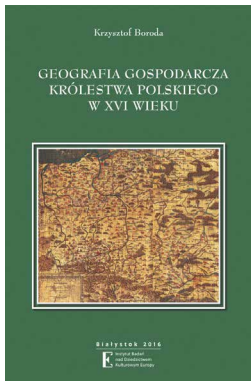


Krzysztof Boroda: Geografia gospodarcza Królestwa Polskiego w XVI wieku,
Instytut Badań nad Dziedzictwem Kulturowym Europy, Białystok 2016, pp. 880

Krzysztof Boroda's *opus magnum* of almost 900 pages is a landmark publication in Polish economic-historical geography that provides a detailed account of various aspects of the country's spatial economics during its Golden Age of economic expansion. Although the book does not provide



any radical re-interpretations of the Polish economy in the 16th century, it informs the existing debates with a considerable amount of new empirical information. The main value of the book is in the wealth of countless maps, tables, and figures that substantiate the main conclusions of the author and offer data that can be used by future scholars.

Boroda's work is one of the first major book publications on the Polish market that uses quantitative methods to study history. This is a result of the growing influence of the so-called New Economic History, which has dominated the western scholarship and is becoming increasingly more influential in the other parts of the world. New Economic History shifts from the descriptive and qualitative approach to that based on empirical identification of the underlying trends. It builds heavily on the methodologies and theories from social sciences, primarily economics,

geography, and sociology, to inform the debates in history. This is in direct opposition to the mainstream Polish historiography that is largely descriptive, bases its insights on the qualitative method, and produces valuable, detailed monographs on regions, individuals, or institutions on high scholarly level rather than generalisations and broad re-interpretations. This is evident from the fact that graphs and tables with new data feature rarely in Polish history journals. Boroda's book signals a possible change in the direction towards a more cross-sectional and statistics-driven scholarship that balances historical accuracy with model thinking and the quantitative approach to produce new and more general insights.

Specifically, Boroda's work popularises the use of some of the new techniques and methodologies in economic geography. Particularly, his book is one of the first major publications that builds heavily on the Geographical Information System (GIS), a framework for gathering, managing, and processing data. The GIS analyses spatial location and organises layers of information into visualisations using maps. This technology first developed in the 1960s and was originally used for commercial purposes. The advent of personal computers in the 1990s led to the popularisation of the tool. Currently, the GIS is widely popular in the western historiography due to the shift from the study of individuals to interrelated groups and regions. In history, the GIS was first used by the archaeologists who studied spatial relations between various artefacts. Economic historians interested in understanding how trade and economic integration impacts divergent economic development rely heavily on visualising spatial relations.

Boroda continues the pioneering work of the other historians who use the GIS in their research, among others Konrad Wnęk,¹ Dariusz Chojecki,² Bogumił Szady,³ and the “Polish historical Atlas’s” team. GIS technology allows historians to easily plot the locations of studied places or easily study borders of different territories to reach new insights. It significantly reduces the cost of map making, which has allowed the book to have over 100 maps.

One of the main strengths of Boroda’s book is that it bases its description of the Polish economy on a cross-section of three regions (and in some cases even the whole country) rather than generalising from the results of an isolated study. Boroda analyses the economic geography of the Voivodeships of Kraków, Łęczyca, and Płock, located in, generally speaking, the south, middle, and north of Poland. Boroda argues that this selection offers a representative cross-section of the Polish economy defined by the international grain trade via the northern port of Gdańsk. He argues that while Łęczyca and Płock were in the Gdańsk trade zone and were active in the trade, Kraków was located too far away from the coastline and focused its economy on the land trade with southern and western neighbours and developing its mining industry. This means that the selection of the territories offers an account of the two types of regions, i.e. the ones active in the Gdańsk trade and not. It is noteworthy that the selection does not provide any indication of the economic situation in the Grand Duchy of Lithuania with which Poland was in a real union since 1569. This is symptomatic

of the relative underdevelopment of the historiography of the eastern part of the Polish-Lithuanian Commonwealth.

Boroda analyses the rural and urban geography of the three sub-regions of Poland with use of tax sources. In particular, he builds on the sources pertaining to the land tax, urban tax, and excise tax on alcohol (*czopowe*). Since these sources define the strengths and limitations of Boroda’s study, it is prudent to describe their usefulness for economic history research. Regarding the land tax registers, they cover only the properties that were subject to taxation. This indicates that they do not register all the properties that are of interest to economic historians. The sources also only provide the information that was necessary to track the tax payments, rather than to determine the size of the tax base. Lastly, they only focus on the land that was subject to taxation, rather than recording all characteristics of the locations. This leads to numerous problems. For example, demesnes (*folwark*), arguably the most important economic units, do not feature in the sources. Boroda overcomes this problem by predicting the size of demesnes from the amount of land cultivated by the enserfed tenure-farmers. However, this disallows validation of many of the assumptions regarding the functioning of the demesne economy based on serfdom and its impact on the country’s prosperity. Second, as has been noted by Boroda, almost a third of all the villages were not recorded in the tax registers due to various tax exemptions. Third, in the 16th century, the land tax effectively taxed the people who directly cultivated the land; this meant that in the case of the bigger holdings it was the peasant workers, while in the case of the smaller ones, it was the working-gentry who were taxed. This creates various methodological problems that often prohibit the creation of a uniform framework to study the rural economy. Boroda deals with these challenges by

¹ K. Wnęk, *Własność nieruchomości w Krakowie w połowie XIX w.*, Kraków 2011.

² D. Chojecki, *Od społeczeństwa tradycyjnego do nowoczesnego. Demografia i zdrowotność głównych ośrodków miejskich Pomorza Zachodniego w dobie przyspieszonej urbanizacji i industrializacji w Niemczech*, Szczecin 2014.

³ B. Szady, *Geografia struktur religijnych i wyznaniowych w Koronie w II połowie XVIII wieku*, Lublin 2010.

breaking the analysis into two groups. This, however, obscures generalisations.

Regarding urban sources, Boroda builds on a range of different tax data. The most prominent being *szos*, i.e. the urban wealth tax, and *czopowe*, i.e., the excise tax on alcohol. In Poland, the *szos* was collected from around 700 urban centres divided into four different tax categories. Each city was responsible for collecting a certain amount of tax from its citizens/inhabitants. Tax registers typically only recorded the size of the total tax rather than the wealth distribution within the urban population that was being analysed by the cities themselves. The fact that the amount of the tax was fixed and that we only know the aggregate value limits the usefulness of the *szos*. On the other hand, the *czopowe* provides very detailed information on the production and consumption of beer, mead, vodka, and (since the 17th century) wine. Due to the tax privileges enjoyed by the gentry/nobility/*szlachta*, the tax was only levied on the city dwellers and innkeepers in the urban areas owned by the state and the Church. The tax on beer was only levied on strong beers (*piwo pełne*), which were not necessarily a part of the daily diet of the population that drank weaker table beers. Nonetheless, the *czopowe* offers valuable insights into the economic activity in Poland. Lastly, the Polish state levied extraordinary taxes on craftsmen. The surviving tax records allowed Boroda to reconstruct the number of village artisans and the size of the industrial sector in a range of cities in selected years.

The last major source type used by Boroda were tax summaries produced by the tax offices. They were designed to aggregate the incomes from the extraordinary taxes in order to make predictions about the future incomes of the state. These documents were first created on the regional level by individual local tax collectors and then aggregated centrally. The main benefit of the tax summaries is the convenient

compilation of all the individual sources, as well as the recorded information on the tax bases for the whole country. The drawback of the summaries is that they do not discriminate between the taxes paid by the gentry, king, and Church. Due to the different tax status of these three types of land, this aggregation problematises the interpretation of the results.

Instead of focusing on only one aspect of economic geography, Boroda offers detailed descriptions of various phenomena across nine vast chapters. Here, I offer a sample of the more interesting results to highlight the general character of Boroda's work. After the introduction and source description in chapter 1, the author deals with the problem of the changes in the total size of the taxable arable land. He identifies that, in the 16th century, there was an overall increase in the total size of arable land being taxed. Boroda explains it by the consolidation of landholdings and cultivation of new land. According to the author, it was the Voivodeship of Kraków that experienced the greatest increase in the size of the taxed area while the Voivodeship of Płock was much less dynamic. The author also identifies the increase in the size of the demesnes across the country brought about by the consolidation of the demesnes at the expense of the tenurial holdings.

In chapter 3, Boroda uses information on the portfolios of landholdings owned by individual noble families to study the distribution of wealth in the three studied regions. He identifies that the owners of small landholdings (up to 5 *lan*) were the most populous. In the Voivodeship of Kraków, this section of the gentry accounted for 55 per cent of the total landowning population while their workers paid around 14 per cent of the total tax. In the other two regions, the share of this group was between 80 and 85 per cent and their workers paid around 30 per cent of the total tax. This

demonstrates the dominance of relatively modest landowners at the time of the enforcement movement (*ruch egzekucyjny*) of the gentry. However, the 10 (3.6%) owners of the biggest landholdings (over 60 *tan*) in the Voivodeship of Kraków accounted for over 20 per cent of the total tax. Conversely, there were no such big landowners in the Voivodeship of Płock. These results indicate that the levels of inequality varied strongly between the regions. The Voivodeships of Płock and Łęczyca were relatively poorer (when it comes to the wealth of the gentry) but homogenous, while the region of Kraków was much more economically unequal.

In chapters 4 and 5, Boroda addresses demographic issues. He uses the available information on the population of the poor tenant farmers (*zagrodnik*) and landless agricultural workers (*komornik*) to identify differences in the occupational structures between these two main groups of peasants. The author provides speculative interpretations of the vast differences in demographic structures between the regions. He argues that in the Voivodeship of Kraków, there was a relative surplus of corvée workers and an ample supply of agricultural workers for hire in the busy time of harvest. This indicates high levels of agricultural development in the region.

In chapter 6, the author analyses the economic specialisation of the cities. He points at the vast gap between Kraków and the other studied cities. He points out that Kraków was by far the biggest city in the terms of population and the size of taxation and the absolute number of registered artisans. Boroda argues that Kraków suppressed the development of other urban centres in the Voivodeship and clearly dominated the whole area. Among others, Kraków dominated the production of pottery, (leather) clothes, and distilled alcohols. In addition, the city hosted the most skilled and rare specialists, such as

soap makers, who were virtually inexistent outside the city. Boroda offers a very detailed account of the functioning of many industries and the industrial location in the Voivodeship.

In chapter 7, Boroda analyses the brewing industry. He focuses on the production and consumption of alcohol. The author identifies the main production sites in each region and points to a relative concentration of the industry. He shows detailed statistics regarding the absolute and relative volume of production to assess the strength of the industry in each region. Boroda shows the dominance of the brewing industry in the region of Kraków in both absolute and relative terms. This suggests both high levels of economic development, consumption, and production in the region but also some degree of trade and economic co-dependence between regions.

In chapter 8, the author deals with the problem of rural manufacturing. Boroda identifies differences in the development of the manufacturing sectors in the three provinces. Again, the Voivodeship of Kraków enjoyed the most developed manufacturing industry, which developed further in the 16th century. Conversely, the region of Łęczyca experienced a decline in the size of the manufacturing sector. Throughout the country, Boroda identifies clustering of industry in the form of formation of groups of closely related towns and villages with a greater amount of artisans. Boroda identifies that in the region of Łęczyca, 42 per cent of all rural manufacturers were bakers and butchers. The author claims that it means that the rural sector was subservient to the urban one. Conversely, in the Voivodeships of Kraków and Płock, where the butchers and bakers accounted only for around 15 per cent of the manufacturers, the rural sectors were in direct competition with the urban one and produced a wide range of manufacturing products.

In chapter 9, Boroda uses the information recorded in tax summaries to produce detailed maps representing differences in taxation not only across the three studied Voivodeships, like in the other chapters, but in the whole Kingdom of Poland. It offers insightful maps yielding various differences in tax collection on both absolute and relative levels. Boroda aims to assess the levels of economic development of various regions and shows differences in their economic character. For example, he offers information about the number of mills and inns to gauge the development levels. He demonstrates that the regions of Kraków and Poznań usually contributed most taxation. This is the aftermath of the conflict between Gdańsk and the king over the city's independence. Additionally, Boroda identifies that the average sizes of the plots cultivated by the tenant farmers were much greater in the north than the south of the country. This could be indicative of the relative position of the peasantry in the two regions.

As discussed, Boroda's book offers countless insights into the economic geography of early modern Poland. This short account of some of the findings represents only a small fraction of his total work. However, the selection of the findings signifies the main limitation of the book. By focusing on providing countless insights into numerous phenomena, the book does not really offer a clear take-home message. In some sense, it is more an encyclopaedia of Polish economic geography in the 16th century containing a wealth of information than a handbook that offers a coherent perspective on how the economy/geographical location worked. What is missing from the book is a well-developed framing of the findings in the domestic and international debates. It is unclear how this new evidence changes our understanding of the Polish economy in the 16th century. Moreover, as innovative as it is for the Polish standards

concerning the use of GIS, the analysis underpinning the individual chapters is not based on state-of-the-art methods. For example, the chapter on wealth distribution builds on the approaches and methods as old as the 19th century. It discusses and utilises the methods of aggregation dating back to Pawiński's work from 1883 that relies on aggregation of the data in different wealth categories/brackets.⁴ Inequality is one of the main topics in the New Economic History. By aggregating the data in various categories instead of producing a Lorenz curve of distribution and measuring Gini coefficients, the author loses useful information and makes the findings internationally incomparable. This shortcoming invites future scholars to approach the topic of inequality from a new perspective.

Furthermore, the study of geographical location is essential for our understanding as to what extent Poland formed a uniform domestic market. The concept of market integration is widely discussed in international economic history literature of the early modern period.⁵ Economic historians aimed to understand the origins of the division of labour between regions and countries in preindustrial times. Boroda's study suggested that there indeed was a concentration of production of various high-end products in Kraków. The internationally established way of studying the concentration of production is with the Herfindahl index. Boroda's tax data is suitable to use this methodology and inform the international debates with new and rich evidence.

Lastly, serfdom in general and Domar's hypothesis that demesne agriculture based on serfdom was more prevalent in areas with scarce population and land abundance is still widely discussed in major economic

⁴ A. Pawiński, *Polska XVI wieku pod względem geograficzno-statystycznym*, Warszawa 1902 (Źródła Dziejowe, 16).

⁵ G. Federico, *How much do we know about market integration in Europe?*, "The Economic History Review", 65 (2), 2012, pp. 470–497.

history journals.⁶ Having information on the amount of taxed arable land and agricultural workers, Boroda has very suitable data to test Domar's hypothesis in a systematic way and move the frontier of the discipline.

In sum, Boroda's book is a landmark publication and a culmination of a tremendous amount of high-quality primary research. It has the potential to provide the research community with an impetus to revisit the old debates with the use of the

new empirical evidence. Our understanding of the inner workings of preindustrial economies remains limited. Boroda's book offers an opportunity to reinterpret Polish economic history from new quantitative perspectives in the best traditions of Antoni Mączak, Witold Kula, and Andrzej Wyczański. ■

Mikołaj Malinowski
(Groningen)

⁶ E. Domar, *The causes of slavery or serfdom: A hypothesis*, "The Journal of Economic History", 30 (1), 1970.