

Transformation of feudal manors into modern estates

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Abstract. *The discoveries and inventions of modern times, together with socio-economic changes, had a significant impact on the noble estates and agricultural production in general, which in the Bohemian lands until then still operated on essentially medieval principles. The process of modernisation of the estates was accelerated in the mid-19th century when serfdom was abolished in the Bohemian lands, depriving the owners of estates of cheap labour, but on the other hand providing them with considerable capital which they could invest in mechanisation, professionalisation of the administration of estates and land amelioration through chemification. Technological advances and the motivation through socio-economic change were thus able to greatly streamline the production of the primary sector and transform outdated feudal manors into modern large estates.*

Keywords

Modern estate, mechanization, chemification, management rationalization, agricultural production.

1. Relationship of the nobility to land and land records

In the Bohemian lands, large estates (mainly ecclesiastical) began to be established sporadically as early as the end of the 10th century (the earliest monasteries), more abundantly during the 11th century, and especially in the following century. From the Middle Ages onwards, the ownership of a large estate (manor) was one of the hallmarks of the nobility. For a long time, the economic aspect of a large number of estates was more or less neglected. However, with the passage of time, we can observe a greater degree of rationalisation of the administration of feudal estates, manifested, for example, by the emergence of rent-rolls ("urbarium"). From the beginning of the 17th century onwards, we can also observe the monarch's cautious attempts at a comprehensive and detailed mapping of the land stock. Needless to say, the main motives for this were of a fiscal (tax) nature. In the middle of the 17th century, the serfs' property was described in tax register called "Berní rula" and its revision prepared few decades later. From the 18th century onwards, cadastres were compiled, which in the

second half of the 18th century also newly described the dominical land.

2. Year 1848

As far as the development of the approach to the management of the noble estates is concerned, it should be mentioned that 1848 marked the culmination of a process of gradual social-political-administrative changes that had been underway for several decades, which was manifested, for example, by the end of patrimonial administration in 1848 (patrimonial authorities were replaced by self-governing authorities). However, from the point of view of the management of the large estates probably most important was that on 7 September 1848 serfdom was definitively abolished and with it all the burdens attached to the rural land. The previous users of this land thus became its rightful owners (at the expense of the manorial lords, who were left with only the dominical land). On the other hand, this transaction did not take place without compensation, but the former serfs had to reimburse the manorial lords for their corvée obligations (through the so-called "release fee" – "vyvazovací poplatek"). These obligations were amortised by instalments until 1886 and the state took on part of the burden of the former serfs.

3. The impact of the abolition of serfdom on the modernisation of the large estates

As already mentioned, the manorial lords were left with only the dominical land, so that its former manors were transformed into purely economic units – large estates. These circumstances were of fundamental importance for the management of the estates: their owners lost both cheap labour and draught animals, which the wealthier serfs had to provide to the superiors as part of their corvée. On the other hand, thanks to the compensation for the lost rural land and corvée duties of the former serfs, the owners of the estates gained a considerable amount of capital (almost 57 million guilders in total), which they could invest in mechanisation, chemification and general modernisation of their estates.

4. Investments by large estates: mechanisation and chemification

Investments in mechanisation and the drive to achieve higher soil fertility were a natural response to the process of transformation of former feudal manors into purely entrepreneurial units – large estates described above. However, 1848 cannot be regarded as the sole reason for this transformation, or even as the initial impetus – in fact, this process had already been going on for several decades (at least on some estates of progressive owners) and was linked to the development of knowledge and technical discoveries of the 18th and especially 19th century. Yet 1848 undoubtedly accelerated this process.

As a result of the events of that year, human labour became more expensive for the owners of the estates, but on the other hand, they gained considerable capital to invest in their estates. Therefore, the landlords tried to reduce the need for labour at least partially by introducing of machinery.

Mechanisation was first introduced in the cultivation of root crop in the first half of the 19th century. Later, it affected almost all areas of agricultural production. It should be noted that the Bohemian lands benefited from their exceptional industrial development in this respect. In 1902, for example, 293 farms in Bohemia were using steam ploughing, which was 76 % of the entire Cisleithania. The use of steam engines in particular was able to replace human labour and draught animals very effectively, and it also increased the potential of the land – in particular, deep ploughing with a steam plough (usually carried out once every three or four years) was very valued. When the land reform took place after the establishment of the so-called First Czechoslovak Republic, regular ploughing with a steam plough (as part of land amelioration techniques) was one of the items that increased the compensation of former owners.

The development of chemicalization was not left behind. Thanks to new scientific knowledge in this field, artificial fertilisers began to supplement and gradually partially replace natural fertilisers such as farmyard manure as early as the 18th and especially 19th century. In the Bohemian lands, the most commonly used fertiliser in this area was Chile saltpeter (or sodium nitrate - NaNO_3), which had been used abroad as a fertiliser since the 18th century. Thomas slag (a phosphate fertiliser, also known just as 'slag') and another phosphate fertiliser, superphosphate, were also widely used. Among the leading promoters of chemification in the Bohemian lands were, for example, the counts of Thun in Děčín.

5. Administration of modern estates

In addition to the introduction of mechanisation and chemification, the modernisation of large estates also consisted in the professionalisation of their management and the reorganisation of their administrative and accounting

structure. From the point of view of administration, the average large estate in the second half of the 19th century was divided into approximately 10 courtyards (sub-estates). At the head of the estate was the director, who usually had a deputy, and his office also included officials who were mainly responsible for the estate's financial and tax affairs (the term 'accountants' also appears as early as the 19th century). The individual courtyards were managed by responsible administrators, each of whom usually also had a deputy. The management apparatus of the estates was then supplemented by super-foresters, managers of independent enterprises – for example, sugar factories, distilleries, brickworks and others, and also managers of ponds, if there were any larger ones on the estate.

In the second half of the 19th century, the professionalism of the managerial staff of the estate was usually very high. This was determined also by legal requirements (for example, in Moravia, a law was passed in 1853 that forest estates exceeding 575 ha must have an experienced forest manager who had received appropriate training and passed appropriate examinations). Above all, however, it was due to the fact that the owners of the estates themselves were also keen to employ quality staff. For this reason, they set up agricultural schools and did not hesitate to send talented students abroad to study at their own expense. The Schwarzenberg family was particularly well known for this, but the families Thun, Kolowrat-Krakowský, Lobkowitz and other important landowners were not far behind.

Somewhat aside from the above-described management structure stood the inspector, who basically controlled the economic side of the large estate and could propose and organise its modernisation changes. From today's point of view, his function is therefore closer to that of an auditor and consultant. The function of inspector could be linked to a single estate, to a group of estates or to the complete large estate ownership of the landlord (which in the case of wealthy aristocrats could consist of a large number of estates).

6. Production of large estates

The role of large estates in the primary sector was of course of crucial importance. In 1890, 3,572,000 ha of farmland were cultivated in Bohemia, which represented a considerable increase on the previous decades. The main crops grown were cereals, forage crops (mainly clover) and root crops (mainly potatoes, which were grown on land unsuitable for cereals and were economically advantageous because of their high starch content, which was used in starch factories and distilleries). Sugar beet cultivation was also important. Its development in Bohemia is linked to Napoleon Bonaparte's continental blockade, which led to a shortage of sugar. In the second half of the 19th century, sugar beet was the most profitable crop grown on Bohemian estates, and in 1890, for example, it was grown on 18 % of the cultivated land.

Beef cattle breeding dominated livestock farming. Pigs were reared more on rural farms of former serfs and the formerly widespread sheep breeding began to decline, also due to strong foreign competition.

Beside of investments in mechanisation and chemification, investments in founding of new industrial enterprises (sugar mills, breweries, etc.) on individual large estates and the modernisation of existing enterprises also began to play an important role.

7. The crisis and how modern large estates tried to cope with it

In the 1830s, the grain crisis broke out and in response, landlords sought to develop manufacturing industries on their manors to reduce the risk of future marketing crises. The growth of sugar factories was particularly significant: while there were only 15 major sugar factories in Bohemia around 1840, by the early 1870s there were already 115 (83 of them in the hands of noble owners) and by 1873 there were 214 sugar factories in Bohemia, producing 1 149 million kg of sugar. However, this also led to the problem of sugar marketing at the end of the 19th century, as Bohemia was able to produce more sugar than the entire consumption of the Austro-Hungarian Empire.

Brewing was traditionally important, too (although hops were grown on only about 10 000 ha of land in total). However, from 1848, when the nobility's rights to brew beer came to an end, civic capital gradually began to dominate over noble and ecclesiastical capital.

Since the 19th century, macroeconomic events of a global nature have had an increasing influence on the operation of the estates in the context of increasing globalisation. In the 1870s and 1880s, for example, the Bohemian lands were hit by the agrarian crisis, which significantly affected the noble estates. In 1873, the Vienna Stock Exchange crashed, which led to bank failures and thus to a reduction in the amount of available capital. The logical consequence of these events was an increase in the cost of credit, which had a negative impact on highly indebted Bohemian agricultural units. Another negative aspect for the business of large estates was the development of international transport, which made imports of wheat from the USA, as well as grain from South America and India, cheaper. The aforementioned overproduction of sugar then hit the sugar industry.

The way out of these crises was to increase the profitability of production, which the noble large estates sought to achieve by means of, among other things, the aforementioned rationalisation of management, mechanisation and other modernisation measures. However, if in the middle of the 19th century the estates had sufficient investment capital, by the end of the century they were already experiencing a shortage of capital (partly due to the fact that they had run out of income from the abolition of *corvée* - the release fees). The *fideicommissum* (traditional form of ownership of the most important property in the

noble families) proved to be particularly problematic in this respect, as its ability to raise the necessary capital through credit was largely limited. This is one of the reasons why, at the end of the 19th century, there were increasing efforts to abolish *fideicommissum* (although this did not actually happen until 1924 by a law). It was credit that finally helped Bohemian agriculture find a way out of the crisis. But only at the cost of a huge debt burden on the Bohemian countryside (by the end of the 19th century, its debt amounted to three billion Austrian crowns).

8. Résumé

The paper deals with the basic aspects of the transformation of old feudal manors into modern large estates (functioning further only as agricultural economic units). Although socio-economic changes (abolition of serfdom, globalization and the onset of crises in the 19th century) were of major importance, technological developments in mechanical engineering, botany and chemistry, as well as advances in education, especially the professionalization of management, also had a significant impact on this transformation.

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