. An example can be the Municipal Office of Wroclaw, which during the 1990s doubled its employees to nearly 1900 persons and since 1989 very little effort was made to reform administrative procedures. In order to rationalise the public administration, much of their services could be outsourced, e.g. land surveys, map making, etc.

As regards the share of investment in education, health and social welfare in the total investment, during the 1990s in both fields it was between 2.1 % and 4.1 % and it remained more or less stable in the whole period. This, combined with relatively low figures of investment, indicates that neither of these activities had high priority for the authorities and also that there was no clear vision as regards the role of education and health services in the development of the country. Health and welfare services experienced very little change indeed. The state and local administration run them as before 1990. Privatisation has not started yet. The reform of the national health service, which was introduced in 1998 did not visibly improve the access to these services nor their quality. The public had no more freedom of choice that in the previous system and the size and cost of the administration of this service greatly increased.

In the field of education new private schools were established at all levels including colleges. The reform introduced recently means that responsibility for primary and secondary education is in the hands of the regional authorities. What could increase the level of investment in education is the introduction of the voucher system, which means that public money follows the pupil wherever he or she goes. This would also help to provide better education for rural people. Also some incentives for parents and employers, who invest in schools, such as tax exemptions.
4.1.4. Change of sectoral structure of the regional economy in the 1990s

All investments described above resulted in significant changes of the structure of the regional economy.

a) Composition of output


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<tr>
<td>Agriculture, hunting, forestry and fishing</td>
<td>6.1</td>
<td>6.6</td>
<td>6.5</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Industry</td>
<td>41.5</td>
<td>33.0</td>
<td>30.9</td>
<td>32.1</td>
<td>29.2</td>
</tr>
<tr>
<td>Construction</td>
<td>8.5</td>
<td>8.3</td>
<td>8.1</td>
<td>8.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Market services</td>
<td>26.8</td>
<td>38.8</td>
<td>40.5</td>
<td>41.4</td>
<td>43.6</td>
</tr>
<tr>
<td>Non-market services</td>
<td>17.1</td>
<td>13.9</td>
<td>14.0</td>
<td>14.1</td>
<td>14.2</td>
</tr>
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The sectoral composition of output changed considerably; the importance of agriculture, hunting, forestry and fishing sector in the creation of value added fell from 6.1 % in 1992 to 4.2 % in 1998; also the relevant of share of the industrial sector fell from 41.5 % in 1992 to 29.2 % in 1998; the role of construction remained at about the same level during the whole period; the largest change took place the market services which increased its share from 26.8 % in 1992 to 43.6 % in 1998; the share of the non-market services fell from 17.1 % to 14.2 % in 1998.

It therefore can be observed that the Lower Silesian economy very much followed the pattern of development of the Western industrialised countries: the relatively decreasing significance of agriculture and industry in favour of market services. The difference is in the speed of the change; while the Western industrialised countries were, and still are, undergoing this change during most of the post WW II period, Lower Silesia experienced much of this process in a decade. Still in comparison with the EU prevailing sectoral structure of the economy, Lower Silesia has a smaller share of services in GDP, a smaller share of the construction sector and a larger
share of agriculture. A good example of the restructuring of the regional economy in the 1990s can be the case of the KGHM Polska Miedź SA company. This is to illustrate:

a) The pattern of adaptation of a highly successful state owned company in the new economic environment;

b) The importance of a big company for the restructuring of the regional economy provided it has good management.

The case of the KGHM Polska Miedź SA company: restructuring and investment pattern

The KGHM Polska Miedź S.A. was established by the government in 1961, after the discovery of large resources of copper ore in the Legnica-Glogów Centre. See Appendix I. In 2001 its major activities consisted of metal ore mining, the production of copper, other non-ferrous metals, precious metals, the smelting of non-ferrous metals, the making of metal wire, salt production, management of metallic and industrial waste, geological exploration, engineering and technical services for industry and environmental protection, rescue and emergency services.

The main figures about this company are in the table below.


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<tbody>
<tr>
<td>Revenues from the sale of products, goods and services [mn zł]</td>
<td>1062.5</td>
<td>1339.1</td>
<td>1639.2</td>
<td>2604.0</td>
<td>3412.8</td>
<td>3351.0</td>
<td>4089.5</td>
<td>3641.7</td>
<td>4113.3</td>
<td>4982.8</td>
</tr>
<tr>
<td>In which share of sales Of Copper [%]</td>
<td>78.5</td>
<td>78.7</td>
<td>82.0</td>
<td>81.0</td>
<td>85.0</td>
<td>80.2</td>
<td>83.7</td>
<td>77.0</td>
<td>76.0</td>
<td>80.8</td>
</tr>
<tr>
<td>Of Silver [%]</td>
<td>10.3</td>
<td>10.6</td>
<td>11.3</td>
<td>15.3</td>
<td>11.0</td>
<td>13.2</td>
<td>12.8</td>
<td>20.0</td>
<td>17.9</td>
<td>15.7</td>
</tr>
<tr>
<td>Profit before taxation [mn zł]</td>
<td>88.3</td>
<td>114.5</td>
<td>114.9</td>
<td>351.1</td>
<td>481.9</td>
<td>147.2</td>
<td>501.8</td>
<td>178.8</td>
<td>-169.9</td>
<td>941.1</td>
</tr>
<tr>
<td>Production volume of Copper and its products [tonnes]</td>
<td>376</td>
<td>387</td>
<td>404</td>
<td>405 093</td>
<td>405 739</td>
<td>424 708</td>
<td>440 644</td>
<td>446 837</td>
<td>470 494</td>
<td>486 002</td>
</tr>
<tr>
<td>Silver and its products [tonnes]</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
<td>765</td>
</tr>
<tr>
<td>Share of export in revenues [%]</td>
<td>57.9</td>
<td>60.2</td>
<td>63.3</td>
<td>71.6</td>
<td>67.9</td>
<td>63.8</td>
<td>66.0</td>
<td>65.0</td>
<td>64.0</td>
<td>63.0</td>
</tr>
<tr>
<td>Number of employed*</td>
<td>39 500</td>
<td>38 700</td>
<td>28 982</td>
<td>28 883</td>
<td>28 661</td>
<td>25 837</td>
<td>20 707</td>
<td>18 414</td>
<td>18 841</td>
<td>18 562</td>
</tr>
</tbody>
</table>
At the end of the year. Sources: KGHM Polska Miedź S.A., Annual Reports of the years 1990-2000, bulletins and other internal documentation of the company’s activities, production, employment, investment, etc., and interviews with its managers in June-July 2001.

Over 60% of its revenues come from exports; the prosperity of this corporation depends on the international market prices of copper and silver, over which it has no control. During the 1990s the corporation went through major restructuring. The output of copper significantly grew from 376,765 tonnes in 1991 to 486,002 tonnes in 2000. The output of silver grew from 867 tonnes in 1991 to 1,119 tonnes in 2000. In 2000 its revenues exceeded 1.2 bn USD. At the same time the number of employees was more than halved from 39,500 in 1991 to 18,562 in 2000.

Until 1990 this company was a typical socialist gigantic concern whose basic features were overmanning and a tendency to self-sufficiency so that it embraced activities which had little or no connection with its major production. These included social services for employees, such as kindergartens, schools, cultural and sport centres, spas and resorts, etc. The company had its own chain of shops which were exclusively for its employees and which provided them with all sorts of goods, such as food, household goods, textiles, cars, etc. It also had a textile factory which supplied workers with clothing, a glue manufacture, a pig farm, etc. It had its own transport and power plants. The management of all of these activities was highly centralised and in official statistics all its employees were classified as miners which they were not.

The 1991 restructuring of the company started with the separation of these various activities and the establishment of new companies which were therefore forced to operate in a market environment and seek other customers on their own. For example a chain of shops, selling a variety of consumer goods, became a separate company, which subsequently managed to attract a Danish investor and at present it is a successful company which operates in an open market and which expanded beyond the copper centre. Spas and resorts became the bases for a new company which presently offers its facilities to the public. Some of these independent companies since have been sold off. What comes out of all this is the fact that
though the copper production was the dominant economic activity, the Legnica-Glogów industrial centre was not such a mono-industrial area as the statistics of the 1980s seem to show. And this is true both of the structure of employment and of production.

In the mid 1990s the corporation, in order to diversify its activities, established two investment funds whose role was to seek investment opportunities: the DSI SA which manages those companies of the corporation whose activities are not directly connected with the production of copper and related products and the KGHM Metale SA – an investment fund which manages the companies of the corporation which are connected with the production of copper. Thus apart from various relatively small and medium investments, the KGHM Polska Miedź SA started investment in telecommunications, so that in 2001 its telecommunication assets amounted to 50 % of its total assets.

For example the Dialog Company was established in 1997 and is 100 % owned by the KGHM Polska Miedź SA. In August 2001 it was the third largest Polish telecommunication operator with 220 000 customers. Now it employs 1 200 persons, of which about 1 000 work in Lower Silesia. The headquarters of this company is situated in Wroclaw in order to be able to employ graduates of the Technical University of Wrocław. The result of such an investment policy was that in August 2001 the company has a very good employment structure both in terms of age and qualification: the average age of the Dialog employees is below 30 and 60 % of them are graduates. 

Other investment in telecommunications include 19.1 % share in the Polkomtel company which is an operator of a GSM mobile network, with employment of some 4 000 all over Poland.

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5 Interviews with the Board Members of the Dialog Company and the KGHM in August 2001 and the documents of the company.
The other major investment of the KGHM Polska Miedź S.A. includes banking, such as the establishment of the Cuprum Bank with 450 employees, insurance with TUW SA (22 employees), health services with the Miedziowe Centrum Zdrowia SA (120 employees).

This corporation has successfully adapted to the new economic environment. It has not only survived from the communist period, but has managed to diversify its activities in a rational economic manner. This is, for example, in contrast to what happened to the Sulphur Corporation in Tarnobrzeg in Eastern Poland which went bankrupt in the 1990s. In both cases the essential weakness of the whole enterprise is that the raw material will be eventually exhausted and even before that happens, export sale of the product is dependant on fluctuating international prices beyond the control of the corporation. For these reasons the diversification of resources is essential for survival.

The company is one of the most important regional factors of economic change. It creates new activities in banking, insurance, telecommunications, health services, and many others. An important feature of this restructuring was that there were no mass redundancies, due to the very strong position of two trade unions, which operate in the company. Nevertheless the corporation got rid of the overmanning of the communist period through diversification of activities already described above. It is another example of a highly successful state owned company in the new economic environment.
b) Employment structure

The change of the sectoral structure of the economy was accompanied by the evolution of the employment structure.

Table 5.13: Evolution of employment structure in Lower Silesia in the years 1950-1999, estimate, in %.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of employed, [mn]</th>
<th>Agriculture, forestry and fishing</th>
<th>Industry*</th>
<th>Construction</th>
<th>Others**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>0.9</td>
<td>40.3</td>
<td>40.0</td>
<td>5.1</td>
<td>14.6</td>
</tr>
<tr>
<td>1970</td>
<td>1.1</td>
<td>19.5</td>
<td>41.8</td>
<td>7.5</td>
<td>31.2</td>
</tr>
<tr>
<td>1980</td>
<td>1.3</td>
<td>19.0</td>
<td>40.1</td>
<td>8.0</td>
<td>32.9</td>
</tr>
<tr>
<td>1989</td>
<td>1.3</td>
<td>17.4</td>
<td>30.2</td>
<td>6.5</td>
<td>45.9</td>
</tr>
<tr>
<td>1990</td>
<td>1.2</td>
<td>18.7</td>
<td>32.3</td>
<td>7.0</td>
<td>42.0</td>
</tr>
<tr>
<td>1996</td>
<td>1.0</td>
<td>15.4</td>
<td>29.0</td>
<td>6.9</td>
<td>48.7</td>
</tr>
<tr>
<td>1997</td>
<td>1.1</td>
<td>15.2</td>
<td>27.3</td>
<td>7.1</td>
<td>50.4</td>
</tr>
<tr>
<td>1998</td>
<td>1.1</td>
<td>15.8</td>
<td>26.2</td>
<td>7.5</td>
<td>50.5</td>
</tr>
<tr>
<td>1999</td>
<td>1.1</td>
<td>15.5</td>
<td>25.2</td>
<td>6.9</td>
<td>52.4</td>
</tr>
</tbody>
</table>

*Industry includes mining, manufacturing and provision of electricity, gas and water.

**Including services, social and political organisations and trade unions. Services include trade, repairs, hotels, restaurants, transportation, communications, financial and property services, public administration, defence, educational, health and social services, municipal services, recreation, culture and sport. Data according to the work place; annual average; without apprentices; part-time workers converted to full-time.


In 1999 there were fewer people employed in the region than in 1990 by about 100,000. The main reason for this is the ageing population. Also many young people left the region, largely either for Warsaw or abroad, seeking better work opportunities. See chapter 2. At the same time the employment in agriculture fell from 18.7% in 1990 to 15.5% in 1999, in industry fell from 32.2% to 25.2%, in construction remained at about the same level and in services grew from 42% to 52%. Again the change of employment structure follows the pattern of Western industrialised countries. Important differences include the overmanned agricultural sector, whose

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share in the EU economies is usually about a half of the Lower Silesian. Also employment in the service sector is smaller than the average in the EU, where it is above 60% of total employment.

The comparison of the table 5.11. with the table 5.13. indicates significant differences in productivity between sectors, measured by their input to the regional economy. In particular the productivity of agriculture is very low indeed: 15.5% of labour provides only 4.2% of gross value added. At the same time 25.2% of industrial labour produces 29.2%, 6.9% of labour in the construction sector – 8.8% and 52.4% of the labour in the service sector – 57.8% of gross value added. In 1999 the most productive sector was the service one, followed by the industrial one. Thus in comparison with the beginning of the 1990s their roles were reversed.

In order to bring the regional economy into line with the EU one, there is the necessity to improve the efficiency of agriculture, attract people from agriculture to other sectors and further develop the service sector.

c) Unemployment in the years 1990-2000

As regards unemployment, during the 1990s there took place an enormous change. As in the table below, in 1990 there were 95 100 unemployed in the region while in 2000 there were 231 700 which was 18.1% of the labour force. The fastest growth of unemployment took place in the years 1991-1994 when it reached 240 500 persons. This growth mainly resulted from the downsizing and closing down of the SOEs which were forced to rationalise their costs. At the same time there was no adequate government policy to stimulate economic growth. The statistical fall of unemployment in the years 1995-1997 can essentially be explained by the change of the method of unemployment registration, so that the persons who were unemployed longer than a year lost their rights to unemployment benefits and therefore they were written off from the register. The subsequent growth of unemployment rate in the years 1998-2000 may have resulted very much from the fact the new government (1997) restored these unemployment benefits, thus again more people were entitled to register in labour office.
Table 5.14: Lower Silesian unemployment in the years 1990 -2000, by age and education.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total [in thousands]</strong></td>
<td>95.1</td>
<td>178.1</td>
<td>209.7</td>
<td>238.8</td>
<td>240.5</td>
<td>216.4</td>
<td>191.6</td>
<td>150.0</td>
<td>160.5</td>
<td>203.4</td>
<td>231.7</td>
</tr>
<tr>
<td><strong>Below 25 years old [in thousands]</strong></td>
<td>N/a</td>
<td>N/a</td>
<td>64.2</td>
<td>73.5</td>
<td>76.6</td>
<td>68.9</td>
<td>55.4</td>
<td>42.1</td>
<td>45.2</td>
<td>58.1</td>
<td>65.1</td>
</tr>
<tr>
<td>[% of total]</td>
<td>30.6</td>
<td>30.8</td>
<td>31.9</td>
<td>31.8</td>
<td>28.9</td>
<td>28.1</td>
<td>28.2</td>
<td>28.6</td>
<td>28.1</td>
<td>28.1</td>
<td>28.1</td>
</tr>
<tr>
<td><strong>Over 44 years old [in thousands]</strong></td>
<td>N/a</td>
<td>N/a</td>
<td>24.7</td>
<td>30.7</td>
<td>32.6</td>
<td>32.3</td>
<td>34.3</td>
<td>27.3</td>
<td>30.7</td>
<td>41.1</td>
<td>50.4</td>
</tr>
<tr>
<td>[% of total]</td>
<td>11.8</td>
<td>12.9</td>
<td>13.6</td>
<td>14.9</td>
<td>17.9</td>
<td>18.2</td>
<td>19.1</td>
<td>20.2</td>
<td>21.8</td>
<td>21.8</td>
<td>21.8</td>
</tr>
<tr>
<td><strong>Graduates [in thousands]</strong></td>
<td>10.3</td>
<td>14.9</td>
<td>13.9</td>
<td>14.9</td>
<td>15.3</td>
<td>16.0</td>
<td>6.2</td>
<td>6.1</td>
<td>8.4</td>
<td>11.3</td>
<td>12.9</td>
</tr>
<tr>
<td>[% of total]</td>
<td>10.8</td>
<td>8.4</td>
<td>6.6</td>
<td>6.2</td>
<td>6.4</td>
<td>7.4</td>
<td>3.2</td>
<td>4.1</td>
<td>5.2</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Unemployment rate in %</strong></td>
<td>7.9</td>
<td>11.7</td>
<td>14.6</td>
<td>18.4</td>
<td>21.8</td>
<td>18.4</td>
<td>13.1</td>
<td>13.6</td>
<td>12.8</td>
<td>16.0</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Until 1997- estimates, authors calculation.

US Wrocław, Województwo dolnośląskie w 1998 r., p. 207.
GUS, Rocznik Statystyczny Województw 1994, pp. 165-166.
GUS, Bezrobocie w Polsce I-IV kwartał 1992, p. 11.

During the whole period about 30 % of the unemployed were persons under 25 years old. The number of graduates without work was over 10 000 during the most of the period, to reach 12 900 persons in 2000. The principal reason was that the economy could provide them with no work. An additional reason was the demographic trend of these and following years which is the result of the baby boom of the late 1970s and the beginning of the 1980s. See the Appendix I. All these factors indicate that the regional economy failed to provide adequate outlets for those who entered the labour market.

Territorial distribution of unemployment in Lower Silesia shows that some areas were more affected by economic changes than others. The table below shows the change in the unemployment rate in the years 1998-2002 according to the counties (powiatsy).
Table 5.15. Unemployment in Lower Silesia in the years 1998-2002, according to counties (powiaty)

<table>
<thead>
<tr>
<th></th>
<th>Unemployment rate in %, according to National Census, May 2002</th>
<th>Registered unemployment in % at the end of the year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Registered unemployment in % at the end of May 2002</td>
<td>1998</td>
</tr>
<tr>
<td>Poland</td>
<td>21.2</td>
<td>17.3</td>
</tr>
<tr>
<td>Lower Silesia</td>
<td>25.6</td>
<td>21.3</td>
</tr>
<tr>
<td>Powiat bolesławiecki</td>
<td>27.7</td>
<td>24.1</td>
</tr>
<tr>
<td>Powiat dzierżoniowski</td>
<td>30.8</td>
<td>29.2</td>
</tr>
<tr>
<td>Powiat głogowski</td>
<td>25.6</td>
<td>23.6</td>
</tr>
<tr>
<td>Powiat górowski</td>
<td>29.8</td>
<td>26.5</td>
</tr>
<tr>
<td>Powiat jaworski</td>
<td>30.3</td>
<td>29.4</td>
</tr>
<tr>
<td>Powiat jeleniogórski</td>
<td>27.7</td>
<td>26.2</td>
</tr>
<tr>
<td>Powiat kamiennogłowski</td>
<td>33.0</td>
<td>29.5</td>
</tr>
<tr>
<td>Powiat kłodzki</td>
<td>32.5</td>
<td>29.2</td>
</tr>
<tr>
<td>Powiat legnicki</td>
<td>28.7</td>
<td>26.9</td>
</tr>
<tr>
<td>Powiat lubański</td>
<td>33.3</td>
<td>28.6</td>
</tr>
<tr>
<td>Powiat lubiński</td>
<td>21.9</td>
<td>18.2</td>
</tr>
<tr>
<td>Powiat łowicki</td>
<td>34.5</td>
<td>29.8</td>
</tr>
<tr>
<td>Powiat milicki</td>
<td>23.7</td>
<td>20.1</td>
</tr>
<tr>
<td>Powiat oleśnicki</td>
<td>25.6</td>
<td>24.0</td>
</tr>
<tr>
<td>Powiat olawski</td>
<td>27.1</td>
<td>24.6</td>
</tr>
<tr>
<td>Powiat polkowicki</td>
<td>24.4</td>
<td>16.8</td>
</tr>
<tr>
<td>Powiat strzelinński</td>
<td>26.9</td>
<td>24.9</td>
</tr>
<tr>
<td>Powiat średzki</td>
<td>24.6</td>
<td>21.4</td>
</tr>
<tr>
<td>Powiat.gradlecki</td>
<td>29.4</td>
<td>26.4</td>
</tr>
<tr>
<td>Powiat trzebnicki</td>
<td>25.3</td>
<td>23.4</td>
</tr>
<tr>
<td>Powiat waldersky</td>
<td>33.9</td>
<td>38.1</td>
</tr>
<tr>
<td>Powiat wołowski</td>
<td>26.4</td>
<td>21.4</td>
</tr>
<tr>
<td>Powiat wroclawski</td>
<td>19.4</td>
<td>16.0</td>
</tr>
<tr>
<td>Powiat ząbkowicki</td>
<td>28.6</td>
<td>26.1</td>
</tr>
<tr>
<td>Powiat zgierzynski</td>
<td>26.6</td>
<td>20.9</td>
</tr>
<tr>
<td>Powiat złotoryński</td>
<td>31.5</td>
<td>29.7</td>
</tr>
<tr>
<td>Powiat m. Jelenia Góra</td>
<td>23.3</td>
<td>16.4</td>
</tr>
<tr>
<td>Powiat m. Legnica</td>
<td>26.1</td>
<td>20.8</td>
</tr>
<tr>
<td>Powiat m. Wałbrzych</td>
<td>32.0</td>
<td>27.8</td>
</tr>
<tr>
<td>Powiat m. Wrocław</td>
<td>18.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>

a/ together with cities which are counties (łącznie z miastem na prawach powiatu)

Sources: as in the table above.

The table shows the steady growth of registered unemployment rate since 1998 to 2002, both in Poland and Lower Silesia from 10.4 % to 18.1 % and from 12.8 % to
22.5% respectively. In the whole period the unemployment rate in the region was higher than the Polish average, e.g. in 2002 by 4.4%. The main reason for this seems the fact that until 1989 Lower Silesian economy had a significantly larger share of mining and textile industries than the Polish average. (See chapter 2 and Appendix 1). In the 1990s these industries passed through deep restructuring that involved massive redundancies. In 2002 areas of the highest registered unemployment rate of above 30% were: Powiat Walbrzyski (39.1%), Powiat Zlotoryjski (32.3%), Powiat Lwowecki (30.9%), Powiat Jaworski (30.5%), Powiat Kłodzki (30.3%), Powiat Dzierzoniowski (30.2%) and Powiat Lubanski (30.1%). All these areas until 1989 were either mining or textile industry centres or both as in the case of the Walbrzych Powiat that faces the most painful adjustment problems with nearly 40% unemployment rate.

Areas of the lowest unemployment rate were: the City of Wroclaw (12.2%), the City of Jelenia Gora (17.2%), Powiat Wroclawski (17.3%) and Powiat Polkowicki (17.5%). Both Wroclaw and Jelenia Gora Cities are the largest regional population centres with traditionally diversified economy. Before 1989 they had already developed the service sector which included educational, cultural, medical, financial, administrative services. As for the Polkowicki Powiat, its relatively low unemployment rate can be largely explained by the fact that it is a big copper industry centre which during the 1990s enjoyed favourable copper prices in international trade and this enabled the gradual restructuring of the local economy without massive redundancies.

All the above shows a clear pattern of areas most and least painfully affected by the transformation of the 1990s. Textile and mining industry dominated areas suffered the highest unemployment rate. At the same time areas of highly diversified economic activity and developed service sector had the lowest rate of unemployment. Unemployment rate in rural areas in 2002 varied mostly between 20% and 30%, e.g. Trzebnicki and Milicki Powiaty.
In the above table it is also worth noticing the difference of unemployment rates between data regularly collected by the statistical office and the data collected during the National Census of May 2002 that involved direct visits to the households in Poland. Unemployment rate figures provided by the National Census tend to be significantly higher than those collected on a regular basis. For example, for the whole of Lower Silesia it was 25.6 % and 21.3 % respectively, thus the difference was 4.3 %. The largest differences, of above 7 %, occur in the Wroclaw and Polkowice Powiaty. The comparison between data collected during the National Census in May 2000 and data regularly collected, may indicate that the real unemployment rate was higher than the registered one.

All the above shows great variations between areas of Lower Silesia in unemployment level and its causes. This indicates the need to diversify policies aimed at unemployment reduction.

4.2. Foreign investment

Complete data on foreign investment in Lower Silesia during the 1990s is not available because: a) until 1999, when the new administrative division of the country was introduced, there were no regions in their present shape, therefore the data on the previous period have been aggregated from the four former voivodships, and therefore should be treated as an estimate and as an illustration of trends rather than in terms of exact numbers; b) until the mid 1990s most of the data was collected without regard for spatial distribution of foreign investment. Tables in this section are based on data collected from the published and unpublished surveys of the Statistical Office in Wroclaw in 2001.

As can be seen in the tables below, the number of companies with foreign capital which invested in Lower Silesia grew steadily from 586 in 1995 to 885 in 1999.
Table 5.16: Investment of companies with foreign capital in Lower Silesia in 1999

<table>
<thead>
<tr>
<th>Sections:</th>
<th>Number of companies which invested</th>
<th>Amount of investment in mn zl</th>
<th>of which for tangible goods in Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>total</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>885</td>
<td>2 458,6</td>
<td>2 228,0</td>
</tr>
<tr>
<td>Sections:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>30</td>
<td>215,0</td>
<td>209,4</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>67,8</td>
<td>62,5</td>
</tr>
<tr>
<td>D</td>
<td>354</td>
<td>1 517,9</td>
<td>1 445,9</td>
</tr>
<tr>
<td>F</td>
<td>66</td>
<td>109,9</td>
<td>103,2</td>
</tr>
<tr>
<td>G</td>
<td>228</td>
<td>161,4</td>
<td>113,6</td>
</tr>
<tr>
<td>H</td>
<td>29</td>
<td>37,5</td>
<td>37,1</td>
</tr>
<tr>
<td>I</td>
<td>22</td>
<td>4,5</td>
<td>3,3</td>
</tr>
<tr>
<td>J</td>
<td>6</td>
<td>133,6</td>
<td>91,4</td>
</tr>
<tr>
<td>K</td>
<td>112</td>
<td>178,8</td>
<td>133,0</td>
</tr>
<tr>
<td>O</td>
<td>11</td>
<td>22,7</td>
<td>19,5</td>
</tr>
</tbody>
</table>

Sections:
A- agriculture, hunting and forestry
B- fishery
C- mining
D- manufacturing
E- energy, gas and water supply
F-construction
G-trade and repair
H- hotels and restaurants
I- transport and communication
J- financial services
K- property and business services
M- education
N- health and social services
O- other services (municipal and individual: waste disposal, sewage, leisure, culture, sport, etc.)

*Inwestycje zagraniczne w województwie dolnośląskim*, 2000.
Other unpublished documents in the Wroclaw Statistical Office.

By the end of 2000 there were altogether 4306 companies with foreign capital, which places the region as the second most attractive in Poland for foreign investors after the Mazovian one. The amount of investment, in particular that in fixed assets,
also grew from 291.3 mn zł in 1995 to 2 458.6 mn zł in 1999. It means that in that period this investment grew over 8 times. As regards sectoral breakdown of this investment, in all of these years its largest part went into manufacturing: 70 % in 1995 and 60 % in 1999.

The share of other sectors in foreign investment (FI) changed during those years. In 1995 the second largest sector in terms of FI was trade and repair (sector G) and hotels and restaurants (sector H) with 31.2 mn zł and 15.9 mn zł respectively. In 1996 investment in trade and repair was again the second largest with 54.8 mn zł, followed by 23.5 mn zł investment in property and business services (sector K) and 22.3 mn zł in mining. This was associated with the establishment of chains of supermarkets, fast food restaurants and petrol stations in many major cities. As regards investment in mining, it was connected mainly with the privatisation of stone quarries, which were bought mainly by German companies.

In 1997 again the second largest sector in terms of FI was trade and repair with 107.8 mn zł, followed by investment of 58.1 mn zł in property and business services and 32.2 mn zł in mining. In 1998 the second largest FI of 705 mn zł went into financial services (sector J). This was associated with the development of credit companies established mainly in Wroclaw. This was followed by investment of 128.3 mn zł into property and business services, 115.2 mn zł into trade and repair, 47.1 mn zł into mining, 32.1 mn zł into transport and communication (sector I) and 31.6 mn zł into construction. In 1999 the second largest FI sector was agriculture, hunting and forestry (sector A) with 215 mn zł, followed by 178 mn zł into property and business services, 161.4 mn zł into trade and repair, 133.6 mn zł into financial services, 109.9 mn zł into construction, 67.8 mn zł into mining and 37.5 mn zł into hotels and restaurants.

All this investment had also impact on international trade of the region. The table below illustrates main exports of companies with foreign capital in 1999.
Table 5.17: Export of products and services by companies with foreign capital in Lower Silesia in 1999

<table>
<thead>
<tr>
<th></th>
<th>Number of companies which exported goods</th>
<th>Value of exported goods in mn zl</th>
<th>Number of companies which exported services</th>
<th>Value of exported services in mn zl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>358</td>
<td>2974,7</td>
<td>236</td>
<td>271,8</td>
</tr>
<tr>
<td>Of which, sections:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>13</td>
<td>19,2</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>D</td>
<td>274</td>
<td>2873,1</td>
<td>101</td>
<td>175,8</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0,0</td>
<td>21</td>
<td>14,8</td>
</tr>
<tr>
<td>G</td>
<td>48</td>
<td>50,4</td>
<td>36</td>
<td>9,7</td>
</tr>
<tr>
<td>K</td>
<td>10</td>
<td>8,0</td>
<td>46</td>
<td>39,3</td>
</tr>
</tbody>
</table>

Sources: as in the table above.

As can be seen major exports are manufactured goods (D) with 2.9 bn Zl, followed by services associated with manufacturing with 176 mn Zl. Major contributors to these exports were Volkswagen which produces car engines in Polkowice, and Siemens, BTR Automotive, Alstom, and ABB with their production of various machinery and spare parts.

During the 1990s the largest investors in Lower Silesia were:

- British (21 sites): Cadbury Schweppes, Cussons Group Ltd, British Vita, BOC, Coca Cola, Tesco, Shell, BP, GKN;
- American (27 sites): Pepsi Cola, Cargill, Mc Donald's, American Retail System, Armstrong, Gerber Corp;
- German (53 sites): BTR Automotive, Siemens, Roeben Tonbaustoffe, Automotive, Phoeniks, Mercedes, Volkswagen, Alstom, Flesner, Bayerische Hypo und Vereinsbank AG, HIT, Makro, Selgros, OBI, Metro, Mini Mal, Real, Aral, DEA, Schoeller, Schneider, Petri;
- Swiss-Swedish and Swedish (6 sites): ABB, Volvo, IKEA, SCA;
- French (15 sites): Castorama, Carrefour, Geant, E'T.leclerc, Brandt, Alstom;
- Dutch (8 sites): SCA Molnycke, Boart Longyear;
- Canadian (4 sites): Mc Cain, Northern Telecom.
Share of FDI in the total investment in Lower Silesia grew significantly during the late 1990s, from 5% in 1996 to 23.4% in 1999. The share of exports by companies with foreign capital in the total export also grew from 10.4% in 1996 to 33.6% in 1999. This rapid increase can be largely explained by the fact the major investors are multinationals who have their own market, such as Volkswagen which produces car engines for its car assembly plants all over the world.

Both these trends, the amount of investment and exports, indicate the growing importance of foreign companies for the regional economy, in particular when there is a shortage of local capital. Lower Silesia has already attracted more foreign investment than many other Polish regions, such as those along the Eastern border, e.g. the Podkarpackie Voivodship which until 1999 attracted some 1/3 of the Lower Silesian amount. It seems likely that in the future this discrepancy will grow further, because not only of the favourable geographical position of Lower Silesia with easy access to West European borders, but also because the regional tradition of industry. A major magnet for further investment would be the continuing success of the existing FDI.

All the above shows that it is likely that in the years to come the importance of foreign investment for the Lower Silesian economy will grow. This may have a longer-term positive impact for the integration of the regional economy into the European Union common market.

4.3. Companies in Lower Silesia

The examination of various companies may help to explain what are the enterprises, which prevail, what is their size, capital at their disposal and employees.

By the end of 2000 there were 269,531 companies in Lower Silesia of which all but 143 SOEs were private. There were 211,096 small self-employed firms with usual employment of several persons and 25,643 partnerships whose number of employees is usually below 50. These companies tend to have very limited capital for development.
Table 5.18: Legal forms of economic activity in Lower Silesia in the years 1992-2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>SOEs</th>
<th>Cooperatives</th>
<th>partnerships</th>
<th>Total</th>
<th>foreign capital participates</th>
<th>Total</th>
<th>Foreign capital participates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1,759,541</td>
<td>7,245</td>
<td>19,372</td>
<td>99,331</td>
<td>2,624</td>
<td>N/a</td>
<td>66,426</td>
<td>N/a</td>
</tr>
<tr>
<td>1997</td>
<td>2,596,890</td>
<td>3,369</td>
<td>19,775</td>
<td>245,374</td>
<td>6,378</td>
<td>872</td>
<td>119,653</td>
<td>32,070</td>
</tr>
<tr>
<td>1998</td>
<td>2,842,278</td>
<td>2,906</td>
<td>19,638</td>
<td>272,008</td>
<td>7,041</td>
<td>1,010</td>
<td>128,332</td>
<td>35,840</td>
</tr>
<tr>
<td>1999</td>
<td>3,039,451</td>
<td>2,599</td>
<td>19,328</td>
<td>288,956</td>
<td>7,566</td>
<td>1,092</td>
<td>138,109</td>
<td>39,320</td>
</tr>
<tr>
<td>2000</td>
<td>3,185,040</td>
<td>2,268</td>
<td>19,011</td>
<td>302,717</td>
<td>8,105</td>
<td>1,204</td>
<td>150,284</td>
<td>42,532</td>
</tr>
</tbody>
</table>

When they are successful, they often change into commercial companies, such as Ltd and Plc, in order to increase their creditworthiness. The number of both the self-employed and partnerships doubled in the years 1992-2000. Cooperatives usually deal with farming, crafts and house building. Their number remained about the same. There was a significant growth of limited companies, from 4,498 in 1992 to 12,467 in 2000 and of them 1/3 were companies with foreign capital. As regards public companies, their number tripled during this period to 603 in 2000 and, of them there were 72 companies with foreign capital.
In the last decade there was an enormous proliferation of companies of varying sizes and capital resources. For their further development these companies need more capital and larger markets and this depends on the general state of financial services in Poland.

4.4. Privatisation

Privatisation is any transaction that reduces government or municipal ownership in, or control over, a public enterprise. (World Bank, January 1995). Privatisation is an essential step in the process of changing from the command to the market economy. In my opinion any privatisation should aim at complete destruction of the state monopoly of property, large and small, so as to create a free market for property of all kinds. This releases capital, otherwise locked up, and contributes to the free flow of goods and money, which is a basic element of the market economy. In the political sphere the aim of privatisation should be to make the population active participants in the process, so that it feels that is has a stake in the new development.

Between 1992 and 2000 the number SOEs was reduced from 676 to 143. In legal terms this means that these companies have been written off the register of state companies. Some of them were privatised and others, have changed their legal form, such as 180 state farms, which assets were transferred to the State Agency of Agricultural Property and a few of them were privatised. Thus in real terms it may be said that some 50 % of SOEs in Lower Silesia was privatised during the last decade.

Municipal companies usually deal with electricity, gas and water supply, sewage, public transport, waste management, municipal housing management and other municipal services. Privatisation of municipal property has hardly started in particular the privatisation of municipal flats. A good example of this situation is the city of Wroclaw which has some 64 000 municipal flats which so far have not been sold to the occupants. Many of these flats suffer from years of neglect and poor
maintenance and are in a dilapidated condition. The reason for this is that the municipality does not conduct proper repair and maintenance and the tenants lack the incentive and the means. The existing privatisation programmes managed to sell some 10,000 flats over the last decade. Therefore if we assume the present rate of privatisation the process will last several decades.

Over the years and several individuals and groups of people have presented to the council schemes by which privatisation could be accelerated and the problem of credit in order to purchase and restore the municipal flats resolved. The council has turned down all these schemes, including one presented in 1998 by the present author. What comes out of all this is that the council has no understanding of the need for privatisation and no will to carry out or accelerate the process. The consequence is that the property remains in a bad state of repair and maintenance and also that the tenants as tenants have no collateral for any credit operation. It also is an obstacle to the development of the property market in Wroclaw, which includes building industry and related services.

The Wroclaw case in not an exception, since in other regional towns the situation is very much the same. The only exception is the city of Dzierżoniów, which managed to privatise a large part of municipal housing at the beginning of the 1990s. This was due to the clear and active attitude of City Council, which was determined to foster privatisation.

Privatisation will be wider discussed in the following chapter. It may be said however, that privatisation in Lower Silesia was not very fast in the 1990s and was largely limited to the SOEs. The privatisation of a large part of public property has not begun and it is not on the authorities agenda. This property includes land, rivers, lakes, buildings, schools of all level, kindergartens, hospitals, cultural and sport facilities, etc.

For the sake of further economic growth privatisation should be continued. And it should be widened to all aspects of economic and social life. Main goal of privatisation should be the creation of the market economy, of which the core is
competition i.e. where there are many sellers and many buyers. Perfect market economy does not exist. Support for the development means therefore making the market more similar to the perfect one. Thus the postulate should not be only the protection of private property but also fostering competition. Privatisation should embrace/attract the largest possible number of people who could become the beneficiaries of privatisation. Employees' buyouts can create such an opportunity. Privatisation of municipal flats should be supported by an attractive long-term credit for restoration and modernisation.

4.5. Government regional policies in the 1990s

At the beginning of the 1990s government economic policies, apart from privatisation discussed earlier, focused on large enterprises and selected sectors undergoing structural changes. These included first of all coal mines and steelworks in the Walbrzych area and the textile industry. Initially the government subsidised these companies, often indirectly, for example allowing them to pay neither taxes nor social insurance for their employees. Another way was to write off their bank debts; however, this method was possible until banks were privatised. The same scheme often applied to payments for energy and water supply.

As for results of this policy, in most cases it did not help those companies to survive; the last coal mine in the Walbrzych area was closed down in 1997 and as regards textile companies, of several dozens of them in Lower Silesia only few survived until today, and of them only these which had been privatised in the early 1990s and ever since they did not enjoy government subsidies. Government subsidies for companies in Lower Silesia ended in the late 1990s with the exception for large national firms such as the Polish Railways.

The costs of this policy are difficult to estimate but it may be said that they were considerable. The economic point of view the result of this policy seems an obvious failure. Governmental resources should have been allocated in a different way.
The first sign of these new policies was the establishment of five regional development agencies in Lower Silesian cities of Walbrzych, Nowa Ruda, Jelenia Góra, Legnica in 1991 and in Wroclaw in the mid of 1990s. Initially their main shareholders were local municipalities and the central government or its agencies. In most cases the shareholders remained the same until 2002, with the exception for the Walbrzych Agency whose major shares were taken over in 1999 by private firms, banks and the city of Walbrzych. Main aims of these agencies are to foster the development of private enterprises, especially of the SMEs, by the provision of business advice, education and initial finance for new businesses.

In time some of these agencies also specialised in the management of the EU assistance programmes such as the Phare STRUDER, RAPID, CREDO, INRED, INITIATIVE. In particular the Walbrzych Agency proved to be the most successful; for example, it managed to create a modern advisory and financial centre which can compete on a national scale with other such centres; it also claims that its management of the EU Phare STRUDER programme in the years 1994-1997 attracted more than twice the private investment than the amount provided by the EU. (DARR S.A., kwiecień 2001), (Interview with the President of the Walbrzych Development Agency, November 2001). All these activities are badly needed because of growing unemployment in the region.

Another form of the government regional policy was created by the Parliament Act of October 2, 1994 on Special Economic Zones which enabled the establishment of a number of companies called the Special Economic Zone in specific areas in various parts of Poland which main task was to attract both foreign and domestic investors, by means of tax exemptions.

In 1997 in Lower Silesia there were established three SEZ: the Walbrzych one, the Kamienna Góra SEZ for Medium and Small Business and the Legnica one. Some results of their activities are in the table below.
Table 5.19: Selected data on the results of SEZ in Lower Silesian at the end of 2000.

<table>
<thead>
<tr>
<th>Special Economic Zones in Lower Silesia</th>
<th>Declared amount of investment in mn zł</th>
<th>Factual investment in mn zł</th>
<th>Main industry</th>
<th>Number of employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Walbrzych SEZ</td>
<td>752.4</td>
<td>Ca 223.6</td>
<td>Car spare parts, textiles, electronic devices,</td>
<td>Ca 3 080</td>
</tr>
<tr>
<td>The Legnica SEZ</td>
<td>2 156</td>
<td>Ca 1 159</td>
<td>Car engines, car spare parts, machinery, heaters, shoes, porcelain, furniture, textiles, food</td>
<td>Ca 3 320</td>
</tr>
<tr>
<td>The Kamienna Góra SEZ</td>
<td>476.5</td>
<td>98.9</td>
<td>Building materials, package, textiles, machinery, electrical devices, glass production and processing, food processing</td>
<td>1 543</td>
</tr>
<tr>
<td>Total</td>
<td>3 384.9</td>
<td>1 481.5</td>
<td></td>
<td>7 943</td>
</tr>
</tbody>
</table>

Sources:
WSSE, Informacja na temat powstania i funkcjonowania WSSE, Walbrzych, 2.02.2001, p. 2-6.

As can be seen within four years the three SEZ in Lower Silesia managed to attract investment of 1.48 bn zł (ca 370 mn USD) which created employment for nearly 8 000 persons, of which some 55 % had been unemployed. According to the above information on SEZ, further investment of some 1.9 bn zł (476 mn USD) is expected until 2006. Much of this investment is foreign. All this investment helps to modernise local economy; many of these companies introduce modern automatic production lines and some co-operate with local authorities in the improvement of education programmes, e.g. in the Walbrzych SEZ it helps to train electricians and mechanics, the local Labour Office in 2001 trained the unemployed to meet the needs of the SEZ; secondary school students in Świdnica are trained with a digital machine tool provided by the Toyota.

In conclusion, during the 1990s views on the role of the state in economic development shifted from the subsidising of selected companies and sectors, which
had problems, towards the creation of conditions for the growth of companies. The success of attempts to create clusters of growth by the means of the SEZ is so far difficult to judge; on the one hand they have attracted some investment and created new employment, on the other hand they have enjoyed, and still do, significant tax exemptions and therefore it is not possible to predict whether they could successfully compete without these exemptions.

Another form of regional policy, which started in 1991, after the reform of local government, was subsidising local communities to provide finance for schools, roads and other amenities. See section about rural question, chapter 5.

Regional policies were a part of the general policies of successive governments that differed as regards their aims and objectives. The governments of the 1990s were:

1. 1990 – 1993 – the post-Solidarity ones
2. 1993 – 1997 – the post-Communist ones

All of them were coalition governments. All faced common problems, of which the debt inherited from the former period is the most obvious. The other set of issues derives from the changeover from a command to a market economy. Thus there is a pattern of continuity as well as difference between various governments.

All these governments honoured the debt from the communist period and carried on servicing it, even though it was a great burden on the state budget. Where the policy of these governments differed was in their approach to the process of transformation. Thus the first government proceeded with privatisation at a faster pace than the one that took over in the years 1993-1997, to speed up again in 1997-2001. This reflects the ideological outlook of the government coalition parties. None of the governments of the 1990s managed to introduce neither restitution law nor a solid framework of property rights.

There was a continuity of successive governments in their efforts for Poland’s membership in the European Union. This resulted in the introduction of large
regions in 1998 and enabled the work on regional development plans to be undertaken on the regional level. The importance of this policy can hardly be overestimated for the longer-term regional development. This enables regions to plan their future, draw on their own and EU resources and conduct policies to utilise them fully.

4.6. Social regional activity

The specific features of the Lower Silesian population were already discussed in chapters 2 and 3 and in the appendix. One of the most important of them is the fact that almost all the population of the region was exchanged in the years 1945-1950. Lower Silesia was inhabited by Poles who came from all the provinces of the pre-war Poland that was highly diversified in terms of technological advance, social habits and culture. Also many Poles came to Lower Silesia from abroad with again different social habits. The present population of the region largely consists of the post-war settlers and their children.

The communist period presented a limited scope for social integration and the development of regional identity. This identity is understood here as a live sense of a set of cultural values and social bonds that are distinct from other communities. Examples of such regional identity are Upper Silesia, Greater Poland (Wielkopolska) and Little Poland (Małopolska) that are clearly distinct and recognisable.

During the communist period major factors of social integration were the Catholic Church, universal system of education, public media such as radio, television and press. Apart from the church, all of them were under the strict control of the state and there was little room for spontaneous social activity of all legal kinds, in particular that orientated towards building up regional or local identity. After 1989 the situation changed and people were allowed to set up social institutions freely.

There are various factors of social integration and regional identity and the discussion of all them is beyond the scope of this work. We will illustrate this topic by the case of institutions devoted to the development of regional and local identity.
In 1989 there were some 300 regional associations in Poland, while in 2000 there were some 1500 of them, of which about 100 was in Lower Silesia. (Omelaniuk A.J., 2002). Thus during the 1990s there was a large increase in the number of these associations. They have no centralised structure and they operate as autonomous legal entities at the local and regional level. Some 2/3 of them were named after town, land or region and they often described themselves as a group of friends of these towns and lands. For example, the Society of Friends of Wroclaw (Towarzystwo Milosnikow Wroclawia), Lower Silesian Social and Cultural Society. Most of them were active at the county (powiat) level. In 2000 in Poland there were some 300 regional associations active at the local community level (gmina) and, according to Anatol Omelaniuk, their number is likely to grow further. Their main aims include the promotion of the history of the area, the promotion of local and regional cultural and social activity, the restoration of historical heritage, the inspiration of inhabitants to undertake ventures for the sake of the local community and the region. The aim of many of them is also the promotion of civil society values.

These associations take part in the ‘bottom-up’ building of a new social system through activities rooted locally and directed towards individuals, families and local social groups. They play an important educational role to help to understand the importance of local resources for the development of the area and greatly assist in the growth of the Lower Silesian development capacity.

Conclusions

1. In this chapter we have shown that during the 1990s Lower Silesian GDP more than doubled to reach 12.2 bn USD in 1998. Investment increased more than twelve times and reached 2.5 bn USD in 1999. Private investment grew and in 1999 its amount exceeded the public one. The importance of Lower Silesia for the Polish foreign trade grew both in exports and imports. In order to sustain economic growth there is a need for policies to foster the development of industrial technologies. The stagnation of agriculture needs a new policy, since
despite the existing favourable natural conditions and qualified labour, the regional agricultural output significantly fell in the 1990s.

2. We have presented two case studies, which illustrate our contention that a company's success does not so much depend on the form of ownership as on the ability of the management to adapt to the new economy and the needs of the consumer. This is to underline the critical importance of company managers, whether the companies are state owned or not. We have illustrated the pattern of adaptation of a highly successful state owned company in the new economic environment and also its importance for the restructuring of the regional economy, provided it has good management.

3. We have shown how significant change took place in the structure of the regional economy in the 1990s both in terms of output and employment. We demonstrated how the roles of industrial and service sectors productivity reversed in this period. The growing role of foreign investment for the regional economy was presented, both in terms of investment and exports, in particular when there is a shortage of local capital. As for rural areas, we discussed the necessity to improve the efficiency of agriculture, attract people from agriculture to other sectors and further develop the service sector.

4. We have indicated that in spite of all this growth it has been a growing increase of unemployment, which in the 1990s remained above 10 %, to reach 18 % in 2001. This may lead to the creation of popular anti-market forces, which hamper economic growth.

5. Privatisation in Lower Silesia was not very fast in the 1990s and was largely limited to the SOEs. The privatisation of a large part of public property has not begun and it is not on the authorities' agenda. There is a need for further privatisation on a rational basis.
6. In spite of all the above mentioned impressive developments, during the 1990s the regional economic growth was not stable. In the years 2000-2001 it almost stopped. Investment, including foreign, grew significantly in the 1990s, but it failed to create a modern and efficient economic structure, which would be able to sustain growth. The prospect for future growth is not clear.
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Chapter V. POLISH SOCIETY IN TRANSITION

In this chapter which draws on analysis of all the previous chapters we attempt to summarise both the achievements and some main problems which Poland still faces during her transformation. We start with the legacy of the communist period and the need for an integrated approach. Then we discuss legal and political systems and their deficiencies and consequences. At the end of the chapter we examine the rural question and its problems. In conclusion we discuss the role of education in present-day Poland.

Neither the first post-communist government, September 1989, nor the subsequent governments during the 1990s, produced a balance sheet of the period of the command economy. Therefore until today there are contradictory opinions about the state of the Polish economy in 1989. Some authors maintain that Poland had large economic assets, especially industrial ones, e.g. professor Poznański. (Poznański K., 2000). Some others have the opposite view, e.g. Kołodko. (Kołodko. G., 1999). Somehow these two opposite views are justified. In some activities, such as coal production or ship-building, Poland had a significant output not only in the Soviet bloc but also globally. However, after the collapse of the Soviet bloc the demand for much of that output was reduced and also it became clear that a significant part of the Polish economy did not fit into the modern world. Therefore for the nation that had the living memory of the inter-war period of independence and its achievements, the balance sheet of the command economy period was disappointing. Any estimate of this legacy is not simple. Authors who tried to do this also had problems with final conclusions. Although it is even more difficult to make such a balance sheet in 2000, in order to understand what Polish economy needed in the 1990s it is necessary to present the most important legacy of the former period.

5.1. The legacy

The Soviet economic system was totally different from anything which had existed in pre-war Poland and indeed different from anything existing anywhere in the
Western world. (Dawson A., 1987), (Kolakowski L., 1988). One outstanding difference was the subordination of the economy to the political, and therefore military, requirements of those who exercised power. Thus the development of much of production in Poland, as a Soviet satellite, was subject to political instruction from the Soviet Union. Since one of the main principles of the economic development of the Soviet Union became the reinforcement of its military power, this subsequently influenced the pattern of economic development — industries chosen for development and privileged investment, location pattern of industrial centres and the accompanying neglect of individual consumer needs.

1. The planned economy concentrated resources on the development of heavy industry, such as steel and mining that resulted in the creation of steel and mining complexes on a gigantic scale. For example the immense steel and machinery works such as those of Stalowa Wola covering 470 ha of ground, which in 2000 employed 11 000 people or the Katowice steelworks which is 3 times larger. Lower Silesian examples were the lignite mine of Turów, coal mines in Walbrzych, copper mines of Legnica and Glogów. These were built or developed on this vast scale, in the 1960s and 70s, precisely at the time when the Western economy was being directed away from such heavy industry and towards the service industries and the exploitation of the new micro-chip technology. At the same time and connected with this the world demand for steel was falling, and the Western steel industry was orientated towards a specialised types of steel. Thus the two economic systems of the West and the Eastern Bloc were passing each other in opposite directions like two express trains passing to opposite destinations. In the present world such complexes, as these mentioned above, are industrial museums. And the question of what to do with them is one of the most intractable of the questions, which face Poland today. Whatever decisions are taken will have most serious and economic consequences.

2. This was, and still is, reflected in the type of spatial organisation, which has existed since 1950s onwards. Both architectural forms and urban complexes of
the early 1950s (socialist realism) in Lower Silesia are identical with those of Western Belorussia, Siberia or Mongolia. An example of this can be found in the absence of any development of new forms of architecture. (Hamilton FEI, 1979). Even when socialism disappeared, the new form of architecture, which came into existence was imposed with the same characteristic of uniformity. This new style characterised by the concrete blocks, which are to be found without variation from the Elbe to Vladivostock, was even more horrific in both appearance and in the quality of life, which it created. (Hamilton FEI, Burnet AD, 1979), (Kozielecki J, 1980), (Mikulowski-Pomorski J., 1979).

3. The state of road and railway communications between various Polish regions is peculiar and unsuited to the modern economy. Some regions, such as Lower Silesia and the Carpathian one have no direct links with Warsaw and few with neighbouring regions. Between 1945 and 2000 not a single major road was built to link Lower Silesia with the rest of Poland. After 1945 it was not until the late 1980s that serious work was undertaken to improve road communication Wroclaw-Warsaw. The position as regards railway links is even worse, since no new railway connections have been developed between Lower Silesia and the rest of Poland since 1945. Thus the Lower Silesian transport system is oriented as it was before 1945, towards the SE and NW. This lack of transport development after 1945 is completely contrary to what one would expect of a government, which has recently acquired new territories and had the need to integrate them with the rest of the state by creating transport connections. Thus some regions have not become integrated with the rest of Poland. Secondly, one of the main continental trade routes - from Western Europe to the Black Sea - remained not only undeveloped for 50 years, but in fact had its economic significance severely reduced, in comparison with what it had been for nearly a thousand years of its documented history. (Lagiewski M., 1999). See chapter 1.

4. This is accompanied by the lack of road and railway bridges. For example, in the city of Wroclaw, all bridges across the Oder River are, concentrated only on the

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2.5 km section of the river in the centre of the city, while the length of Oder within Wroclaw boundaries amounts at 27 km. Other bridges across Oder are quite distant: the nearest one, down the river, is in Lubiąż - 45 km from its closest in Wroclaw, and the one up the river - 25 km, in Olawa. Despite serious problems with traffic jams and the obvious waste of energy, fuel and time, resulting from such a transportation bottleneck, no single bridge has been built since 1945 until 2000. Even now in 2001 the lack of understanding of the importance of transportation can be illustrated by the fact that during the 1990s many towns, e.g. Wroclaw, Klodzko, decided to allocate funds to improve the market hall square instead of building badly needed ring roads or river bridges.

5. Both in 1989 and now 30% of the Polish population lived in rural areas: this definition of rural areas includes not only villages but also several hundred small towns of less than 5,000 inhabitants. 26% of the working population consists of people dependent upon subsistence farming. One conclusion from these two statistics is that there is a great deal of rural poverty on a scale which has grave social and economic implications not only for the rural areas but also for the whole of Poland. This rural poverty limits and will continue to limit the internal Polish market for consumer goods and services, unless there is a government rural policy. Also if the present state of affairs is left to continue it could have serious political consequences in the form of strong opposition to the EU and Polish entry as well as a more general anti-market mood.

6. In 1989 the average monthly salary in Poland was 12 USD, while in most of western European countries this was well over 500 USD. There was a permanent shortage of basic goods, such as food, clothing, shoes, furniture, etc. Also Poland lacked accommodation for over 1mn families which mostly stayed with their parents.

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7. Private property, property rights and sense of personal possessions were abolished through the communist nationalisation of all property apart from personal possession. This collective ownership applied to accommodation, such as houses and flats, and even to garden allotments; as was any property in land including farm land, except for the farms de-collectivised after 1956. This collective character of ownership does not fit into the new economy and both the law and practise are in urgent need for reform to allow for private ownership and the free purchase and sale of all forms of property. The law of ownership has even now not been changed in this necessary direction.\(^3\)

8. What has been lost is the understanding of what a market and the market economy means in the Western sense combined with a lack of understanding of profit/loss nexus. This nexus disappeared in the planned economy but is absolutely crucial to operate in a Western style economy. Such lack of understanding is still visible today at all levels of economic organisation large and small. For example people still do not know how to develop the resources which they have at disposal and the development of which would require little or no further investment and to do so in an economic and profitable manner.\(^4\)

9. Police terror and censorship severely restricted the development and spread of information technology and communication. Until the late 1980s it was a criminal offence to own a private Xerox or fax machine.

10. The quality of services, when deprived of a competitive environment, gradually deteriorated. Some services, in particular those of strategic importance, such as telecommunication and transportation, have developed far below the level achieved by market economies. Some services, which can exist only in the

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\(^3\) Behind this there are deep divisions of political opinion and how to reform the property law. The law of ownership (właszczenie) passed through the Sejm and the Senate in September 2000 but was vetoed by the President.

\(^4\) E.g. a unique Neolithic silicon mine in Opatów, instead of being subsidised, could provide some profit and new employment.
market environment, such as a variety of financial activities, e.g. stock exchange, insurance and investment companies, estate agencies did not exist at all.

11. The communist rule had a particular impact on the educational system. After 1945 the pre-war system was reconstructed, with its emphasis on fundamental sciences (mathematics, physics, chemistry, biology), classical subjects (Polish language, Latin, logic, history, geography) and the arts. From the early 1950s strong political pressures influenced it, to eventually become dependent on the communist party in the late 1960s. This resulted in an extreme ideological tendency of the social sciences, whose traditional function - to study and describe reality - was replaced with the requirement to legitimise the political status quo. (Jałowiecki B., 1994). Some fields of scientific inquiry, e.g. genetics, theory of relativity, were actually forbidden, being condemned until late 1950s as bourgeois sciences. A result of this process was the devaluation of the academic status of university professors - their appointment became to a significant extent the result of political nomination (Polish: docent marcowy), which replaced traditionally expected dissertation, research and publication. All this may have reduced the potential of R&D institutions necessary for economic development. (Hughes K, 1994).

12. The work ethic was reduced or ruined under full employment. It was affected by the permanent absence of reward for better performance and this combined with the promotion of communist party members in the work place, regardless of their qualifications, resulted in the deterioration of attitudes and practices. Thus conscientiousness, good time-keeping and regular attendance, essential for continuous production, began to disappear. This weakening of the work ethic was exacerbated by the reduction of property rights combined with the domination of state ownership. This, added to common low salaries, resulted in systemic corruption of state officials. This was particularly severe in farming which experienced a devastating process of collectivisation. (Kolakowski L., op. cit.,

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5 An example of this policy was the case of psychology Professor Kazimierz Dąbrowski, whose rejection to accept the Pavlov theory as a foundation for psychology resulted in his deportation from Poland in 1952.
The one influence preventing the situation from becoming totally disastrous was the important and positive role of the Catholic Church, which attempted to promote attitudes traditionally associated with good workmanship.

13. The organisational culture was significantly affected by political terror and censorship, whose nature is to eliminate communication, which is an essential for organisation. At the same time the media was not only censored but also corrupted as an instrument of propaganda, rather than information. Total uniformity, expected and enforced by the authorities, created an environment hostile to the development of various forms of organisation. Particularly, political culture simply disappeared in the situation of totalitarian terror, where citizens are denied all legal opportunity for participation and are only expected to obey instructions. (Zagórski Z., 1993).

14. The command economy produced a dependency class (klasa garnuszkowa) significantly larger than that in market economies. In a market economy this class consists of the long-term unemployed and those unable to seek employment, e.g. single mothers and pensioners. In 1989 Poland the dependency class was not confined to these groups, but extended to those whose employment in the public sector was due to the rampant over-manning there. (Zagórski Z., 1996). All of these people found their security in the state, and feared that the transformation might be to their disadvantage. With the collapse of communism, this class became a severe burden. This dependency class is willing and able to provide resistance to economic change but at the same time unable to provide for their own economic salvation.

15. Communist rule placed Poland in a kind of mental ghetto in which the flow of information, new ideas and technology between Poland and the West such as otherwise would have taken place was severely limited. This has had permanent consequences, which have not been completely overcome. There is still a gap of knowledge and understanding about the Western world, and in particular about its economy and technology. This largely resulted both from insufficient modern technology transfer from the West and also from imposed transfers of outdated
technologies from the Soviet Union, such as the Katowice steelworks, or computer manufacturer ELWRO of Wroclaw replaced by an outdated Riyad system. Effective technology transfer, in turn, depends on the level of education, which in Poland 1989 was not very high with 7% of graduates of the working population. This ignorance run through the whole Polish establishment from the universities to the Warsaw ministries, the senior personnel of which have hardly changed since 1989, except through death and retirement. (Wnuk-Lipiński E., 1996), (Wnuk-Lipiński E., 1993). This resulted in resistance on the part of such people towards Western or any other innovation because of their fear of being made to appear ignorant. These vested interests and conservative attitudes on the part of people in responsible positions are a serious obstacle to reform.

16. The arts (literature, poetry, theatre, fine arts) - a domain of symbolic communication - were suppressed by monotonous and uniform style by official diktat, especially until 1956. Some arts, such as music, theatre and fine arts, for which the regime gradually withdrew its restrictive system of control, found ways for development and worldwide achievements, e.g. in music Mikolaj Gorecki, Krzysztof Penderecki, in theatre Jerzy Grotowski, Henryk Tomaszewski, Slawomir Mrożek, in fine arts Tadeusz Kantor, Jerzy Rosolowicz, Magdalena Abakanowicz and others. (Makarewicz Z., 1994), (Makarewicz Z., 1999). These were in contrast with lack of significant achievements in spheres under the strict state control, such as architecture, industrial design, much of the film industry and literature where many of the most talented left Poland for the West. For the sciences and technology this meant a significant reduction of the influx of new ideas from one of their main sources - the higher forms of culture. This, among other reasons, may help to explain the long term impact of such a situation, which appeared not only in Lower Silesia or Poland, but in all the countries of the Soviet bloc - the erosion of innovation, which resulted in a significant scientific and technological gap between those countries and the Western world. According to the theory of Manuel Castells, concerned with the post-industrial society, the reconstruction of cultural life may be one of the driving forces of a long-term economic development. (Castells M., 1997).
What is obvious but worth observing is that in the communist period the Party attempted to exercise firm control over all aspects of public life. Whether or nor this control was ever complete the Communist period has left behind such a legacy in the whole public sphere that any reform programme must be thoroughly comprehensive and address every aspect.

5.2. The need for integrated approach

Problems of transformation

1. These problems and issues are multiple, each of them complicated in itself and not easy to solve, but also connected in one way or another with the others. These connections should, indeed, must be understood in order to have successful policies, policies which will work together towards the desired ends but which will not conflict nor do damage to one another; in other words, an integrated set of policies in the various public spheres. For example, any planning should bear in mind the connections between: urban and rural issues; industrial and agricultural; social, political and cultural (a cultural here includes any kind of education and involves culture in the sociological sense). And planning should remember to treat people as citizens and human beings and not simply as the objects of economic or public policy.

2. This said there are three other great difficulties;

a) It is never easy to predict the precise consequences of any government action, law or policy, even in the particular sphere for which they are intended, let alone other spheres, which may be unintentionally affected.⁶

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⁶ A humorous example is contained in Brogan’s *American Political System*, where he describes the well-intentioned law in New York to turn bars into small hotels, which simply provided more accommodation for prostitutes.
b) Under any political system it is the public reaction to state laws and policies which matters as much as the laws and policies themselves; in other words whether the public alters its conduct accordingly or refuses to do so. In the present Polish system, when the population is no longer intimidated by the state power, its response to government actions is crucial. Ideally, the public response should be active and not result in violence or evasion of the law.

c) In any democratic system it is the duty of politicians and especially deputies to warn the state authorities in advance about any possible negative public reactions. At the same time they have the duty to explain to the public and to their constituents the rationale of government decisions. The same applies to the press. All this is not enough done in Poland today.

3. The other main difficulty is the human inclination which is found in many governments but which is especially relevant in Poland today, to postpone or avoid difficult decisions, such as the reform of social insurance scheme, as discussed further in this chapter. This results in a tendency to prefer short term solutions which cause less trouble and buy time over harder long term solutions which will probably create a better situation in 5-10 years time. All this is particularly salient in Poland today in connection with a question of closure of large and outdated industrial complexes, but by no means only in that sphere. The 'soft' short term solutions such as continuing to bail out outdated industries, will naturally always be more popular with politicians and public alike; because at the very least these can seem more humane than the harder decisions. After all, these drastic decisions, such as complete closures, derive from the prediction of a better future, which may or may not be realised.

4. This leads on to the question whether the present political system is well-designed to act in long term perspectives and take the hard decisions, e.g. closures, which are probably needed. We have in mind the system of permanent coalition governments and ministries which are often short-lived; more specifically, the consequent lack of continuity in crucial ministerial posts, e.g. the
minister for European integration. A further weakness of governments and public alike which is not at all peculiar to Poland, is that the issues which have the most public attention are not necessarily the most important, especially in a long term perspective; with the result that other issues, just as or even more important, are neglected and are rarely discussed in public. An excellent example is the Polish rural question [see rural section]. Apart from the peasant parties and the rural population this question has little or no interest for politicians and public. But this rural question is an existential question if Polish society is to become modern and able to take a worthy place in European Union. Furthermore the neglect of this question could easily store up serious trouble inside Poland in the future. It is also true that such neglect illustrates the point that policy and planning needs to be an integrated whole.

5.3. The law

5.3.1. The need for institutions and political stability

Within less than one lifetime, i.e. during 50 year period, Poland has on three occasions, in 1939, 1945 and 1989, experienced a complete change of the foundations of political, social and economic life. During WW II when it was divided and under two occupying powers, both of these powers completely destroyed, for different ideological reasons, the fundamentals of social life. Under both, the rights to life, property and freedom were extinguished militarily. When this situation ended in 1945 geographically relocated Poland became one of the Soviet satellites. The enormous changes in her Western and Eastern frontiers caused the resettlement of 4-5 millions of citizens. At the same time all the institutions of public life were remodelled on those of the Soviet Union. The political, social and economic goals of the new state were very different from those prevailing both in the pre-war Poland and in Western Europe. During the next 44 years the institutions of public life continued to be based on concepts hostile to private property, personal freedom and the rule of law. Then in 1989 the situation altered yet again. The one-party state was abandoned and so was the command economy.
Political parties were permitted. Private economic enterprises were allowed to operate.

However, no economic policy happens in an institutional or social vacuum. In other words, any policy to be effective requires adequate institutions and general public acceptance. The necessity of proper institutions in pursuit of transformation was often emphasised, e.g. by S. Voigt, or B. Crawford and A. Lijphart who stated that

From an institutional perspective, this [communist] legacy would be crucial to the success of liberal capitalist legacy because institutions affect the distribution of resources, determine the relative power of both political and economic actors, and structure their preferences and constrain their choices. (Voigt S., 1993), (Crawford B., Lijphart A., 1995). Moreover, those institutions are not to be obtained by competition through market forces. One of the limitations of the market system is that it cannot produce those institutions by itself. And, although the existence or absence of economic institutions has important economic consequences, a decision to introduce them belongs not to the economic but the political sphere.

Thus the stability of the political system is required before a successful period of economic development. The stability of the Polish or any modern political system, means that the system is accepted by the majority as legitimate and there is no serious threat from the army or any revolutionary party. It seems for the moment that the Polish political system is stable and generally accepted, certainly to a greater extent then the previous system; but there is reason to think that a prolonged economic crisis could change this and discredit the system in the eyes of a large number of the population.

For the economy political stability means that the government policy is relatively predictable and there will be no violent changes of policy. Thus everyone concerned with the economy may feel secure and has a reasonable chance of long-term planning. On the other hand, political instability of any kind makes long term planning impossible, and also it is likely to discourage productive foreign
investment. Thus it seems that political stability and economic advance are closely linked and each of these can have a great influence on the other.

Since Poland has the intention to join the European Union, its political system is expected to remain stable and democratic. (Treaty on European Union, Maastricht, 1992). Poland applied for the EU membership on April 4, 1994. This means that the Polish political system must firmly guarantee the usual West European democratic freedoms, such as individual and property rights and the rule of law. This is discussed in the following section.

5.3.2. Institutional framework without foundations

The post-1989 change of public institutions started with amendments to the Constitution of Poland of April 1952. These amendments were made between 1989 and 1992 and resulted in the Constitutional Act of October 17, 1992. (This Constitution was valid until the 1997 Constitution). These amendments concentrated on the relations between legislative and executive institutions and on local government. Control by the communist party was ended. But this did not mean, however, that the institutions created by the communist party were to lose their power. Control was transferred from the administrators of the party to those of the state. It must be emphasised that the Stalinist Constitution was not rejected, but merely amended.

Neither the rights of individuals nor property rights were clearly defined. Because of the character of these amendments Polish constitutional law was not based on firm liberal foundations. Under communism the fundamental legal principle was the 'leading role of the party', and although this was now abolished, no new legitimacy or fundamental principles of law were established in its place. Therefore, the transformation was to be conducted without proper bases for the rule of law. The new situation required new laws. No coherent system of new law necessary for the functioning political and economic system was created. The result was a great deal of confusion and contradiction as to the state of the law. This applies to commercial
law and the law of property. Therefore individuals and business enterprises could not be sure of their legal position and rights.

The failure to create a new constitutional law meant that there was no objective legal norm on which other laws could be based. This caused chaotic legislative activity at various levels (in Parliament, by the President, the Ministries, the Voivods, and the local councils), which could not be checked. A further result of this was, for example, the growing number of court cases, which have created a logjam in the courts, so that in 1995 there was a backlog of over 3mn cases and similarly in 1996.  

Such a legal situation intensified conflicts between different social interest groups, and made them more difficult to reconcile. On the contrary, they tended to see each other as opponents, so that the advantage of one group was seen as possible only at the expense of other social groups. In ideal terms, the market system, in a civil society with the rule of law, competition is about reaching the highest position in one's own social or professional group. The function of any legal system is to adjudicate between different social interest groups and the present Polish system fails in this function. The post-1989 Polish legal system has helped to create an antagonistic social environment resulting in unnecessary conflict of interests. For example debts are difficult to collect by legal process and this may result in the serious consequences for the creditor.

The decision to accept the continuity of most of the laws of the People's Republic of Poland, instead of their fundamental change, determined, with small corrections, the general continuity of the political framework. Although the basis for the resistance to communism was the demand for human rights, the satisfaction of this demand was in fact ignored when communism fell. To rebuild a strong and effective state, which would assist the transformation of Polish economy, the re-

7 We are reminded here of the maxim "Justice delayed is justice denied". There is no available data on what percentage of those cases referred to economic activities. The author's personal observation from the years 1991-1993 is that a large part of 200 SOEs supervised by the Wroclaw Voivod's Department in which I worked, was involved in long lasting, and often several at the time, court cases associated with broken contracts, debt collection, property dealings, etc. The inefficiency of the legal system often delayed business and contributed to the financial difficulties of firms, e.g. when courts did not work efficiently in cases involving payments or debts.
establishment of those rights should have been considered first. (Albert A., 1991), (Davies N., 1984).

An example of a new law which effectively delays the improvement of property law is the Parliamentary Bill of September 4, 1997. This Act deals with the 99-year leaseholds (dzierzawa wieczysta) of land and houses and affects several millions of citizens. The declared intention was to replace this form of ownership rights with the one, which is permanent, i.e. without time limits. This would help to develop the land and housing market and strengthen the borrowing power of owners and encourage investment in the development of their property. This reform should be done by law, with immediate effect. Instead, the newly introduced Bill imposes on the leaseholders a complicated legal procedure of application for the change of status of their holdings. The likely result is that many citizens will not apply for the change, because it is expensive, complicated and requires travelling to an office in the Voivodship. Moreover, in 1999, municipalities, which own the relevant property, were given rights to oppose by legal action such a transfer of property rights. This effectively stopped the privatisation of land and houses.

Examples of the strength of old structures and their ability to perpetuate themselves can also be found in regulations about the housing co-operatives (spółdzielnie mieszkaniowe) and the allotments (Pracownicze ogródki działkowe). Allotments include 7,921 gardens of total area of 44,030 ha, and 34,043 ha of arable land cultivated by 0.98 mn holders. There are 2,655 housing co-operatives which own 3.2 mn flats of total size 161 mn m². (GUS, 1997, pp. 274, 158). As we can see the legal situation of these flats and allotments is essential for a quarter of the Polish population. Recent regulations of 1996 and 1997 about rights to the property administered by those organisations established that rights were given to those organisations, instead of their members. Thus the legal status of those organisations was significantly reinforced in comparison to the pre-1989 period and to the disadvantage of the members. If the rights had been given to the members,
this would improve their personal wealth and encourage individual investment. Instead property rights were given to those organisations' bureaucracy. Such a collective form of emancipation where property rights are given not to the members of an organisation but to the organisation itself seems far away from the concept of individual property rights. Since it fails to provide individuals with property rights, it does not encourage people to invest and improve their property. The above also applies to municipal housing, i.e. 1.55 mn flats in Poland.

The scale of the problem is large, since of the total 11.7 mn of dwellings in 1998 Poland, 5.6 mn, which is 48 %, do not belong to their occupants. (GUS, 1999, pp. 240-241). Thus a half of the population has little or no property. 10

Polish governments since 1989 have not paid enough attention to the urgent need to change the whole legal framework. All the governments of the former Eastern Bloc were in a similar position as regards the reform of the law to suit the new economic and political system. The slowness of the Polish governments of the 1990s to carry out the law reform is in marked contrast to what happened in Hungary. There was there thorough legislative work both about constitutional and other law including economic law, under the Antall government 1990-93. This gave Hungary, unlike Poland, a coherent body of law to replace the old communist law and to provide a firm framework for the new system. This also provided Hungary with a considerable advantage in the whole process, not least in attracting relatively greater foreign investment.

The new Constitution of Poland was established in 1997. 11 Individual and property rights are protected by the law. Yet, since there had been neither restitution nor privatisation of housing, land, allotments, etc., the new Constitution in fact confirms the property rights of few, i.e. only those who had property in 1950-1989 or acquired it during the 1990s.

10 The law of ownership (uwłaszczenie) passed through the Sejm and the Senate in September 2000 and was vetoed by the President.
11 Konstytucja Rzeczypospolitej Polskiej, Warszawa, 6 kwietnia 1997 r.
Also, the Constitution provides for the rule of law and democracy. It is hoped that these create a basis for the reconstruction of public institutions and the political stability of the country. The 1997 Constitution is only the start of the necessary law reform. It seems certain that the law reform of the second half of 1990s is connected with the Polish application to the EU. Further law reform depends upon the state of political and party situation in Poland.

5.3.3. Economic law

Laws of contract and competition

The most important laws about commercial activity are the Commercial Code (Kodeks Handlowy) and the Civil Code (Kodeks Cywilny). The Commercial Code of 1934 established operating procedures for commercial companies in their public conduct. It had been abolished to a large extent in 1964, and amended in 1990, 1991, 1992 and 1993. The Civil Code of June 23, 1964, (amended many times since then) describes the general terms for contract making within the Polish legal system. One of their significant features is an imbalance of rights between the state and the individual or private firm. The Civil Code clearly states that, "the creditor cannot claim to secure his property rights on the state's property". While at the same time the state can exercise such rights against its individual citizens or private companies. Since this undermines the security of business contract between the private and public sector to the disadvantage of the private ones, this regulation should be abolished. New regulations should be based on the principle of equality of all economic actors, including the state, before the law.

Another regulation important for business dealings between private and public companies result from the 'The Act on the State-Owned Enterprises', of September 25, 1981. There was no clear division of competence between the director and the Workers Council. This means that responsibility for decision making, including business contracts is also not quite clear. This often effectively discouraged private
firms from dealing with SOEs, because in the case of a disagreement, the private company may avoid a lengthy court procedure, which it cannot afford. 12

Although since 1989 the legal framework for contract making has been greatly improved, the state of the law is still inadequate. The reason for this is that each of the three laws most relevant to economic activity in Poland, such as the Commercial Code, the Civil Code and the Act on the State-Owned Enterprises, were passed in very different epochs (in 1934, 1964, 1981 respectively) and based on different philosophies, including a very different understanding of property rights, fairness of business contracts and civil or commercial responsibility.

Therefore, there is the urgent necessity for the revision of those codes in the light of the new economy and its aims. Since the Commercial Code is the most compatible with the requirements of international, especially of the EU, legal standards, it is recommended to adjust other laws to it. Also, state enterprises should be brought under the Commercial Code. At the moment they are regulated by various acts of Parliament. 13

There is no coherent competition policy in Poland. Although most of the relevant laws are included in the Commercial Code, they apply neither to state economic units nor co-operatives. There should be created a code of competition law, which would apply to all companies, whatever the forms of ownership. This change will be in line with EU requirements.

Laws on competition are also needed in the context of privatisation. Private monopolies limit consumer choices as much the state ones. Privatisation should proceed in a legal environment, which promotes competition. 14

12 Author's personal experience and interviews with companies' management.
13 A similar view was presented in The World Bank Report of 1992, which indicated that privatisation in Poland could not be successful nor accelerated, if there was no change in the entire legal framework. The World Bank recommended a form of 'legal standardisation'. Source: The World Bank Report Polska, Przekształcenia Ekonomiczne na Rozdrożu, Raport Nr 10305-Pol, February 5, Washington D.C.1992.
14 'Experience shows that the benefits from privatisation are most sustainable where competition is free, the economy stable, and the regulatory sector strong.' Source: Making Privatisation Work, The World Bank, Operations Evaluation Department, Précis Nr 82, January 1995, Washington D.C.
The Monopoly Commission's (Urzędu Antymonopolowy) competence should be widened and equipped with rights to examine the activities of state enterprises and institutions. The reason for this is that during the recent years the government created a number of state economic units, e.g. Agencja Rezerw Materialowych, which are equipped with public finances and conduct economic activities. There is a need to examine whether the activities of those agencies could be performed by the private sector, and if so, those agencies should be abolished and public finance withdrawn. (Stefanowicz L, 1997).

The creation of consistent economic laws based on the concepts of competition and fairness of contract, which underlie the market economy, should be the long-term task. The role of the state should be clearly defined as one that actively promotes these principles through an institutional framework. Thus, first of all, citizens should be guaranteed that no public institution acts illegally against them. The best means is to ensure that all citizens have the means to protect their own rights. They should be entitled to sue any authority or institution, including the state, which they regard as being in conflict with the above principles. The procedure for the enforcement should follow. At present there is no such regulations in Poland.

**Licensing**

The issue of licensing was discussed in chapter 3. These activities should be conducted within the general framework of law that protects the interests and safety of customers. An entrepreneur should be legally liable for the damage caused to the customers. This legal protection of customers would not hinder free competition. Licensing of those activities should be abolished.

**Land law**

There is no proper system of land law in Poland. That is to say a system of law that allows land to be freely bought and sold within certain rules. Under the pre-1989 system, land in Poland fell into various categories, such as mining land, agricultural,
building, etc., and these categories still apply in Polish law until the present day. Most of the land is still owned by the state and the land purchase is a complicated procedure that may take a year to complete. (Dzierzawski K., 1997).

For example, an entrepreneur who wishes to build a hotel by any road must begin with the Ministry of Agriculture in Warsaw to change the category from the agricultural to building land. And this only is the beginning of the long and complicated process. In this respect, in order to develop a property market, there is an urgent need for the reform of the law.

5.3.4. Privatisation

Privatisation in Lower Silesia was already discussed in chapter 4. This section raises the fundamental questions whether the methods employed in Poland were in the best interest of the public as distinct from those of certain groups in Poland and abroad; and also whether these methods assisted or hindered the changeover to a market economy.

Property rights and legal framework of privatisation

According to the Polish official terminology, a state owned company (SOE) means a company, which is a subject to the Parliamentary Bill on State Owned Companies of September 25, 1981. A change of the legal form of a SOE into a joint stock or limited liability company, which are subject to the Commercial Code, means that in official statistics about privatisation such a SOE is written off from the list of companies belonging to the State, regardless who is the actual owner of this company.

In 1990 there were 8,453 SOEs in Poland. (GUS, 1991). On 31.12.1998 there left 2,906 of them. (Ministerstwo Skarbu Państwa, 1999). The table below illustrates the way in which these companies were transformed.
Table 6.1: Status of SOEs in Poland during the years 1990 –1999.

<table>
<thead>
<tr>
<th>Directly privatised</th>
<th>Liquidated, according to the p.19 of the Bill on SOEs</th>
<th>Indirectly privatised</th>
<th>Transferred to the NIF*</th>
<th>Transformed into company subject to the Commercial Code</th>
<th>Transferred to the Treasury Agricultural Agency</th>
<th>Transferred to municipalities</th>
<th>Bankruptcy</th>
<th>Remained as SOE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 572</td>
<td>768</td>
<td>244</td>
<td>512</td>
<td>608</td>
<td>1 654</td>
<td>364</td>
<td>416</td>
<td>2 906</td>
</tr>
</tbody>
</table>

Source: Raport o Przekształceniu Własnościowych w 1998 roku, pp. 20-24, Ministerstwo Skarbu Państwa, Warszawa 1999. * Mass privatisation in Poland was based on The Act on the National Investment Funds (NIF), of April 30, 1993. Initially it included 512 SOEs which were to be run by 15 NIFs after transforming those enterprises into joint-stock companies; citizens were invited to purchase vouchers (equivalents of shares) of those NIFs; NIFs took control of 33 % stake in each of those 512 companies, while 27 % was distributed among the other 14 NIFs, 16 % left to the state and 10 % to those companies employees. The management of the NIFs consists of a combination of the government own nominees and representatives of foreign institutions, which are expected to provide additional finance and expertise. Sources: Nations In Transit 1997, p.288, Ed. Karanycky A., Moryl A., Shor B., Transaction Publishers, New Brunswick (USA) and London (UK) 1997, The Ministry of Privatisation Bulletin, Warsaw, Sep. 1996.

The above table shows that on 31.12.1998 completely privatised companies were only those of the first three columns, i.e. 2 584 of them, which is 30 % of the total: 17 % of them were sold, 5% were the subjects of take-over bids, 70 % were leased, 8 % represented mixed method of privatisation In the National Investment Funds the Treasury had 16 % stake. The 608 of SOEs transformed into joint stock or limited liability companies still belonged to the state. Assets of 1 654 SOEs, which were mostly state owned farms, were transferred into the Treasury Agricultural Agency and written off from the registry of SOEs, however they remained state owned. 364 SOEs, which provided municipal services, such as transportation, sewage, water supply, etc, were transferred to municipalities and there is no known a case of privatisation in this group. Assumed that bankruptcy is a way of privatisation, it may be said that some 40 % of the SOEs were privatised by the end of 1998. Assuming the present rate of privatisation is maintained, this process will continue for next 12 years. It may be said that the available privatisation methods were not attractive enough to encourage fast completion of the process. Most SOEs remained state companies.
The NIF programme started in November 1995 with the sale of vouchers, 20 zl (about 7$) per voucher, among 28 mn eligible (adult) population. The sale lasted a year during which 26.5 mn citizens bought vouchers. However, at the same time, according to the Ministry of Privatisation, most of participants of this programme have immediately sold their shares, mainly in order to earn their daily living. A large majority of 25 mn shares concentrated in the hands of less than 100 000 participants of the programme, which is less than 1 % of the total. This means that those who have sold their shares are not going to benefit from the future capital gains. It is therefore a failure of one of the declared objectives of that programme, which was a massive participation of citizens in ownership.

Many authors agree that privatisation in Poland was slower than expected. Main reasons for that seems inadequate regulations, which themselves may illustrate lack of government's commitment to complete the process.

Since property rights were not clearly defined at the beginning of the process, i.e. in 1990, this made possible the building up and consolidation of opposition to privatisation. In consequence, both privatisation and restitution soon became sensitive political issues. The subject of debate was and still is the principle of property rights itself rather than its effective implementation. This was immediately reflected in economic practice and significantly contributed to political difficulties and the slowing down of privatisation.

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17 Privatisation of state owned enterprises (SOEs) became the subject of bargaining between various participants of that process: the management of that company, the Workers Council, trade unions, state administration and a potential investor. In particular the subject of bargain was privatisation itself, instead of choosing an effective form of privatisation. In practice, an effective privatisation required an agreement of all parties involved. Source: Knight J., North D. Explaining the complexity of institutional change, in The Political Economy of Property Rights, Institutional change and credibility in the reform of centrally planned economies, pp. 349-355, Ed. Weimer D., Cambridge University Press 1997.
It can be argued that the lack of both clearly established property rights (thus the absence of clear perspective of benefiting from them) and the lack of political commitment of the government for their introduction was a significant disincentive for privatisation. In other words, the SOEs were given a choice to privatise or to remain state owned and many of them chose the latter. The first reason for such a choice was that privatisation brought about larger risk for employees to be sacked. (Luxmoore J., 1997).

Privatisation in Poland could not be successful nor accelerated, if there is no change in the entire legal framework relevant. In the situation of the shortage of investment funds for privatisation, the highly centralised privatisation system must be slowed down. Thus there is a need to decentralise that process.

An important result of the applied methods of privatisation was also the creation of a social group who earn their living from the very fact that the transformation is not complete. This involves, among others, members of boards and supervisory boards of the state and municipal companies. According to various estimates, this group includes 24 000 to 50 000 people who are relatively well paid for usually little work.¹⁸ For example a member of the supervisory board of the state company has a monthly salary of at least 2 000 zł (£300) for no more than 3 days work. Board members of these companies are paid better, usually between 12 000 zł to 80 000 zł (£2 000 to £13 000) monthly. The professional quality of these people is difficult to judge because their appointment directly depends on the results of elections as could be observed in all subsequent both general and local elections since 1993, when these boards were set up. The completion of privatisation is opposite to the vested interests of this group, since privatisation makes them dispensable. This, in the context of the lack of political commitment for privatisation, made state companies a source of current income for this peculiar group of managers, consultants and politicians.¹⁹

¹⁸ On the average the SOE supervisory board consists of 5-9 members, and the SOE board – of 5-7 members. These figures and data from the table 6.1. allow such a calculation.
¹⁹ EBRD comments on privatisation in Poland: ‘Pace and method of privatisation is still subject to delays and reconfiguration for political agendas’. EBRD, Strategy for Poland, 2002, p.37.
This raises the question whether the political and social goals of the whole transformation were properly defined. Privatisation methods applied to SOEs, the legal framework for privatisation of municipal and co-operative housing and that of allotments, are not just examples but they seem to create a pattern: the government failed to implement those methods of privatisation which effectively involve wide public participation in ownership.

Another example of the policy of excluding the public from taking a full part in privatisation is discouraging employee buy-outs of SOEs. The employee buy-out means that a company is bought on credit by a considerable number of its employees alone or together with an external investor. Credit is provided by a bank, or the seller, e.g. the state, agrees to be paid off usually in the period of 3-5 years, depending on the contract. This form of the company buyouts can be applied to all sizes of companies. For example, in Britain the largest employee-owned companies are National Freight Consortium with 32 500 employees, and John Lewis Partnership (department stores and supermarkets) with 29 000 employees. In USA, it is known as Employee Stock Ownership Plan (ESOP).20

The government policy was also not conducive to the employee/management buy-outs and favoured those forms, which involve immediate payment. This was despite the fact that the employee buy-out was the most popular form of privatisation. In 1996 employee/management buy-outs included 70% of all privatised SOEs.21 Instead of improving the legal environment for the employee buy-out, the government tended to discourage this form of privatisation.22

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20 It was created by L. Kelso, who emphasised three aspects of this concept: an increase of efficiency of the economic enterprise, reduction of the welfare activities of the state and an improvement of democratic structure of the society. The largest, in terms of employment, American ESOPs are United Airlines with 84 000 employees, Publix Supermarkets - 65 000, Science Applications (R&D and computers) - 15 000, Avis Inc. (rent a car) - 12 500. As far I know, all the above companies were bought on credit. Another European example of this concept implementation is Mondragon Corporacion Cooperativa in Spain (refrigerators, furniture, computers) with 19 000 manpower. Source: Koziaj J. Wsiości Wroclaw 1995.


22 This e.g. was often in the form of educational training for regional state officials and management of SOEs, provided by the Ministry of Privatisation. The author took part in several such training sessions. Additionally, a number of proposals for improvements of the legal framework for the
This policy, however irrational in the situation of the shortage of investment capital, can be partly explained by the ideological preferences of the much of the Polish political elite. Liberal ideologies became much more popular in the 1980s than those associated with concepts of social welfare and the welfare state. This was very much due to unofficial publications of that time, which widely promoted works of such authors as Frederick Hayek and Ludwig von Mises. 23 This is in contrast to a market economy, which provides not such a complete system of social security as provided by the state in social market economy. The social policy aims of the EU and its member countries include minimum social protection and improving living and working conditions. (Basic Community Laws, 1996).

Also the World Bank, which assisted in privatisation in Poland from its beginning, by providing expertise and finance, could have played some role in this kind of privatisation. It admitted its disapproval of selling public enterprises on credit. 24 This piece of advice, in the situation of permanent and severe shortage of local investment capital in transitional economies, including Poland, is obviously orientated towards the promotion of foreign investment. This investment is badly needed in Poland and no doubt that such an 'only on a cash basis' privatisation may be a strong incentive for a foreign entrepreneur. This can also be attractive for any government, since it provides the prospect of a relatively quick income, always needed. See chapter 4.

At the same time, however, this approach seems to leave little room for the social and political repercussions of privatisation and the whole transformation. The 'only on a cash basis' is the short-run approach. It very much confines the beneficiaries of employee buy-out, which were presented by the Union of Employee Ownership (Unia Właściwości Pracowniczej), gathering over 400 firms, were dismissed by the government. One of those proposals was to reduce the length of leases so that the leaseholders would become owners sooner and improve their position as regards bank loans. Source: Interview with K. Ludwiniak - the President of the Union of Employee Ownership.

23 Social welfare refers to 'the total well-being of a community'. Source: Dictionary of Economics, Bannock G., Baxter R., Davis E., p.397, Penguin Books Ltd, Harmondsworth, Middlesex, England. This school of thought also often refers to social market economy as one with a thorough system of social security, which involves unemployment benefits, health insurance, old age pension, etc.

24 'The Bank has discouraged governments from taking undue risks and urged them to privatize only on a cash basis.' Source: Making Privatization Work, The World Bank, Operations Evaluation Department, Précis Nr 82, January 1995, Washington D.C.
privatisation to those already rich Poles and foreign investors. Thus it fails to attract a large number of citizens to the process of change.

For the economy, such an approach, as regards employee buy-outs, fails to utilise the considerable amount of resources available from employees and their families. As indicated in chapter 4, the level of private savings in Poland exceeded 20% of Polish GDP, therefore there is money available in Poland in private hands.

It also disregards how the employees can be motivated to work hard while encouraged to have a share of the enterprise. It is widely known that motivation tends to increase when employees, apart from their wages, have a prospect of capital gains, because they are company shareholders. There are examples when employees' commitment to their own company not only rescued that company from bankruptcy but also was the basis for its commercial and professional success. One such an example in the Kriosystem Ltd in Wroclaw. This company used to produce devices associated with low temperature technology. It was owned by the Polish Academy of Sciences, when in 1992 it faced the prospect of bankruptcy. Some engineers employed in that company decided to borrow money from private sources (family and friends) to buy it out. A bank loan was not available, because, among other things, property rights to the land on which the factory was situated, were in question. Hard work and the commitment of those engineers helped them to pay off loans and have a commercial success. They increased employment from 18 in 1992 to 30 in 1996. In 1996 they sold their products to CERN in Geneva, which is a highly prestigious nuclear research centre.

The World Bank also admitted that the policy, which it favoured, was not working. 'The Bank first favoured the traditional sales method of privatisation in transitional economies but, after this proved too slow, has increasingly supported mass privatisation. In Hungary, which used the usual sales technique to the best effect early on, privatisation has almost ceased by 1993. Poland's early experience with public enterprise sales left many disappointed.' (World Bank, 1996).
Privatisation should continue. From the economic point of view, there is much empirical evidence that privatisation of SOEs brings about improvements of management and better efficiency. From the political point of view, the degree to which privatisation has been successful is one of essential measurements of completion of the whole transformation. (Slay B., 1995).

But there is also evidence that the social aspects of privatisation have been underestimated. This first of all refers to the type of privatisation, which was badly conducted so that it brought about a lot of economic misery and maltreatment of the employees. It seems rather unlikely that people who had such an experience will ever support and vote for the market economy. This adds to the dependency group as described by Zagórski. In the end, the social factor, living standards and work conditions, may be decisive to sustain the stability of the country and its development.

To prevent the grim development, as presented by Zagórski, it is necessary to attract more people into the process of reform, by giving them clear perspective of practical benefits from it, so that they could become beneficiaries of the whole process. Other forms of ownership must also play their part in privatisation, and these will include where appropriate, co-operatives and employee-ownership of shares. This already exists in a small way in Poland, where management and employee buy-outs have transferred ownership to these groups. The argument here is that this principle should be extended to the whole of the labour force. This will accelerate privatisation and result in the creation of a group of owners, who,

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26 E.g. the privatisation of the porcelain manufacture in Walbrzych (Porcelana Walbrzych) meant serious deterioration of work conditions. Employees worked in the climate of fear (from armed guards), were paid very little and never paid on time. This led to a serious social conflict between them and new owners who were supported by the Ministry of Privatisation. Source: Series of television programmes on TVP 2, by E. Jaworowicz in 1995 and 1996.
additionally are connected to their work places. Concepts of employee ownership are not new in Poland.  

This means to support employee buy-outs. This was also the most attractive form of privatisation for the public. This could also help to deal with a pure economic dimension to this problem, which is the availability of capital. The employee/management buy-out can attract a large amount of private small/medium savings, thus also fostering the development of the financial sector in Poland. Therefore the mode of privatisation should be conducted as far as possible through sales of SOEs to their employees. The law should be reformed so that employees can more easily obtain bank credit. On the other hand, if more people were able to buy their houses or flats, for example from the municipality, that would provide collateral for this kind of loan which would minimise bad debts and in general encourage this method of privatisation.

Other improvements could be based on the combination of concepts concerned with privatisation and management. An example of the German 'Mitbestimmung', indicates that a combination of ownership in the enterprise and organised cooperation of employees with its management (in contrast to theories which emphasise conflict between those groups) may result in a high productivity and competitiveness of those enterprises. This in an informal way worked well in the Wrozamet Company in Wroclaw, see chapter 4.  

Privatisation should be one solution among many for Poland's economic problems, rather than a doctrinaire panacea applied to all situations.  

27 An example could be the enterprise of Gazolina SA, which was established in 1912 in Lwow. It was owned by 46% of its nearly 1000 employees, and according to Ludwiniak and Bratkowski, developed into one of the most profitable companies in the inter-war Poland. (Ludwiniak K., 1990) (Bratkowski S., 1990).


Government should not lose sight of the actual purpose of privatisation. This purpose is the increase of productivity through the greater efficiency and capital investment, which privatisation can bring. The implication of this is that privatisation, once it is carried out on a pure pragmatic basis, will allow the coexistence of public and private sectors. The eventual consequence should be an improved performance of both sectors.

5.4. Political system

The present system came into being not through revolution but through peaceful transition. This means that there is no clear break with the past nor with the political establishment. On the other hand, this new system is expected to conduct what amounts to a revolutionary change and to do so by democratic means. This entails the support of the public for reform. The new system is thirteen years old and it is an experiment whose success is uncertain. The Polish political system, as that of other states in Eastern Europe, is engaged in a process which has no parallel in modern history and for which there are no guidelines from the past. This place extraordinary burdens upon the Polish government, far greater than those of Western European governments that have been long established and have no such difficult tasks.

The most important issue is whether the political system is conducive to the economic development of Poland, in particular if it supports the development of a modern market economy. The methods and results of privatisation, as described above, show that much of the existing resources, both human and capital, have not been yet put into operation. Privatisation of SOEs has been slow, restitution has not been introduced and attempts to privatise municipal and co-operative housing have failed. All these question the commitment of the post-1989 political establishment for the market economy.
Unlike other former communist countries such as the Czech Republic, in Poland there has been no restitution of property. This is an extraordinary state of affairs after ten years. It is estimated that some 120,000 people could claim restitution. The estimates of the value of the property involved vary but they all agree that the total amount would be considerable, running into billions of złoty. There are at least two aspects of this issue, one, of legal principle, and the other of economic advantage; the lack of restitution shows a contempt for private property as a legal right, and on the other hand, were this property returned to its owners, it would create a great amount of potential capital and credit. Neither of these aspects is compatible with entry to the European Union. The nature of this property is very varied and includes land, forests, houses and manor houses, factories, hospitals and schools. The successful opposition comes from vested interests who do not wish the state to lose its profitable assets. The 1999 Bill provided for either the return of the property or, where that was not possible, compensation but only to half of its value. This Bill passed by only a handful of votes, which indicates the degree of opposition to restitution. Leading the opposition were the Union of the Democratic Left and the Peasant Party composed mainly of former communists. It is possible that the smallness of the majority encouraged the President to exercise his veto. In the present state of Polish politics it is highly uncertain when, or even whether a bill of this type would be presented again to the Parliament. Thus the whole important issue of restitution remains completely open.

But there is a possibility that the Parliament may pass a restitution law drafted and implemented in such a way that the whole process is aborted, as happened in the case of housing privatisation. Until 1993, when the postcommunist political parties won the elections, they had blocked housing privatisation. In 1996 they introduced a law which in practice prevented privatisation. See chapter 4.

The communist system destroyed the political community in the democratic sense and also the sense of the public good. And a new political community has yet to be formed in Poland. Since the transition from the communist to democratic
government was without violence, many people remained in their positions in all aspects of public life, from the media to the bureaucracy.

Another problem is the present political system with its permanent coalition governments, which tend to weaken the coherence of policy and decision making. An example of the fragmentation of public life in Poland is the political scene, which consists of some 270 parties and there is little prospect of reducing this number. In practice there are only about half a dozen parties which have serious representation in Parliament and can join a coalition government. This is due to the electoral law, which insists that to obtain one seat in Parliament a party needs at least 5% of the total vote. Politicians too often represent narrow sectional interests and lack a sense of public interest. This system of coalition government causes frequent personnel changes on the regional level. In the Wroclaw voivodship, for example, since 1989, the Voivod - the highest ranking representative of central government in a voivodship - has been changed ten times.

Political patronage; the political administrative system needed to deal with problems of transition, needs to be a professional service with continuity and security of tenure. The current practice of changing high office holders after general elections is completely contradictory to a professional state administration. This includes high officials in the Warsaw ministries, police chiefs and members of the boards of the state companies. This practice has been criticised by papers of the reputation of Rzeczpospolita on precisely these lines. This criticism is common in the Polish media and the Polish public but the political establishment takes no notice. (Kolankiewicz G. 2000). This illustrates the gap between the political establishment and the intelligent public opinion. There is no constitutional nor legal justification for this practise and there seems to be no clear prospect of reforming this system because it is too convenient for politicians of all major parties. This practise has come in only since 1989 but has been the practice since then by all governments of whatever political complexion. It suits the political establishment because it is the very convenient form of patronage, but in our opinion is neither in the interest of the public nor in the interest of the economic development of Poland. The lack of
security of tenure of high officials is demoralising. Security of tenure is essential to
the effective civil service which by its essence should be apolitical and the
promotion should be dependent on professional criteria and not on political
connections.

On the one hand the government needs public support and on the other hand this
process involves taking unpopular decisions, such as closures, and hurting the
interests of considerable sections of the population. For this and other reasons there
is a considerable number of people throughout Polish society who do not want
serious reform. There are many people who feel that the state does little or nothing
for them and neglects their problems, such as in the rural areas. [See section below]
It may be that in this situation the Polish public expects more of the state than it can
deliver, because it is so burdened with responsibilities. There are also signs of a
widespread public cynicism about politics and politicians, which the common
corruption scandals foster. See section on corruption.

The state remains a powerful owner, while its legislative and executive power to
promote a new political and economic order seems weak.

Enemies of reform

The Polish sociologist Zdzislaw Zagórski in his analysis of the pre-1989 society in
Poland described the mechanisms by which the dependency class and culture was
created. (Zagórski Z, 1996). In his view these mechanisms combined to produce a
new set of attitudes, which had the effect of creating a 'dependency culture', and
therefore a dependency class (klasa garnuszkowa) significantly larger that that in
capitalist economies. In capitalist countries this class consists of the long-term
unemployed and those unable to seek employment, such as single mothers and
pensioners. In Poland the dependency class was not confined to these groups, but
extended to those whose employment in the public sector was due to the rampant
over-manning there. All of these people found their security in the state, and feared
that the transformation might be to their disadvantage. Indeed this feeling of
insecurity extended even further, and existed throughout the significant part of the
public sector (he excludes here the professional class, whose livelihood comes from
the state). This class regarded the economic liberalisation and the 'shock therapy' as
a threat to their security. Moreover, the 'shock therapy' expanded this class to
include the newly unemployed and the newly increased number of pensioners. Thus
there emerged a serious new political force. Election results of the 1990s and in
particular in 2001 indicate that many of these people vote for the postcommunist.
At the same time the emerging entrepreneurial class is very much a minority in
Polish society. Therefore the electoral situation is one where the dependency class
has a strong position. Zagórski calls such a situation 'the structural trap' - the
existing social structure becomes incapable of further evolution. Zagórski
emphasises the significance of the two segments of the dependency class - economic
and cultural. He regards these as the most dangerous opponents of reform. The
dependency class is in effect an anti-market force, which attempts to maintain its
position by resisting those changes, which will assist market forces. This resistance
prevents the development of the economy, creating political pressures for the
entrenchment of their position, and therefore an additional burden for the
economy. Zagórski further believes that economic transformation can only be
carried out by a form of dictatorship.

Zagórski raises a fundamental issue about the whole process, an issue that is not
often addressed. It is all too often assumed that this complicated process can be
successfully conducted by democratic means. The process is only beginning and
there is no means of knowing what the situation may be like in ten years time, if the
dependency group he mentions continue through the democratic process to block
the necessary reforms. This is not to predict or to wish that the dictatorship may
come, but only to agree with Zagórski that in the long run it may be impossible to
combine capitalist economy with democratic system.

He also emphasises, that because of the conservatism of many section of Polish
society may seriously impede the whole process of transformation. The politicians
who represent such conservative groups are usually to be found in the ministries of
almost all coalitions of the present day Poland, thus providing an effective brake on
change. Zagórski also argues that at the moment in Poland traditional division of the political scene between left and right does not apply. In fact, each political party produces its own left and right wing.  

**Corruption**

It is difficult to estimate the degree of corruption which exists in Poland and which may affect the economy. It is also difficult to assess how much the existing corruption hinders the economy. This is an emotional subject and there are many polemics about it. (Kamiński A., 1997), (Poznański K., 1995). Having said this, there is no doubt that there is a considerable amount of corruption, such as revealed in the banking scandals.

According to EBRD, 'corruption was an important electoral factor and remains a major problem'. The World Bank Report published in May 2000 pointed to widespread and growing corruption at all levels including top state bodies, the Parliament, the judiciary, the public prosecutor's office and local government. 'The key to the solution lies in the badly overdue reform of the Polish judicial system'. (EBRD, 2002, p.47).

Also it is common knowledge in Poland today that a company in order to get a contract from the state or municipality often has to pay a bribe of 10% of the value of the contract. This obviously reduces profitability and can prevent many companies from bidding at all. There are authors who see corruption as one of serious dangers for privatisation.  

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30 For example, the coalition governments between 1989 and 1993, widely thought to foster the market economy, enjoyed the support of the powerful Solidarity Trade Union. The subsequent coalition government of 1993-1997, which was formed by the post-communists (SLD - a major political competitor of the previous government) and the peasant party (PSL) also enjoyed the support of a trade union OPZZ - the second largest trade union in Poland. This pattern also applies to the post-1997 government.

31 Corruption is perhaps the most serious general problem facing Poland's privatisation efforts. While the roots of corruption certainly proceed the post-communist era, the problem was exacerbated by the fact that the deregulation of the private sector, which began under Rakowski government, was not accompanied by the creation of regulatory, fiscal and legal mechanisms appropriate to the new setting. This has damaged prospects for establishing the rule of law, and has furthered the popular impression that Poland is drowning in the sea of corruption and criminality. Source: Slay B. *The Polish economic transition*, in *East-Central European Economies in Transition*, p. 475, Ed. Hardt J., Kaufman R., Armonk - New York - London 1995.
Another field where there is a good deal of corruption is in the health services, due to the lack of any significant reform in that field. All hospitals and clinics are state owned, and all employees in Poland pay 48.3% of their salary for social security (ZUS). The private practice of doctors is permitted but specialised health services, such as operations, major examinations or childbirth, are available only in the state hospitals. The salaries hospital doctors are paid by the state. Since there has been no reform of the social security system during the last 8 years, the doctors have been significantly underpaid, e.g. their present average monthly salary is below £300. Such a situation has resulted in a high level of corruption - a patient who comes to a hospital without a bribe is unlikely to receive adequate service. This does not mean that all doctors in Poland are corrupt. It does mean that such an ill-defined system puts enormous pressure on this professional group and, in many cases, if a patient wishes to obtain good service, he is expected to break the law and pay extra to the doctor. Such a situation has a direct impact on the standard of living, on health. It also undermines public trust in the whole system. It also the public does not have the health service it should have, which has a bad influence on the health of the Polish population, which in turn may affect its economic performance.

Perhaps a lot of corruption is unavoidable in the period of transition, especially in the absence of clear law and regulations as stated above. A new democratic tradition and a public service ethos have yet to be created. Corruption in the banking system may lead to a large amount of bad debts that are never paid and the waste of precious bank capital urgently needed for productive investment. Corruption in privatisation may have undermined the legitimacy of the whole process. 32

It is probable that corruption can never be eliminated but only limited. There are three possible means of limiting corruption. First, there should be the clearly established legal responsibility of individuals, in particular of those who work in public institutions. Secondly, this law should be enforced by penalties. Third, it must be possible for the state and individuals to sue in case of corruption.

Regions

This section will be concerned with the problems connected with the efficiency of public institutions, especially the influence of the administrative structure of Poland on the economic development of its regions and the whole country. This section is divided into period a) that is up to 31.12.1998 and period b) since 1.10.1999 when new administrative structure of Poland was introduced.

A)

Poland is a country where the combination of geographical features, settlement structure and occupational profile of the population have created a group of regions, which during their history have demonstrated their multi-functional capacity. Most authors distinguish 10 -14 regions in Poland, depending on the degree of centrality of their central cities. (Kukliński A., Jałowiecki B., 1991), (Parysek J., 1996), (Kołodziejski J., 1993).

They are the following: Pomorze Zachodnie with the city of Szczecin as its centre, Pomorze Wschodnie with its centre in Gdańsk, Warmia and Mazury with Olsztyn, Kujawy with Bydgoszcz, Podlasie with Białystok, Wielkopolska with Poznań, Ziemia Sieradzka with Łódź, Mazowsze with Warsaw, Lower Silesia with Wroclaw, the Voivodship of Opole with the city of Opole, Upper Silesia with Katowice, Małopolska with Cracow, the Lublin Region and the Rzeszów Region. (Gorzelak G., 1992).

The post-1989 administrative division of the country was not in accordance with these characteristics, and thus the divisions were artificial and disregarded the features that were described above. Thus this system prevented the regions from carrying out their appropriate functions.

Decentralisation, however badly needed, should have its limits. Because the post-1989 system was too centralised and more economic autonomy should have been given to the regions, this should not mean that Warsaw should lose its power to give general direction to the Polish economy. There has to be a careful balance between
regional autonomy and the ability of Warsaw to oversee and facilitate general economic policy. The general legal framework must be created and supervised by the centre, e.g. economic law. There are many economic problems that can only be dealt on the national and not regional scale; e.g. coal mines in Silesia. Another example is infrastructure, such as railways, waterways, and roads, which need to be seen in a national rather than regional perspective. The degree of the regional autonomy should be enough to stimulate local initiative and the better use of regional resources, but leaving Warsaw the role of co-ordinating national economic policy.

In 1989 the territorial organisation of Poland was based on 49 separate units (voivodships) of the state administration, and about 2500 self-governmental units of local government. The head of the voivodship was appointed by the central government, and was supposed to co-ordinate the work of 15 departments of his area. Those departments' main responsibilities were concerned with the redistribution of the governmental budget for the voivodships and with the supervision of the state owned enterprises and institutions. The Voivod was the representative of the central government, rather than the region. The Voivod did not possess the budget to create a regional policy. For example, he could neither influence the development of the transport infrastructure, nor improve the police service in his region, other than by applying to Warsaw for permission and money. Similarly, he could not have educational, social or cultural policy.

Within the territory of each voivodship, of an average size of 6000 km², there were about 60 offices, so called 'special administrations', also representing central government and subordinated directly to it.  

33 Those departments were: of Spatial Planning, of Economic Development, Agriculture and Food Economy, Organisation and Supervision, Finance and Planning, Culture and Sport, Civil Affairs, Maintenance and Administration, Environmental Protection, Cartography, Surveying and Land Management, Technical Infrastructure and Transportation, Health, Civil Defence, Provincial Welfare Office, Prevention of Alcoholism and Drug Addiction.

34 Examples of special administration are: The Agency of Agricultural Property of the Treasury, District Board of Public Roads, Technical Supervision Inspectorate, Provincial Warden of State Fishery Guards, School Superintendence, Regional Office for Standardisation and Measures, Assay Office, District Energy Management Inspectorate, District Seed Inspectorate, District Inspectorate of State Trade Inspection, District State Inspectorate of Labour, District Office for Measures.
As can be seen from the above list, the competence of many of those offices overlapped and at the same time there was no regional co-ordination of their work, over which the Voivod had no influence. For example, neither the Voivod nor the municipality could influence the improvement of public hygiene in their area, because this special administration (Sanepid) was subordinated directly to Warsaw.

This was an extremely centralised system in which any initiative depended on the centre. This system rested on the assumption that the whole country was uniform as regards its economic characteristics and requirements. It disregarded the diversity of Poland and no scope to regional initiative. It allowed valuable regional resources to be wasted. (Drucker P., 1994).

Also from the managerial perspective it was difficult to manage, because it could not deal fast enough with the flow of information, which was bound to result in delayed decision making. (Marchesnay M., 1994), (Goddard J., 1983), (Mitchelson R, Wheeler J., 1994).

It made the voivodships mutually competing clients of Warsaw, instead of promoting their co-operation, since there were no co-ordinating bodies. This was very serious for regional development because this inhibited the co-operation of voivodships to further regional interests. Since many basic economic decisions concerning the location of industry, or the establishment of financial institutions, such as a stock exchange, were placed outside the regions, it significantly reduced regional participation in the flow of finance. 35

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Thus, from different points of view - the art of management, the effective utilisation of resources, the adaptation to the modern economic processes - the administrative system of Poland up to 1998 needed significant adjustments.

The reform in this field started in 1990 when new regulations about local government were introduced. This enabled local elections to be held and the establishment of authorities operating at community level (gmina). The main local source of revenue for these authorities was the 18% of the total income tax collected by the central government from the taxpayers of each authority, was then transferred to those authorities. A form of local property tax, as well as a motor tax were imposed and collected directly by the local authorities. (Broszkiewicz R., 1992).

Impressive though these figures may seem, they do not in fact amount to very much. Certainly they were not sufficient to create for the local authorities adequate resources with which to attract industry into their areas. The overriding fact was that those areas in need of large-scale transfusions of capital were forced to seek them from the central government. Thus the regional development that has occurred has been overwhelmingly financed by the central government, and it was through this means that the central government continued to exercise control. In addition the central government had the power to veto any decision of local authorities.

It took years of political discussion to arrive at the reform of territorial organisation. Some authors expressed the opinion that the reform described above has had a negative impact on regional development, even in comparison with the pre-1989 system, because it dismantled the embryo of regional self-government (rady narodowe), representing a chance for the emancipation and influence on the regional economic policy, (...) which was accompanied by the transfer of decisions from regional to central level. (Jalowiecki B., 1993).

A similar view, also stating that this territorial division was over-centralised and failed to recognise the historically formed socio-economic regions is presented by A.

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56 'The Act on the Territorial Self-Government', from March 8, 1990; and supplementary to this, the 'Competence Act' from May 17, 1990.
Kukliński and G. Gorzelak. Also, \textit{There exist justified opinions that the present level of centralisation is even higher than during the 1970s. This centralisation is due to even greater fragmentation of the regional state agencies and regional budgets and their stronger subordination to the central ministries.} [46] p. 27. The importance of adequate recognition of the regions, which should be based on the \textit{synthesis of many features, rather than arbitrary ones}, was indicated by Grigg. (Grigg D., 1972). The necessity for planning the regional economic development and adequacy of instruments of implementation has been emphasised by Blakely. (Blakely E., 1989). The influence of territorial structure on human social and cultural identity and behaviour was analysed, for example, by P. English and R. Mayfield, who also emphasise its communication role. B. Winiarski argues for the reform of the regional division of Poland on grounds of economic efficiency as well as for social and political reasons. (Winiarski B., 1992). R. Krawczyk points out the necessity for the economic reconstruction of Poland to take into account local and self-governmental factors, which had played an important role in the history and economic growth of Poland until the introduction of the command economy. 37

An additional feature of the Polish administrative system was a sectoral division of the state economic bureaucracy. Economic policy in Poland was conducted on the basis of different branches of economic activity, e.g. agriculture, forestry, transportation, etc. Each ministry conducted its own sectoral policy that was transferred to regions through their own regional representatives. Therefore regional development was subordinated to the objectives of sectoral ministries in Warsaw. In Gorzelak's opinion, since there was no co-ordination of these policies, they led to the dispersion of public finances rather than to their adequate distribution. (Gorzelak G., 1994). Many authors agree that this fact combined with centralisation, legislative disorder, and the political interests of various parties, resulted in an ineffective use of Poland's resources. 38 Moreover, chaotic state intervention, necessitated by political considerations further distorted and destabilised the working of the economy.

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37 The development is always local, in \textit{Wielka przemiana, Upadek i odrodzenie polskiej gospodarki}, Oficyna Wydawnicza, Warszawa 1990.
Decentralisation of power was badly needed in order to enable economic development to be indigenous, locally rooted, and thus more likely to be sustainable, since the inhabitants of the regions would have a clear idea of what their policy aims should be. Also it would help to create local patriotism, a regional loyalty which could only grow if there exists a belief that the region belongs to them, and its benefits can be transferred to their children. This is in contrast to the sense of detachment and alienation from regional loyalties, which occurs with totalitarian rule. (Yi-Fu Tuan, 1987).

In this view the regionalisation of Poland would positively influence the integration of her regions with the rest of the country. Thus Silesia could be fully integrated with the rest of Poland, only if it had the chance to make its own economic decisions. A model for regional autonomy could be the situation of Silesian Voivodship before 1939. The Silesian Voivodship was given its own regional Parliament (Sejm Śląski) and its own Treasury (Skarb Śląski). The appointment of the Voivod required agreement between Warsaw and the regional Parliament. (Leszczyńska C., 1990), (Zawadzki S., 1990). Alternatively, these critics argued that if the over-centralised system were maintained, it would stimulate local separatism. There have been already attempts to register separatist parties, such as 'The Party of the Silesian Nation'. The authorities rejected their request. (Hryniewicz J., 1995), (Makarewicz Z., 1992).

A great deal of political debate turned on what should be the boundaries of future Polish regions. This seems to me an issue of secondary importance in comparison with the extent of the powers of decision-making to be delegated to the regional level. The main point is genuine decentralisation, so the regions have control over their own finance and a large part of their economic policy. Also in terms of the sheer size of regions, the regional structure of Poland is important for interregional co-operation. (Pomorski-Mikulowski J., 1993). If Polish regions could possess features such as the size of territory, population and the power of decision-making, similar to

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38 For example, Professors Winiarski B., Kukliński A., Gorzelak G., Jalowiecki B., Zagórski Z., Szlachta J., Wich U., Pyszkowski A.
those enjoyed by some Western European regions, this would facilitate partnership among them. (Swianiewicz P., 1990).

Thus in my view these critics of the old pre-1999 system had sound arguments. The new system should be based on a new territorial division of the country with regard to the existing regional functional centres and their capacity to carry out all service functions for the regional market, with the exception of those functions, which are important for the state's security (defence, foreign policy, state police, system of justice, tax collection, central bank and few control or regulatory functions). This should be accompanied by the delegation of substantial legal and executive power to regional authorities and further to the local authorities, in accordance to the principle of subsidiarity. (Millon-Delsol Ch., 1995).

b) The new system introduced on 1.01.1999 remedied many of these defects. There have been created 16 regions (voivodships) with their own elected governments. They have their own budget, the right to plan and implement their own development. Such a development plan, often called a strategy, is by its nature very much indicative and its main role includes guidance for investors as regards the direction of regional development. Presently most of economic decisions can be taken at the regional level. The region gained the right to cooperate with other regions in Poland and outside, within certain limitations and with the consent of Warsaw. And while all these activities are under the legal supervision of the central government, it is the regional government, which is largely responsible for regional development.

There are four levels of the administrative system: local communities, counties, regions and the central government. The main means of the regional government is persuading organisations to follow the regional plan. The executive role remains largely in the hands of the central government.

The management of regional funds is far more transparent to the public than the funds of the central government. This can be confirmed by the fact that during the
recent years the largest number of corruption cases referred to regional not the central government or community level.

The revenues of regional authorities are twofold – a share in taxation in the region, which are their own revenues, and government subsidies. The first provides some 20 % of the total revenues and the rest come from the central government subsidies. The regional authorities own very little property, thus it can not be a serious source of funds. The budget of regional authorities is not impressive. For example the Lower Silesian budget in 2001 it was some 350 mn zl (equivalent of GBP 60 mn). By comparison, it was a fifth of the City of Wroclaw budget and a sixth of the Voivod’s budget.

Apart from the problems with effective management of the regional development, there is a question of the regional capacity to absorb the EU assistance or pre-accession funds. Most of these programmes require at least 15 % to 25 % of own funding input by the applicant. The small amount of the regional authority funds indicates that here may be serious problems with finding this finance.

For all the above reasons, therefore there is a need for a larger share of both corporate and personal tax created in the region to remain in the region. The best solution would be to have a share in the VAT because it is the most stable taxation and would make planning easier.

The transition from a single party state to a multi party democracy has had a considerable impact on both regional and local policy making. Since 1999 there are regional assembles and various parties with differing views on regional development. With the exception of Upper Silesia (with the Upper Silesian Union) and Opole Silesia (with a German minority party) there are no regional parties, so the deputies of regional assembles mostly reflect the views of the national parties. There are also regional lobby groups, which are independent from parties.
The situation is more diversified at the gmina level, where local alliances tend to prevail over national parties. The old communist monopoly of public debate and decision on the use of resources has disappeared to be replaced by public debate between diverse parties and groups.

5.5. Rural question

As stated at the beginning of this chapter much of the whole rural question has been neglected by many politicians and much of the public with a possible exception of the Peasant Party and the rural population itself.

1. 38% of the Polish population live in rural areas: the definition of rural areas includes not only villages but also several hundred small towns of less than 5,000 inhabitants. 26% of the working population consists of people dependent upon subsistence farming. One conclusion from these two statistics is that there is a great deal of rural poverty on a scale that has grave social and economic implications not only for the rural areas but also for the whole of Poland. (See the Stare Bogaczowice case study). This rural poverty limits and will continue to limit the internal Polish market for consumer goods and services, unless there is a government rural policy. Also if the present state of affairs is left to continue it could have serious political consequences in the form of anti-market mood. The recent remarkable success in 2001 parliamentary elections of the Samoobrona party led by Andrzej Lepper, confirms this view. And if one of the aims of Polish entry is to bring Polish conditions into line with those of Western Europe, then the difference between rural and urban areas in their social and economic conditions should be reduced; and above all something done about this hard core of rural poverty. Furthermore the whole transformation process can be successful only if the rural areas and their conditions are modernised as much as those of large towns and cities. Therefore there needs to be an integrated strategy for both town and country since their prosperity is interdependent.

2. Up to now rural policy has been confined to the restructuring of the size of farms. This policy proved to have limited results; during the recent decade the
average farm size increased only from 7.1 ha in 1989 to 8.1 ha in 2000, and the productivity of farms has not increased significantly, while there was an increase in the proportion of farm land in private ownership from 76 % in 1989 to 83.9 % in 2000. Much more attention and resources should be given to improving the general social and economic conditions of rural areas.

3. Many authors indicate that many problems of Polish rural areas may be associated with the disappearance of the traditional rural way of life. (Halasiewicz A., Kaleta A., 2000), (Halasiewicz A., 2000), (Tryfan B., 2000). For many young people in the countryside the only way to advance seems to be to leave the countryside for towns. During the 1990s the government closed down a great many social institutions in rural areas. Village libraries, youth clubs and sports clubs disappeared. Because of demographic change some primary schools are being closed down. As a result the rural structure of employment has became less diversified; there are fewer educated people, such as teachers, librarians, and craftsmen. Thus there are fewer and fewer people who can initiate and develop non-agricultural activities. Therefore, this process of cultural impoverishment of the countryside should be stopped and reversed. Outside intervention is needed because rural communities have often lost the power of initiative.

4. The whole rural problem is urgent because:
   • the high percentage of the total population in rural areas;
   • the state of Polish agricultural production;
   • Poland could be more or less self-sufficient in food;
   • the amount of Polish produce which can be exported is limited and will be further limited by a quota system when Poland joins the EU.

5. There are already too many people drawing their livelihood from agriculture; and the number needed to maintain the present or future level of agricultural production is likely to decline. Improved agricultural methods will probably increase both the agricultural and labour surplus.
6. A sound rural policy should aim at creating productive employment in the rural areas outside agriculture and not in the towns. This view is based on these assumptions:

- The towns and cities have already a serious housing problem for their present population and could not accommodate a flood of people from the countryside. There is no major rural housing problem and urban people could find accommodation there more easily than in the towns, see chapter 2.

- Since the branches of heavy industry such as steel and mining, which in the past had depended on a pool of rural labour, are in terminal decline, there is no such need as in the past for labour migration from countryside to town.

- Because of low educational standards of the rural population, of whom only 2% have higher education, there is a little chance for them to find a job in towns; therefore they are in a transitional trap; there is no work for them in the old world nor in the new.

- The rural areas need better amenities of all kinds from telephones to better roads to improved sanitation and water supply. With the right investment the young people unemployed in the rural areas could be used to create or to improve these amenities and this in turn would make rural life more attractive and encourage young people to remain there. Apart from improving these amenities there is a need for the development of services, equivalent to those in the towns, such as medical and educational. This is a two way process: to create new jobs for the rural young generation and also to attract well-qualified people from the towns to live and work in the country.

To bring these problems to life, there is the following case study of a small rural community in Lower Silesia.

The case of the Stare Bogaczowice community in Lower Silesia

The Stare Bogaczowice Community (Gmina) is located in the vicinity of Walbrzych at the Sudeten foothills. It covers the area of 87 km² of a hilly land with the highest
point of 779 m above sea level. In October 2001 it had 4,374 inhabitants living in the following eight villages: Stare Bogaczowice (1,270 inhabitants), Struga (759), Jabłów (463), Chwaliszów (427), Gostków (419), Lubomin (377), Nowe Bogaczowice (183).

62.8% of this area is agricultural land of which a half is arable land, 30.8% is forests, 5.5% - built up areas, 0.6% - water and 0.3% - others. Arable land is mostly stony soil, partly rich in limestone, partly rich in iron. In the recent decades no important minerals were found, with the exception of mineral water, and the amount of these resources has not been fully established. Forests are mixed, with plenty of various edible berries, mushrooms and wild animals such as roe, deer, boar, hare, beaver, etc. The water of the area comes mostly from the two mountain streams of Strzegomka and Czyzynka, which often flood the built-up area that is mostly concentrated along these streams.

At the end of 1999, 45.4% of the land in this community belonged to the State Treasury (mainly forests and arable land), 31.3% was private, 5.4% was municipal, 14.0% belonged to farming cooperatives and 3.9% - others.

The past economic role of this area changed over centuries. In the 15th and the 16th centuries there were lead and silver mines in the villages of Jabłów and Chwaliszów. In the 17th c. in Jabłów there were established an iron ore mine and two coal mines. At that time there developed the cottage weaving industry which became the main activity until the end of the 18th century, to become predominantly pastoral in the 19th century. Until WW I a local village usually had two schools (Catholic and Protestant), a parish house, a manor house and its farm, several water mills, a brewery, a distillery, a brick works, several weaving workshops, an inn, a smithy and some other workshops. During the 1920s and 1930s tourism was developed in the area, so that several small hotels, restaurants, mineral water drinking facilities were built; the village of Stare Bogaczowice gained the status of a spa (Bad Alte Reichenau). In the nearby village Cieszów there was a spa. After WW II this establishment was neglected and fell into disrepair. At the same time its animal
husbandry developed so that a number of farmers built new large barns, stables and flats for themselves. These large brick buildings, usually along the village main road, are the features of a significant part of the Sudeten foothills; they mostly survived until today, often remaining empty.

WW II brought the entire change of the local population. In the second half of the 20th c. the dominant economic function of the area was farming, mainly calf and sheep breeding. Since WW II its tourist industry never took off and tourist facilities largely fell into disrepair. In the 1970s and 1980s most of the working population were peasant-workers (chłopo-robotnicy). They were a source of labour for the Walbrzych coal mines and the Świebodzice and Kamienna Góra textile industry.

Present demographic trends in the Stare Bogaczowice community

As can be seen from the table below, the age structure seems rather advantageous for the community: 58.9 % of the population is in the working age, 24.8 % before working age and 16.3 % are retired. There is a slight preponderance of women. During the 1990s the birth rate was steadily going down to stagnate in 1995 and become negative afterwards. Over the whole decade the migration balance was negative. According to local officials, data on migration is almost certainly underestimated, because there are persons, particularly young, who left the area but are still on the local records.

Table 6.2: Basic demographic data on the Stare Bogaczowice Community.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>4 374</td>
<td>4 277</td>
<td>4 231</td>
<td>4 131</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>woman</td>
<td>2 197</td>
<td>2 166</td>
<td>2 144</td>
<td>2 098</td>
</tr>
<tr>
<td>men</td>
<td>2 177</td>
<td>2 111</td>
<td>2 087</td>
<td>2 033</td>
</tr>
<tr>
<td>Age structure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before working age</td>
<td>N/a</td>
<td>1 218</td>
<td>1 133</td>
<td>1 023</td>
</tr>
<tr>
<td>Working age</td>
<td>N/a</td>
<td>2 428</td>
<td>2 489</td>
<td>2 434</td>
</tr>
<tr>
<td>After working age</td>
<td>N/a</td>
<td>631</td>
<td>609</td>
<td>674</td>
</tr>
<tr>
<td>Birth rate per 1000 inhabitants</td>
<td>2.5</td>
<td>0.0</td>
<td>-1.4</td>
<td>-1.8</td>
</tr>
<tr>
<td>Migration balance, number of persons</td>
<td>-24</td>
<td>-47</td>
<td>-22</td>
<td>-35</td>
</tr>
</tbody>
</table>

There could be some 100 such persons. And since the area provides few work opportunities, this negative migration tendency is likely to continue. In conclusion, if these two negative tendencies – birth rate and migration – continue in the years to come, the area will face a significant depopulation. Therefore, apart from those who are of working age, much attention should be paid to the economic future of those who are before working age and who represent a quarter of the local population.

**Change of employment structure in the years 1995-2000**

Table 6.3: Change of employment structure in the Stare Bogaczowice community in the years 1995-2000*.

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>1997</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting and forestry</td>
<td>538</td>
<td>363</td>
<td>379</td>
</tr>
<tr>
<td>Mining</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9</td>
<td>58</td>
<td>51</td>
</tr>
<tr>
<td>Energy, water and gas supply</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>15</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Trade and repair</td>
<td>24</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>6</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Financial services</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Property and business services</td>
<td>7</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Administration and defence</td>
<td>48</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>Education</td>
<td>52</td>
<td>53</td>
<td>57</td>
</tr>
<tr>
<td>Health and social services</td>
<td>23</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Other services</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>732</td>
<td>569</td>
<td>592</td>
</tr>
</tbody>
</table>


In October 2001, of 2 434 persons of working age there were 282 farmers and 732 employed as in the above table. Thus altogether there were 1 014 employed, which would mean that real unemployment in this community was 58.3 % (1 420 persons). According to the County Labour Office, registered unemployment at the end of February 2002, was at the level of 850 persons (35 %), of whom only 224 were entitled to unemployment benefits (which last up to 6 months when one is expected to find work). Over a half of the registered unemployed were people under 34.
This enormous difference between official and real unemployment rate can be very much explained by two factors. One is that, since most of the unemployed are not entitled to unemployment benefits, they tend not to register as unemployed.

The other reason is that the farmer family members also tend not to register. This case illustrates the urgent need to improve the Polish overall system of unemployment registration.

As can be seen in the table below, the number of unemployed nearly tripled in the years 1997-2001. Since most of the people employed outside of agriculture worked in the neighbouring towns of Walbrzych, Świebodzice and Kamienna Góra, this growth of unemployment partly resulted from the worsening economic situation of these towns, such as the closure of mines in Walbrzych, the decline of the textile industry in Kamienna Góra, downsizing of several firms in Świebodzice, e.g. the Rafio company. Also, the largest employer in the community - the farming cooperative Przemysłowi of Stare Bogaczowice - reduced its staff by 168 workers from 538 to 370.

Table 6.4. Registered unemployment in the Stare Bogaczowice Community in the years 1997-2001*

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of unemployed</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>237</td>
<td>146</td>
<td>91</td>
</tr>
<tr>
<td>1998</td>
<td>239</td>
<td>136</td>
<td>94</td>
</tr>
<tr>
<td>1999</td>
<td>327</td>
<td>185</td>
<td>142</td>
</tr>
<tr>
<td>2000</td>
<td>375</td>
<td>218</td>
<td>157</td>
</tr>
<tr>
<td>2001*</td>
<td>540</td>
<td>293</td>
<td>247</td>
</tr>
<tr>
<td>February 2002</td>
<td>850</td>
<td>448</td>
<td>402</td>
</tr>
</tbody>
</table>


Significant changes in employment structure in the years 1995-2001 include:

1. The decrease of agricultural sector by 30%
2. The growth of manufacturing from 9 persons to 51, resulted from the establishment of two bakeries in Struda and Stare Bogaczowice, a small feed plant in Stare Bogaczowice and a small production line of candles in Jabłów;
3. The fall of employment in the administration from 48 to 25 resulted from the privatisation of some municipal services and also because of reductions in the Municipal Office;
4. The growth of education services from 52 persons to 57 (more teachers in the school)
5. The fall of employment in health and social services from 23 to 11 as a result of privatisation of Municipal health services in 1998 and following reductions;
6. Growth of employment in financial services from 1 to 5 persons who after the training became insurance agents;
7. There also appeared a small hotel in the village, which is run by its owner.

The structural change of the late 1990s in such a small rural community has been very deep indeed: the growth of local manufacturing, decrease of agricultural employment, relative growth of importance of the service sector from 31 % to 38 %, accompanied by some diversification of services.

All this shows that the structural changes in the Stare Bogaczowice community are the result of not only of the transition from the command to the market economy; but also the rapid opening of Poland to free trade had profound impact on this society. Imports of cheaper textiles from Asia contributed to the significant reduction of the textile industry in neighbouring towns as well as energy production based on local coal lost to imported oil and gas. Newly established activities, mainly in the service sector, did not provide many work opportunities. Massive unemployment became the feature of the area.

This was accompanied by significant poverty. According to my interviews with local shopkeepers in November 2001, many people buy food on credit as well as clothing from second hand shops.
During the last decade the largest number of companies in this area was established in 1991 which was 78, while in 2000 it was 35 which was more than halved. Also in 2000 more companies were closed down (43) than set up. According to local officials and interviews with inhabitants in November 2001, the main reasons for the decrease of economic activity include: lack of initial capital to start businesses and lack of general development strategy of the area which could help to guide potential investors and help them to find finance. The development strategy is particularly desirable as regards the access to EU funds.

The largest employer in the area is the farming cooperative Przyszłość in Stare Bogaczowice, which employs 370 (in the summer up to 420) and whose main production is milk and eggs. It cultivates the area of 1789 ha, which is nearly a third of the arable land of the community. To my knowledge, its present productivity is not terribly impressive nor is its financial position. The management of this
The cooperative seems to be focused on the improvement of agricultural technologies and it seems little concerned with other factors of modern farming, such as biological aspects of farming, which could strongly influence its productivity and make it more competitive. This cooperative, in spite of its rather conservative management, should be taken into account in any consideration of the development of the area, because of its size both in terms of land and employment.

The second largest employer is the Primary and Secondary School in Stare Bogaczowice, which employs 57 persons and serves all the neighbouring villages. It has 290 pupils at the primary level and 180 in gymnasium. This school has been built in the second half of the 1990s and is relatively well equipped with library, computers, sport facilities, etc. It could and should play an important role in the development of this area, because it represents nearly all educated people in the community (on the average 2% of rural population in Poland has higher education).

The school could be the basis for an information centre, cultural centre, a place of diffusion of ideas; they could inspire all sorts of activities not only for children but also for the adults.

Other important employers include: a poultry slaughter house (32 persons), a mineral water manufacturer (12 persons) and the Municipal Office (25 persons including 6 persons in the local library and the cultural centre). Until 2000 this cultural centre used to organise activities for children and young people, such as theatre practices, dancing schools, choir, meetings with writers, various games and local events; most of these activities stopped because of the lack of funds. Eventually, this centre was closed down at the end of 2001. At the beginning of 2002 the library still existed and it employed 3 persons.

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[39] Prof. Tadeusz Trziszka, Factors of Modern Agriculture, Conference on Development of Silesia, The
Revenues of the Stare Bogaczowice Community

Table 6.6. Revenues of the Stare Bogaczowice Community in the years 1991-2000, in mn zl.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.5</td>
<td>0.8</td>
<td>1.3</td>
<td>1.9</td>
<td>3.1</td>
<td>3.7</td>
<td>5.3</td>
<td>6.5</td>
<td>6.0</td>
<td>5.9</td>
<td>5.9</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own revenues</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.7</td>
<td>1.1</td>
<td>1.1</td>
<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>1.9</td>
<td>1.7</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Share in taxes of the State Treasury</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>State subventions</td>
<td>0.1</td>
<td>0.4</td>
<td>0.6</td>
<td>0.9</td>
<td>1.3</td>
<td>2.1</td>
<td>2.9</td>
<td>3.8</td>
<td>3.4</td>
<td>3.2</td>
<td>3.7</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Bank loans</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.3</td>
<td>0.75</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Source: As in the table above.

Total revenues of the Municipality steadily grew from 0.5 mn zl in 1991 to 6.5 mn zl in 1998, to fall to 6 mn zl in 1999 and 5.9 mn zl in 2000 and 2001. Total expected revenues in 2002 are 4.7 mn zl, which is 20 % less than in 2001. In 1991 its own revenues represented 60 % of the total, while in 2001 it was 29 %. The source of own revenues were local taxes, rent from municipal houses and the sale of land and buildings, as in the table below.

Table 6.7: Breakdown of own revenues in the Stare Bogaczowice Community, in mn zl.

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002, planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1.68</td>
<td>1.52</td>
</tr>
<tr>
<td>Local taxes and administrative fees</td>
<td>1.14</td>
<td>0.95</td>
</tr>
<tr>
<td>Rent from municipal houses</td>
<td>0.33</td>
<td>0.37</td>
</tr>
<tr>
<td>Sale of municipal property</td>
<td>0.21</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Source: As in the table above.

Central government subventions largely financed the construction of the new school, upgrading of roads and new system of water supply. In the years to come one should expect a significant reduction of Municipal revenues, because: a) the sale of land and buildings has already slowed down and its further fall is very likely, since the most valuable estates, such as those in Struga, has been sold and also the general demand is lower, e.g. in 2001 the price of a 140 m² flat was 50 000 zl (about 8 000

Wrocław Agricultural Academy, 26 March 2002.
GBP), which was 6 times cheaper than the Wroclaw average and there were no buyers; b) Income from the share in taxes of the State Treasury is expected to be lower, since it is 5% of the corporate tax while less new business is likely to be established in the area; c) governmental subventions are going to be lower because of the state budget deficit, see, chapter 4. On top of these there is a bank debt of 0.95 mn zł to pay off.

Therefore the first urgent task is to rationalise the expenditure of the Municipality. There is a need for a thorough audit of all the activities conducted by the Office and all the posts it pays. There is some space for the reduction of expenditure, e.g. the local kindergarten, which until at the end of 2001 had 10 children and the Municipality paid some 159 000 zł (28 000 GBP) in 2001 for its maintenance (161 000 zł in 2000). The obvious solution is the privatisation of this kindergarten and the sale of the building that is situated in an attractive spot. This would allow the Municipality to maintain the kindergarten for a fraction of this sum, thus providing means needed elsewhere and it would also bring income from the sale. The problem is that there is no consensus in the Municipal Council in this matter.

As can be seen from the above table, the community is obviously not economically viable. It should urgently rationalise its management. Although further downsizing of the Municipal Office employees is certainly needed, it may be hardly politically feasible in a situation of such a high unemployment. And there is also a question of the rationale for the very existence of such an administrative unit that is not economically viable and has a limited capacity to manage its own developments. A former Mayor of this community already considered a situation when there could be not enough means to maintain an adequate administration of the area. In such a case he suggested the partition of this community between the three surrounding communities.

Stare Bogaczowice needs larger income and more jobs. There is a need to examine its capacity for investment.
**Investment in the 1990s**

The largest investment in this area in the 1990s was made by the Polish Telecom, which significantly developed the telecommunication network (fibreglass wires), and the government which improved main roads, in particular the one connecting Stare Bogaczowice with Walbrzych. During the 1990s there has been built a modern system of water supply for nearly the whole community. But there is no modern sewage system.

| Table 6.8: Essential investment by the Stare Bogaczowice community in the years 1995-2000, in mn zł. |
|---------------------------------|--------|--------|--------|--------|--------|--------|
| Total                           | 0.68   | 1.02   | 1.0    | 1.43   | 0.92   | 1.07   |
| Of which:                       |        |        |        |        |        |        |
| Roads & bridges                 | 0.0    | 0.02   | 0.1    | 0.1    | 0.12   | 0.17   |
| Water supply                    | 0.2    | 0.2    | 0.3    | 0.9    | 0.6    | 0.3    |
| Telephone network               | 0.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| New School construction         | 0.4    | 0.8    | 0.6    | 0.4    | 0.2    | 0.6    |
| Other                           | 0.05   | 0      | 0      | 0      | 0      | 0      |

**Source:** As in the table above.

In the half of the 1990s the largest share in total investment of the community was the construction of a new school and its equipment. In 1995 the community also participated in the construction of the telephone network by the Polish Telecom. At present few local people can afford a telephone.

There was little private investment in the area in the 1990s; there was established a small hotel mentioned above (1997), a few tiny shops with everyday goods and about 20 residential houses built on the privatised land, mainly in the village of Struga. Shortage of private funds is visible all over the place: most facades badly need restoration. According to local shopkeepers, many people buy everyday goods, such as bread and milk, for credit. Also the local second hand clothing shop sells goods for credit. No foreign investment was made in this area.
There are significant bureaucratic obstacles for investment in this area. There is a water reservoir in the neighbouring Dobromierz area, which because of environmental requirements excludes most industrial investment and also any intensive fertilisation of soil in the northern part of the area is prohibited. The neighbouring Landscape Park of Książ imposes strict environmental regulations in the eastern part, as does the Park of the Trójgarb Mountain in the Southern part. The construction of the North-South motorways A-3 and A-8, planned after 2015, prevents any investment along the NE-SW axis of the area.

Apart from the above, there are peculiar administrative regulations which prevent investment. For example no investment, with the exception for roads and irrigation, is allowed on arable land, even if it is to serve agricultural purposes. The other similar example is a regulation by the County Office for the Protection of Historical Sites, which requires that any road surface or bridge repair in this area needs the consent of this office, since the whole area is a national heritage area. These examples indicate the urgent need to revise all the existing regulations relevant to the economic development of the countryside, which probably apply not only to this community but all over Poland. Otherwise such areas are going to attract very little or no investment at all.

**Conclusion**

The future of this community is very uncertain. It depends on both internal and external factors: first, whether the local authorities, in spite of social and current political pressures, will be able to make a thorough examination of the way the area is managed and introduce the necessary adjustments, in particular those regarding public expenditure, personnel downsizing and regulations relevant to economic development. It also needs to prepare the development strategy of the area, including ways of attracting investors; some intervention of the regional or state authorities seems necessary, because the community has too little both financial and human capacity to organise its own development.

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1. The economic history of the area seems not terribly relevant to the present situation. It could inspire some activities by showing how local resources were utilised in the past but simple repetition of those activities would rather lead to failure.

2. The character of the local agriculture needs to be considered. Cultivation of arable land on the mountain slopes is not only more expensive than it is on the flat land (according to local officials, the cost of grain production in the Stare Bogaczowice area is some 2.3 times higher than it is on a flat land); it has also a negative impact on regulation of rain water flows which tend to wash away ploughed soil; this leads to the erosion of soil and floods in case of heavy rains. What may be recommended here is the forestation of some of the arable land that could prevent soil erosion and provide employment.

3. This is a typical environment for animal husbandry such as calves, horses, sheep, etc. which could be bred and processed locally. There is a question of initial finance and marketing.

4. The area has good environmental characteristics such as clean air, water and soil as well as pretty landscape. This along with the farming tradition, could be the basis for cultivation of various plants, for example herbs needed for ‘life technologies’ which grow best in specific areas; they could also be processed locally at least partly. An example was that camomile was cultivated on a small industrial scale in Chwaliszów. This needs a separate research project.

5. Large farming buildings could serve for growing mushrooms and plants that need darkness, e.g. popular flowers such as chrysanthemum, geranium, etc.

6. In general, there is a need for an expertise on what kind of business activity this area is best fit for. An example is energy production; there are spots in this area with characteristics favourable for wind power plants. This feature is confirmed on the energy map of Lower Silesia. Also in the past there were windmills in this area (Stare Bogaczowice, Gostków). This however again needs separate research about whether this area has any value as regards renewable energy, such as water, wind, sunlight, production. According to the Association Treaty between Poland and the EU, by 2010 Poland should produce 12 % of its energy from renewable resources.
7. There is also a social problem: long lasting high unemployment has always some negative impact on people's behaviour. There is a need for research about the local society. What would make these people more active and encourage them to economic activity? The experiences of EU countries in this matter could be particularly valuable.

This case study has been chosen and is as detailed as it is because the problems of this particular community of which I have personal knowledge, illustrates the problems of rural communities not only in Lower Silesia but in many other parts of Poland. These problems are very difficult to resolve at least in the immediate future.

This case study and analysis of previous chapters allow us to make some tentative observations. The crucial question seems the development of the service sector in rural areas. Therefore there could be considered the introduction of various economic incentives for the development of rural services. An example of such an incentive could be a possibility of personal tax deduction for those who spend their funds for agricultural tourism. This could help both to develop tourist services (agro-tourism) and also it would allow more families to go for holidays.

There should also be serious investment in other aspects of rural development such as new methods of food processing and agricultural research in crops and animal breeding. This last in particular has been in recent years starved of funds. This investment has the ultimate aim of a future agriculture in which a smaller labour force than at present can produce the appropriate level of food for home consumption and export. This could be the field of cooperation between the Polish and EU enterprises.

A thorough programme of education, is needed, addressed to young people, both in a new curriculum and also for those who already left school; this group being defined of those between 12 and 30. This programme should open their minds to new perspectives and possibilities and teach them new skills. Since it is impossible to predict the future market for particular skills, it is to be hoped that this
programme would teach young people the habit of learning new skills; and, above all, to teach them that they could do many things in their lives apart from subsistence farming or seasonal work abroad, which to many of them at the present time seem the main if not the only avenues of employment.

In the present situation of the public finance in Poland, funds for these programmes would probably have to come from the EU.

5.5.1. Empowerment by education

1. Education has a key role in adapting Polish society to the requirement of European Union membership. In this context it is very important that the most modern achievements of science and technology must be available for Polish students. Education and training as a vital element of economic performance must be encouraged and strongly protected by the state. Literacy and numeracy at the primary level as well as wide diversification of higher education is a foundation for a long-lasting economic development. This thesis does not attempt to provide a detailed description of the current state of Polish education. This section discusses some general cultural issues of Polish society during the transition period.

2. In 1999 there were 1.3 mn students in Poland, which is over 3 times more than in 1990. During that period the number of tertiary education institutions grew from 112 in 1990 to 266 in 1999, however the number of academic teachers increased only from 64 500 to 74 100. (GUS, 1999). The above figures also show that tertiary education is overburdened and that Poland badly needs new university teachers. These figures indicate a clear trend among the young people, who tend to see that their future careers are dependent on education. This can be confirmed by the recent poll among young people of 15 - 18 years old in Wroclaw, which indicates that 47 % of them intend to proceed to further studies. (Blaszczyk M., 1996). Over a half of these students have to pay teaching fees, which in 1999 was on the average 300 zł (£ 50) per month, a fifth of the present average monthly income in Poland. Since this is quite a burden on a
family budget, many of these students have to work while studying. This further confirms the will to learn among the young people.

3. The restoration of the proper use of language, clear and honest, should be one of the major tasks in educational and cultural policy. The communist period produced a peculiar public language of its own in which words and phrases lost their original meaning and often were given a meaning opposite to the original. This language was given to vague abstract phrases, which often lacked clear meaning or reference to facts. This is a bad legacy that has to be overcome. (Miodek J., 1993), (Sawska M., 1994), (Orwell G., 1957). The fundamental element for the communication process is the ability of the participants to command the same code, to use the same language, in which the same symbols reflect the same sense while referring to reality. 41

4. The present teaching of civics is inadequate. Unless the young generation has a clear balance sheet of the communist period, it lacks the clear picture of what needs to be done in the transformation period. A nation needs to have a sense of its own past to understand its own identity in the present and the future. 42 And the communist inheritance of crude party propaganda pretending to be Polish history needs to be completely cleared away. Poles need to regain the sense of their own history from their own perspective, in contrast to imported or imposed versions. They need to come to terms with their own history; including especially the period 1945-1989, and to view it in a clear light, patriotic but not nationalist. This is important because there is at the moment among the younger generation a good deal of both ignorance and confusion about the Polish past both recent and remote. The teaching of history should remind Poles that the history of Poland is not only the history of defeated rebellions, but it is also the history of great achievements, including those of gifted Poles all over the world. The message should be that the Polish history, however dramatic and often tragic, has always been peopled by a number of exceptional personalities.

42 "He who controls the past, controls the present." Orwell G. 1984, Penguin Books Ltd Harmondsworth, Middlesex.
The teaching of history should also include the fresh examination of Poland's relations with her their neighbours, in particular Russia and Germany; but also of other major European countries that have played a part in the cultural and political evolution of Poland. This would be greatly helped by systematic translation of recent good history books published in English. Poles in general need a better conception of the place of Poland in Europe, which is absolutely essential for Poland to become a successful member of the EU. History should be taught in such a way that the students gain a clear idea of the links between Polish and European traditions.

5. This also applies to the Polish economic history that should be re-examined and rewritten, since Poles are little aware of their own inventions and achievements that contributed to economic development. This could more easily appeal to the Polish mentality and be more conducive for innovation rather than simple imitation of imported models. Examples of such achievements which are relevant to present needs are employee-owned companies in the 1920s in Borysław, farming co-operatives successfully working until 1939 and which after WW II were systematically abolished by the communists; a variety of industrial and scientific inventions by Stanisław Staszic in the 19th c., and other financial innovations pioneered by Poles at the beginning of the 19th c. It would be good if Poles were reminded of the excellence of Polish commercial law, such as Commercial Code, Bankruptcy Law, as already mentioned in chapter 4.
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FINAL CONCLUSIONS

In this thesis we have attempted to demonstrate that at the heart of many of the problems discussed is the underutilisation of the resources. The reasons are many; political, social, economic, institutional and general cultural. Though much progress has been made during last decade, much of the pre-1989 legacy has remained. The state and the municipalities remain big owners of property, which not only is lying idle but often has to be maintained at public expense. Privatisation of this property has proceeded at far too slow a pace. And much privatisation, which has taken place was not conducted in a way which is in the best interests of the population. The reasons are many and complicated, as we have attempted to show in this thesis. One reason for this state of affairs is strong vested interests that tend to preserve the status quo. This is true both of the state and municipal authorities.

Another aspect is financial; that is to say the sources of the money for privatisation. The experience of the last decade indicates that much privatisation was financed by already well off Poles and foreign investors. It failed to make use of other available resources, such as the considerable savings of Poles, which represents 20 % of GDP.

We have provided evidence that privatisation in itself is not a panacea in all cases. We have produced two case studies of the companies which are still state owned and which flourished in the new environment. Privatisation should be pragmatic, selective according to circumstances and directed to greater economic efficiency.

Property law is in urgent need of reform. The purchase of property is still unnecessarily complicated. The purchase of land and property involves complicated bureaucratic procedures inherited from the old regime. The result is that there is not a proper property market such as the transition to the market economy requires. If people were able to purchase their own properties, this would ease the whole problem of credit.
Another example of the failure to overcome the communist legacy is the fact that after ten years there is no law on restitution. Apart from the question of legal principle, the state still retains a great deal of private property, which could form potential capital and credit for enterprise.

For various reasons there is not a long tradition of parliamentary government in Poland. The present system is an experiment and still in its early stages; its effectiveness is still in question. What is really needed, in particular in the context of the EU entry is to stabilise democracy. This means that more people have to be made full participants of the system and convinced that it will bring them results and benefits. There is a wide section of Polish society which has a conservative attitude and which fears the changes necessary to adapt Poland to the European Union. The 2001 parliamentary elections provide perfect examples of this. This conservatism can be seen in the resistance to privatisation and restitution on the part of many politicians.

Widespread cynicism about politics and politicians is evidenced by the declining percentage of actual voters in elections, from nearly 70 % in the early 1990s to below 50 % in 2001. This may reflect a wider malaise about the whole process of transition and the conduct of the government and politicians. Frequent political corruption scandals from the regional to national level, do nothing to increase public respect for the authorities and politicians. The Polish State has still to establish its authority and the confidence of the public. There are historical reasons why this is difficult, because of the long Polish experience of foreign rule and of regarding the state as an alien institution. Poland needs a strong state that commands public confidence in this difficult period. We have shown that it is not clear that this has yet been achieved.

Another element of the political problem is the fragmentation of the party system and the continuing coalition government, which are not always conducive to firm policy and decision making. Thus it took years even to address urgent problems
such as government finance (2001) and other matters, such as regional organisation (1999) and social security system (1998).

In all these circumstances there are intelligent observers, such as Professor Zagórski, see chapter 5, who doubt whether this system is capable of conducting the necessary reforms. In his opinion, which we share, the question whether a democratic system can conduct the necessary reforms remains open.

Part of the general Polish problem is the question of local and regional government that up to 1999 was far too highly centralised. Warsaw exercised great financial control and power of decision over the affairs of the regions which are diverse in character and needs. This tended to stifle personal and local initiative, which is another essential element of any democratic system. Democratic citizenship involves enterprise and initiative in all kinds of matters. From historical experience many Poles have an ambiguous attitude toward authority. On the one hand they were often hostile to the authorities, and on the other they expect them to do many things which they probably could do themselves. If there is to be a genuine democratic system in Poland this attitude must change. It is to be hoped that the regional system of autonomy that has only been in operation for two years will encourage regional and private initiative that the old centralised system never could. For this reason the regional authorities should be given greater financial autonomy.

We have discussed the rural question that forms one of the gravest problems facing Poland in the context of European integration. It involves a high percentage of the working population living at subsistence level. The Warsaw government has given subsidies to local communities as indicated in our case study, chapter 6, but it operates under severe financial restraints. We have shown that this problem is complicated and extremely difficult to deal with. Apart from being a Polish social problem, it makes the whole process of European integration much more difficult. Much of the rural population, living at a miserable level of subsistence, does not quite fit into the new Polish environment. This has not only an economic but also a cultural dimension, because of the lack of cultural facilities in the countryside. The
stagnation of rural society is linked with the issue of full public participation in the new democratic system and economy.

The educational system experienced significant changes during the 1990s; for example the great increase of university student numbers. On the other hand it is not clear that all the necessary changes have been made to prepare Poles for integration into the European community. We have shown that the increase of students has not been accompanied by the proportional increase of university teachers. Therefore there is a severe shortage of university teachers in Poland. In such a situation we propose that there should be an EU programme whereby a large number of Western European teachers could come and teach for several years at a time. This should be carefully planned and requires a special research project. This would also open windows and bring a lot of fresh air into Polish universities, especially in the social sciences. This special EU programme could be seen as an extension of existing academic exchange.

There is a lot that needs improvement in the present state of the judicial system. On the one hand, as already indicated, there is much need for law reform, such as the commercial code, law on bankruptcy, etc. On the other hand, the present administration of the existing law leaves much to be desired. And these defects are an impediment to economic activity, because there is an enormous backlog of cases; there are instances of commercial cases began in 1993 which have yet to be heard. There were also many cases of corrupt public prosecutors and judges that recently have become public knowledge. Thorough reform of the judicial system does not seem likely in the immediate future; but it is an urgent requirement both for economic and general development and for the position of Poland in the European community. If the rule of law is an integral part of democracy, it is not always practised in Poland as it should be.

A modern economy needs exceptionally good communications of all kinds. We have provided evidence that considerable progress has been made in the last decade in all these fields but much more needs to be done. The Lower Silesian and Polish
transport system that includes roads, railways, waterways and air transport needs both development and integration. This refers to integration within the region and with the whole of Poland. All this requires a great deal of money. The EU have already promised their participation in this, but much more will have to be done by Poles themselves at the national and regional level. Once again it is clear that external assistance is indispensable.

As regards telecommunications, much more investment is needed. The state telecommunications domination has to be broken for the sake of the whole economy. Deregulation could attract more funds into this field. On the other hand this should be done gradually in order to enable the growth of regional operators.

Since 1989 over 80% of Polish banking assets have been acquired by foreign institutions. The Polish financial system changed enormously in other ways since the communist times; all kinds of banking and credit facilities are available now, which never existed before 1989. To be really efficient, it needs to be honest and without corruption; of which there have been a number of cases in recent years as we have indicated. This needs urgent and radical government action; there should be far more regulation of the banking system and a code of conduct imposed on the banks.

The banking system should be more conducive to economic development, thus it should provide more credit to small and medium size enterprises than is the case at present. If more people owned houses and other forms of private property, it would be easier to obtain the risk credit.

We have provided strong evidence that there are serious problems about the financial resources for development. As regards government finances, the Polish State budget over the last decade has been heavily burdened by the foreign debt incurred before 1989 and also the social insurance scheme. The budget share of these two items amounts to more than 1/3 of the total. This and all the other demands made upon government resources, means that Warsaw can not spend
much on economic development. Therefore we can not assume a major financial role of the government in economic development. This makes it all the more important to make the necessary changes, such as legal reform and speeding up privatisation, which will not involve government expenditure. In this situation we have been careful in the thesis not to suggest expensive schemes without indicating a possible source of finance. In some cases most of the finance will have to come from the EU. But the EU can not be expected to take any action without Poland taking the initiative.

We have demonstrated on both national and regional level that Poland has managed to attract a great deal of foreign investment. We can not assume that this will continue in the immediate future because this, among other factors, depends on the state of the Polish economy. Therefore we should look for resources elsewhere, such as making more use of private savings which amount to 22 % of Polish GDP. Domestic capital has to be created through restitution, privatisation of flats and houses, allotments, etc., which could create capital or collateral for loans. This is further emphasised in the light of limited government finance. The EU can only do so much and provide a certain amount of development capital, but there are limits to its funds. For both practical and political reasons Poland must create all the private development capital which it can within the limits of the possible. The experience of the EU countries may be useful to identify these resources and develop them. This may need a separate research project.

As we have attempted to show throughout the thesis all these aspects of the present Polish situation are closely interrelated. Some elements have more importance than others; it is not always easy to predict for the future which elements will matter more. Thus in the beginning of the 1990s the pressing need was to reduce inflation; now the pressing need is to stimulate economic enterprise of all kinds. As regards the reforms we recommend, we have demonstrated that some may be easier to carry out given political will, such as law reform. On the other hand the rural problem seems to be large and intractable and even with good will, it could take years to resolve or even improve.
Poland will be compelled by the conditions of EU entry to tackle many of the problems that this thesis has discussed. But if the Polish State and the population will cooperate in tackling these problems, the process of integration will be easier and quicker. In the end it all depends on the minds, visions and wills of many individual Poles.

The administrative reform of 1998 which introduced regional autonomy has had particularly beneficial effects in Lower Silesia. For example, regional planning can be done at the regional level and since 1998 a number of interesting plans have been prepared by the regional administration. This decentralisation has encouraged the 'bottom-up' approach to regional issues, stimulated the sense of regional identity and public participation in regional affairs. All this will undoubtedly lead to a more effective utilisation of regional resources.

In the 1990s Lower Silesia underwent a thorough industrial restructuring that brought her economy closer to those of the European Union countries. This restructuring was painful, had a high social cost, e.g. in the form of massive redundancies, and still has not been completed. The region needs a further development of the service sector and a new policy for rural areas in order to increase agricultural efficiency and reduce rural overpopulation.

One of the greatest successes of Lower Silesia in the 1990s has been to attract so much foreign investment from various sources, from American to EU sources. This amount of foreign investment could result in the speeding up the integration of the regional economy with the EU economy.

One remaining deficiency in the transport field is the lack of adequate communication links between Lower Silesia and the rest of Poland including Warsaw. Some progress has been made, for example the motorway between Wroclaw and Cracow is near completion. This is an example of what is needed and can be done if the funds are available but more such motorways linking Lower
Silesia with rest of Poland are urgently needed. The same applies to railways. To this day the only Wroclaw-Warsaw express goes via Poznan, which is quite a diversion.

The unique geographical position of Lower Silesia, which means it has borders with Germany and the Czech Republic, entails responsibility for cross-border cooperation. Obvious fields of cooperation are the Oder River and the Sudeten Mountains. In the case of the Oder River there is a need to ensure that it is navigable, attractive for tourists and safe from floods. The required degree of cooperation has not yet been achieved. The same is true about the issues concerning the Sudeten Mountains border area. The tourist resources of the mountains could be far better utilised were there better cooperation between Polish and Czech authorities.

Thus the general picture is the contrast between considerable achievements and deficiencies that still need to be remedied.
APPENDIX I. RESOURCES OF LOWER SILESIA

In this appendix the natural, human and capital resources of Lower Silesia are presented. By natural resources we mean land with its inherent mineral deposits, water, climate and vegetation. By human resources we are referring to the education and other skills possessed by the population, and by capital resources we refer not only to the machinery available for production, and not only to the infrastructure of roads, railways, etc, but also to those buildings, etc, which do not have a direct connection with production. Here we are referring to those aspects of the infrastructure whose connection is indirect. Opera houses, theatres, spas and other such inducements to live or work in an area are also significant for the inducement of highly educated professional workers to live in, and therefore contribute economically to an area. The absence of such inducements will deprive an area of the highly educated and well trained individuals necessary for the economic development of that area.

1. Natural resources

Natural resources refer to land and its features, mineral deposits, water, climate and vegetation.

1.1. Surface features

Lower Silesia is predominantly a lowland - the average altitude is of 186 m above sea level. The characteristics of the Lower Silesian territory are the belt-like formation of its natural physical areas - Silesian Plain Lowlands situated along the River Oder Valley, the Sudeten foothills, and the Sudeten Mountains. They form three belts sloping gradually towards the northeast. Areas below 300 m occupy 64 % of the entire surface, whereas the mountainous area above 500 m - only 11 %. The highest point of the Region is the Snow Mount (Snieżka) - 1605 m in Karkonosze Range belonging to Sudeten. (Dylik J., 1946) The above features make Lower Silesia easy accessible for land transportation from the east, west and north.
The Sudeten Mountains, which extend between the Lusatian Land and the Moravian Gate, in the southern part of the Region, create both the border of Lower Silesia and a natural frontier between Poland and the Czech Republic. They are divided into two asymmetric parts by the narrow Valley of River Nysa Klodzka, which runs from south to north providing a convenient passage for railways and automobile transport from Northern Poland and Scandinavia to Central and Southern Europe. (*Atlas Śląska Dolnego i Opolskiego, 1997*).

The Sudeten mountains belong to the oldest in Europe. Diversities in geological construction and relief result in a great variety of landscape, that has attracted tourists since the middle of 19th century. Also, the Mountains used to be an important pastoral area, mainly for sheep. The Sudeten foothills are gently shaped, sloping to the north and east. They are rich in mineral wealth and also fertile soil.

A flat land of the Silesian Plain extends along the River Oder Valley in the centre, and is well watered by the Oder and its numerous connections. The whole area is one river watershed. It is a fertile land especially south from Wrocław towards Śleza Mount, 718 m - volcanic hills in the middle of lowland. The Silesian Plain is rich in forests, mainly mixed. On the East-West axis of the Eurasian continent major trade routes cross the Silesian Plain in its northern part.

**1.2. Climate and vegetation**

Lower Silesia lies in a cool temperate zone, between latitudes 50° and 60° N and between longitudes 14° 30' and 18° E. The climate is one of the transition from oceanic to continental and varies greatly. Winters are either humid and relatively warm of the oceanic type, or clear and frosty. The region is under the influence of masses of oceanic air: polar from the North and subtropical from the Azores. In winter polar continental air from the Eurasian Heartland brings frosty Arctic weather. The prevailing winds are westerly, up to 60 % of all winds. (Batorowicz Z., Nalewajko J., Suliborski A, 1995).
The Lower Silesian climate has six seasonal characteristics: winter - with temperature below 0° C - which starts around the beginning of December and lasts 70-110 days, depending on the height above the level of the sea; early spring - with temperature 0-5° C - starting late February and lasting about a month; spring - 5-15° C - from late March, lasting about 2 months; summer - above 15° C - from early June and lasting over 80 days; autumn - 5-15° C - lasting 50-77 days; early winter - 0-5° C - starting late October, lasting about a month. There are three climatic sub-areas, presented in the table below:

Table 2.1: Climatic sub-areas in Lower Silesia.

<table>
<thead>
<tr>
<th>sub-area</th>
<th>average altitude</th>
<th>mean temp.°C</th>
<th>annual precipitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters above the</td>
<td>January</td>
<td>July</td>
</tr>
<tr>
<td></td>
<td>sea level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wroclaw</td>
<td>120</td>
<td>-1.1</td>
<td>18.8</td>
</tr>
<tr>
<td>Sub-Sudetic</td>
<td>200</td>
<td>-1.7</td>
<td>17.5</td>
</tr>
<tr>
<td>Sudetic</td>
<td>640</td>
<td>-2.9</td>
<td>14.6</td>
</tr>
</tbody>
</table>


Such characteristics make Lower Silesia the warmest region in Poland, thus it has the longest growing season which lasts approximately 245 days. (Berezowski S., 1981). This creates good farming conditions. Also, such climatic characteristics creates favourable conditions for both winter and summer sport and tourist activities, especially in the Mountains.

1.3. Land use

Lower Silesia covers an area of 19 900 km², which is 6.4 % of Poland. In relation to the number of inhabitants the area of Lower Silesia is comparable to the Polish average. In Lower Silesia this is 0.77 ha per inhabitant, while in Poland - 0.81 ha (1 hectar = 10 000 m², hereafter shown as 1ha). However, there is a differentiation in this respect between various areas of the region. In the Jelenia Góra area there is
0.83 ha per inhabitant, in Legnica one - 0.77 ha. The Wroclaw and Walbrzych ones have much less ratio of area per inhabitant. It is 0.55 ha and 0.56 ha respectively.

Land in Lower Silesia is used, similarly to the rest of Poland, predominantly for agricultural purposes. The arable land in Lower Silesia covers an area of 1.1 mn ha, which is 59.5 % of the region's area (in Poland - 59.7 %), forests 520 564 ha, which is 28.4 % of the region (in Poland - 28.0 %). The quality of both arable and pasture land in Lower Silesia belongs to the highest in Poland, which makes the region attractive for farming. (Atlas Śląska Dolnego i Opolskiego, 1997).

Also its forests are the source of timber, the habitat for a variety of wild animals, e.g. boars, deer, which can be hunted, and the forest fruit and mushrooms which are widely used in Poland. Some forests, especially those in the southwestern part of the region, are in danger of industrial pollution. This requires further improvement of environment protection policies.

The share of urban land and used for transportation, which all together cover 8.25 % of Lower Silesia, is significantly larger than the Polish average 6.4 %. This indicates the region has the higher urbanisation rate as well as more dense transportation network than the Polish average. (WUS Jelenia Góra 1996).

The observed tendency in the pattern of the land use is a gradual reduction of arable areas, in favour of mining, industrial, transportation and building activities. In 1994 this was reduced by 1783 ha, and in 1995 by 2119 ha, of which 23.5 % for mining, 12.5 % for industry, 8.2 % for transportation and 30.2 % for settlement. (WUS Jelenia Góra 1996, ib. p. 45).

The process of reduction of arable land could be regarded as necessary and with no negative results, if accompanied by the parallel restoration of polluted land. The progress in this field is noticeable, but it is not sufficient and started only in 1995, when for the first time the recultivated area was larger than the one excluded from farming and forestry activities. There were excluded 255 ha of arable land and
recultivated 405 ha. In 1999 the area which required recultivation was quite significant, amounting to 10 200 ha, which is 14.1% of such a land in Poland. The main reason, for which such a large share of devastated land in Poland is situated in Lower Silesia, is that the extraction industries have been more intensive. The largest areas to be reclaimed are in former voivodships of Jelenia Góra - 4 700 ha, Legnica - 1 900 ha, and Walbrzych - 1 900 ha. This means that, in order to reclaim that land, Lower Silesia needs more investment than most of other regions.

1.4. Mineral resources

Lower Silesia contains mineral wealth, which has been important in its economic development in the past. Also at present these resources represent one of the features of its economy and may be the basis for its further development. In this section energy, chemical, rock minerals and mineral water resources will be discussed. (Atlas Śląska Dolnego i Opolskiego. Pracownia Atlasu Dolnego Śląska, Uniwersytet Wrocławski 1997).

There is a concentration of various excavating sites along the foothills of the Sudeten Mountains. Sitice mining has a long tradition in Lower Silesia, most of the existing sites have already developed transportation facilities. The largest number of mines concerns rock production and they are mainly dispersed over the southern part of the region. The northern part of the region is dominated by production of natural gas and helium.

Energy resources

The most important mineral energy resources of the region are presented in the table below. In 1994 the output of coal amounted at 800 000 tonnes, which was 0.6% of the Polish total 134 mn tonnes. Since the production of coal in Lower Silesia has not been economically viable during the 1990s, its mining has been gradually reduced. It can also be seen that the Lower Silesian resources of coal represent rather insignificant (less than 1%) proportion of the total Polish.
Table 2.2: Mineral energy resources in Lower Silesia; deposits on 31.12.96 and production in 1996.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Deposits in Lower Silesia</th>
<th>Production in Lower Silesia in 1996</th>
<th>Total Polish deposits commercially viable*</th>
<th>Total Polish production in 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lignite [mn tonnes]</td>
<td>4 521.1</td>
<td>11.00</td>
<td>14 188.00</td>
<td>63.85</td>
</tr>
<tr>
<td>Coal [mn tonnes]</td>
<td>152.0</td>
<td>0.56</td>
<td>58 337.00</td>
<td>136.30</td>
</tr>
<tr>
<td>Natural gas [mn m^3]</td>
<td>3 897.7</td>
<td>79.90</td>
<td>148 862.14</td>
<td>4 378.07</td>
</tr>
<tr>
<td>Helium [mn ml]</td>
<td>7.6</td>
<td>0.01</td>
<td>44.96</td>
<td>1.28</td>
</tr>
</tbody>
</table>


*Commercial viability of mineral resources in Poland is annually defined by the Ministry of Environment, Mineral Resources and Forestry, and it is based on the current prices of those minerals and estimated influence of their excavation on natural environment. Therefore, usually total Polish resources are larger than those classified as the commercially viable.

In 1994 the output of lignite was 12.5 mn tonnes, which was 18.7 % of the Polish total 67 mn tonnes. As can be seen in the table above, its production both in Lower Silesia and Poland also decreased by 1996. Although the then production of lignite in Lower Silesia was only 17 % of the total Polish production, the Lower Silesian resources of this mineral represent 32 % of the Polish resources. It means that the importance of Lower Silesian resources of lignite is likely to grow in the context of the whole Polish economy.

The gas output in 1994 was 143.7 mn m^3, which was 3.1 % of the Polish total 4 634 mn m^3. Its production was also reduced to 79.9 mn m^3 (2 % of total Polish) by 1996, despite the discovery of new resources in the northern part of the region. As can be seen also total Polish production of natural gas has decreased during this period. (GUS, 1995), (WUS Jelenia Góra 1996).

Oil production is insignificant in Lower Silesia, however next to its northern part, in Zielona Góra voivodship, small quantities of oil are excavated. In 1994 it was 32 000 ton (12 % of the Polish total). The northern part of Lower Silesia belongs to the area where further geological exploration for oil is regarded as commercially viable. Also in the 1960s certain deposits of natural gas have been discovered in the Sudeten monocline. They extend from Zielona Góra, Nowa Sól to Trzebnica-
Olesnica. According to the Institute of Geology in Wroclaw, further research is being conducted.

There are also significant deposits of lignite, which are concentrated in the very southwestern part of the region (Turoszow), further north ('Przewóz-Ilowa', 'Mosty') and in the central part of Lower Silesia - deposits 'Legnica-Ścinawa'. The main features of lignite deposits in Lower Silesia are that they exist at widely varying depths, 10 - 200 metres, and also have greatly differing hydro-geological characteristics. The largest lignite deposit is mined in the extreme southwestern part of Lower Silesia, where the frontiers of Poland, Germany and the Czech Republic meet. All three countries excavate their lignite resources in their territories.

Coal mines are distributed throughout the Wałbrzych Basin, but during the 1990s, they were gradually closed down because of the loss of economic profitability. There are two main areas of coal mining: the Wałbrzych - Sobiećin centre and the Nowa Ruda - Ślupiec one. The first one is rich with high quality coke but difficult to mine because of its geological structure.

Other potential energy resources, in particular such as wind, sun, thermal springs and water power are little used, although they can be utilised.²

Another potential source of energy is thermal springs in Lower Silesia. They have not been utilised yet. Also nuclear fuels are not used in Poland at all. Hydroelectric power has a long tradition in Lower Silesia. The dense network of the River Oder tributaries has created the natural conditions for small-scale usage of waterpower. Many of them were working, not only in the mountainous streams, but also in the flat land rivers such as Olawa and Barycz, these being the sources of energy for

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² Distribution of energetic speed of wind in Lower Silesia in *Atlas Śląska Dolnego i Opolskiego*. Pracownia Atlasu Dolnego Śląska, Uniwersytet Wrocławski 1997. Most of the northern part of the region has been classified as suitable for the production of energy. Additionally, the area along the Oder River from the city of Brzeg until Brzeg Dolny has a significant annual proportion of wind speed over 25 m/s.
hundreds of individual houses and villages. They were closed down during the 1960s by the government and since then most of them have become unfit for further use.3

In 1995 8.7% of electric energy in Poland was produced in Lower Silesia, while Lower Silesian inhabitants used 8.2% of energy produced in Poland. This means that Lower Silesia was self-sufficient in the production of electric energy. However, according to the above source, there is a growing demand for electric and gas energy in the region, resulting from both the growing number of consumers and electric and gas household facilities. This would require larger energy supplies. Its production should meet rigorous environmental standards.

**Metallic minerals**

The table below shows the amount of deposits and production of major metallic minerals in Lower Silesia and their proportion of the total Polish. As we see in this table, the largest mineral output of the region is copper ore. Its significant resources are extracted in the two copper industrial centres; the older one is located in the vicinity of Bolesławiec and Złotoryja with the copper processing factory in Iwiny; the newer and larger is situated near the cities of Lubin and Polkowice, and its ore grade is of a very high quality. The depth of deposits is large but they are unevenly spread, therefore the extraction is both of the opencast and underground types.

It is accompanied by other minerals, of which silver, lead, tin, cobalt, molybdenum, selenium, rhenium and nickel are the most important. The considerable size of some of their deposits is sufficient for it to be commercially attractive enough to extract them also. The KGHM S.A. company deals with ore excavation, treatment and processing. The production of 470 000 tonnes of copper in 1996 places it in seventh position worldwide. In 1996 it produced 934 tons of silver. (KGHM SA, 1997), (Eastern European Minerals Yearbook 1997).

3 Also a potential source of energy is associated with the interesting characteristics of the magnetic field of the earth, which is centred on the Ślęża Mountain. See MAP: Characteristics of the vertical axis of the magnetic field of the earth in Lower Silesia. Source: Atlas Śląska Dolnego i Opolskiego. Pracownia Atlasu Dolnego Śląska, Uniwersytet Wrocławski 1997. In the opinion of the workers of the Electrotechnical
Table 2.3: Mineral resources of metals in Lower Silesia: deposits on 31.12.96 and production in 1996.

<table>
<thead>
<tr>
<th>Metallic minerals</th>
<th>Deposits in Lower Silesia</th>
<th>Production in Lower Silesia in 1996</th>
<th>Total Polish deposits commercially viable**</th>
<th>Total Polish output in 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper ore [mn tonnes]</td>
<td>2.291.12</td>
<td>25.99</td>
<td>2.291.12</td>
<td>25.99</td>
</tr>
<tr>
<td>metallic copper in it [mn tonnes]</td>
<td>44.14</td>
<td>0.47</td>
<td>44.14</td>
<td>0.47</td>
</tr>
<tr>
<td>Gold [kg]</td>
<td></td>
<td>530</td>
<td>-</td>
<td>530</td>
</tr>
<tr>
<td>Silver [tonnes]</td>
<td></td>
<td>934</td>
<td>123,000</td>
<td>1,295</td>
</tr>
<tr>
<td>Zinc and lead ore [in mn tonnes]</td>
<td>5.23*</td>
<td>0.001</td>
<td>202.8</td>
<td>4.98</td>
</tr>
<tr>
<td>In it: metallic lead</td>
<td></td>
<td></td>
<td>3.6</td>
<td>0.08</td>
</tr>
<tr>
<td>metallic zinc</td>
<td></td>
<td></td>
<td>7.93</td>
<td>0.195</td>
</tr>
<tr>
<td>Cobalt [tonnes]</td>
<td>130,000*</td>
<td>1,460</td>
<td>130,000</td>
<td>1,460</td>
</tr>
<tr>
<td>Molybdenum [tonnes]</td>
<td>106,560*</td>
<td>1,260</td>
<td>106,560</td>
<td>1,260</td>
</tr>
<tr>
<td>Selenium [tonnes]</td>
<td></td>
<td>60</td>
<td>-</td>
<td>60</td>
</tr>
<tr>
<td>Vanadium [tonnes]</td>
<td>200,000*</td>
<td>2,380</td>
<td>200,000</td>
<td>2,380</td>
</tr>
<tr>
<td>Arsenic ore [tonnes]</td>
<td>540,000*</td>
<td>20,000</td>
<td>540,000</td>
<td>0</td>
</tr>
<tr>
<td>Arsenic</td>
<td></td>
<td>20,000</td>
<td>20,000</td>
<td>0</td>
</tr>
<tr>
<td>Uranium ore</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin [mn tonnes]</td>
<td>2.9</td>
<td>0</td>
<td>2.9</td>
<td>0</td>
</tr>
<tr>
<td>Tin</td>
<td>1.4</td>
<td></td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Nickel ore [mn tonnes]</td>
<td>14.64</td>
<td>0.016*</td>
<td>14.64</td>
<td>0.016</td>
</tr>
<tr>
<td>Nickel</td>
<td>0.12 + 0.05*</td>
<td>0.0016*</td>
<td>0.17</td>
<td></td>
</tr>
</tbody>
</table>


*Minerals present in copper ore, and excavated from it during the technological process by the state owned KGHM S.A. company, which is the owner of mines and many ore and metal processing factories. Apart from them, the copper ore contains some deposits of rhenium, cadmium, zinc and arsenic, which were not produced in 1996.

Most metallic minerals in Lower Silesia are produced as side products of the excavation of the copper ore. Thus almost all metal production in the region is concentrated both in terms of area and, at present, also in a single company. This feature and the significant size of deposits may facilitate the development of technologies both for excavation and processing of those minerals.

Institute in Wroclaw the existing gradient of the magnetic field is very high indeed and it can be a source of electrical energy.
Nickel ore occurs also in Szklary in the vicinity of the city of Ząbkowice Śląskie and it is the only known resource in Poland. The mode of its occurrence is irregular lode and vein formation and it is difficult and costly to mine. The average grade of ore contains 2-3% of nickel in veins of 10 - 15 m depth. The opencast extraction of these deposits was carried out from the end of the 19th century until 1983. The main reasons for ending this work were connected with the loss of orders for nickel from the military industry, the old technical equipment for extraction/processing combined with the lack of sufficient investment capital, and also with the existence of asbestos in the ore. The deposits consist of a significant amount of serpentine, which, while crushing the ore, results in the presence of asbestos fibres in the air, which are toxic when inhaled. The then available technology could not have prevented it, therefore the mining activity stopped and subsequently the factory changed its production profile, and finally went bankrupt in 1992. (KGH Szklary 1997).

Although the reserves of nickel are presently insignificant, they are accompanied by highly prized gemstones such as white opal and semi-precious chalcedony containing chrysoprase and other minerals. There are also large slag heaps containing various metals, but the detailed data about their contents is not available.

Lower Silesia has a number of concentrations of small metallic deposits. They occur mainly in the sedimentary rock deposits. The most important are chromium in Tapadła, iron in Janowa Góra, bauxite in Nowa Ruda, arsenic in Złoty Stok, tin and cobalt in the Izery Mountains between Krobica and Gierczyn villages. At present they have little economic importance. (Dziedzic K., Kozłowski S., Sawicki L., 1979).

Polymetallic ore deposits of gold, arsenopyrite (the chief ore of arsenic) and uranium occur as alluvial deposits in the gravels and sands of valley floors, the piedmont areas and stream beds in Kowary, Radzimowice, Chelmiec-Męcinka, and Miedzianka. Their mode of occurrence affected the cost of extraction and they have not been mined on a large scale during the last 50 years, with the exception of uranium. Because of its great strategic importance, uranium was mined since the
1940s until the late 1980s in the Kowary area; however its low-grade ore deposits could scarcely be considered economic under normal circumstances.\(^4\)

**Chemical minerals**

There are minerals in Lower Silesia which are important raw materials for chemical industries. Some of them have been extracted and some represent mineral potential to be utilised according to market demand. The most important of them are presented in table below.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Deposits in Lower Silesia</th>
<th>Production in Lower Silesia in 1996</th>
<th>Total Polish deposits commercially viable*</th>
<th>Total Polish output in 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt</td>
<td>2.936</td>
<td>0</td>
<td>80,427</td>
<td>3.1</td>
</tr>
<tr>
<td>Baryte</td>
<td>6.03</td>
<td>0.022</td>
<td>6.14</td>
<td>0.022</td>
</tr>
<tr>
<td>Fluorite</td>
<td>0.513</td>
<td>0</td>
<td>0.513</td>
<td>0</td>
</tr>
</tbody>
</table>


Barytes are found in the vicinity of Boguszów, Stanisławów and Jelinka. The grade and geological formation of these deposits vary significantly. This, and also old machinery are main reasons for such a small output.

**Rock minerals**

Lower Silesia possesses rich deposits of magma and metamorphic rocks, which can be used for the production of high quality road and building materials. Also it has significant amount of minerals for the ceramic and glass industries. The most important of those resources are in the table below.

Although rock minerals are widely dispersed throughout the region, their main concentrations are found, similarly to energy mineral resources, at the foothills of the Sudeten Mountains.

\(^4\) At present some geological surveys are conducted in the southern part of the same type of geological formation and structure of the Sudeten Mountains in the Czech Republic.
Table 2.5: Rock minerals in Lower Silesia: deposits on 31.12.96 and output in 1996.

<table>
<thead>
<tr>
<th>Rock minerals</th>
<th>Deposits in Lower Silesia</th>
<th>Output in Lower Silesia in 1996</th>
<th>Total Polish deposits commercially viable</th>
<th>Total Polish output in 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocks for roads and construction* [mn tonnes]</td>
<td>4 120.8</td>
<td>9.42</td>
<td>7 909.4</td>
<td>18.0</td>
</tr>
<tr>
<td>Gravel [mn tonnes]</td>
<td>2 079.0</td>
<td>6.31</td>
<td>14 254.1</td>
<td>62.6</td>
</tr>
<tr>
<td>Fire-resistant quartzite [mn tonnes]</td>
<td>2.4</td>
<td>0</td>
<td>17.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Quartz [mn tonnes]</td>
<td>7.1</td>
<td>0.057</td>
<td>7.1</td>
<td>0.057</td>
</tr>
<tr>
<td>Quartz glass sand [mn tonnes]</td>
<td>87.9</td>
<td>0.48</td>
<td>607.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Raw materials for ceramics used in construction [mn m^3]</td>
<td>781.2</td>
<td>0.28</td>
<td>1899.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Ceramic clay white-burnt [mn tonnes]</td>
<td>56.7</td>
<td>0.008</td>
<td>56.7</td>
<td>0.008</td>
</tr>
<tr>
<td>Kaolin [mn tonnes]</td>
<td>209.4</td>
<td>0.28</td>
<td>209.4</td>
<td>0.28</td>
</tr>
<tr>
<td>Fire resistant clay [mn tonnes]</td>
<td>47.0</td>
<td>0.27</td>
<td>58.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Gypsum and anhydrite [mn tonnes]</td>
<td>71.0</td>
<td>0.22</td>
<td>332.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*The most important of them are basalts, gabro, granites, marble, serpentine, dolomite, sand stone, quartzite sand stone, limestone, dolomitic sand stone, keratophires, malaphires, porphyry, syenites, amphibolites, gneiss, quartzite and hornblende. Source: *Bilans zasobów kopalnych i wód podziemnych w Polsce, wg stam na 31 XII 1996*, Państwowy Instytut Geologiczny, Ministerstwo Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa, Warszawa 1997.

Anhydrite is found in the area of Lwówek Śląski. Part of the extracted ore is used for sulphuric acid production in the town of Wizów near Bolesławiec. But most of it, since they are high grade deposits, is utilised for the production of gypsum materials for use in surgery, modelling or plaster and plaster-boards in building, etc.

Molten rocks, in particular granites, syenites, marbles and sand rocks are the base for the production of the regular forms of building elements and decorative tiles and boards. There are 166 sites of them in Lower Silesia. The most valuable are high quality marbles, mainly utilised in decoration and building activities. Their deposits are estimated at 393 mn ton, which 97 % of the Polish total. The richest deposits are in the vicinity of Stronie Śląskie with its unique white marble of the White Marianna mine, and also they are excavated near Sławnowice.
Granite deposits are estimated at 858 mn tonnes, with an average year output of 150,000 tonnes. The deposits of syenites amount to 43 mn tonnes, annual output 2.7 mn tons. The sand rock deposits are estimated at 41 mn tonnes (Poland - 695 mn), with annual output of 206 000 tonnes, which is 6% of the Polish total. Most of these resources have been already excavated in over 100 sites, and, since the deposits are large and the market for them is growing steadily, this industry seems to have good prospects for further and fast development. The above minerals are mainly unique in Poland, and their occurrence is largely confined to Lower Silesia.

Ceramic clay mining has a long tradition, since it started in 18th century with high quality kaolin excavation. In Poland kaolin minerals, utilised mainly in ceramic, gum and paper industries, occur only in Lower Silesia. The largest deposits and their excavation is concentrated around the city of Bolesławiec. Also near Świdnica there have been discovered several significant deposits of different grades, of which some are of high quality. They have been the bases for the development of the associated industries, also usually located in Lower Silesia, in particular porcelain, stone-ware, earthen-ware, electrical insulators and other ceramic manufactures in Wrocław, Walbrzych, Bolesławiec, Jaworzyna Śląska, Żebice. For this reason also, the largest Department of Ceramics and Glass in the Fine Arts Academy in Wrocław was founded towards the end of the 19th century. Kaolin deposits in Lower Silesia are often accompanied by various kinds of fire- and acid-resistant clay, which is utilised mainly in the glass and ceramic industries. Carbonic rocks have been discovered in the neighbourhood of Bolesławiec and near Klodzko.

Gemstones and semi-precious minerals

Lower Silesia has been known for centuries as a region where gemstones and semi-precious minerals occur in many places. They are usually found in the magma rock formations as well as in the metamorphic structures. Some of them are excavated as by-products while mining other deposits for industrial purposes. Data on their output is not available. The most ornamental and precious of these minerals are white opal, nephrite and others from the jade group, chrysoprase, quartz topaz
(citrine), smoky quartz and morion, amethyst, granate, aquamarine (beryl), and turquoise.

**Mineral water**

In Lower Silesia there are four main areas where rich sources of mineral water are found. The Klodzko Valley is the largest of them, with the concentration of spas and resorts, such as Polanica Zdrój, Duszniki Zdrój, Kudowa Zdrój, Łądek Zdrój. The occurrence of a variety of mineral water, the attractiveness of the landscape, mild climate and good transportation infrastructure in this area are the basis for its potential further development. (Malicki E., 1995).

The other centre of mineral water resources is in the vicinity of Walbrzych and Bolków. The third centre is in the Izery Mountains, an area of a considerable tourist potential. The fourth one is near Trzebnica and Oborniki Śląskie, north from Wrocław.

Apart from the four areas of concentration of mineral water sources, there are over 40 small sites dispersed throughout Lower Silesia. Mineral water deposits have been utilised in a very uneven way, from 10 % to 70 % of their potential. The main barrier to further development of this industry seems the shortage of local investment capital and complicated land law, which does not facilitate property transactions. This is discussed in chapter 4.

2. **HUMAN RESOURCES**

Labour, the workforce, is the next economic resource. It is defined here as persons over 18 who work for pay or gain, or register themselves as available for such work and meanwhile claim benefit.  

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5 This measure defined as by the Department of Employment in Poland, is similar to the British one, with the exception for the work starting age which in Britain is 16.
It is basically determined by the quantity, type of skills and knowledge of the working population and the kind of work ethic dominant. Another factor of production, often distinguished from simple labour, is entrepreneurship. Although there is no standard economic definition of entrepreneurs, they are widely described as those individuals, who organise the factors - buy land, seek for labour and capital, look for a market - for the production of goods and services.

2.1. Manpower

1. The working age is defined in Poland by the Department of Employment as men over 18 and below 65 and women between 18 and 60. At the end of 1995 the working age population in Lower Silesia was 1.76 mn, which is 60 % of regional population. There were 0.77 mn persons before the working age, which is 26 % of Lower Silesians. There were 0.4 mn people in the retirement age, which is 14 % of the regional population.6

In 1995 the activity rate was relatively high and amounted to about 60 %, in contrast with most Western European countries, in which less than half of their populations is usually of working age. (GUS 1995, p. 372). This was economically advantageous for Lower Silesia. Also, according to Ciesłak and Kuropka, the majority of the labour force is under forty. (Ciesłak M., Kuropka I., 1996).

2. In order to establish the size of the future labour resources of Lower Silesia, population trends should be examined. The major trend is that the Lower Silesian population is growing more slowly. This is caused by the decline in the birth rate accompanied by a rise in a death rate. (GUS 1995, p. 48), (GUS 1991).

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6 Index of the average economic burden of population (a number of people of non-production age in relation to 100 persons in a working age group) is 66. Of which the indicator for the cities is 62, while for the countryside 79 what is very high indeed, in comparison with EU average of below 60 %.
This trend, if it continues, will certainly have a long-term impact on the economy, since it would lead to smaller population, and therefore the danger of underpopulation might arise.\(^7\)

In the short term Lower Silesia will have more people of working age especially until the year 2005. Thereafter demographic fluctuations will cause changes in the size of the working age groups. According to the forecast by the Polish Statistical Office, there will be a constant decrease in the number of children and young people until 2005, and a corresponding increase of the economically active population.

This fact creates two problems, which require solution. The first task is to educate the great number of young people who are going to enter the labour market. The other one refers to the most effective way of employing them. These two tasks are closely connected. Both the educational system and the future labour market should meet the requirements of the modern economy. Any failure in reaching the necessary standards in education will cause a number of young people to enter the labour market unprepared, without the skills and knowledge required. Such an inadequately educated young labour force will not only be non-productive, but additionally will have to be maintained at the expense of the working population. Therefore changes in the educational system should be planned very carefully, with regard to the development of modern industries on a global scale.

With this in mind, the position of Lower Silesia as a region of Poland - the country with the largest increase of labour resources in Europe, with the exception of the former SU countries, is important. The table below indicates that during the next 15 years Poland may provide 41.4 % of the overall increase of the economically active population in Europe.

\(^7\) 'Underpopulation appears when the existing resources could support larger population with no fall in living standards, or a population is too small to utilise its resources.' Knowles R., Wareing J. *Economic and Social Geography*, p. 98, Heinemann, London 1985.
Table 2.6. Forecast of the population increase in the productive age group in Poland and Europe in the years 1996-2010, in thousands of persons. Men in the age of 15-64, women in the age of 15-59. Europe without former SU countries.

<table>
<thead>
<tr>
<th>Period</th>
<th>Poland</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996-2000</td>
<td>1012</td>
<td>3039</td>
</tr>
<tr>
<td>2001-2005</td>
<td>830</td>
<td>1868</td>
</tr>
<tr>
<td>2006-2010</td>
<td>276</td>
<td>215</td>
</tr>
<tr>
<td>Sum</td>
<td>2118</td>
<td>5122</td>
</tr>
</tbody>
</table>


Therefore there is going to appear a significant surplus of labour in Poland and in Lower Silesia in particular. The population of Lower Silesia, is nearly 3 mn, which is about 8 % of the Polish total. If we assume the above prognosis is correct, this means an estimate of 3 % of the manpower entering the labour market in Europe in the next 15 years will come from Lower Silesia. 8

It is of vital importance that this geographically concentrated increase in the size of the available labour force should be utilised within Lower Silesia. The alternative dangers would be not only economic stagnation in Lower Silesia, but also a continuing pressure on her neighbours for further economic migration, because salaries are higher in Western Europe, adding to the existing social tensions within those neighbouring countries. 9

3. In the end of 1999 the number of employed in the region was 1.1 mn (the former voivodship distribution: 174 400 - Jelenia Góra, 197 500 - Legnica, 234 500 - Walbrzych and 423 200 in Wroclaw), which is 6.9 % of the total Polish (14.9 mn). Together with the registered unemployed the workforce in Lower Silesia accounted

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8 A very careful approach to demographic projections, especially the long term ones, is recommended by many authors, e.g. Nicholas Eberstadt in his analysis of the recent UN World Population Prospects presents a possible scenario of zero population growth on the earth by the year 2040 and a gradual depopulation thereafter. Source: Eberstadt N. Research: Too Few People ?, in Prospect, Monthly, Dec. 1997, pp.50-55, London.

The unemployment rate in the region grew significantly in the 1990s. See chapter 4. High unemployment means that either the available resources have been exhausted, and therefore at least a part of the population should leave the area, or the resources need to be redefined and new methods of their utilisation could be applied. This is discussed in chapter 4.

2.2. Qualifications

While there is no simple connection between technical education and economic growth, we may assume that economic growth presupposes the use of advanced technology. Technological development can make it possible to obtain larger output from the same amount of limited resources. Thus it can influence the rate of economic growth of a region. The effective utilisation of technological change very much depends on the size and quality of the educational system, the scientific capability of the population and the condition of the research and development sector.

1. In 1995 the qualifications of the population over 15 years old in Lower Silesia were characterised by 34% of those with primary education, 28% with vocational education, 25% of the secondary school leavers and 7% of graduates. The other 6% did not complete their primary school education. There was a literacy level of 98% of the population. (GUS 1995, pp. 154-155).

The noticeable feature of this population is a small proportion of graduates in comparison with the Western European countries, where on the average it is over 20% of the labour force. This however, has greatly improved in the second half of the 1990s, when proportion of students in their relevant age group has gone up to

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10 In order to be recognised as a part of the unemployment statistics in Poland, one must register as a claimant at a Labour Office (Urząd Pracy) and pass eligibility test for unemployment. *Informacja o sytuacji społeczno-gospodarczej województwa wrocławskiego w 1996 r.*, p.6, Urząd Statystyczny, Wrocław 1997. This official measure excludes all those who are not eligible for benefits; men over 65, women over 60 and people seeking work but not claiming benefit. Thus official statistics does not recognize hidden unemployment, as well as those who are wrongly included into the workforce, e.g. claiming unemployment benefit without real desire to work.
20% not only in Lower Silesia but in the whole country. In Poland in terms of primary, secondary and tertiary level of education, respectively 98%, 84% and 26% of the relevant age group has been enrolled in 1997. (EBRD 1997).

The distribution of graduates varied significantly between former voivodships. The Wroclaw one had 10.6% of graduates among its working population, the Jelenia Góra - 6%, the Legnica - 5%, and the Walbrzych - 2.7%. (Myślecki W., Turalski W., 1997). This causes areas such as Walbrzych to become less attractive for highly qualified people to live and work there.

Many authors indicate that the correlation between the level of education and income has become stronger than it used to be before 1989 - better paid jobs are more often associated with a higher level of qualifications. This is accompanied by reduced demand for unqualified labour. (Pisz Z., 1997). Such a trend is strongly reflected in the attitudes of the young people, who often see their career dependent on their education. This can be confirmed by the inquiry among young people of 15 - 18 years old in Wroclaw, which indicates that 47% of them intend to proceed to further studies. (Błaszczyk M., 1996).

In general education increases the opportunity for employment. In 1997 graduates in Wroclaw formed only 5% of the unemployed. (Wrocławskie Centrum Transferu Technologii, 1997). This however, does not necessarily mean that graduates find employment in the region or even in Poland. Education seems to influence the mobility of people, particularly when they are equipped with some knowledge of foreign languages, which if added to the small prospect for attractive employment in Poland, may encourage them to leave the country, for good or temporarily.

It is important for the regional economic development that the above trends - a better educated and more highly qualified labour force, accompanied as it is by the reduction of demand for less qualified labour should continue. In this way Lower Silesia, and indeed the whole country, can be better placed to face the European and global economic trends. (Castells M., 1996).
2. In this context the quality of education is essential. This concerns curriculum, teachers and the whole system. These three elements are closely interlinked in that a change in any one would require a consequent change in the others. For example, a new curriculum would require the retraining of teachers.

Primary education starts at the age of 7 and lasts 8 years. Private schools are permitted but, since there are very few of them, they are at present not significant. The primary school curriculum emphasises literacy, numeracy and general historical, geographical and scientific knowledge. Only 30% of children learn English, German or French, because of the lack of teachers. Some 20% of children learn Russian. (GUS 1995, p. 157). Another problem is associated with schools' poor technical equipment, in particular with regard to sport. And this significantly reduces the attractiveness of this activity, which may have a negative impact on future health conditions, resulting in higher costs of medical services. At the same time the lack of suitable equipment in schools restricts early learning about information technology. Since patterns of work, strongly driven by technology, are changing, the lack of the relevant knowledge and skills will seriously reduce the efficiency of the labour force. This of course applies even more strongly to secondary and higher education.

Secondary schools start at the age of 15, and last 4 years in case of the gymnasium (lyceum), and 5 years for vocational schools (technikum). Both these types of schools end with examinations (matura) for students, which is the equivalent of A level in Britain. Many gymnasia are highly selective, thus young people must compete to be accepted. 11

Also, they often specialise, e.g. in mathematics, physics and chemistry, foreign languages, classical subjects such as history, Latin and Greek, the arts or economics. However, an important feature of the gymnasium is that they tend to emphasise general knowledge rather than concrete problem solving. The result therefore is a greater intellectual flexibility of students but at the expense of the applied sciences. This general knowledge is of great help in dealing with the modern world, since it
also provides the foundation for further learning, because students learn how to learn. This knowledge has value as far as it goes but students can leave school without clear enough grasp of how the institutions of their country operate at the local, regional and national level. This should be taught in a factual manner. 12

With regards to economics, this subject is taught by teachers who, by and large, have a poor knowledge of the subject, since most of them had been educated in the communist system. Thus the majority of secondary school leavers do not have an economic education appropriate to the new system. Therefore, in this respect, considerable changes are required both in the secondary schools' curriculum and in teacher re-training.

Vocational secondary schools specialise in technical subjects, such as mechanics, electronics, chemistry, construction, agriculture, food production, medical services, etc. Students are also expected to learn languages, history and geography. These schools are usually much less selective, thus their leavers, in contrast to gymnasiums, go directly into employment rather than into further study.

A different kind of vocational schools are those in which education lasts 2-3 years. Education here is orientated towards the development of manual skills, mostly associated with industry and construction. They tend not to provide high level education, yet the young people are also expected to learn languages, history and geography. Governmental policy in recent years has resulted in a significant reduction of the number of these schools, since the demand for semi-qualified labour is very small indeed, as was stated above.

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11 The Ministry of Education provides no official grading of schools. The schools set their standards themselves.
12 At present such system may cause the school leavers to be little prepared to participate in the solving of practical problems of social, economic and cultural life. They may have a wide knowledge of the history and geography of Poland and the world, but little understanding of how it affects the present situation in the region. Such a situation calls for a significant adjustment of curricula, for the introduction of analysis of practical problems of today.
At the top of the educational pyramid is tertiary education. The regional educational centre is Wrocław. In the academic year 1999/2000 there were some 90,000 students in its 12 universities, of which 54,000 of them were full time students.¹³

The largest are the Wrocław University (36% of students), the Technical University (28%) and the Academy of Economic Sciences (17%). In 1996 all these universities have produced 9,126 graduates. (Wydawnictwo Uniwersytetu Wrocławskiego, 1997).

Wrocław is the regional centre of higher education. In 2000 there were 6,160 university teachers in Wrocław. Thus on the average there were 11 students per teacher, which is comparable to the Western European standards. The courses are of 4-5 years duration and in general the quality of teaching in the fields of the social sciences, such as economics, sociology, history, psychology and political science, is not high. The main feature of the pre-1989 social sciences was that they were ideologically biased. They were ill equipped with libraries, so that their standards were inevitably low. This shortage of funds, in particular for libraries and laboratories, has been even worse since 1989, e.g. libraries often could not afford the subscription to academic journals which teachers need to keep up with their subjects at an international level. The obvious need is that this situation should be reversed.

In 1999 37.7% of graduates studied technical subjects, such as electronics, electrotechnics, automation and robotics, telecommunications and information technology - subjects which are vital for the development of new technologies. This fact combined with the demographic trends in Lower Silesia is encouraging and could be further accelerated if there were books, periodicals, laboratories and access to current databases via telecommunications.

¹³ Those universities are the following: The Wrocław University, the Technical University of Wrocław, the Academy of Economic Sciences, the Academy of Agriculture, the Academy of Medical Sciences, the Musical Academy, the Fine Arts Academy, the Military Academy, the Sports Academy, the Papal Theological Department and the Higher School of Management and Marketing, The Higher School of Banking.
3. In 1997 the scientific capacity of the region was very much based on 1,216 professors and Ph.D.'s (doktor habilitowany), and 2,941 persons with doctoral degree (doktor), who by and large lived and worked in Wrocław. This placed the city as a third largest, after Warsaw and Kraków, scientific centre in Poland. The city’s specialisation are: electronics - automation - information technology, low temperatures - strong magnetic fields - properties of matter - atomic structural research, food processing, agricultural technology, environmental sciences and immunology. (Myślecki W., Turalski W., 1997, ib., pp. 45-47).

The research and development sector is strongly connected with this scientific potential, since most research institutes are within universities. There are also about 20 specialised institutes and laboratories outside those structures. They are mainly state owned.\(^\text{14}\)

The most important feature of this sector is its relationship with the economy. At present this relationship seems not very strong, as illustrated by the extent to which new technologies are applied in practice. During the last 5 years the average annual number of new applications was 98 (0.024 per one researcher), of which the majority was concentrated in geology, mining and telecommunications. (Myślecki W., Turalski W., 1997, ib., pp. 41-45). This fact may indicate the excessive concentration of R&D potential in manufacturing, and particularly in the heavy industries, which very much reflects the legacy of economic priorities before 1989. This means the misallocation of some of the R&D potential in the face of modern economic requirements, which for example include the development of information technologies and services.

\(^{14}\) The most important of them are: the Centre of Cosmic Research of the Polish Academy of Sciences (PAN), the Institute of Geology PAN, the L. Hirszfeld Institute of Immunology and Experimental Therapy, the Institute of Telecommunications, the Institute of Melioration, the Institute of Low Temperatures and Structural Research PAN, the Institute of Environmental Protection, the Institute of Land Cultivation, the International Laboratory of Strong Magnetic Fields and Low Temperatures, the State Geological Institute, the Industrial Institute of Telecommunications, the Military Institute of Engineering Technique, IASE (specialises in mining and energy production) and CUPRUM (specialises in mining and processing of copper).
Detailed data on the regional R&D sector spending is not available but, on the national scale, examples of some misapplication of this potential are provided by A. Karpiński, who has shown that in 1992 "80 % of employment in R&D was concentrated in the institutes and scientific organisations connected with heavy industry, mainly coal, metallurgy, engineering and heavy chemical industry". (Karpiński A., 1996). This was accompanied by the 54 % of total expenditure for R&D budget located in industry, of which 1/3 in electronics, in comparison with 1/2 to 2/3 of this in most western European countries. In 1991 only 15 % employed in the R&D sector in Poland, were located in high-technology industries, while in western countries it amounted at ¼ to 1/3 of the total.

These figures indicate the deficit of centres dealing with information technology or the service development (e.g. market or financial research). The largest technological gap between Poland and the most of technologically advanced economies was found in the fields of pesticide production and microelectronics, followed by electrical and power machinery. 15

In 1999 in the European Union the R&D sector on the average was represented by 25 persons per 10 000 of the population, while in Poland it was 28 persons. Thus the problem is not in the numbers of people doing research but in the subjects of research and how relevant it is to the changes of the economy. Too much of the resources are still applied to industry, in particular where it is less needed than in more relevant fields such as information technology.

It is difficult to estimate the precise direction of changes in the whole sector, since there is no full data available. An example of the quantitative change in this field may be the Technical University of Wroclaw, where between 1991 and 1996 the

15 As regards the pesticides and other chemicals connected with food production, this very technological inefficiency of Polish agriculture, may be, paradoxically, one of its major strengths. This inefficiency causes that much of food produced in Poland may be regarded as the "health food" by the western European standards (additionally, standards of hygiene in food production, imposed by Polish domestic regulations, are high). This high quality food has a small content of chemicals, richer taste and smell of meat, milk, grain and vegetable products. As far I know, this characteristics have been very little utilised in marketing.
number of annually registered new technologies (patenty) fell from 141 to 39 and the number of applications (wdrożenia) also fell, from 28 to 5 only. (Wrocławskie Centrum Transferu Technologii, 1997, p. 59). The authors of this analysis also indicate certain qualitative changes, such as stabilisation in the number of applications in agriculture and food processing, more work for environmental protection and the increased proportion of research in digital technology in radiophone, television and radio-communications. This process was accompanied by the increased imports of western technology.

The above example of the Technical University of Wroclaw shows rather little adaptation of its R&D potential to the post-1989 situation. From such a limited amount of data only the most tentative conclusions can be reached. Clearly there has been a vast reduction in a number of patents and also applications. It is not possible to apply such limited information to specific areas of industrial activity, in order to estimate a clear trend. We are left with the conclusion that, in general terms only, it is possible to say that there seems to be a limited and decreasing utilisation of the existing potential. Whether this fact is due to the inadequacy of this potential or to the unfavourable environment to which it is available, we can not at present say. The only clear conclusion concerned with the R&D sector is that it was badly managed during the recent years.

2.3. Entrepreneurship

According to J. Bocheński, an entrepreneur is a synthesising factor of production, without whom other factors would remain dispersed and unproductive. (Bocheński J., 1993). S. Hammond describes an entrepreneur as the person who accepts the risks of the business and organises the resources needed for the production of the good or service. (Hammond S., 1995). The main difference between an ordinary labourer and an entrepreneur is that the first is expected to follow instructions rather than take risks in terms of financial or professional responsibility. Some economists, e.g. Joseph Schumpeter and Alain Anderton, also argue that without entrepreneurs, who launch new products and
open new markets, little economic progress would take place. (Anderton A., 1995) Many would assert that the collapse of communism was due precisely to this.

The basic measurement of current entrepreneurship is the number of enterprises being created in an examined area. In the market economy a small number of them would mean that few new enterprises have been established. In such a situation the economy is either stagnant or is developing along the old lines, creating little new opportunities for entrepreneurs.

At the end of 2000 there were 269 531 registered enterprises in Lower Silesia (in the REGON system - the national register of economic activities), which conducted economic activity in the region. This was 8.5% of the total Polish 3.2 mn enterprises. And it means that it was proportional to the share of Lower Silesian population in the Polish population. Of those 269 388 were privately owned, including 1 555 co-operatives.

The above figures indicate a significant change in the predominance of entrepreneurs in comparison with the situation during the period of the planned economy. Before 1989 the dominant 'entrepreneur' was the state and there were very few privately owned companies. The introduction of the Bill of Economic Activity, of Dec. 28, 1988, by the Parliament, eliminated most administrative constraints for entrepreneurs and enabled private economic activity to be conducted legally. The above bill created the legal basis for the establishment of most of the existing companies. They were mainly partnerships (25 643) consisting of small and medium size companies and the self-employed (211 096). Apart from that there were 13 070 private companies, which were established on the basis of the Commercial Code: of which there were 12 467 Ltd companies and 603 plc ones. Also there were 4 378 joint ventures with foreign capital. (US Wroclaw, 2000). This means that entrepreneurship in Lower Silesia is mainly indigenous - built on local resources and rarely associated with foreign capital. This also means that by and large it is socially acceptable, despite over 40 years of governmental policy actively hostile to any private economic activity. This suggests that the further development
of entrepreneurship in Lower Silesia requires continuing concentration on the laws, institutions and government practices that impede and obstruct enterprise. This is further discussed in chapter 5.

3. CAPITAL RESOURCES

This section deals with the settlement structure of Lower Silesia, the total infrastructure of transportation, telecommunications, water and drainage system combined with all buildings, machinery and equipment whether privately or publicly owned. The nature of capital as described here, is the standard textbook definition of all created wealth. (Anderton A., ib., pp. 353-356).

3.1. Settlement structure

Settlement is the most stable element of spatial planning in the economy. Its pattern and quality influence economic effectiveness and the standard of living. (Domański R., 1993). The economic significance of the settlement structure involves the way and the scale in which economic activity can be conducted within a given settlement pattern of a region. Concentrations of population and specific economic functions of an area, which have been formed in the past, indicate both the type and size of the market. Thus a city provides a larger market for a larger number of products than a small monofunctional settlement.

When the economic function of an area is highly specialised (in terms of occupational structure of its inhabitants, natural resources or technical infrastructure) it presents favourable conditions for the further development of those functions. Thus it could be more competitive and at lower cost, than an area without these features. In this section will be discussed the main characteristics of both the urban and rural settlement structure of Lower Silesia, and their economic significance.

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16 It must not be confused with financial assets such as money, since these only represent claims on wealth by the holders of these assets.
Urban structure

The urbanisation process transforms the existing settlement, while developing the environment for a more intensive interaction between people. A city is a product of this process. Its main feature is a concentration of population, institutions and material facilities, which are organised into complex and often inter-dependent relationships. (Zipser T., 1983).

1. Most cities in Lower Silesia were formed in a long process, which began in medieval times. They rapidly expanded during the Industrial Revolution of the second half of the 19th c. and the urbanisation and industrialisation after 1945. The present settlement structure of the region was basically formed in the Middle Ages. At the beginning of the 13th c. there were 1 230 settlements in Lower Silesia and 3 500 a hundred years later. According to S. Ciok, of the 83 cities existing in 1986, 60 obtained their city status in medieval times, 3 - between the 16th c. and the middle of the 19th c., and 27 - after 1945, of which 7 were re-established. No new city was established during the period of the Industrial Revolution. (Ciok S., 1994). Most cities have clearly established centres based on the medieval plan. The main feature is a central market place which is the major service centre of the city, consisting of a townhall, shops, banks, a post office, entertainment services, etc. This contrasts with the situation which is characteristic of most American cities. They did not develop from a centre acting as a focus of the activities described above, but were instead planned as a grid which facilitates speedy movement. For such cities communication between all parts is the natural consequence of such a grid. Thus in Lower Silesia transport in particular needs to be planned and developed.

2. On the December 31, 2000 there were 89 cities in Lower Silesia, of which Wrocław had a population of 643 000, Walbrzych - 140 000, Legnica - 108 000. There were 26 counties (powiaty) and 165 communities (gminy). The urban population in the region was 2.1 mn, which is 72 % of its total population. The balance of the permanent migration from rural to urban areas was only 1 200 persons in 1993 and 900 persons in 1994.
Table 2.7. The size distribution of cities in Lower Silesia.

<table>
<thead>
<tr>
<th>Population</th>
<th>Number of cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>over 500 000</td>
<td>1</td>
</tr>
<tr>
<td>100 000 - 500 000</td>
<td>2</td>
</tr>
<tr>
<td>50 000 - 100 000</td>
<td>5</td>
</tr>
<tr>
<td>20 000 - 50 000</td>
<td>14</td>
</tr>
<tr>
<td>10 000 - 20 000</td>
<td>15</td>
</tr>
<tr>
<td>5 000 - 10 000</td>
<td>28</td>
</tr>
<tr>
<td>2 000 - 5 000</td>
<td>18</td>
</tr>
<tr>
<td>below 2 000</td>
<td>1</td>
</tr>
</tbody>
</table>


In 1995 the total migration balance of Lower Silesian cities was negative (-0.42 per 1 000 persons in 1995), because of temporary or permanent migration abroad. The urban population in Poland is 24 mn, that is 62 % of the total population. (Ministerstwo Planowania Przestrzennego i Budownictwa, 1996). Thus Lower Silesia is more urbanised than most of Poland. The existing population centres in Lower Silesia form larger and more concentrated markets in comparison with less urbanised areas, e.g. most of northern and eastern Poland. However, the flow of rural population to the towns is slow, since migration abroad presents more attractive job and housing opportunities than can be found in regional urban areas. The housing shortage in 1999, estimated at 150 000 - 200 000 flats in Lower Silesia, significantly contributes to such a situation, since it limits social mobility within the region.

4. Wrocław is not only the capital city, but its population is 5 times larger than the next one, Wałbrzych. There are 21 medium size cities with a population over 20 000. And there is a relatively large number of 43 cities with a population between 5 000 and 20 000. Thus in terms of the population size the three-level classification can be recognised. Therefore the existing structure of local centres enables the organisation of social, economic and other activities in a hierarchical or network order. This organisation of activities is needed not only within each local centre, but also between those, which have this hierarchical relationship. There is a particularly
strong need from the point of view of the national economy, for such organisation to exist. In particular, this concerns financial, telecommunication, transportation, and educational services. Modern economic trends - in particular, globalisation - accentuate this further. (Mitchelson R.L., Wheeler J.O., 1994).

There is a relatively small number of cities in the vicinity of Wroclaw. This can be explained by the long lasting flow of resources, in particular manpower, to the centre - an example of the backwash effect.¹⁷ In terms of sheer size of market, Wroclaw's position is the most attractive, because it is not only larger than other population centres, but also minimises transport costs. (Richardson H.W., 1978). The Walbrzych area is the second in this respect, since it is the centre of a conurbation of half the size of Wroclaw. The Walbrzych conurbation is also more dispersed than Wroclaw. Other magnets are Jelenia Góra and also Legnica, which form the secondary order. An example of the tertiary order is Klodzko with its satellites.

4. Another feature is that a significant part of the population lives in the southern areas of the region, along the Sudeten Mountains and the border with the Czech Republic. The Klodzko Valley is almost an enclave within the Czech territory surrounding this valley from the east, south and west. This indicates the significance of communication links between the northern (Polish) and southern (Czech) sub-Sudeten settlement belts. Since the whole area on the Polish side suffers a high unemployment rate, an increase of mobility of labour, capital and commodities is badly needed.¹⁸ This, first of all, means the necessity for the development of road and railway networks across the border, as well as telecommunications, since they would facilitate trade, transportation and the growth of associated services.

Special attention should be paid to the economic utilisation of the Sudeten Mountains, as an area of not only Lower Silesian interest, but also where Polish and


Czech interests meet, especially in tourism. Other factor is that the Germans have already been the largest group of foreign visitors to the Sudeten Mountains. This area, apart from the Erzgebirge Mountains, is the nearest mountainous tourist and resort area for the eastern part of Germany which has a population of about 20 mn. Therefore the cooperation of these three parties - Poles, Czechs and Germans - would be useful.

5. As for the hierarchy of service functions of Lower Silesian cities, Wroclaw is the most multifunctional and has no competition in the region in terms of service capacity. (CUP, 1995). This fact has been confirmed by many authors, e.g. J. Kołodziejski, who indicates the strong position of Wroclaw as a potential growth pole. He places Wroclaw among 4-6 Polish centres of socio-economic development of European significance, which, in his opinion, will play an increasingly important role as centres of innovation and entrepreneurship. Also, as indicated earlier in this chapter, the recent study on the viability of Wroclaw for a location of the technological park confirms this view.

However, according to Richardson, the pole is much more likely to be successful if it is integrated with a regional urban hierarchy structured on central-place lines rather than being a metropolitan enclave [...]. (Richardson '1978, ib., p. 166). Such an integration would enable the utilisation of the whole structure and therefore it would lead to the more balanced development of the region, rather than to its economic polarisation, inevitably accompanied by the drainage of resources from already poorer peripheries to the core. There is the striking contrast of the Wroclaw service potential against the very low position of Walbrzych (80 km from Wroclaw) which is nearly

19 A growth pole is defined as a set of industries and high-order urban services which, since they are concentrated, are capable of generating dynamic economic growth. Richardson H. Regional & Urban Economics, pp.164-167, Dungay, Suffolk 1978.


21 Authors define a technological park as a set of various organisations, concentrated on a separate area, such as universities, research and development institutions, small and medium companies orientated towards advanced technologies, and institutions which support technology transfer.
monofunctional in the ranking.\textsuperscript{22} In the years before 1989, Walbrzych used to be a predominantly industrial centre, in which mining and other heavy industries prevailed. This has been described by many authors, such as B. Winiarski, J. Szlachta, T. Czyż, J. Loboda, and in governmental publications, such as The Report on Regional Policy, CUP, Warszawa 1995. In the early 1990s many of the enterprises in the Walbrzych area either went bankrupt or were closed down. As a result significant unemployment was created, in some counties, such as Dziezoniów or Wałim, over 30% of the manpower. (Urzad Wojewódzki Walbrzych, 1993), (Loboda J., 1994). According to Ciok, of 84 cities, 37 used to perform almost exclusively industrial functions. (Ciok, ib., p. 31). Moreover industrial functions dominate in 23 cities, while in 11 they follow service functions. Thus the growth of 85% of Lower Silesian cities was largely influenced by the development of their industrial functions, often at the expense of service functions.

A comparison of the economic function of specific areas of Lower Silesia with the unemployment distribution indicates the correlation between them. The areas of largest unemployment are those where industrial functions were dominant before 1989, in particular those of heavy industries, e.g. in Walbrzych and Nowa Ruda. This, of course, concerns not only manpower but also the existing technical infrastructure.

In the planned economy, traditional factors of industry localisation, such as the provision of raw materials, supply of labour, transport, fuel and power facilities were decisive and satisfactory, since the market for the future output used to be also centrally planned. The radical introduction of market forces changed the whole business environment. Companies did not have at their disposal services closely associated with the identification of a market for local products, fast and good quality communication, transportation means, financial and legal services, etc. This imbalance may help to explain the reasons for which those areas presently suffer

such high unemployment - in the market economy industry cannot be properly managed in an environment of poor services.

The areas whose settlement is strongly integrated with industrial functions form 5 main centres: the Jelenia Góra one, the Wałbrzych - Nowa Ruda, the neighbouring complex of cities Świdnica-Dzieżoniów-Walim-Pieszyce, the newly established (in the 1960s) industrialised region based on copper -Legnica-Lubin-Polkowice-Głogów, and Wroclaw with its satellite cities. And all of them, with the exception of Wroclaw, are characterised by a relatively small service sector, as can be seen in the above figure. Thus their recovery and development very much depends on the development of their services.

6. A specific feature of the inner structure of all major cities in Lower Silesia is the existence of dormitory towns - large areas of high density housing, which belong either to the local council or to the cooperative. Although they are large concentrations of population (up to 100 000 in Wroclaw), very little economic activity can be conducted within those areas, because there is no physical space for it. The obvious problem which this situation presents has in part been overcome by having recourse to the use of facility areas such as additional markets, e.g. the basement area designated for dust bins is often used for just this purpose. This creates additional problems of congestion, due to the concentration of extra traffic in an area where there exist little or no parking facilities. Thus despite the enormous concentration of population, and therefore large potential market, in such an area, economic activity is at a minimum level.

Since there are few shops in the area, this necessitates that the occupants do their shopping on their journey to and from their places of employment. Inevitably this is all done at the end of the working day, which means that the shopping activity is concentrated into such a short a period of time that queues are the inescapable result. Life therefore, for hundreds of thousands of people, is one dreary round of work-travel-queue and home - where home has become a prison into which the
nature of the area has confined them. Such an ineffective spatial structure results also in traffic congestion, excessive use of transport and high energy consumption.\textsuperscript{23}

Thus one of the urgent improvements of urban life needed in Lower Silesia would be the reduction of the significance of dormitory towns.

**Rural structure**

The rural population of Lower Silesia is 810,000 persons, which is 28\% of total population. The settlement structure consists of 2,930 villages organised in 165 administrative units (gminy). They are unevenly distributed. There are 907 villages in the former Wroclaw voivodship, 507 in the former Legnica one, 458 in the Walbrzych one, 360 in the Jelenia Góra. Their size structure is also differentiated. According to Ciok, while the average village has 360 inhabitants, there are 2 villages with more than 1,000 inhabitants and 7 with less than 200 inhabitants. Thus the economic viability of most of them is doubtful if seen in isolation from the wider settlement structure.

The average population density of rural areas is of 40-60 persons per 100 ha. The least populated are the Kaczawskie Mountains, south-eastern part of the Klodzko Valley and the northern part of Lower Silesia. They are areas either intensively forested or of orographic conditions unfavourable for settlement. In general the pattern of rural settlement is related to the main economic functions of those areas. Therefore the least populated areas belong to forested lands. Average population density occurs in agricultural areas. Areas undergoing the urbanisation process are more populated, such as rural suburban areas. The largest villages are situated in the

\textsuperscript{23} According to S. Radomski, the total cost of maintenance of the technical infrastructure (electricity, water, gas, roads, sewage, lifts, etc.) of a dormitory town larger than 20,000 inhabitants, is at least double that of a similar size settlement consisting of detached or semi-detached houses. S. Radomski is an architect who specialises in urban design and the preservation of buildings of historical interest. He made this calculation for the most recent dormitory settlement the "Osiedle Huby" in Wroclaw, which was built in the late 1980s and the beginning of the 1990s. Source: *Propozycje poprawy sytuacji mieszkaniowej Osiedla Huby*, Wroclaw 1994.

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southern part of the region, while towards the north they tend to be smaller and more dispersed.

Such a distribution of rural population illustrates that in their future development an essential role will be played by urban centres. Thus their interaction with those centres needs to be significantly accelerated. (Węgleński J., 1988), (Stasiak A., 1994), (Instytut Miasta, 1992).

**Housing**

In 1995 there were 897 000 homes in Lower Silesia, of which 272 000 (30 % of the total) were council houses, 140 000 (16 %) belonged to cooperatives, 45 000 (5 %) belonged to state owned companies. (WUS Jelenia Góra, 1996). Almost 50 % of homes were privately owned, largely in rural areas. An average size of a home was 61 m². There were 3.67 persons per home (20.1 m² per person). The number of persons per room was 0.94. This reflects a serious problem of overcrowding, which frequently involves three generations being forced to endure one home between them.

In 1995 3 500 flats were built, of which one third were in the countryside. The main builders were cooperatives, which built over 60 % of new houses, while individuals built only 23 %. The number of newly built houses in Lower Silesia (as in the rest of Poland) has been constantly reduced during the last 18 years, especially during the 1990s. This means a complete failure of subsequent governments in creating conditions to solve one of the main social problems in Poland, which is a shortage of housing. This major problem also results in severely restricted labour mobility within the region and is a significant cause of the high level of national emigration.

3.2. Water supply and sewage system

The main source of water for urban areas is rivers and reservoirs, resulting in the fact that in Lower Silesia over 96 % of urban inhabitants have access to mains water
(Poland's average - 91%). In contrast, the situation in rural areas is that over half of them are dependent on nearby wells. Neither should we forget that the sewage system also requires adequate supplies of water. This inevitably means that the arrangements for sewage are seriously inadequate in many rural areas.

The main problem of water quality remains pollution by industry, and an ageing network of pipes, which requires replacement. Although much has been done during the 1990s, it has not been sufficient, so that for example in Wrocław the citizens are advised by the municipal water company to boil water before drinking it. (Bielecki J., 1994).

In order to combat this combined problem of both water supply and its quality, there is a need for more sewage farms. This presents problems for local councils, for whom investment in the water infrastructure is only one of the many competing demands on their limited financial resources.

The main feature of rural areas is the underdevelopment of its infrastructure. This requires policies to accelerate their development.

3.3. Energy supply

There are 896 000 households in Lower Silesia (almost 100 % of the total) which are supplied with electricity. In 1995 the consumption of electricity by households in Lower Silesia amounted to 299 GWh.

In 1995 640 000 households (70 % of the total) living in 84 660 buildings were connected to the gas network. Areas, which are outside the gas network are provided with gas in containers. In 1995 households consumed 27.3 hm³ of gas. Although during the 1990s many cities and villages were connected to the gas network, in 1999 there were still 15 small towns and most of the rural areas without

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Detailed information about water, gas and electricity supply can be found in *Przegląd Statystyczny*, pp.101-110, WUS Jelenia Góra 1996.

### 3.4. Transport infrastructure

During the 1990s tourist traffic and transportation of goods in Eastern and Central Europe has grown significantly. From 1988 to 1992 annual traffic growth in Poland has been estimated at 4-8% both for cars and trucks and it is predicted to grow further. (OECD, 1993). Also, according to M. Okólski, "between 1988-1995 the number of entries of foreign citizens [to Poland] increased from 6 mn to 82 mn, whereas the number of exits by the Poles rose from 10 mn to 36 mn". (Okólski M., 1998). The Central Planning Office in Poland predicts that the volume of movement will at least double before 2005, particularly on the East-West axis. (Suchorzewski W., 1994).

The number of persons who crossed the Polish-German border in Lower Silesia in 1995 was estimated at 51 mn, which means that the region concentrates 22% of all movements across the Polish border. (WUS Jelenia Góra, ib., p. 88) All this means that the economic importance of transportation network in Lower Silesia has greatly increased during the recent years and it is going to grow further.

#### Roads

Public roads in Poland are national, regional and local. National and regional roads belong to the State Treasury, local ones to counties (gminy). The total length of roads in Lower Silesia is 15 131 km. The length of the national highway network of international importance in is 3 512 km, which is 8% of these in Poland (42 827 km).25 The density of this network is 80 km/100 km², while in Poland it is 62.7 km/100 km².

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Of these there are 540 km of national motorways and 2-lane major roads: road nr. 4, which extends on the East-West axis, from German border in Zgorzelec to Wrocław-Opole-Strzelce Opolskie toward Upper Silesia; various parts of the road nr. 5 on the SW-N axis, which extends from Bolków to Świdnica-Wrocław-Leszno towards Poznań; various parts of the road nr 8 on the South-NE axis, extending from the Czech border in Kudowa to Wrocław- Oleśnica-Kępno towards Warsaw; various parts of the road nr 3, on the axis South-North, from the Czech border in Jakuszyce to Jelenia Góra-Bolków-Legnica-Lubin-Nowa Sól towards Szczecin. In order to absorb current heavy traffic, most of these roads require further strengthening of the road surface, constructing of the "hard-shoulder" lanes and general improvement of maintenance. It has been estimated by the OECD research of 1998, that to clear the backlog for major roads in 5 years, Poland should spend on it 2% of its budget.

Apart from national roads there are 7,511 km of provincial roads and 4,108 km of country roads. All the above roads have strengthened road surface (tarmac or concrete).

The transportation network in Lower Silesia is strongly connected with the settlement structure. Geographically it is predominantly East-West orientated. The main axis of this network is the road nr. 4, which extends across the most densely populated areas of the region, connecting the largest cities in southern Poland. The main junction of major roads is the city of Wrocław and its suburbia. The most important defect of the road network in Lower Silesia is the lack of continuous system of motorways. According to the estimate by the Lower Silesian Board of Public Roads, 80% of roads in the region needs adaptation to the requirements of modern transport standards. (Jaruchowski Z., Kaszluk R., Wasilewski A., 1994).

Also most cities do not have a by-pass, which would enable through traffic to avoid the built-up areas. An example can be the city of Wrocław in which all bridges

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across the River Oder are concentrated only on the 2.5 km section of the river in
the centre of the city. Other bridges across Oder are quite distant: the nearest one,
down the river, is in Lubiąż - 45 km from the closest in Wroclaw, and the one up
the river - 25 km, in Olawa. Thus not only by-passes but also some new bridges are
badly needed. (Waszkiewicz J., 1994).

There is a shortage of services for travellers - hotels, bars, restaurants, shops,
currency exchange shops, parking, etc. Particularly inadequate are cross border
points, especially with Germany. They have not been adapted yet to the rapidly
increased movement of cars and trucks. There are too few of them and the existing
ones have very little service capacity, thus causing enormous delays in vehicle
movements. (Koziarski S., 1996).

In 1995, 148 000 trucks and 15.2 mn cars and buses crossed Polish-German and
Polish-Czech borders within Lower Silesia, which is 22 % of the total Polish
movement. In comparison with 10 % share in the length of Polish borders, this
means that Lower Silesia is a region of intensive cross-border movements. The
research conducted by the Statistical Office in Jelenia Góra in 1995 found that in
that year foreigners spent 1.54 bn zl ($ 500 mn) in two border areas alone (Jelenia
Góra and Walbrzych), which is 15.4 % of that in Poland (9.01 bn zl = $ 3bn). This,
along with the prospect of border traffic growth in the years to come, indicates the
importance of good roads and state border facilities, since this strongly influences
the flow of goods and services, and therefore the well being of the area.27

Railways

In Poland the railways belong to the State Treasury enterprise - the PKP (Polish
State Railway). Their total length in Lower Silesia amounts at 2 400 km, which is 10%
of the Polish total. Of this the length of electrified lines is 1 029 km. The density
of the network is 13 km per 100 km². For the most part it is made up of electrified

27 There were 800 000 cars and 200 000 trucks registered in Lower Silesia in 1996. The total
number of registered road vehicles, including motorcycles, tractors, buses was 2.6 mn. Annual
average growth of this figure during the previous three years was 20 %.
twin-track lines, with automatic control equipment. (Central Planing Office, 1991),
(Bemaś B. 1996).

Main Lower Silesian cities, such as Wroclaw, Walbrzych, Jelenia Góra and Legnica, have got direct daily connections with Warsaw, Berlin, Dresden, Leipzig, Prague, Vienna, Bratislava, Budapest, Frankfurt and Paris within various express international networks. The dominant geographical orientation of this network is East-West, similar to the road one. The main railway junction is Wroclaw.²⁸

During the last 20 years the economic importance of railways in Poland has been significantly reduced in favour of roads. In 1980 an amount of cargo transported by railways was 482.1 mn tonnes, in 1990 - 282 mn, in 1991 - 228 mn, 1992 - 202 mn, 1993 - 214 mn, in 1994 - 215 mn tonnes. Similarly, the passenger use of railway transport was more than halved: in 1980 - 3.5 bn passengers, 1990 - 2.9 bn 1991 - 2.4, 1991 - 2.06, 1993 - 1.9, 1994 - 1.7 bn passengers. (GUS, 1995, ib. pp. 266-267). The main reason for such a radical reduction of the use of railways, despite the lower cost of transport by railway compared to road, according to some authors, is the advantage of the latter in terms of speed and easy access to clients. (Bemaś B., ib., p.182). As a result, many local lines (during the 1990s - about 7 000 km in Poland) were closed down. One must also mention the general poor standard of services offered by the PKP, in particular for passengers, resulting from outdated equipment and bad management. (Jaruchowski Z., Kaszluk R., Wasilewski A., 1994, ib., p. 184).

Waterways

Lower Silesia lies in the River Oder basin, along its upper and middle stream. The Oder rises in the Sudeten Mountains in Moravia, in the Czech Republic, flowing towards the northeast, then towards northwest. It creates a big valley between the Carpathian and the Sudeten Mountains- the Moravian Gate. It enters the Baltic Sea in a wide estuary- Szczecin Bay close to Szczecin - the largest Baltic Sea port of a

considerable industrial and commercial importance. The Oder length is 854 km, including 742 km in Poland. On the average one month every year the upper part of the Oder is blocked by ice.

The Oder and its tributaries have played an important role in the past and present economic development of both Lower and Upper Silesia. They have been the main source of water for individual consumption, agriculture and industry, and they provided significant transportation routes. During the 19th and 20th centuries the Oder gradually became a well regulated river and, apart from the railways, the most important transport route to enable significant trade between Silesia and Western Europe. Since its regulation, the river used to be free from flooding, until July 1997 when, due to large rain fall combined with the neglected conservation during the recent years, the flood affected about 10% of the Lower Silesian area and damaged over 60 000 buildings, according to the official estimates. (US Wrocław, 1997), (Wojewoda Wrocławski, 17.09.1997).

At present the river is navigable for 711 km, which is a large part of its length, and for barges up to 2 000 tonnes. However, due to the postponed further development of the river, navigation conditions differ significantly. (Koziarski S., ib., p. 129). The well regulated part of Oder from Koźle to Brzeg Dolny, including the Gliwicki and Kędzierzyński Canals, offers 220 km of navigation for barges up to 180 cm minimum depth, all over the year. Down the river, from Brzeg Dolny to Kostrzyń (336 km) there are sections of the Oder inaccessible for barges deeper than 110 cm in some parts of the year (at present this river depth is regarded as economically viable). On the further section towards Szczecin, there are better navigation conditions, up to 150-160 cm of depth. Such great differences in navigation conditions means that the existing shipping capacity is not fully used and the barges depreciate more quickly.

At present along the Oder waterway there are 16 working ports, 27 reloading harbours and 19 docks. Apart from them, there are 5 ports, 5 reloading harbours and 36 docks, which have been closed down during the recent years. In 1985 the
The loading capacity of all the ports along the Oder waterway was estimated at 7.5 mn tonnes. The 1990 figure of 2.3 mn tonnes, illustrates the economic decline of the Oder traffic. (Koziarski S., ib., p. 130).

The largest waterway infrastructure in Lower Silesia is concentrated in Wroclaw. There are 2 shipyards (out of 5 largest shipyards along the Oder) equipped with basins, docks and other facilities, including access to the road and railway networks. The scale of this infrastructure can be illustrated by the size of the largest river port "Popowice" in Wroclaw, which is equipped with a reloading harbour of 851 m in length and other 554 m harbours.

The Oder is connected with the European waterway system through the Oder-Spree and Oder-Havel Canals that link western Poland with Berlin, Hamburg and the main ports of the North Sea. The Gliwice Canal links the Oder with the Vistula and together with the Oder it is the main waterway to the Baltic Sea for the industrial area of Upper Silesia, important for the carriage of coal, chemicals, rock and grain. The Canal Bydgoski and the River Noteć links the Oder and the Vistula in their lower streams and hence connects the Oder with the inland navigation routes in Eastern Europe such as the Rivers Niemen, Dniepr, Dniestr, Volga. Thus, if navigation conditions are improved the river can carry out transportation functions on the East-West axis of Europe and also from the Baltic Sea to the south of Poland. (Milkowski M., 1990).

Such an investment has been already planned in 1981, when the great international project for the construction of the Danube-Oder-Elbe connection was undertaken under the auspices of the United Nations. (UN, 1981). But it was not continued after the introduction of Martial Law in Poland in 1981.

Airways

The regular flights in Lower Silesia are conducted in the Wroclaw International Airport Strachowice. (CUP, 1995, p.15). The legal form of this enterprise is a joint-
stock company. Its share-holders are the Treasury, the City of Wroclaw, a state owned company - the Polish Airports, and the Army Cultural Foundation "Art-Woj".

The airport's main runway is 2 650 m long and 60 m wide, an additional runway is 1 600 m long and 45 m wide. The newly built (May 1997) passenger terminal enables a parallel working of domestic and international flights. The runway allows the departure and landing of aeroplanes of the ATR type and the Boeing 747 up to 100 tonnes weight. The two existing terminals permit effective provision of services for up to 500 000 passengers a year, with a capacity for 360 passengers per hour. There is spare land for the further development of the airport, which would allow up to 2.5 mn passengers a year. (Wroclaw International Airport, 1998).

In 2001 the airport had regular daily flights to Warsaw, Frankfurt/am Main, Copenhagen and three times a week to Düsseldorf. It also provides services for charter flights, usually 10 a day. According to the members of the Board, the airport could carry far more cargo than it does at present.

Apart from the Wroclaw airport, there are at least 14 other airfields in Lower Silesia. The largest are the Krzywa (a runway of 2 600 m length and 60 m width, accompanied by a technical infrastructure of 195 various buildings, including 38 nuclear shelters, 16 ammunition shelters, a railway side track and two large air plane repair and maintenance facilities, total area - 480 ha), the Legnica one (a runway 1 600 m length and 40 m width, 7 air sheds of total surface 30 000 m², 12 buildings, network of well maintained roads and railway side tracks, total surface 224 ha), the Lubin one (a runway 900 m long and 30 m wide, designed for training and sport flights), in Jelenia Góra, Swietochłowice, Brzeg, Świednica, Szprotawa, Gniewowice and others. They are all former military airfields of the Warsaw Pact. No regular airway services were conducted there in the 1990s. Their present economic utilisation is little or none.

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29 The airport has modern navigation lighting system (IDMAN, made in Finland), the ILS system (WILCOX, USA), and a modern flight control tower.
3.5. Telecommunications

In 2001 there were 236 telephones per 1000 inhabitants in Lower Silesia, while in the most of Western European countries it amounted to well over 450. Access to telephone varied greatly in the region. There were 29 telephones per 100 inhabitants in cities and only 8 in rural areas. (GUS, 2001). The most developed telecommunication network in the region is in the city of Wroclaw, where there were 30 telephones per 100 inhabitants. According to the authors of the study 'Park technologiczny we Wroclawiu', over a half of the existing telecommunication network in Wroclaw has already adapted the digital system, comparable to the Western European standards.

Although since 1990 the number of telephones/100 inhabitants has doubled, access to them is still very limited. The main reason for this seems to be that Polish governments since 1989 placed low priority on the development of telecommunication; and furthermore competition has been largely excluded from this field. The development of this branch depends on the Polish Telecom (TP S.A.) - a state owned company, which has a legal monopoly in both international and most of the inter-city telecommunication. Additionally, the entry of private entrepreneurs into this field requires a licence from the Ministry of Telecommunications. This is further discussed in chapters 4 and 5.

3.6. Tourist and resort areas

Another group of Lower Silesian resources are tourist and resort facilities, which add to the economic potential of the region. There are several reasons why Lower Silesia is an attractive area for tourists. The first is the climate, which was mentioned earlier. The rich and varied landscape, from flat land through hills to mountains, crossed by rivers and streams and with an abundance of forests. In particular, the Sudeten area is rich in natural beauty spots, such as waterfalls (Karpacz and Szklarska Poręba), caves (Kletno), post-glacial forms such as lakes (Karpacz), many
deep river valleys and picturesque rock formations in the Karkonosze and the Table Mountains.

The region is rich in historic buildings and places. There are also special facilities in specific fields.

Other important facilities are the tourist routes and mountain lifts. The network of tourist routes in Lower Silesia is quite dense and adequate. It accounts for over 4300 km, of which 1400 km in the Sudeten. (Mazurski K., 1994). There are about 45 lifts there, concentrated in the Walbrzych and Jelenia Góra areas, which is not many in comparison to 204 of them in the Carpathians. They need upgrading.

There are also many cultural facilities in Wroclaw, of which the most important are 5 theatres, the Philharmonic Orchestra, the Opera, 7 museums (of which the Raclawice Panorama Museum alone has about 320 000 visitors annually. (Huk J., 1994). There are also many galleries, the Zoo and Botanical gardens. There are several theatres and museums in Legnica and Jelenia Góra. Various cultural events take place in Lower Silesia. This is accompanied by sport facilities, of which certain have international importance.

Examples of this heritage are castles (e.g. Lubiąż, Leśna, Chojnik, Srebrna Góra, Klodzko, Oleśnica), palaces (Wojnowice, Wysoka), numerous manor houses, churches (e.g. Wrocław, Trzebnica, Wambierzyce, Legnica, Jelenia Góra), monasteries (e.g. Henryków, Krzeszów, Bardo Śląskie), gardens and parks (e.g. Książ, Wrocław, Kamieniec Ząbkowicki), and remarkable urban complexes (e.g. Wrocław, Paczków, Klodzko, Jelenia Góra). The regional heritage extends from the Middle Ages until the present day. According to the National Registry of Monuments, there are over 600 objects of historical interest in Lower Silesia. Sources: Rejestr Zabytków Dolnego Śląska, Wrocław 1993. South-West Poland, Ed. Wilczek M., Warszawa 1996.

Examples of such a specialisation are: the sailing facilities in the Mietków Lake, skiing in Karpacz, Szklarska Poręba, Złonie, Świeradow Zdrój, Rzeczka - in these areas snow remains for over 4 month a year; climbing in Janowice Śląskie, Kudowa Zdrój, Karpacz; horse riding in Książ, Wrocław, Kamieniec Ząbkowicki, Karpacz; fishing in Milicz; hunting (deer, boar) in Oleśnica, Milicz, Trzebnica; semi-medical services in spas such as Kudowa Zdrój, Łądek Zdrój, Polanica Zdrój, Długopole Zdrój, Jedlina Zdrój, Szczawnica Zdrój, Kowary, Cieplice Śląskie, Świdrów Zdrój, Oborniki Śląskie and others. Source: South-West Poland, Ed. Wilczek M., Warszawa 1996.


Examples the most important of them are: the annual Festival of Street Theatres in Jelenia Góra, the The World Chopin Competition in Duszniki Zdrój every 5 years, the annual Rubinstein Chess Competition in Łądek Zdrój, The Moniuszko Music Festival in Kudowa Zdrój, The Henryk Wieniawski Violin Festival in Szczawnica Zdrój, the Wratislavia Cantans International Festival, The Triennale of Drawing, the annual Festival of Actor's Song, the annual Jazz Festival on the Oder.
There are a number of spas in Lower Silesia.\(^3\) There are 79 such places in Lower Silesia, which is nearly \(\frac{1}{4}\) of the Polish total. Their activities involve medical treatment with various substances, of which the most important are salt and thermal waters, and mud (liquid fine-grained mud is used, depending on its chemical contents, as an external medical treatment for certain diseases). (Czerwiński J., 1993). By and large they are situated in a favourable climatic environment.

The largest number of the spa centres is in the Walbrzych voivodship (66) and the Jelenia Góra one - 12. One such centre is in the Wrocław voivodship, but there are none in Legnica. The number of beds at their disposal is 7 408, which is 17 % of the available beds in Poland. In 1995 they received 120 000 visitors to take the waters and the mud baths. The greatest concentration of services is in the two Walbrzych spa-centres (Szczawno Zdroj and Kudowa Zdrój, Polanica Zdrój, Łądek Zdrój) and, in Świeradów and Jelenia Góra. The largest owner of spa facilities is the state.\(^3\)

The region's total "bed" capacity is 52 500 beds, which is 7.4 % of this in Poland. Of them 21 100 are in the Jelenia Góra area, 17 500 in the Walbrzych one, 11 600 in Wrocław and 2 300 in the Legnica area. Their distribution is very uneven. They are concentrated in the four main areas: the vicinity of Walbrzych, the Klodzko Valley, the Jelenia Góra Valley and the city of Wrocław. (Batorowicz Z., Nalewajko J., Suliborski A., 1995). In Lower Silesia some 29.7 % of this bed capacity is in the boarding houses, hotels, inns and bed&breakfasts. A smaller percentage of this bed capacity is in camping sites and youth hostels.

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34 Examples are the Olympic Stadium and the Century Hall in Wrocław, where often major competitions take place, e.g. the World Speedway Championship, the European championships in athletics, baseball, table tennis, bicycle rally, etc. Smaller concentrations of such institutions exist also in Walbrzych, Jelenia Góra and Legnica.


36 The ownership structure of these centres: 64 belongs to the Ministry of Health, 7 to the Railway Health Services, 1 to The Fund of Employee Holidays (Fundusz Wczasów Pracowniczych) - a trade unions property, 2 to the Ministry of Interior, 2 to the Ministry of Defence, and 3 to others.
As regards the number of catering services available in Lower Silesia in comparison with the rest of Poland, the vicinity of Walbrzych and Jelenia Góra are placed among the 8 highest ranking provinces in Poland (over 42 seats per 1 000 inhabitants), while Wroclaw and Legnica represent the Polish average (about 30 seats per 1 000 inhabitants). 

The utilisation of this potential is more intensive than the Polish average. In 1995 there were 1.1 mn tourists who used beds in Lower Silesia, which was 10 % of the total Polish number. According to the Statistical Office in Jelenia Góra, the largest number were in Wroclaw (394 000) and Jelenia Góra (374 000). The smallest number was in the Legnica province - 62 000 tourists.

According to the Statistical Office in Jelenia Góra, there are many tourist resources in Lower Silesia which have not been utilised at all. The main reason for this is the lack of services, which is related to the lack of investment.

According to Krzysztof Mazurski, since 1945 the Lower Silesian share of tourism in Poland has declined in comparison to the rest of the country. Other Polish regions have developed their tourist potential intensively. At the same time Lower Silesia has improved only to a small extent the tourist facilities which existed before 1939. (Mazurski K., ib., pp. 197-211).

The main obstacles to the development of the tourist industry in Lower Silesia are poor telecommunications, complicated land law, and lack of integrated economic planning for Lower Silesia. Thus a potential investor does not know future government policy (e.g. tax system, industrial policy, development of infrastructure, etc.). And therefore there is little rational basis for medium and long-term investment. In addition there is a lack of information both in Poland and abroad about these tourist facilities and in particular about spas. This is connected with the fact that the vast majority of spas belong to the state and that privatisation in this field was very fast.

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There is a very little international cooperation in the development of tourism in the Sudeten Mountains, which particularly concerns the Czechs who should cooperate with the Poles as regard the transport system (lifts, railways, more border crossing points).

**Conclusion**

How to utilise in the best way all these various resources of Silesia is a most complicated mixture of problems. On the one hand, the special characteristics and needs of Silesia have to be accommodated to general Polish trends and needs as the country prepares to enter the EU. On the other hands, there are regional needs and interests, which should not be ignored or overridden. It is an open question whether the past experience of Lower Silesia, as outlined in chapter 1, provides any guidance in this matter. One may conclude that the past has little relevance because of the tremendous changes, which create a gulf even between 2001 and 1901. Furthermore, there is a need for careful strategic planning about the development of regional resources because the development of one resource may conflict with that of another, and the planners, if possible, should be aware of this. And all this takes place in the context of limited financial resources combined with great many things, which need to be done all at once. A number of regional resources are not fully used, it is also clear that there is also a limit to what regional and national government can do because there is not an endless supply of money available. The Polish budget of the last 10 years has been under severe strain because of simultaneous demands from many quarters. Therefore any planning needs careful prioritisation and clear strategic aims.
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APPENDIX II. Major products of Lower Silesia in the years 1996-1999.

Table 5.9: Major products of Lower Silesia in the years 1996-1999, share in total Polish production.

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<td>Thus. t</td>
<td>261.1</td>
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