
Problems of the Growth of the National Economy of Central-Eastern Europe in the Late Middle Ages

Marian Małowist

University of Warsaw

This study covers the regions stretching from the Baltic to the Adriatic Sea in one direction and from Saxony to the Grand Duchy of Lithuania in the other. In choosing this area I was influenced by the following considerations:

1. Between the XIIth and XIIIth centuries and the beginning of the XVIIth century these countries experienced very similar phases of development. Although valuable, many previous studies however have been carried out in isolation to some extent, as analysis of individual countries did not allow for a fuller understanding of the general principles of economic growth and development which affected the whole area under discussion.

2. Because national markets had not yet come into existence, political boundaries played a limited role in economic life. For this reason the object of study during the later period should not be individual countries but rather the smaller regions where tangible economic links emerged. Alternatively, groupings of such regions, which I would describe conventionally as economic zones, should be studied within this general framework, economic interdependence being of great importance for the area as a whole. The territories mentioned in this case did not always coincide with political boundaries but could considerably exceed them.

It would appear in the light of present-day research that in the territories of Central-Eastern and Eastern Europe during the early Middle Ages conditions for economic development were less favourable than those of Western Europe. As a result rural economy and urbanization progressed less in the territories over a long period. Thus, until the XIIth and XIIIth centuries the two-field system was dominant in agriculture, as was probably the burning of waste land in forest areas, and the three-field was not generally in use.¹ Wooden implements were unsatisfactory for cultivation of the heavy soil which was the most fertile, and H. Łowmiański considered this to be a factor in the very low agricultural yield, when assessing an average ratio of sowing to harvest at to 2 or at most 3. He claims that the yield often fell below 1:2. It was this which precluded the possibility of any larger natural growth of the population.²

Wheat, which became so important from the beginning of the XIIth and XIIIth centuries, was not well distributed and left many areas quite untouched. Few now deny that many settlements in the Slav countries and in Hungary had economic characteristic of early towns, but they were on the whole considerably smaller communities than those in the West, in Italy and in Kievan Russia, and they had much less scope for manufacture and trade. Of course there were exceptions, such as Western Pomerania.

How can this situation be explained? It is very difficult to throw light upon the problem but I believe that the main factor which slowed down the rate of development was the density of population which was appreciably lower than in the territories of the former Roman Empire in particular. This is shown by demographic evidence for the first half of the XIVth century and thus for a period before the outbreak of the Great Plague.

In this period the density of population per 'square' km in the West and in Italy was approximately as follows:³

¹ H. ŁOWMIAŃSKI, *Początki Polski*, t. III, Warszawa, 1967, pp. 235-244.

² *Ibid.*, pp. 296, 307.

³ I. GIEYSZTOROWA, *Research into the demographic history of Poland*, «Acta Poloniae Historica», t. XVIII, 1968, vol. I, pp. 9, 10; J.C. RUSSELL, *Late Ancient and Medieval Population*, «Transactions of the American Philosophical Society», New Series, t. III, 1958, pp. 100-112; E. FÜGEDI, *Pour une analyse démographique de la Hongrie médiévale*, «Annales E. S. C.», 1969, nr. 6, pp. 1300-1306.

France	- 35
Italy	- 27 - 30
England	- 10
Germany	- 10 - 11 (somewhat hypothetical figures)
Netherlands	- data is lacking but the southern part was very heavily populated.

In the same period, the density of population in Central-Eastern Europe was:

Poland	- 6 - 7
Bohemia	- 8 - 10 (some estimates are as high as 15)
Hungary	- somewhere between these two countries.

Data referring to the so-called average density of population does not preclude large variations for individual regions, but the figures available do indicate conditions which were markedly unfavourable to the development of the Eastern part of the area under discussion. Attempts to estimate the population in 1000 AD indicate that, although the figures were different, there was nevertheless a similar disequilibrium.⁴ This is of considerable significance since under the conditions prevailing at that time man was an essential agent of production, and so the density of population and the dynamics of its increase acted as a very important stimulant to economic growth. In this case, however, it is clear that weak economic growth itself affected the population increase.

The less favourable conditions for economic growth were due to invasions and the subjection of Central-Eastern Europe, to nomads such as Avars, Hungarians, Protobulgarians, etc., and later in the XIIIth century by the Mongols, which lasted longer than in the west. Although most of them eventually settled down and some were assimilated by native communities, there was considerable destruction, although it was not as serious as in Russia in the XIIIth century. Also the legacy of the civilization of the Roman Empire which was more lasting and accessible in France, the Rhi-

⁴ I. GIEYSZTOROWA, *loc. cit.*

neland, and even in parts of England than the territories of Eastern Europe should not be underestimated. In Panonia and particularly in the Balkans it was more difficult to take advantage of this legacy because of the invasions and the later struggles for power over the richer territories (e.g. Southern Macedonia). The XIIth century and particularly the XIIIth century brought radical changes in the situation in Central-Eastern Europe which then entered the stage of faster economic growth. This is what F. Braudel would have called a long phase of the trade cycle with a marked upward trend which lasted until the end of the XVIth century. There were, however, occasional major disturbances during this period, e.g. in the Balkans during the Turkish conquest from the mid-XIVth century to the late XVth century and during the Hussite revolution in Bohemia, as well as to some extent in Silesia.

German, as previously Polish and Bohemian studies, attempted to explain the changes in the XIIth and XIIIth centuries by attributing them exclusively to the immigration of the German settlers who represented a higher economic potential and a more advanced level of civilization than the native population. After lengthy debates Polish and Bohemian historians managed to emphasise, correctly, the importance of Teutonic Law or, as K. Tymieniecki wrote, of Western Law. The latter covered a much wider area than the territories colonized by the Germans, and was adopted by the local populations. Here, however, some reservations must be made. Tymieniecki and his followers tried to prove that the institutions of so-called Polish Law, which were formulated in Poland before the introduction of Germanic Law, had in fact evolved by themselves in such a way that there were no great differences between the two systems. In Tymieniecki's work there are references to the supposed decline of the peasants' legal rights, and to their cultivation of land as a result of the introduction of the new system. In his study of Bohemian villages F. Graus tried to prove that the introduction of Germanic Law increased the charges levied on peasants. However, it is evident from the same work that not only did the area under cultivation increase appreciably but also the productivity of the rural economy and its links with markets during the XIIIth

and XIVth centuries.⁵ Furthermore, there is no evidence of particularly acute poverty among the Bohemian peasants during the period under discussion, which would have been unavoidable if, as a result of the increased taxes, they had had to deprive themselves of their crops at the expense of their own already meagre consumption. This cannot be shown to have happened in any of the countries with which we are concerned where foreign settlers or new systems of village organization were introduced or, as most commonly happened, both appeared jointly. It would seem, however, that the growth in the output of urban and rural craftsmen supplying local and regional markets largely to meet the needs of the peasant population is a proof of the increase in purchasing power. I would also explain the development of iron foundries and, linked to that, the production of agricultural implements in (Małopolska) Galicia, by the XIVth century at the latest, in the same way.⁶ Besides, would there have been any foreigners or immigrant colonists, some of whom originally came from very distant places, if they had not expected to improve their position under the new conditions? There is no evidence to suggest that they were disappointed. I have paused here, at some length, to explain the problems of the new settlements and of the new law because, in the discussion of this subject, too much space has been devoted to the controversy concerning legal, institutional and ethnical factors and too often the economic problems have been overshadowed by them. I believe, as historians have known for a long time, that the attempts which were still made in the XIIth century in Silesia and (Małopolska) Galicia to reorganise the economy on the basis of Polish law as well as to introduce Germanic law in Poland, Bohemia and in some of the provinces of what was then Hungary, represented an important watershed in the history of these countries. The large estates which had already been formed did not have sufficient manpower, which was essential for the cultivation of the land. The period of aggressive wars came to an end. It was these wars which

⁵ F. GRAUS, *Dejiny venkovskeho lidu w Cechách v dobe předbusitske*, t. II, Praha, 1957, pp. 30-78.

⁶ B. ZIENTARA, *Dzieje małopolskiego hutnictwa żelaznego XIV-XVII w.*, Warszawa, 1954, pp. 85-92.

in the past had provided the rulers and the gentry of Poland, Bohemia and Hungary with slaves to be used as a labour force on their estates or as «goods» for trade. Instead there now arose the need for defence from external attacks, particularly from the Germans.

The cultural needs of the aristocracy were intensified through contact with the countries which had already attained a higher level of civilization. But the aristocracy lacked the necessary means for the proper exploitation of their estates. It would have been unrealistic to have increased the pressure on the serfs as there were ample opportunities for escape as well as strong competition among the feudal lords for labour. Neither they themselves nor the state authorities had any adequate administration which could have prevented the escapes or even have caught the runaways.

This applied to Poland in particular during the disintegration of the kingdom, whereas the stronger government in Hungary even succeeded in carrying out compulsory resettlement of the peasants from the northern province to the Panonian plain.⁷ Nevertheless, as Hungarian scholars have stated, foreign settlements based on better rights conferred on the colonists, played a very important part in the creation and the development of towns in the centre of the country, and especially in the rural and urban settlements of Slovakia and Transylvania.⁸ It was essential to confer Germanic law on the immigrants in the two border provinces, even though great natural wealth had been discovered there — itself a great attraction. It is worth mentioning that a similar phenomenon probably occurred in central Sweden in the XIIth century and certainly in the XIIIth century. The influx into Sweden of miners of German origin and the introduction of a law which was territorially binding at an earlier date in the German mining territories, led to a rapid increase in the production of iron ore and later of copper in these provinces, particularly in Dalarna

⁷ B. HÓMAN, *Geschichte des ungarischen Mittelalters*, t. II, p. 161.

⁸ G. VON PROBSZT, *Die niederungarischen Bergstädte*, München, 1966, pp. 23-29; S. PASCU, *Die mittelalterliche Dorfsiedlung in Siebenbürgen*, «Nouvelles Etudes d'Histoire», II, Bucarest, 1966, pp. 135-139, 142, 144, 145.

which was sparsely populated as yet at the turn of the XIIth and XIIIth centuries.⁹

Thus the increase in population and new legal codes were of great importance for the economy of Central-Eastern and Northern Europe. The second factor was undoubtedly the more important. This is shown by the fact that foreign rural settlements retained their German ethnical character only in the territories of Eastern Germany, Silesia, North Western Bohemia, Western Pomerania and partly in Eastern Pomerania. In other areas these settlements were relatively quickly absorbed and assimilated by the local population. The survival of strong German communities in Slovakia and Southern Transylvania can be explained both by the large scale of the immigration and by the small size of the native population. The German element survived longer in the towns but there too, from the XIVth century and the XVth century, it was on the whole assimilated as a result of native immigration. Germanic law in various forms also applied to areas where foreign immigration was very restricted or did not occur, e.g. in Mazovia (Mazowsze), leading on the whole to very positive economic results in the form of increased production and turnover of goods etc. This happened because with the new law peasants' dues and the taxes on burghers were regularised, and were undoubtedly reduced by restricting or by abolishing the rights of princes to levy taxes, by defining the quota of the Church tithe, by the introduction of a system of personal freedom, and for varying periods by the exemption from payment of feudal dues, thus enabling the settlers to establish themselves on a solid basis. Under these conditions they had an interest in achieving bigger increases in production. It was a system of long-term economic incentives which encouraged serfs to work more intensively, to expand the area under cultivation and to increase manufacture and trade. This was reflected in the development of the three-field system which automatically required the manufacture and introduction of heavier ploughs to enable cultivation of the richer soil. The brake on the growth of popula-

⁹ T. SÖDERBERG, *Stora Kopparberget under medeltiden och Gustav Vasa*, Stockholm, 1932, pp. 59, 67; L. KUMLIEN, *Sverige och Hanseaterna*, Stockholm, 1953, pp. 57, 61-64.

tion and division of labour was released. It has been understood for a long time that an action of this sort could only be taken, particularly at the beginning, by the wealthy feudal lords who were able for a time to forego a large share of their current income from levies in the hope of increasing it later. Intermediary forms developed which were easier for the feudal lords to exploit. The connection between the German conquests, in the territories with which we are concerned, and the flow of urban and rural settlers of German origin is well known and obvious. In this case colonization served both a political and a military end. However, both the Teutonic knights in Prussia and their Livonian branch in particular, had, in this respect, limited scope and perhaps limited needs. Many came from Germany to the Order's towns in Prussia but in Livonia they were not a majority, with the exception perhaps of Riga and Dorpat. In the remaining centres in Livonia, natives and Swedish immigrants outnumbered people of German origin and later there was also Russian immigration.¹⁰

The Germans, however, acquired control of trade and were dominant in the craft industries, but German colonization of the countryside in Livonia was never achieved. It is not known whether this was because there was a sufficiently numerous native population after the conquest, or whether the deciding factor was the shortage of people willing to settle in those distant territories which were constantly threatened by Lithuania and the neighbouring Russian States. A possible factor might have been the relatively weak economic potential of the branch of Teutonic Order in Livonia as compared with that of the Order in Prussia, which had links with the rich Hanseatic burghers and, thus, greater material resources which made the organization of colonization easier. Nonetheless, the speed with which the Prussian Order succeeded in becoming an economic power in the Baltic area deserves greater attention than has been given to it hitherto. But this problem has still not been properly explained. The system of monopolies copied from Sicily

¹⁰ V. NIITEMAA, *Der Binnenhandel in der Politik der holländischen Städte im Mittelalter*, Helsinki, 1952, pp. 56, 121-124, 324-326, 341; *Ibid.*, *Die undeutsche Frage in der Politik der livländischen Städte im Mittelalter*, Helsinki, 1949, *passim*.

under the reign of Frederic II certainly had some limited importance, serving as a model for concentrating in the hands of the Order the sale of amber, which was so highly valued at the time, but this does not explain much. It is known that the Teutonic Knights encouraged colonization by German knights, peasants and burghers, but after 1350, when immigration from Germany ceased, they made wide use of Polish colonists from the region of Chelmno, Dobrzyn and also of Eastern Mazovia. The major group they oppressed was the poorer peasants subject to Prussian Law, but even in this case the Teutonic Knights did not go so far as to persecute them for the survival of pagan beliefs among them, the existence of which was fairly generally known.

The subject of migration in the Middle Ages has been studied in many countries for some time now. With the low rate of natural population growth migration was an especially important factor in the colonization of sparsely populated territories and towns. This applied both to the native and to the foreign population. So far as the latter was concerned there was, for example, an influx on several occasions from the highly populated France to Spain. In Central-Eastern Europe migration of both foreign and native population occurred. After the first, not very large, wave of Walloons and Flemings into Silesia, Poland and Bohemia, and of a few Frenchmen, particularly in Hungary,¹¹ Germans appeared everywhere and in much greater numbers. Later in the XIVth century came Jews, and Armenians also arrived in Poland and Russia. In Poland foreign colonization was strongest in the towns, whereas in the countryside the decisive role was played by the native population. The policy of toleration and encouragement of settlers of all kinds to establish themselves, which was pursued by the authorities and by private feudal lords, in an epoch when hostility to and mistrust of everything foreign was very strong, indicates how great were the economic difficulties created by population shortages at that time.

¹¹ B. HÓMAN, *op. cit.*, pp. 157-162; E. FÜGEDI, *Formation des villes hongraire*, pp. 976-980.

The beneficial effects of this action for the feudal lords influenced them to impose Germanic Law on the native people, in both rural areas and in the towns, at an early stage, from the middle of the XIIIth century. The benefits also influenced the Teutonic Knights and later the authorities of the Grand Duchy of Lithuania to encourage the flow of settlers from the Polish territories as well, and at the same time to confer advantageous rights on them. This policy was essential for success in sparsely populated and backward areas, and also stimulated those who had settled previously to work more intensively. I have paused to discuss these well known facts but not with the intention of presenting them as 'discoveries'. But it is important that the problems of colonization and the acceptance of the new legal codes should be treated in a scholarly and not an emotional fashion. Some German scholars have, for instance, been guilty of attributing the role of the all-powerful 'Kulturträger' on Slav soil to the colonists who were their fellow countrymen. Naturally Czech and Polish scholars reacted sharply and not infrequently over-emphasized the problems of nationality, whereas the crux of the matter lay, in fact, in the demographic and economic difficulties which the feudal lords in Central Europe tried to deal with in various ways. This also happened in Scandinavia, Spain and France. As I stated twenty years ago, the XIII century changes were extremely beneficial both to the ruling classes and to the peasants and burghers. The benefits were obtained at the cost of concessions to the last two groups. It was these changes that initiated the long-lasting period of economic, political and later also of cultural, development referred to at the beginning of this article.

Demographic and economic growth in the XIIth, XIIIth and XIVth centuries in Central-Eastern Europe contributed to a large extent to the formation of several zones of economic development of varying dynamism. The areas of relatively early and rapid development were firstly the Baltic region and secondly the area comprising the Bohemian basin, Silesia, Galicia (Małopolska), and northern region of what was then Hungary and Transylvania. In the XIVth-XVth centuries there was a very noticeable economic revival in

Serbia, Bosnia and also partly in Bulgaria, which had been disturbed for a long time during the Turkish conquest.

The territories between the zones mentioned, or in their neighbourhood, showed a slower rate of economic growth in the Middle Ages but accelerated considerably during the XVth century. This was particularly true of Wielkopolska (Greater Poland) and Mazovia, of the Hungarian basin and, to some extent, of Moldavia. Here I shall confine myself to a brief description of the zones mentioned as I have discussed them elsewhere in greater detail.¹² In all the zones agriculture and live-stock rearing were of basic importance, but in the area of most dynamic growth there were other favourable factors and circumstances as well. In the Baltic for example trade played the most prominent role. The aim of the Hanse and its success from the XIIIth to the XIVth centuries lay not only in organizing trade among the Baltic states but also in establishing links between them and the countries of North-Western Europe, and still more distant territories. Even in the second half of the XIIIth century, furs (mainly squirrel pelts), wax from Novgorod and Pskow, rye from Mecklenburg, Brandenburg and Western Pomerania, copper, lead, metals from Poland, Silesia and Hungary, tin from Bohemia, and iron from Sweden, played an important part in the imports of Bruges.¹³ English scholars have recently agreed that the importing and distribution of furs and Baltic wheat was not only a very important factor in the growth of London in the XIIIth century, but also greatly strengthened the position of the groups of wealthy merchants who dealt in furs (skinners) and in foodstuffs from the Baltic area (victuallers).¹⁴ It has been known for a some time that the Hanse made Norway economically dependent on them during this period, as corn was essential for her economy and they were

¹² A work on this subject is in the press.

¹³ R. HÄPKE, *Brügger Entwicklung zum mittelalterlichen Weltmarkt*, Berlin, 1908, pp. 90-120.

¹⁴ G. A. WILLIAMS, *Medieval London. From Commune to Capital*, London, 1970, pp. 13, 63-66, 106, 158-165; E. M. VEALE, *The English Fur Trade in the later Middle Ages*, Oxford, 1966, pp. 39, 67-70.

the only suppliers importing it from the Baltic area.¹⁵ Supplies of timber and its by-products as well as corn from the Baltic area were already of great importance for the Netherlands in the XIIIth and XIVth centuries. All this favoured the Hanse gaining control over the active trade between North-Western and Central and Eastern Europe. Consequently, they established a monopoly for a long period over the import of cloth from the Netherlands, and at first also from England, as well as over the imports of manufactured and luxury goods into the Baltic territories and their widespread hinterland, reaching as far as Bohemia and Hungary. All this would have been unthinkable without an increase in purchasing power which reflected the development of the countryside and the towns, and without an increase in production in the whole area under discussion in this article and in particular in the areas near to the Baltic Sea. The relative wealth of the Hanse, their initial solidarity and co-operation with the Teutonic Knights of Prussia and Livonia, as well as the economic and political weakness of their trading partners in the Baltic zone, enabled them to achieve rapid and considerable success not only in these territories but also, indirectly, in England and Flanders. But taking all this into account it must be understood that an enormous difference existed between the economic potential of the Hanseatic and Italian cities. A comparison shows the former to have been at a disadvantage, for the Hanse trade, on the whole, was in much cheaper goods (including furs) than the Italians and dealt with less affluent customers, not only in the Baltic region but also in Scandinavia and England. As a result the accumulation of merchant capital in the Baltic area was much smaller and slower than in the Mediterranean. Besides, in the 1370's, prices of corn, furs and other goods of Baltic area origin dropped more sharply than prices of manufactured articles. This must have weakened the position of the Hanse, at the same time strengthening that of its English competitors, and later also of the Dutch and those in the Baltic regions, as they were based on their

¹⁵ O. A. JOHNSEN, *Norwegische Wirtschaftsgeschichte*, Jena, 1939, pp. 101, 105, 113-126.

own developing cloth manufactures, the foremost branch of production outside agriculture.

During the XVth century a noticeable disintegration of the Hanse as a league of towns began even though, individually, the towns continued to develop. They began to integrate more with their hinterland and in the second half of the century there was a marked tendency on the part of the countries of the hinterland to subordinate the towns to their own interests. Because of the economic superiority of the Hanse, however, this did not produce any great results. The change in the balance of power between the English and the Dutch damaged the Hanse, in spite of passing successes in the struggles with their increasingly more important partners who were now also dangerous rivals.

On another occasion I have discussed the very dynamic Sudenten/Carpathian area, and the important Western Balkan region, and I drew attention to the enormous importance of the mining of metals, iron ore and salt for the economic growth of these countries between the XIIIth and the XVth centuries.¹⁶ It is sufficient here to mention only the most important factors. The supply of lead from Galicia (Małopolska) and Silesia was essential for the exploitation of iron and silver ores in Slovakia and also in Bohemia,¹⁷ while Galician (Małopolska) and later Russian salt constantly reached Bohemia and the border territories of Hungary, and similarly Russian and Transylvanian salt was brought to Poland before the extraction of rock salt began in Wieliczka and Bochnia.¹⁸ Silesia and Galicia (Małopolska) supplied Hungary and Bohemia in the XIIIth, XIVth and XVth centuries with considerable quantities of cloth and linen of their own manufacture as well as those imported from Wielkopolska (Greater Poland), Southern Germany, the Netherlands and later from England and Holland. They supplied fish,

¹⁶ M. MAŁOWIST, *Górnictwo w średniowiecznej Europie Środkowej i Wschodniej jako element struktur społeczno-gospodarczych w XII-XV w.*, «Przegląd Historyczny», LXIII, 1972, 4, pp. 589-603. It contains a list of the most important bibliography.

¹⁷ D. MOLEND, *Górnictwo kruszcowe na terenie złóż śląskokrakowskich do połowy XVI w.*, Wrocław, 1963, pp. 82-84.

¹⁸ J. WYROZUMSKI, *Państwowa gospodarka solna w Polsce do schyłku XIV w.*, Kraków, 1968, p. 35 n.

particularly herrings, and other goods and in turn imported copper, tin, gold and silver which were essential for trade, mints and manufacture from their Southern neighbours. Later, wine was also imported. The interdependence between Galicia (Małopolska) and Silesia was very strong. Due to the wealth of the region of Olkusz and Slawkowo, the former was the main producer of lead in this part of Europe. From the middle of the XIIIth century rock salt from the region of Cracow, wool, skins and furs of Polish, Lithuanian and Russian origin, also some corn and iron, and later cattle were sent to Silesia. Among the goods imported were textiles from Silesia and Lusatia and Western metal products, etc. All these territories became involved in distant trade due to the convenient network of roads running from Germany and Italy to Tana and Caffa in the Black Sea basin, and from the Baltic to Hungary, Bohemia, Austria and further South. The wealth of the mines in Hungary, Bohemia and, to some extent, in Silesia as well, must have influenced the formation of these great routes. The mountain ranges in this area were not an obstacle to communications because of numerous valleys, and the whole of the area mentioned lay as it were on the point of contact of the Hanseatic, Italian and Upper German systems of trade. This increased the variety of the goods traded, particularly of manufactured and luxury goods, and widened the circle of foreign suppliers and local buyers, so quickening the accumulation of capital in all the countries of the region. This was also of considerable cultural significance. The end of the Middle Ages and the beginning of the Renaissance at the close of the XVth century were of much greater interest in the field of science and art in this region than in the Baltic area itself, without mentioning the other areas of Central-Eastern Europe.

In an article referred to earlier, I also touched on the problems of the development of Serbia, Bosnia and part of Bulgaria in the XIIIth and XIVth centuries and in the first half of the XVth century in connection with the expansion of the mining of silver ores and lead. I also mentioned the great importance of Dubrovnik and Venice, and of the relatively less significant ports of Dalmatia, as the intermediaries in the export of silver and lead to Italy and

other countries of Mediterranean Europe and the Middle East. I also referred to these towns as the intermediaries in the import of textiles and other goods from Italy and Dubrovnik into the interior of the Balkan Peninsula.¹⁹ The local need for metals, and even more the demand for gold and silver as well as for tin and copper, which became apparent in Western Europe, in Italy and to some extent also in Baltic trade, strongly affected the development of both the mining areas mentioned. From the XIIth century searches were made for metal ores in Silesia, Bohemia and Galicia (Małopolska) while in Hungarian Slovakia mining had been undertaken for a very long time, but only of surface ores.²⁰ In these countries, as in the western part of the Balkan Peninsula, between the XIIIth century and particularly the XIVth century, the pioneers in mining were Germans. They were the leading specialists in this field in medieval and early Renaissance Europe and to some extent later in Central and South America. As we have seen the Baltic region, already from the beginning of the XIIth century, became an important source for supplying furs, hides, food, iron and timber products for markets in the Netherlands (particularly in Bruges), in England, and to some extent in other countries of Western Europe. At the same time, the Bohemian basin, the Carpathian central ridge, and later the Balkans, supplied the West and Italy with silver and gold. From 1325, Bohemia and Hungary also supplied them with very considerable quantities of silver and gold coins. Bohemia was the main source of silver and tin, Hungary of gold and copper, although she, too, exported a lot of silver.²¹ This was of enormous importance for Italy, particularly for Venice and Florence, after the introduction of ducats, florins and silver coins of high value. Bohemian silver coins reached not only Italy, Upper Germany and the Rhineland, but also the Netherlands and, from there, undoubtedly England as well. Hungary's export of gold and silver, first in its natural state and from 1325 in the form of coins, was huge,

¹⁹ M. MAŁOWIST, *op. cit.*

²⁰ VON PROBSZT, *op. cit.*, p. 23; J. VLACHOVIČ, *Slovenska med v 16 a 17 storoci*, Bratislava, 1964, p. 22 nn.

²¹ M. MAŁOWIST, *op. cit.*, ref. to literature mentioned there.

as we shall see. In the XIVth century and the first half of the XVth, a similar function was performed, though undoubtedly on a smaller scale, by Serbia and Bosnia, and by numerous other places which were not as big but where silver and lead were mined. Dubrovnik's heyday in that period, as well as its extensive trade in the XVIth century, the intensity of which was disproportionate to the size of the town and the number of its inhabitants, (about 3,000-5,000) would be inconceivable without the considerable accumulation of mercantile capital obtained from the trade in Balkan metals. From the XIIIth and XIVth centuries Dubrovnik, and to a lesser extent Split, Trogir and Šibenik, came to occupy a position in the Adriatic region similar to that of the Hanse in the Baltic, Great Novgorod in North-Western Russia and Vienna in relation to Hungary.²² In the absence of a strong merchant class in their Balkan hinterland the towns on the Eastern coast of the Adriatic drew considerable income from acting as intermediaries between the Peninsula and more distant trading partners. Due to their location in Central-Eastern Europe, the Hanse and Dubrovnik, and to some extent Nuremberg, managed to achieve and maintain for a very long time a strong position in both the inland and coastal areas also in the West and to become indispensable to their trading partners.

In the XIVth century Central-Eastern Europe proper and the Balkans did not experience either the severe economic and social crisis characteristic of the Western countries, or the accompanying economic depression arising from the re-adjustments of the means of production to changing social conditions. This was undoubtedly a consequence of the delay in their economic development. In these territories (with the exception of Russia) the Black Death and the recurring epidemics in the second half of the XIVth century and during the XVth century caused less damage in the interior than in the West and in Italy, perhaps because of the slighter degree of urbanization. In contrast, in Poland, Bohemia, Hungary and in

²² J. Božić, *Ekonomski i društveni razvitak Dubrovnika u XIV-XV veku*, « Istoricki Glasnik » 1949, nr 1, pp. 21-23; M. MIRKOVIĆ, *Ekonomska Historija Jugoslavije*, Zagreb, 1958, p. 55.

the Balkans, (until the time of the Turkish conquests) there was a relatively fast expansion of land under cultivation, investment breeding and of towns. However, mining in Bohemia felt the effects of the crisis from mid XIVth century, most likely due to technical difficulties. In some areas of Northern Hungary (and perhaps earlier in Transylvania) this happened in the mid XVth century, but on the whole the area with which we are concerned developed without major interruptions.²³ In Bohemia and indirectly in Silesia only the Hussite revolution created a major interruption, which resulted in the end in strengthening local manufactures and the economic contacts between town and countryside.²⁴

During this period of crisis and depression in the West, the developing countries of Central-Eastern Europe acquired special importance for Western merchants, who were restricted in their fields of activity. In Eastern Europe increasing opportunities were developing for the sale of goods and the profitable investment of capital. This would account for the English and the Dutch selling cloth in the Baltic region and explain the growing interest in Hungary, Bohemia and Poland shown by merchants from Nuremberg and other towns in Upper Germany and also by Venetians, Florentines and Genoese. This would also explain the activity of the Italians in the Balkans and in the Northern part of the Black Sea which, until recently, had been poorly developed partly because of the threat from the Tartars from the XIIIth century and before then from other nomads.²⁵

The interest of the Italians goes back even further however. In the first half of the XIVth century, two Italians, undoubtedly Genoese from a colony in the Crimea, were receiving grants from the great Muscovite Princes in the area of the Peczova river, most certainly in connection with the proposed supply of valuable furs

²³ J. KORAN, *K periodisaci dejin českeho hornictví*, «Sborník pro hospodarské a socialní dejiny», t. I, 1946, nr 1-2, 1946, *passim*.

²⁴ This emerges from the work of J. JANAČEK, *Remeslná výroba v českých městech v 16 století*, Praha, 1961, pp. 29-60.

²⁵ I. SAKAZOV, *Bulgarische Wirtschaftsgeschichte*, Berlin-Leipzig, 1929, pp. 104, 123-134, 139, tables; FR. BALDUCCI PEGOLOTTI, *La pratica della mercatura*, ed. A. Evans, Cambridge (Mass.), 1936, p. 38: data refers to export of corn from Varna and other ports and the Black Sea in the first half of XIV century.

from the distant North to the Crimea. Besides, in the XIVth and XVth centuries, economic contacts between the distant Moscow, and Soldaia (Sudak) and later Caffa were fairly close.²⁶ It has been known for some time that merchants from the Rhineland (particularly from Cologne) showed a great interest in the purchase of silver and gold in Bohemia and Hungary from the XIIth and XIIIth centuries. By the XIVth century the dominant position in this trade was achieved by rich merchants from Nuremberg, Regensburg and other towns in Upper Germany, who came to Hungary through Moravia. In the course of time they also came through Vienna.²⁷

Up to the outbreak of the Hussite revolution merchants from Regensburg and Nuremberg dominated foreign trade in Bohemia. By the second half of the XIVth century, at the latest, newcomers from Nuremberg were very active in Poland, at first particularly in Cracow, and then they reportedly reached the Black Sea and Constantinople through the South-Western part of Russia which had been absorbed into Poland.²⁸ Already by the end of the century their activity had affected Hanseatic craftsmen and merchants in Prussia and Livonia and they established contacts with Great Novgorod. They occupied particularly strong positions in copper and silver mining, and directed exports of metals to Venice. At the turn of the XIVth-XVth centuries, they attempted, somewhat unsuccessfully in this case because of the opposition of the Hanse, to participate in the coastal trade between the Baltic ports and Bruges. Besides the large firms and big merchants from Nuremberg, merchants from other mining centres were also active. They found ready markets in the Polish territories, in Prussia and in Livonia

²⁶ V. E. SYROEČKOVSKIJ, *Gosti-Surożanie*, Moskwa-Leningrad, 1935, pp. 15-17, 23-27 nn.; M. MAŁOWIST, *Kafa - kolonia genuńska na Krymie i problem wschodni 1453-1475*, Warszawa, 1947, pp. 75-79.

²⁷ TH. MAYER, *Der auswärtige Handel des Herzogtums Oesterreich im Mittelalter*, Innsbruck, 1909, pp. 5, 11, 46 n., 74 nn.; F. BASTIAN, *Das Runtigerbuch 1383-1407 und verwandtes Material zum Regensburger-Südostdeutschen Handel und Münzwesen*, t. I, Regensburg, 1944, pp. 86, 179, 430, 632-640; t. II, pp. 61 n., 71 nn.; W. VON STROMER, *Oberdeutsche Hochfinanz 1350-1450*, t. I, Wiesbaden, 1970, pp. 19 n., 25, 55, 58-60, 69, 91-99.

²⁸ H. AMMAN, *Wirtschaftsbeziehungen zwischen Oberdeutschland und Polen im Mittelalter - KHKM*, « Ergon », t. III, 1962, p. 339.

for the metal products in which Nuremberg specialised, and even for small articles such as needles. There were ready markets also for other articles of daily use — German and Italian fustians, linens of high quality, fabrics from the Netherlands and Italy, and also silk. The situation was similar in Hungary and also in Bohemia before the outbreak of the Hussite revolution. Energetic expansion by merchants from Upper Germany, who reached not only the urban but also the village markets aroused strong, though rarely successful, opposition from the Polish and Prussian burghers who were exposed to dangerous competition from this quarter.²⁹ Prussian sources appear to indicate that both knights and peasants welcomed the newcomers as suppliers and buyers of goods because of the effect of this trade on village prices which tended to be unfavourable when compared with prices of town products, particularly of manufactures. Rich merchants from Upper Germany — for example Boner, Ber and other families — settled in Cracow, invested money in property and bought estates. They held high administrative posts in the Polish and Hungarian treasuries, and invested capital in lead and salt mining in Galicia (Małopolska) as citizens of the capital city of Cracow. It should be emphasised that this type of immigration intensified in the XIVth century and particularly in the XVth century, in spite of the fact that the flow of settlers from Germany to the East completely ceased after the Black Death. Merchants from Upper Germany in Bohemia and in Hungary bought mainly silver and gold but also iron, copper and tin which were used for manufactures in their own country. In Poland they bought furs, hides of Polish, Lithuanian and Russian origin, wood, cinnebar (red pigment) and certainly cattle. They were very active in Cracow and Lwow in the XVth century and also from the middle of the century in Poznan and Warsaw, whose fairs they valued highly as sources of furs. In the territory of Silesia, which belonged at that time almost entirely to the Bohemian Crown,

²⁹ C. NORDMANN, *Nürnberger Grosshändler im spätmittelalterlichen Lübeck*, Nürnberg, 1933, pp. 7-16, 35, 67, 71, 109 nn., 115, 119, 122, 138, 143, 144; G. HOLLIHN, *Die Stapel- und Gästepolitik Rigas in der Ordenszeit (1201-1562)*, «Hansische Geschichtsblätter», t. 60, 1935; p. 148 n.; J. PTAŚNIK, *Akta Norymberskie do dziejów handlu z Polską w w. XV*, «Archiwum Komisji Historycznej», t. X, 1909-1913, n. 6, 9-11, 13, 15, 32.

in Galicia (Małopolska) and Wielkopolska (Greater Poland), agents of the firm of *Diesbach-Watt* operated as well as those of other merchant houses such as *Stromer*, *Cress*, etc.³⁰

The case of merchants from Venice, Florence, Genoa and Bologna in the XIVth and XVth centuries, was similar, as was that of the clothiers from Florence who settled in Cracow.³¹ At first the Italians acted here as collectors of Papal tributes but undoubtedly they had also been attracted to Silesia, Galicia (Małopolska) and Lwow by the prospects of trade with the east on the routes to the Black Sea. Nevertheless, in the XIVth, and particularly in the XVth centuries, they often settled in Wroclaw and Cracow and established their agencies there. Their offices in Wroclaw acquired the function of transferring to the Papal Treasury levies coming from Poland and Prussia. This job had previously been performed by the agents of Italian firms in Bruges. It seems that a member of the Medici firm operated in Cracow, but this is not clear. Contact with the royal court and with the magnates of Galicia (Małopolska), to whom they supplied luxurious Italian fabrics, helped the Italians in their moves to lease salt mines in Galicia (Małopolska) and Ruthenia. In this field newcomers from Florence and Genoa played an important role in the XVth century in spite of competition from local merchants. There is information on the urban property and on the country estates acquired by those Italians who either settled or stayed in Poland for a long time.³² Italian influence was strong particularly in Cracow even as late as the XVIIth century.

I believe that these developments together with the beginning of Jewish and Armenian settlements in towns, which were established in the Eastern provinces of Poland, were linked with the

³⁰ H. AMMAN, *Die Diesbach-Watt-Gesellschaft. Ein Beitrag zur Handelsgeschichte des 15 Jahrhunderts*, Sankt Gallen, 1928, pp. 108, nr. 17, 27, 60, 77, 84, 86, 88, 129-131, 134, 143, 161, 169, 171 etc.; VON STROMER, *op. cit.*, pp. 55 n., 94, 109, 113, 121, 125 nn., 146-153.

³¹ In addition to sources published long ago by J. Ptaśnik cfr. J. WYRZUMSKI, *Draperie in Małopolska in late Middle Ages*, Krakow, 1972, p. 40, this work shows that weaving in Biecz, Felow and in many other towns had been relatively highly developed.

³² J. PTAŚNIK, *Kultura włoska wieków średnich w Polsce*, Warszawa, 1959, *passim*.

rapid economic growth of the country, particularly in the XIVth and XVth centuries. At the same time, this meant that there was now a flow of capital, which previously had been scarce in Central-Eastern Europe, and that new methods in trade and finance were introduced. Venetians became important suppliers of both Italian and Levantine commodities when the trading centres with the East in the region of the Black Sea became weaker during the XVth century. In the more northern provinces of Poland there was also an economic revival in the XIVth and XVth centuries. In North Western Europe, from the second half of the XIVth century at the latest, and in Portugal from the XVth century, demand for Polish and Prussian timber for building purposes and for other timber products began to grow. In the Netherlands and temporarily in England, demand grew for corn, mainly rye, but also to some extent for wheat which was exported from Gdansk (Danzig) but which in fact came from the Teutonic Knights' Prussian territories and from bordering areas of the Polish state. This became of greater importance during the XVth century. It was a major economic problem for Prussia at that time, involving the sharply conflicting interests of the Order, the knights and the merchants from the towns.³³ The Order and the Prussian merchants, particularly from Gdansk (Danzig), developed a system which depended on making payments in advance to the suppliers and producers for future supplies of timber, ash, pitch and corn, especially from Kujawy and Mazovia. From there, it was easy to float these products down the Wisla (Vistula) and her tributaries to Gdansk (Danzig), particularly in the spring and autumn when the water level was high. On the Polish side many small merchants from a number of towns, as well as the gentry and even the peasants participated in the trade. It is difficult to say to what extent the Polish suppliers were exploited by their creditors as there is little information on the conflicts. But this whole phenomenon was important. It led to an increased flow of Prussian money into the interior of Poland and

³³ M. MAŁOWIST, *Studia z dziejów rzemiosła w okresie kryzysu feudalizmu w Zachodniej Europie w XIV i XV w.*, Warszawa, 1954, p. 419 nn.

quicken its circulation. In Mazovia in particular local coinage was of low value and appeared in limited quantities.³⁴

The most important factor, however, was the stimulating effect of the credit given both by merchants from Gdansk (Danzig) and Torun and from the towns in the old provinces of Central Poland and Masovia, for forestry and agriculture in this less developed region. This opened new markets for these products at home and abroad and accelerated the development of Warsaw which until then was of little significance. However, there arose other opportunities for Warsaw, Poznan, Lublin and other smaller and medium-sized towns in Central Poland. The union of Poland and Lithuania at the end of the XIVth century made access to the interior of the Grand Duchy of Lithuania which had a small population and a low level of economic development but possessed plentiful supplies of skins, furs and timber easier for merchants from central Poland. Furthermore, it dominated the routes leading not only to Pskov and Novgorod but also to Moscow. The Grand Duchy of Moscow, which was in the process of consolidation, and in particular its capital, became an important trading centre not only in cheap squirrel skins but also in valuable furs coming from the far Northern Russian territories and also from Western Siberia. Simultaneously the even faster economic growth of North-Eastern Russia in the XVth century increased the demand there for metal products, Polish and German textiles, for other goods and, particularly important, for money. The area's own currency system began to develop anew. This offered important opportunities for merchants from Poland and Lithuania who, as Contarini ascertained, had already visited Moscow by the 1470's. The supply of skins

³⁴ M. MAŁOWIST, *Podstawy gospodarcze przywrócenia jednoci państwowej Pomorza Gdańskiego z Polską w XV w.*; «PH» XLV, 1954, z. 2-3, *passim*; M. BISKUP, *Zjednoczenie Pomorza Wschodniego z Polską w połowie XV w.*, Warszawa, 1959, pp. 47-133.

³⁵ *Il viaggio del Magnifico M. Ambrogio Contarini Ambasciadore della Illustrissima Signoria di Venetia*, Biblioteca Inostrannykh Pisatielei o Rossii, t. I, Sankt Peterburg, 1836, p. 179. The author who stayed in Moscow in the second half of the XV century reported on numerous merchants from Germany and Poland who spent the winter in Moscow with the object of buying furs: sables, ermine, etc. These furs were brought to Moscow from very distant places. Contarini emphasized plentiful supplies of all types of food in the town. There was a sizeable colony established by the Italians. He also mentioned a goldsmith from Kotor.

and furs from Lithuania and Russia contributed to the fast growth of tanning and furriery in Poland and in Lithuania, where they came to occupy an important place among local crafts. Simultaneously, towns in central Poland and in Lithuania drew income from brokerage in the export of furs, skins and wax from their own territories and Russia to Wrocław and Leipzig who shared in this trade. This was a threat to the interests of the Hanseatic towns and they were aware of the fact.³⁶ Gdańsk (Danzig) took part in the overland trade.

Due to all this Poznań grew rapidly and activity of the Gniezno markets intensified.³⁷ Warsaw, Lublin, even Cracow and other smaller towns benefited. The traffic attracted the merchants from Upper Germany, who have already been mentioned, to Central Poland and Lithuania and also at times Italian merchants, although in small numbers.³⁸ During the XVth century the rate of economic growth in the Central territories of Poland was probably faster than in Galicia but the level of economic development which had been achieved there earlier was still appreciably higher. In terms of land cultivation and livestock breeding the development of the two main provinces of Central Poland, Wielkopolska and Masovia, is clearly noticeable. Admittedly there were many deserted fields, in the former, but these were due to the migration of the peasants and the lesser gentry to the towns where they engaged in crafts and trade. Later sources indicate that many of the fields which had apparently been abandoned were, in fact, cultivated on a permanent or temporary basis by neighbouring peasants who paid a fairly low rent to the owners. Nevertheless, the landowners found this worthwhile in view of the lack of possible tenants willing to take over whole estates. In both these provinces colonisation continued but the rate was faster in Masovia.³⁹ By this time territorial expansion was achieved entirely through the indigenous population. In Wielkopolska sheep rearing became of considerable importance, supplying

³⁶ M. MAŁOWIST, *Studia*, p. 440 n.

³⁷ L. KOCZY, *Handel Poznania do połowy XVI w.*, Poznań, 1930, p. 92 nn.; *Dzieje Gniezna*, editor J. TOPOLSKI, Warszawa, 1965, p. 292 n.

³⁸ Cf. note 30.

³⁹ I. GIEYSZTOROWA, *op. cit.*, p. 10 draws attention to the faster rate of urbanisation.

raw material for cloth manufacture which developed not only in the south-western but also in the eastern regions of this province.⁴⁰ Although data on cattle breeding in Masovia is scanty, it allows us to conclude that the output met not only local needs but also those of neighbouring Prussia.⁴¹ Cloth manufacture also developed in Masovia but as in Wielkopolska (Greater Poland) the product was generally of cheap and medium quality for consumption by the poorer section of the population of the home country and for export to Prussia. Despite earlier doubts it is now certain that, an important feature appeared in Poland in the XVth century, namely the strengthening of the economic links between the country's provinces, so establishing the beginning of a national market. In this Prussia (which had been included in Poland after the war with the Teutonic Knights 1454-1466) played a very important part. Although the division between the less and more developed zones persisted then, the economic gap between Central, Northern and Southern provinces diminished.

A new feature characteristic of the XVIth century, particularly in the area along the Wisła (Vistula) and in Masovia, was the beginning of the change in the organisation of agriculture. The increased demand for corn in the Polish towns, specially in Galicia (Malopolska), and the increasing absorption of exports from the northern and central provinces by Gdansk (Danzig), as well as the depreciation of rents paid in cash, all encouraged the gentry to enlarge their estates. An increase in weekly corvées began. L. Żytkowicz assumes, probably correctly, that the low productivity of agriculture (yields of 3 to 4:1) and the resulting low income for the gentry, combined with the low prices of agricultural products until the last quarter of the XVth century, made it impossible for farm administrators to rely fully on hired labour and led them to impose compulsory services and serfdom on the peasants.⁴² It is

⁴⁰ A. MAĆZAK, *Sukiennictwo wielkopolskie XIV-XVII w.*, Warszawa, 1955, pp. 26-41, 244-245. There are many indications that the Sieradz-Łęczyca region already existed in the XV century.

⁴¹ M. MAŁOWIST, *Podstawy gospodarcze*, p. 159.

⁴² L. ŻYTKOWICZ, *The peasant's farm and the landlord's farm in Poland from the 16th to the middle of the 18th century*, «The Journal of European Economic History», 1972, nr 1, p. 141.

known from other sources that in the XVth century, in Prussia as well as in Galicia (Malopolska), the gentry protested strongly against both the seasonal and permanent migration of peasants to the towns and complained about the high price of labour. All this, however, was but a small indication of the later radical changes in the rural economy. In the second half of the century the tempo of change accelerated.

Bohemia and Hungary experienced great difficulties in the XVth century. In this area a decline in silver mining from the mid XIVth century resulted from the exhaustion of seams near the surface and mine owners lacked material resources and knowledge of methods of dealing with underground water. This made it impossible to reach seams which were at a greater depth, and neither were the problems of ventilating the deeper mines easy to solve. Nevertheless, during the period under discussion Kutna Hora in Bohemia in particular became almost a model for the mining area of this part of Europe. But the Hussite revolution caused the flight of the rich mining entrepreneurs and of a large proportion of merchants from the towns. Bohemia was boycotted and at war with a hostile Catholic Germany and as a result of the attacks, which she fought off successfully on the whole, and as a consequence of the internal disorders, she experienced serious upheavals for nearly thirty years. However, it would appear that there were also developments which later had very positive effects on the future of the country. It would be very interesting to study to what extent the expropriation of the great estates belonging to the Church improved the economic position not only of the lay magnates but also of the minor nobility and the peasants. Bohemian scholars drew attention to the fact that craft guilds during the Hussite period managed to strengthen their position in relation to the merchants and patricians who up till then had been the ruling class in towns. This had positive effects on the development of the crafts in the country. Output of tin and iron products and also of textiles went up, and after the revolution they were to be founded on Polish markets and were also exported to Russia, to Hungary and the Balkans.⁴³ Although

⁴³ Cf. note 24.

Schenek claims that in the second half of the XVth century merchants from Nuremberg regained their former strong position in Prague as suppliers of luxury goods and manufacturers, Bohemian crafts succeeded in consolidating their position both in the country and to some extent in the territories further to the east. This was an important factor in the growth of the towns. Czech scholars are of the opinion that in the second half of the XVth century and in the XVIth century, it was the towns which had the private backing of the great lords that grew, whereas in the royal towns conditions were not so easy. It should be noted however, that the growth of towns, irrespective of type, led to an increased demand for rural products. This was particularly beneficial for the peasants under the prevailing system of taxes in Bohemian villages and in view of the relatively high level of agricultural development. As for the gentry, it would appear that their income was sufficient for their needs. They attempted their own administration in fact only in Southern Bohemia, where they began to organize the exploitation of numerous lakes with the aim of exporting fish abroad. At the beginning of the XVIth century Bohemian mining entered a period which, although lasting only half a century, saw it established on a world — wide basis, and there were profitable investment outlets in this field for the material resources of the rich gentry.⁴⁴ The corvée system and intensified serfdom began to develop seriously only at the start of the XVIth and XVIIth centuries, mainly after the Habsbury victory at Biala Gora (White Mountain) in 1621 and the ravages suffered by Bohemia during the Thirty Years War. These event played an important role. It is much more difficult however to grasp the situation in Hungary in the XIVth and XVth centuries. There is no doubt, in the light of recent research, that during the period referred to here Hungary had been a major European power in the field of gold mining (about 4/5ths of European production) and of copper mining. As regards

⁴⁴ J. MAJER, *Těžba štrbrných rud v Jachymove w 16 století*, « Sborník Národního Technického Muzea », t. V, 1968, p. 137 n., *Ibid.*, *Těžba cinu ve Slavkovském Lese v 16 století*, Praha, 1960, pp. 5, 6.

silver it was inferior to Bohemia, producing 10,000 monetary units annually.⁴⁵

E. Kovacs, and more recently O. Paulinyi, re-examined Homan's views in this field. Paulinyi came to the conclusion that the production of gold calculated by Homan (on average 1000 kg. annually) remained at this level only in the early period, roughly from the beginning of the XIIIth century to 1325. Paulinyi accepted for the subsequent 60 years a figure of 3000 to 4000 kg. of gold as the average output, which also included Slovakia and the main mines of Transylvania. Afterwards output dropped to half that amount, while during the second half of the XVth century an acute crisis was experienced, brought about by technical difficulties but mainly by the lack of the substantial amounts of capital required for constructing galleries and installations designed to protect the mines from flooding.⁴⁶ So far as the extraction of silver and copper is concerned, output increased towards the end of the XIVth century, partly due to Florentine investment. The first signs of crisis at the beginning of the XVth century were not as yet dangerous, but in the second half of the century they were acutely felt in central Slovakia, particularly in the copper ore mining industry. Even in such important centres as Kremnica and Banská Štiavnica the supply of large amounts of capital and the application of new methods of mine drainage became essential.

Metals and ores had enormous importance for Hungary, both politically and economically. As a result of the reforms introduced by King Charles Robert (1325-1327) which encouraged an increase in the supply of miners and the creation of mining towns, the income of the Hungarian crown greatly increased. Besides the levy (*urbura*) amounting to 1/8th of the mined silver and 0.1 of gold, the crown derived very substantial profits from the compulsory

⁴⁵ B. HÓMAN, *op. cit.*, p. 353.

⁴⁶ O. PAULINYI, *Der erste Bau eines Stausees in Ungarn zur Bekämpfung der Wassernot der Zechen. Die Versuche Johann Thurzo's von Bethlenfalva für die Rekonstruktion der Goldbergwerke in Nagybánya*, pp. 1-4. Photocopy of the article was kindly sent to me by the author.

⁴⁷ B. HÓMAN, *op. cit.*, p. 355 n.

purchases of the remaining crude ore for coinage, which was then valued in the neighbouring countries also. This system was modelled on the one introduced in Bohemia by the last of the Přemyslid. The export of copper to Poland, the Baltic regions, Russia, Flanders, England and Upper Germany also brought in a large income from customs' duties. The rapid rise to power of Hungary under the Anjou dynasty would be incomprehensible had they not had such sources of wealth at their disposal. O. Paulinyi rightly draws attention to the disproportionately strong development of mining compared with the relatively low levels in other fields of economic life in medieval Hungary.⁴⁸ One must also mention the fragility of its political power. In fact, as Z. P. Pach rightly insisted, the large-scale change from payments in kind by the peasants to money rents in the XVth century⁴⁹ is proof of the retarded development of Hungary in comparison with Bohemia and Poland, although in Hungary there is some evidence of payments of money rent from the XIIIth century onwards. It is worth mentioning that urbanization in central Hungary was in fact rather weak and, consequently, the demand for rural products was somewhat limited. The capital city of Buda had, at the beginning of the XVIth century, only about 8,000 inhabitants. The king's own court, together with those of the numerous magnates, often exceeded the burghers in number. A similar, or slightly higher, proportion of burghers was to be found only in the three main towns of Transylvania.⁵⁰ Hungarian scholars have drawn attention to the weakness of the craft industries of the country. Even copper was exported mainly as an ore in the XIVth century. In the XVth century in the numerous «*oppida*» (counterpart of the German *Marktflecken*) several hundred inhabitants were engaged primarily in agriculture, livestock breeding and in working vineyards, but craftsmen were not nume-

⁴⁸ O. PAULINYI, *op. cit.*, p. 20.

⁴⁹ Z. P. PACH, *Das Entwicklungsniveau der feudalen Verhältnisse in Ungarn in der zweiten Hälfte des 15. Jahrhunderts*, «*Studia Historica*», 1960, p. 12, 15, 18; *IBID.* *Abliegung der ungarischen Agrarentwicklung von der Westeuropäischen. Streszczenie artykułu zamieszczonego*, «*Agrartörténeti Szemle*», 1961, nr 1, p. 8 n.

⁵⁰ E. FÜGEDI, *Pour une analyse*, p. 1306. Population of Buda later fell. *Din Istoria Transilvaniei*, t. I, Bucuresti, 1961, p. 133; J. PERENYI, *Villes hongroises sous la domination ottomane au XVI^e et XVII^e siècles*, «*Studia Balcanica*», t. III, Sofia, 1970, p. 26.

rous.⁵¹ It would appear then that the Hungarian economy was unfavourably affected by both the possession of natural wealth and its exportation.

Foreign merchants were interested in Hungary from the XIth century on account of its gold resources, and from the XIIIth and XIVth centuries also because of its silver and copper. This led foreigners to bring in large quantities of goods for which there was a demand in Hungary. Records of the customs office in Passau, which was on the route from Bavaria to Vienna, show that even in 1402 very large supplies of cloth from the Netherlands and Germany, metal products, etc. were being imported. According to Th. Mayer the bulk of these goods was assigned for Hungary whose main trading partner at that time was Vienna.⁵² The records of the Customs office in Bratislava for 1457-58, which Ember analysed and later substantially adjusted, are very informative. Approximately 15,000 pieces of fustian and linen were sent to Hungary at that time. The value of the imported textiles reached 130,000 ducats and amounted to 79% of the value of the total imports. Goods of all qualities were included, some being 8 to 10 times as expensive as others. Besides expensive woven fabrics from Italy, the Netherlands, the Rhineland and Upper Germany, there were medium-priced products from Bohemia, Moravia, Silesia and Poland, and the cheaper Flemish and English kersey of medium quality, etc. An important place was held by metal products, which accounted for about 12% of the total imports. Oxen were the main item in Hungarian exports via Bratislava and in that year reached the as yet relatively small number of 1,466 head. Other exports included some horses, hides, wax, small quantities of copper etc. So Hungary's balance of trade in this field (as in others) was very much in debit. Ember estimated that the amount of money necessary to balance the account was 400,000 ducats⁵³ but as a result of more recent studies this figures has been reduced to 100,000-

⁵¹ E. FÜGEDI, *op. cit.*, p. 1306.

⁵² TH. MAYER, *op. cit.*, p. 39 n.

⁵³ I quote from an accurate summary in Z. P. PACH, *Osteuropa und die Anfangsperiode der Entstehung des modernen internationalen Handels im 15. Jahrhundert*, « V Internationaler Kongress der Ökonomischen Geschichte », Moskwa, 1970, pp. 1-3.

150,000 ducats. Nevertheless, Hungarian scholars estimate Hungary's total foreign trade deficit in the XVth century at between approximately 300,000 and 400,000 ducats per year. Of this, about 146,000 ducats went for trade with the West, 100,000 ducats for trade with Italy through Dalmatia and 50,000 ducats for trade with the North-Western area, i.e. Silesia and North-Western Europe.⁵⁴ According to Paulinyi the sum total was equal to two-thirds of the annual production of gold, which at that time in Hungary was approximately 6,000 marks (1,500 kg.).⁵⁵ This subject is very interesting for a number of reasons. Allowance has to be made for the fact that part of the imports from the West and from Italy was in theory intended for sale in the two Duchies on the Danube and in the Balkan countries, but this was made much more difficult by the war with Turkey. Ember did not take this into account. Nevertheless, in relation to the size of the population, imports into Hungary, both of luxury goods and necessities, were on a huge scale. This must have badly hampered the development of the country's weak craft industries and thereby reduced the rate of growth of the urban population and also the division of labour. From this point of view, exploitation of its natural wealth and its exportation from a country which was relatively poorly developed proved harmful to Hungary. In the XVth century, a large proportion of the income from the mines went to foreign merchants on whom the rulers conferred considerable privileges as buyers of metals, since there were no burghers of sufficient wealth in the country. As a severe mining crisis was on the way, the Hungarian crown found itself in difficult financial circumstances at a time of increasing pressure from the Turks. King Mathew Corvinus tried to save the situation by fighting the powerful magnates who were hostile to him and through an aggressive policy of conquest against Bohemia, Austria

⁵⁴ E. FÜGEDI, *Der Aussenhandel Ungarns am Anfang des 16. Jahrhunderts, Der Aussenhandel Mitteleuropas 1450-1630*, ed. I. Bog, Köln-Wien, 1971, pp. 56, 63-85.

⁵⁵ O. PAULINYI, *La formation générale de richesse de métal précieux et l'économie nationale de la Hongrie dans la période du féodalisme épanouissant et développé (1000-1526)*. Summary of the work published in Hungarian in « Szazadok », 1971, nr 108, pp. 561-602.

and Poland. Although revenue from mining was still an important item in his budget, he tried to conquer North-Eastern Bosnia where there were, at that time, important centres of silver mining, particularly in Srbrnica. By 1475 the king conferred on John Thurzon and his partners, who were rich merchants from Cracow, privileges in connection with the drainage of mines in central Slovakia in return for 1/6th of the mined silver, as both capital and specialists were lacking in the country. Mathew's successor, Ladislaus Jagiellonicus, had to extend these privileges considerably and, after 1494-1496, accepted the takeover of the most important Slovakian mines in Banska Bistrica and its neighbourhood by the partnership of John Thurzon and James Fugger, thus foregoing sales and part of the customs duties on the export of silver, gold and copper. This move, particularly during the first 25 years of the Fugger lease of the mines (Thurzon withdrew as time went on and joined the ranks of the aristocracy) led to an enormous increase in the production of copper and iron ores due to the use of water treadmills and the construction of deep galleries.⁵⁷ Under the prevailing conditions, demand for both metals was very large because of the use of copper and brass in the making of armour, especially in the Rhineland and on the Meuse. These metals were also in demand because of the large-scale exports of brass and copper articles from Antwerp, Lisbon and Seville to the Portuguese and Spanish colonies, and from Venice to the Middle and Far East. The Hungarian crown was thus guaranteed an income from the leases and from some other payments. Nevertheless, control over mining, which had once given the Anjou dynasty and to a lesser extent Mathew Corvinus a strong financial position, slipped from the hands of the Hungarian Jagellons. But the enormous income of the Fuggers and their partners annoyed the Hungarian gentry, and they met with strong opposition from the mining towns of Slovakia because local entrepreneurs felt themselves forced out by the powerful leaseholders. Disturbances broke out in 1525 in which miners took part mainly because of the fall in the value of money and an

⁵⁶ I. VLACHOVIČ, *op. cit.*, pp. 25-29.

⁵⁷ *Ibid.*, pp. 30-39.

increase in prices. Nevertheless, the Fuggers held out in Slovakia until 1546 and extended their influence to mines in Transylvania, although apparently with less success. The backing given the Fuggers by King Ladislaus and King Louis is explained by their efforts to save their wealth in face of increasing danger from Turkey. After the disaster at Mohacs (1526) and later during the disintegration of the Hungarian Kingdom (1541), the Habsburgs continued this policy partly because the Slovak mines were important for arming their troops which were defending the rest of the Kingdom from the Ottoman advance. However, it was this threat as well as the drop in the production of silver and metals in Slovakia which influenced the Fuggers to withdraw from this territory in 1546, but for a long time they retained a monopoly position as buyers of these metals.⁵⁸ Hungarian Slovakia still maintained an important place in iron ore mining. It is worth recalling that industries producing iron goods in Nowy Sacz in the XVIth century and at the beginning of the XVIIth century relied on supplies of raw materials from the Carpathians.⁵⁹ Little is known about the situation of the mines in Transylvania in the XVth and XVIth centuries, and more recent Rumanian studies provide little in the way of new information. It would appear that in Transylvania the production of iron, gold, silver and lead was particularly strong during the reign of the Anjou dynasty and there were important exports of salt to the interior of Hungary, to the Balkans (through the merchants of Dubrovnik) to the Duchies along the Danube and also to the ports of Bielgorod and Killia. Lead was also extracted in Transylvania and in the Duchies. This caused some anxiety in Poland because of the competition. From a report of 1552 it seems that the production of gold dropped very noticeably. In the XVth century an important centre, Baia Mare (Hungarian Nagybanja) gave the crown large revenues in gold and silver, but later there was a drop in production, as also happened in many other regions in the country. Iron ore production was maintained, however, particularly in the

⁵⁸ G. VON PROBSZT, *op. cit.*, pp. 65-70-72; F. VON PÖLNITZ, *Anton Fugger*, Tübingen, t. II, p. 154 n.

⁵⁹ A. ZABOKLIKA, *Kapitał mieszczański Nowego Szeza na przełomie XVI-XVII w.*, Warszawa, 1967, pp. 43-46, 108-112.

region of Hunedoara, and during the XVIth century extraction of mercury increased.⁶⁰

The situation of the Balkan territories, which in the 1460's came under Turkish rule for the next 300 years, is a debatable issue. In the early stages of the conquest the devastation was massive. The military tactics of the Ottoman commanders were based on terrorist raids preceding, as a rule, the main attack. This also gave the Turks considerable economic benefits in the form of prisoners who became slaves, in addition to other kinds of plunder which the Sultan shared with his army commanders and soldiers. A colony of merchants from Dubrovnik still operated in Turkish Belgrade in the XVIth century, systematically buying war loot from the Turkish soldiers returning from the conquests.⁶¹ After the conquest of the Balkans however, the Turkish administration proved to be efficient and was probably no more oppressive for the population than the authorities of Christian states operating under similar conditions in conquered territories. A very favourable event was the shift in the military theatre to the territories further North. From the end of the XIVth century, waves of nomadic livestock breeders began to flow from over-populated Asia Minor into the Balkans, particularly to Bulgaria. Soon not only the officials and «*shipahi*» settled there but also soldiers from the Turkish garrison, merchants and craftsmen. In any case, it was probably the newcomers from Asia Minor who brought to the Balkans the cultivation of rice, cotton, silk and especially maize, which became so important in feeding the population under the prevailing conditions of primitive agriculture.⁶² D. Tadić has drawn attention to the

⁶⁰ N. MAGHIAR - S. OLTEANU, *Din Istoria Mineritului in Romania*, Bucuresti, 1970, pp. 118-129.

⁶¹ R. SAMARDŽIĆ, *Belgrade, centre économique de la Turquie du Nord au XVI^e siècle*, «*Studia Balcanica*», t. III, pp. 34-36, 41 n. The author emphasizes the enormous increase in importance of trade and manufacture of the town under the Turkish rule as compared with the earlier period. At that time the Danube became a great waterway for trade likewise; T. STOJANOVIĆ, *Model and mirror of the premodern Balkan city*, «*Studia Balcanica*», t. III, *passim*, and D. TADIĆ, *L'unité économique des Balcons et de la région méditerranéenne*, «*I Congrès des Etudes Balcaniques et Sud-Est Européennes*», t. III, Sofia, 1969, p. 633 nn.

⁶² D. TADIĆ, *op. cit.*, p. 635; H. INALCIK, *L'Empire Ottoman*, «*I Congrès des Etudes Balcaniques*», pp. 78, 81, 84, 87, 89 n.

fact that in the XVIth century there were no outbreaks of famine in the peninsula due to the poor harvests whereas later exports of corn to Italy became possible.⁶³ The Turkish scholars Ö. L. Barkan and particularly H. Inalcik have grossly exaggerated the alleged beneficial effects of Ottoman rule in the Balkans in the XVth and XVIth centuries, but it must be admitted that by the XVIth century at the latest large increases in population and progress in urbanization had been achieved.⁶⁴ What the conquered people felt about this is a different matter. The vast majority were relegated to the status of subjects of the Sultan and his representatives. They were driven off the more fertile lands and those nearer to the important routes of communications. They were forced to hand over to the Turks several thousand children annually as tribute (*devshirme*).⁶⁵ The large-scale emigration of Serbs to the bordering Hungarian province at the turn of the XVth and XVIth centuries proves that life under Turkish rule was not easy for the majority of Christian subjects of Mehmet II and his immediate successors. Again this is a problem which has to be treated very carefully. The Turkish authorities, at least in the XVIth century and the beginning of the XVIIth century, after strengthening their position in the conquered territories pursued a fairly flexible internal policy. In the territory of Bosnia, they succeeded in gaining over the local population for Islam without religious persecutions, thus making it possible later to use Bosnians as a military force in Hungary. This success was relatively easy to achieve in Bosnia because of the earlier oppression there of numerous Bogomils by the Catholic Church supported by Hungary. In Serbia and Bosnia, at the beginning of the Turkish rule, there existed large Christian groups, « *shipahi* », most likely consisting of former *boiars*, who received privileges similar to those of the Turkish military feudal lords.⁶⁶ It has been known for a

⁶³ D. TADIĆ, *loc. cit.*

⁶⁴ H. INALCIK, *op. cit.*, p. 90; Ö. L. BARKAN, *Essai sur les données statistiques des registres du recensement dans l'Empire Ottoman au XV^e et XVI^e siècle*, « Journal of the Economic and Social History of the Orient », t. I, 1957, *passim*. Carefully presented statistical material of primary importance.

⁶⁵ H. INALCIK, *op. cit.*, p. 82 n.

⁶⁶ H. INALCIK, *op. cit.*, p. 85. This agrees with materials published by Yugoslav and Bulgarian scholars.

long time that the Turkish authorities treated the Orthodox clergy with toleration and that they, in turn, behaved loyally on the whole to their new masters. All this helped to pacify the peninsula. In Bulgaria and Serbia the Turks took advantage of and maintained some of the old divisions within the population, and in return for protecting roads or guarding the frontiers many were relieved from the payment of taxes. Miners were one of the privileged groups.⁶⁷ A proclamation of the orders of Mehmet II and Baiezd II concerning mines in Serbia indicates that the conqueror and his son were most anxious to get the mines working. Consequently, the ruler did not put particularly strong pressure on the miners and the merchants from Dubrovnik who were buyers of the ores and only required that the ores should be taken to the mints. From there the metal passed into possession of foreigners in the form of coins after a deduction of the ruler's share.⁶⁸ This did not differ in any way from the legal requirements in force in Christian Europe. Neither did the mining legislation of Soliman the Great depart from the principles generally accepted at that time. Thus the gradual decline in the production of metals in Serbia and Bosnia under Turkish rule cannot be considered as a consequence of the conquest but must rather be attributed to the exhaustion of the deposits. On the other hand, in contrast to the situation in Christian Europe at the turn of the XVth and XVIth centuries, in the Ottoman empire there were no substantial investments in mining, either by merchants, feudal lords or the state authorities. This is a problem which requires some explanation. It is understandable that German and Italian financiers, who were so closely linked with the Habsburgs, did not dare to invest capital in the domain of the Sultan, who was not only a deadly enemy of the rulers of Austria and Spain but was also the leader of Islam. Dealings in properties in the countries engaged in combat would have been too dangerous, and the citizens of Dubrovnik did not have adequate resources at

⁶⁷ I. SAKÁZOW, *op. cit.*, pp. 178-185; V. TAPKOVA ZAIMOVA, *Sur les débuts des colonies ragusines dans les territoires bulgares*, « *Studia Balcanica* », t. III, p. 127 n.

⁶⁸ N. BALDICEANU, *Les actes des premiers sultans conservés dans les manuscrits turcs de la Bibliothèque Nationale de Paris*, Paris - La Haye, 1960, nr 1-5 nn.

their disposal. So far as the Great Porte, the merchants and the great Turkish feudal lords were concerned, it would appear that they lacked both capital and the essential specialists in mining technology.⁶⁹ Besides, for a time war and trade provided fairly quick returns, whereas profits from mining investments would have taken longer to accrue. It is known that the Turks attracted miners from Hungarian Slovakia to their territories by assuring them sufficiently favourable conditions and gave far-reaching privileges to miners in Macedonia and Bulgaria.⁷⁰ I agree with Stojanović, that the survival of the mining of metals, ores, lead and iron in the Chalkidike peninsula and its development in the region of Kratova and in Ciprovci should be attributed to the larger, and more easily accessible natural wealth than that found in Serbia and Bosnia.⁷¹ This problem requires further research, and the whole question has not yet been adequately studied from the point of view of the history of technology which, in this case, is of basic importance.

There is no doubt that the structure of trade in the Balkan countries after the Turkish conquest underwent gradual but far-reaching changes, particularly in so far as foreign trade was concerned. Silver, lead and other metals lost their leading role as exports. Livestock and later agriculture generally moved to the top as well as Levantine goods of all sorts. Consequently, the flow of silver underwent a gradual change of direction, compared with the earlier period. The Ottoman empire, in spite of the import of textiles, metal products etc. from Italy and from both Western and Eastern Europe had, in all probability, a favourable balance of trade with its trading partners, and it can be assumed that this was also true of the Balkan peninsula. We are, nevertheless, still a very long way from explaining the problems of the economic history of this part of Europe in the Middle Ages.

⁶⁹ H. İNALCIK did not explain this in his article *Quelques remarques sur la formation du capital dans l'empire ottoman*, in «Mélanges en honneur de Fernand Braudel», t. I, Toulouse, 1973, pp. 235-244.

⁷⁰ Cf. note 68.

⁷¹ T. STOJANOVIĆ, *Discussion*, «Studia Balcanica», t. III, p. 191 n.; D. TADIĆ, *L'Unité*, p. 634; I. SAKAZOV, *op. cit.*, p. 245 nn.

I believe that the material collected here allows us to draw some conclusions about which factors favoured and which restrained the economic growth of Central-Eastern Europe and to some extent of South-Eastern Europe in the late Middle Ages. We can also reach some conclusions on the nature of their economic relationship with the West and with Italy. The late economic development of the territories of Poland, Bohemia, Hungary and the Balkan countries in the early Middle Ages was due to the fact that conditions for a «take-off» were inferior to those in the West, particularly due to the scarcity of population. Economic contacts between these two areas were fairly loose. Until the XIIth century such contacts were mainly confined to the export of slaves and small quantities of metal ores and furs from Eastern Europe. This permitted the import of a certain amount of luxury goods, weapons etc. A number of factors led the ruling classes to develop the economy intensively, such as the establishment of great estates in Central-Eastern Europe and of many forms of the feudal system in the XIIth and XIIIth centuries, the drop in revenue from wars of aggression, the increased need for defence, and the greater demands of the ruling classes. This explains the acceptance of institutions and legal forms from the West as well as the encouragement given to foreign and native colonization. All the factors mentioned acted as a stimulant to economic growth in many spheres of social life. The relative over-population which was becoming apparent in many countries in the West and also the great increase in demand for silver, gold and other metals, furs, hides, wax, food and timber products which Eastern Europe came to supply in increasing quantities favoured these developments. These trends were reflected in migration to Eastern Europe as well as in the considerable development of trade between the two parts of the continent and the formation of strong commercial centres such as the Hanse, Vienna and Dubrovnik. The export of slaves at that time was maintained only in the most backward countries of Eastern Europe, mainly in Bosnia and in the Golden Horde, as increasingly labour came to be required on the spot. One aspect of this process was the «promotion» of slaves to the position of

bondsmen. The slave trade by itself was marginal importance in the economic life of Europe at that time.

The severe economic crisis in Western Europe in the XIVth century and the first half of the XVth century intensified these trends still further. Although the flow of settlers to the East stopped, the increase in the local population, the developing mining industry, agriculture and livestock rearing in Central-Eastern Europe not only encouraged the investment of merchant capital but also considerably increased the area's purchasing power and demand for luxury goods, together with many types of manufactures and other articles, which resulted in a trade deficit. This was of major importance to countries in the West as it occurred during a period of enormous economic difficulties. At that time, then, a division of labour on an international basis began to evolve, with Central-Eastern Europe becoming a major source of raw materials as well as a market for numerous articles manufactured in the West. The growth of both the rural and urban economies in Poland, Bohemia, and to some extent, in Hungary and the Balkans, enabled the local production of manufactured goods to continue expanding. However, certain aspects of the one-sided economic development of Eastern Europe, stretching from the Baltic to the Adriatic, were already evident.

It was this last phenomenon which assumed greater importance in the XVIth century and especially in the XVIIth century. As agricultural production and livestock rearing increased in Eastern Europe, and were accompanied by a huge increase in exports of both, there was a corresponding increase in imports from the West. These imports were encouraged by the gentry who were able to buy in large quantities and wished to prevent price increases in the goods they required. This phenomenon was accompanied by the expansion of serfdom and the gradual weakening of the economic links between the peasants and the towns. It was to lead Central-Eastern Europe to a situation dominated by a system of some sort of monoculture and to heavy economic dependence on markets and production of Western Europe. Thus the crisis of the XVIIth century, the reconstruction and modernization of English agriculture,

the intensification of animal rearing in Denmark and the Netherlands, and the development of Western trade with countries overseas, dealt a heavy blow to many countries of Eastern Europe and in particular to Poland. The effects were felt for a long time, and I have written about the historical process which made our region a kind of economic colony of some of the Western countries which were developing towards capitalism.⁷² The origins of this phenomenon reach far back into the Middle Ages.

⁷² M. MAŁOWIST, *Poland, Russia and the Western Trade in the 15th and 16th centuries*, « Past and Present », 1958, nr. 13, pp. 37, 38.

