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The beginning of Fordian economic organization in East German and Hungarian rural societies before 1945, with special regard to de-peasantization

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Abstract

This comparative historical study examines the early stages of "de-peasantization" in East German and Hungarian rural societies prior to World War II. The analysis focuses on two regions that can subsequently be classified as transitional zones within the "Green Ring," a belt encompassing the agricultural periphery of the continent. The question is to what extent the gradual disappearance of the peasantry was related to the two key economic paradigms of the 20th century: first, Fordism, and later the "Green Revolution"? As a theoretical framework, this study applies Reinhart Koselleck's model, which examines a specific historical moment in the context of both past and future. Accordingly, with regard to the peasantry of the 1930s, it is necessary to examine the degree to which the "space of experience" and the "horizon of expectation" were in alignment at the time. To what extent did their synthesis anticipate subsequent trends? Furthermore, how did the German and Hungarian trajectories differ in terms of technocratic solutions in the 1930s?

Keywords: Fordism, Taylorism, "Green Revolution," "de-peasantizatin", "Green Ring"

1 Distinction of Terms

1.1 Problem Statement and Research Question

The analysis focuses on "de-peasantization" as a long-term social process, the consequences of which were most strongly felt by former socialist countries at the time of their EU accession. While the disappearance of the peasantry in the West was a continuous trend, in the East it occurred within a few decades after 1945, in conjunction with collectivization. At the beginning of the 20th century, the decline of the peasant population was still an "organic" tendency, resulting from factors such as overpopulation and undivided inheritance. After World War I, however, this trend was accelerated by specific mechanisms.

In particular, I refer to Fordism as the technocratic paradigm that emerged from globalization, meaning the organization of production and consumption on a mass scale. In its broader sense, Fordism – named after iconic figures – comprised two complementary processes: Taylorism, as the means of mass production, and Keynesianism, which sought to create a framework for mass consumption. The latter trend appeared briefly after the 1929–1933 economic crisis but became significant in Western societies only after 1945 (Cséfalvay, 1999, p. 14).

Regarding the origins of Taylorism and the organization of mass production, it is worth recalling Peter Drucker's observation that, even in the most developed countries, 19th-century industrialization was financed by agriculture, which also meant draining the uneducated rural labor force. This workforce had to be integrated into the framework of industrial plants. This goal was served by "Scientific Management," associated with Frederick Taylor, which undoubtedly resulted in an increase in skills and productivity in the long run. As subsequent generations in the United States became more skilled, workers required less supervision, and the previous rigid operating structures could be relaxed. The internationalization of markets also brought benefits: according to Drucker, international trade grew faster than foreign capital investments from the early 20th century onwards, enabling greater reliance on domestic capital. The latter sought out new investment opportunities, targeting domestic markets more effectively. (Even in the United States, foreign capital typically flowed into infrastructure during the 19th century.) The "industrialization" of agriculture, which started in the United States before 1913, was also part of this broader framework. By the 1960s, agriculture itself had become an "industry" with the highest scientific input per unit, leading not only to higher productivity but also to greater concentration and a reduction in the agricultural labor force (Drucker, 1971, pp. 139–145).

If Taylorism in the United States and Western Europe represented a relatively short transitional period, in Eastern Europe it was a long-lasting process due to the peculiarities of the communist dictatorship that followed 1945. This raises some questions for the latter countries: to what extent did Fordism influence de-peasantization, and to what degree was it shaped by pre-1945 developments as opposed to the communist dictatorship itself?

At the time of EU accession, the legitimate question was how compatible these rural societies were with the structures of the older EU Member States. In Western countries, there were also fears that the Agrarianist "Third Way" ideologies of the interwar period might be revived. But these concerns proved unfounded, since the shift to a market economy in these countries also favored larger sizes over family farms. The break with the peasant past was even more complete in those Eastern countries where the traditions of "peasant democracies" and large peasant parties were completely missing during the interwar period. This was particularly true of the former GDR and Hungary, where, unlike their neighbors, agricultural societies were dominated by large estates before 1945. In fact, in Germany, the divide between the city and the countryside was much sharper than in Eastern Europe or in the southern countries. So in the following, focusing on eastern Germany and Hungary, I argue that in both countries – albeit in different ways – the process of de-peasantization began earlier than in their eastern neighbors.

1.2 Interpretation Frameworks, Contexts, and Basic Concepts

Examining de-peasantization within the context of Fordism and the Green Revolution is essential. First, we need to define what we mean by de-peasantization. Imre Kovách distinguishes three levels of de-peasantization—the gradual elimination of historical peasantry: *1. structural*: the disappearance of peasantry as a class and its representative bodies; *2. social*: the changing role of farming for farmers and their families; and, *3. cultural*: the broader societal consequences of these processes, including the re-creation of national identity (Kovách, 2012, p. 197).

From a social-historical perspective, however, Fordism in the West was the first important step in the transition from pre-industrial society to modernity. Taylorism, originally developed in the United States in the 1880s, was a method of work organization designed for industrial companies. Since the United States has always been an immigrant country, efficient production required integrating unskilled immigrants of diverse nationalities into the national labour market. In fact, this was the reason behind the emergence of Frederick Taylor's approach, which aimed to achieve this goal by simplifying and standardizing workflows linked to performance-based wages.

The entry of capital into the agricultural sector was hindered by the sector's inherent unpredictability – particularly due to weather – and the diversity of tasks, with seasonal peaks across various activities. As a result, in agriculture, Taylorist methods came into use only to a limited extent. Performance was more difficult to evaluate, partly because agricultural work often involved group tasks, such as harvesting, which Taylorism generally sought to avoid (Seedorf, 1925, pp.73–83). Taylorist methods were mainly applied in large plants with specialized profiles. Expectations for smallholder farmers were transmitted indirectly through markets, buyers, cooperatives, and sector-wide umbrella organizations.

Although Taylorism, with its "Scientific Management" methods, time-and-motion studies, was initially aimed mainly at increasing performance and standardizing specific production factors, it required a continuous increase in technical expertise. (Skills testing, common in industry at the time, further reinforced this trend.) Those who could not keep up became redundant in agriculture, left the countryside, or started another occupation. After 1945, the Eastern Bloc institutionalized these principles, reorganizing the entire economy along Taylorist lines. In factories, for example, workers did not perform intellectual work. Russian Bolsheviks eagerly adopted the concept of Taylorist work methods in the 1920s and later extended it to occupied countries, focusing on employee control and decision centralization (Schlett, 2014, pp. 216–218).

However, even if Fordism evoked bad memories in the Eastern bloc, the later Western view of it was more positive. In the United States, agriculture, however, had already begun to give way to the Green Revolution before World War I. On the organizational side, there was a shift away from strict worker control and the separation of physical from mental labor, toward greater decentralization. On the economic side, overproduction led to cost reductions, which shifted the emphasis to new sources of energy production and related technologies. The winds of change were also felt in Hungary. As László Zelovich wrote in 1932, if the 19th century was marked by the industrial revolution, then the first

decades of the 20th century would bring the revolution in agricultural production (Zelovich, 1932, p. 16). Hungary's receptiveness to these innovations is underscored by the fact that, after 1945, Hungary was the only country in the Eastern Bloc where the Green Revolution gained the most ground, while elsewhere in the bloc agriculture was industrialized along Fordist lines only in the 1960s (Schlett, 2014, pp. 210–211).

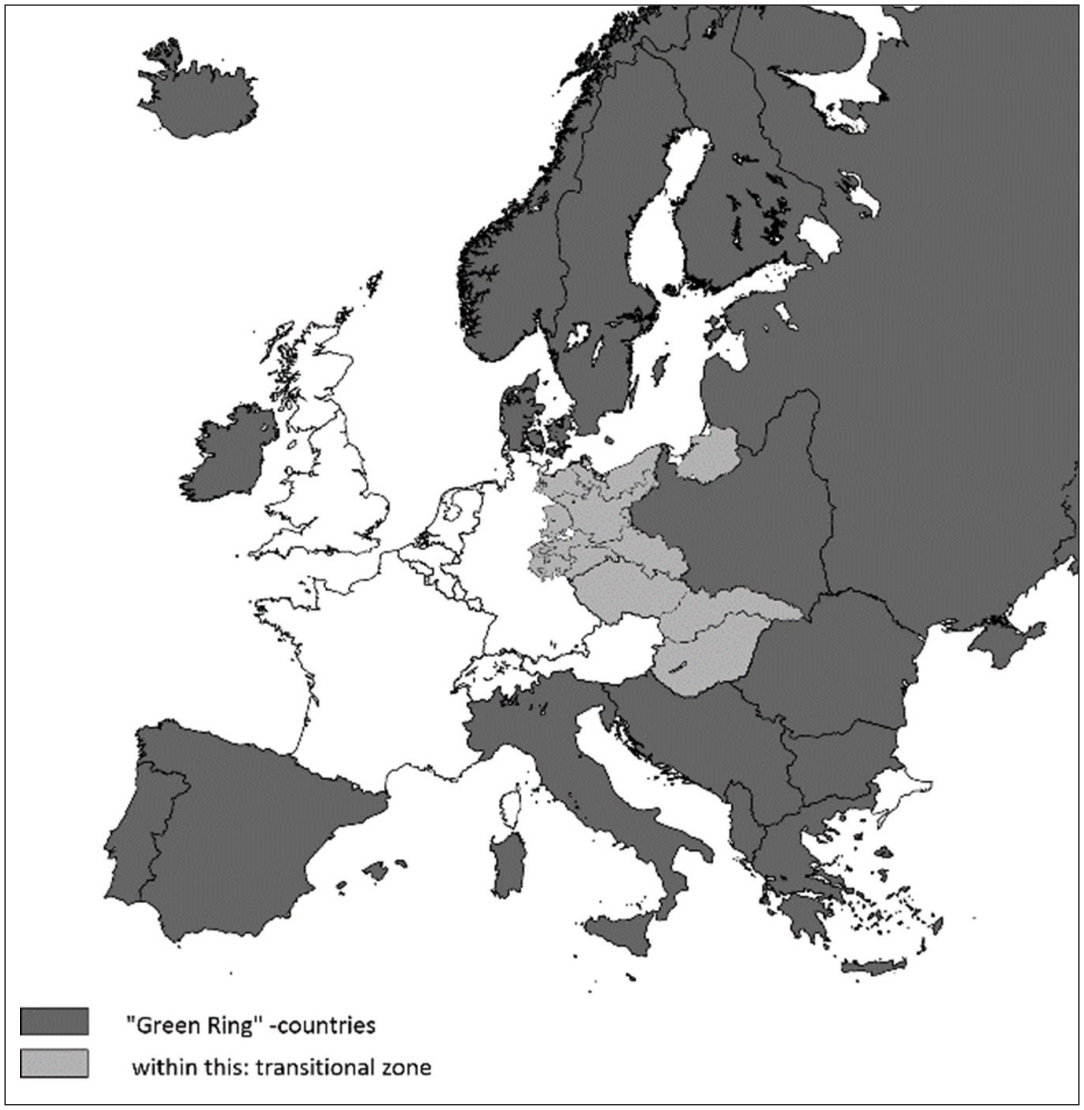
However, the Green Revolution had a significant impact on de-peasantization; the share of the agricultural population in the Western center countries was smaller from the beginning than in the periphery. In the United States, ten out of every twenty members of the labour workforce were employed in agriculture. By 1945, almost one-third still worked on farms. By the end of the 1960s, however, fewer than one-tenth of the workforce worked as farmers (Drucker, 1971, pp. 25–26). This trend implied from the beginning that part-time farming was becoming increasingly common (Zelovich, 1932, pp. 24–25).

1.3 Geographical Demarcation and Demography: Beginnings of De-peasantization in Central Europe

When analyzing de-peasantization, demographic differences cannot be overlooked. According to Gustav Cassel, in Western Europe, the population expanded in the 19th century, while the share of people living from agriculture decreased. This trend continued into the 20th century, even as overall population growth began to decline. In contrast, in Eastern Europe, continuous population growth was induced by the expansion of the rural population. East Germany and Hungary occupied an intermediate position. In the first half of the 20th century, both countries experienced slowing population growth, while the proportion of people living from agriculture stagnated (Cassel, 1927, pp. 500–508).

In the decades after 1945, however, the agricultural population declined sharply across Europe, most notably in the continent's periphery, which had previously resisted industrialization. This area—referred to as the "Green Ring" by Leo Granberg and Imre Kovách—was characterized by strong rural traditions and extended across the former Iron Curtain, including Southern, Northern, and Eastern Europe (Granberg et al., 2001, p. xiii). Within the Green Ring, regional differences were the subject of significant sociological debate, particularly in Hungary around the time of EU accession (Kovách, 2012, pp. 192–193).

Obviously, our main focus is on the former socialist countries, including the East German and Hungarian processes. Although different agricultural history typologies usually negotiate Hungary with the neighboring countries, Folke Dovring, a Swedish agricultural economist of the 1950s, pointed out that Hungary's prewar agrarian society closely resembled that of East Germany. He emphasized that on this side of the Iron Curtain, the share of wage workers in the agricultural workforce had been the highest in East Germany and Hungary. According to him, the proportions in the two countries were closer to the Spanish and even English and Portuguese indicators than to other countries in the region (Dovring, 1956, p. 132). This pattern is further confirmed by various census data.



Map 1 The "Green Ring"

Source: https://www.censusmosaic.demog.berkeley.edu/data/mosaic-data-files based on author's construction

If we examine the origins of Fordism in the interwar years, it was obvious that Germany, an industrial country, would adopt industrial methods. The drive for increased performance ("surplus-production") also played a role in the odiousness of the lost war, where, in the new conditions, it was necessary to secure the country's food supply, while the new democratic system demanded shorter working hours in agriculture (Lüders, 1926, p. 5). Together, these factors made it inevitably necessary to increase productivity at the plant level. In the case of Hungary, which primarily remained an agricultural country, the large-scale territorial loss shifted attention to the construction of industrial capacities.

This expansion could only be covered by agricultural exports, where increasing revenues also presupposed surplus production, i.e., greater performance.

After World War I, Germany had to overcome its strong traditions of particularism in order to move toward standardization, since tools and practices varied significantly by region. This task of unification was taken on by Wilhelm Seedorf and the Pommritzi Institute in Saxony. In Hungary, by contrast, the main problem was the differentiated property structure, which resulted in wide disparities in both production quality and yields across the different types of farms. The economic crisis highlighted the problems in this area. For producers – particularly in the grain sector – it became essential to enter the market with goods of consistent quality. This required the standardization of seeds and technologies.

Table 1 Structure of Agricultural Society before 1945 in Each Country

Countries	**Percentage of agricultural population in total population**	**Of which:**				**Area ratio of holdings over 50 hectares, percentage**
		independent farmers, tenants	**clerks, employees**	**farm servants, farm hands**	**agricultural laborers, day laborers**	
East Germany* (1933)	25.5	54.2**	0.9	7.3	37.6	56.6
Hungary (1930)	51.8	51.9	0,3	11.9	31,9	46.6
Czechoslovakia (1930)	34.6	69.9	2,2	0.0	27.4	43.3
Poland (1931)	60.6	83.6	4,3	2.1	7,8	25.8
Romania (1930)***	83.5	80.0	..	1.7	4.0	32.2
Yugoslavia (1931)	76.3	78.4	0,3	20.1	1.1	9.6
Bulgaria (1934)	85.0	84.6	0,1	0.0	15.3	1.6

Source: census volumes of the respective countries.

* *Brandenburg, East Prussia, Pomerania, Upper Silesia, Lower Silesia, Grenzmark, Saxon Province, Saxony, Thuringia, Mecklenburg, Anhalt.*

** *Full-time farmers.*

*** *The data on Romania is not complete. The number of clerks and employees is unknown.*

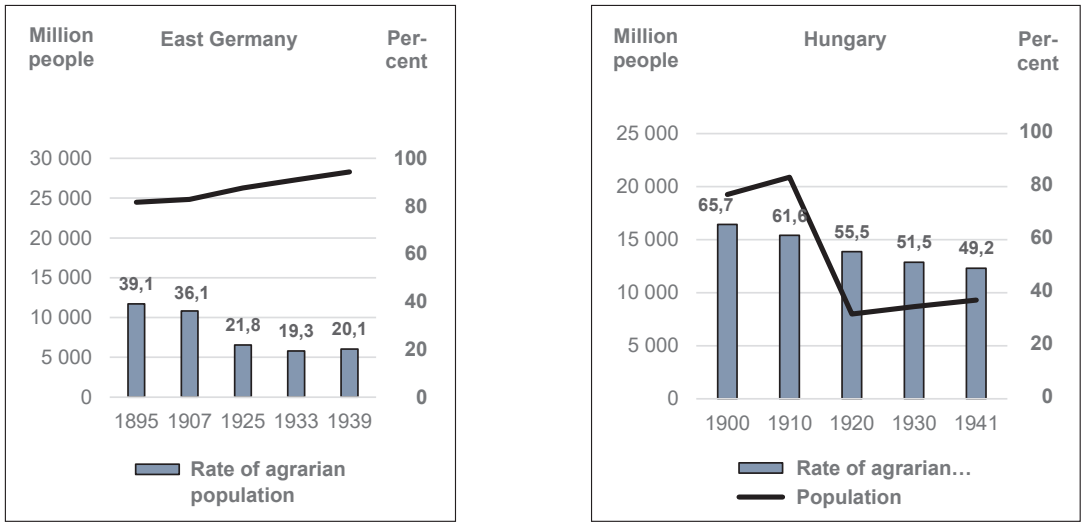


Figure 1 Share of agricultural population in Central Europe before 1945

Source: Mitchell, B. R., 2003, pp. 150–151.

Note: Within the boundaries of that time.

Of course, the Green Revolution that began at that time also had a profound impact on both areas. However, in the case of Central Europe, this cannot be separated from the context of authoritarian and even fascist regimes. Contemporary social history, with a broader perspective, maintains that in the 1930s the agricultural modernization efforts of these regimes—although in a specific way—were nevertheless part of the Green Revolution. In this regard, the pioneer was undoubtedly fascist Italy, which was forced to take this path very early because of the lack of capital and raw materials, although, in many respects, it followed American models.

After 1945, it became necessary to abandon the ideological legacies of the previous era, e.g., the peasant myth (Fernández-Prieto et al., 2001, pp. 28–29).

If we seek to compare East German and Hungarian peasant societies from this perspective, a complex methodological framework is required. The most important element of this is Tomka's concept of "asymmetric comparison" (1), which compares a "test region" with a "control region." In this study, East Germany serves as the former and Hungary as the latter. This framework is complemented by the adaptation of Koselleck's "historical time" (2) and a self-developed model that reflects the most important criteria (3).

2 The Peasant Policy of the Two Countries before 1945

2.1 East Germany as a "Test Region"

2.1.1 The Age of the "Space of Experience"

Regarding the established "industrial state" at the end of the 19th century, the main recurring concern was *Landflucht*, the depopulation of the countryside, primarily affecting the eastern provinces. After Germany's defeat in World War I, the discourse shifted to the other extreme, with many advocating a return to the "agrarian state" to ensure self-sufficiency. The new democratic system also considered it necessary to increase and continue the settlement policies initiated in the Prussian era due to the "Polish threat." However, the economic crisis of 1929 profoundly reshaped rural demographic processes. According to Cassel, prior to the crisis, industrial economic activity was essentially accompanied by migration away from agriculture, while during industrial slowdowns, many emigrated back to the countryside. Rural employment also increased during the agricultural boom, whereas agricultural crises, however, generated rural unemployment, and migration to the city also increased. The Great Depression disrupted these cyclical patterns.

On the other hand, these changes cannot be separated from the social mobilization that took place in the Weimar Republic after the First World War, when social aspects also came to the fore in rural areas. While this opened new perspectives for those of the rising strata, it also marked an overture to de-peasantization. This was confirmed by the 1933 census data, according to which 1.2 million people were working part-time in the eastern provinces, in addition to 3.2 million full-time farmers. Nevertheless, at this time, East Germany was still considered a lagging region within the country. Furthermore, during the economic crisis, some experts even suggested that the real solution to eliminating Western competition in industry was to shift the center of the world economy from the West to the East (Eastern Europe and Asia) (Rogmann, 1930, p. 129).

The breakdown of patriarchal relationships and the weakening of the natural wage system paved the way for the rise of Fordism in Eastern German culture. Junker groups invested in industry, especially heavy industry, and may have played an important role in disseminating industrial methods in agriculture, while there was considerable enthusiasm for the American way of organizing work. A pioneering role in the adoption of German agricultural practices was played by Wilhelm Seedorf's Pommritz Institute. With regard to the Green Revolution, the strong traditions of chemicalization and the fertilizer industry must also be highlighted. Although the eastern provinces were rich in water energy, there was no interest in exploiting it.

Mechanization – another integral part of the Green Revolution – gained prominence as a result of American examples during the economic crisis. It should also be remembered that in agricultural-importing countries such as Germany, far fewer people worked in agriculture than in agricultural-exporting countries. Large estate landowners strongly supported mechanization because they were interested in reducing wages. This effort was also strongly supported by the extension of unemployment benefits to agricultural workers in 1927 (Wunderlich, 1964, pp. 54–55). By contrast, in peasant-dominated regions such as southern Germany, there was great mistrust of American- and Soviet-style mechaniza-

tion, as many feared it would lead to kolkhozization. Münzinger's 1930s experiment at Hohenheim essentially aimed to adapt machinery to peasant conditions (Haushofer, 1958, pp. 83–84).

Table 2 Peasantry and the Beginnings of Fordism in East Germany in the 1920s

	Trends	**Public discourse/institutions/ measures**
Demographic characteristics	population starting to decline, rural emigration	"Landflucht," part-time farming, entry of women into employment, cult of youth,
Technocracy	Taylorism, standardization, accounting, American patterns	"experimental circles," machinery circles, voluntary work service, Institute of Work Sciences of Pommritz
Science and technology background	motorization, electrification, chemical industry, traditions of fertilization, mechanization, animal nutrition	agricultural academies, university research institutes, The Hohenheim Experiment
Welfare indicators	Bismarckian social security system, urbanization, social mobilization, and suburbs	establishment of a Ministry of Labour
Signs of agrarian state	the influence of Laur, weakening of large estates, enhancing inner colonization in the east	anti-urban attitude, after the war defeat, "back to the agrarian state"

Source: Author's construction.

2.1.2 The Age of the "Horizon of Expectation"

Under the leadership of the Reich Peasant Leader (*Reichsbauernführer*) and Minister of Food and Agriculture Richard Walther Darré, the aspiration for an "agrarian state" in Germany peaked during the era of the Third Reich, spanning 1933 to 1936. This weird detour of crisis management combined both visionary and rational aspects. The former category included, for example, the attempt to create a "new nobility." American economists viewed the Darré notion as a flawed economic model and an unusual sociological experiment (Holt, 1936, pp. 178–183). Later historians have differed in their opinions. German authors tend to interpret the process of "re-agrarization" in terms of a national political perspective, while Italian scholars argue that Darré's Reich Food Estate (*Reichsnährstand, RNS*) was only a faint imitation of the similar organization there, and the Italians achieved agrarian modernization more successfully than the Germans (Corni, 2001).

Although many of Darré's proposals date back to the Weimar Republic, there were also reasonable economic components in his approach. One example was the idea of the so-called "large-area economy," which extended the existing national autarchy to wider

regions. In agriculture, this was linked to "partial autarchy" (*Teilautarchie*), which was clearly aimed at supporting German farmers. In principle, the latter was able to produce high-value-added products on the basis of raw materials imported from southeastern European states. At the same time, there is no doubt that the Nazis, for ideological reasons, strongly fought against the introduction of industrial methods into agriculture and the employment of women. There are many elements mentioned in "The Ten Commandments of the Production Battle" written by Darré, but machinery is not among them (Lovin, 1974).

Some contemporary German historians argue that the peasant policy of the Third Reich was not at all contradictory to agricultural modernization. This duplicity is clearly reflected in the activities of the Darré–Backe duo, where the romantic visionary and the cold technocrat managed to work together. The two Nazi ministers of Food and Agriculture represented different sides of the same ideology. For the peasantry, the twelve years of the Third Reich brought only some respite from the pressures of modernization. Peasant farmers remained the spoiled favourites of the system and were protected from foreign competition (Gerhard, 2014).

Table 3 Peasantry and the Beginnings of Fordism in East Germany in the 1930s

	Trends	**Public discourse/institutions/ measures**
Demographic characteristics	decrease in urban fertility	support for families with several children, restricting foreign work
Technocracy	corporativism, state intervention, "Neuer Plan," "System of Stable Prices"	Reich Food Estate," "market regulation," "production battles," "large-area economy"
Science, technology	economic geography research on rural spaces, tractorization, nutrition	system of "central places," "Spatial Research"
Welfare indicators	Schacht's inflation financing, imitation of Keynesianism, overcoming unemployment	"Strength Through Joy," construction of highways, increased role of sea fishing in supply
Signs of agrarian state	providing self-sufficiency in food, slowdown of settlements	"peasantry as a vital source of the race," "new nobility," "blood and soil," Hereditary Farmstead

Source: Author's construction

2.1.3 The Age of the "Revelations"

In this specific case, the main problem with Darré's strategy was its inability to guarantee food self-sufficiency.

This could only be achieved by beginning the production of weapons, which they did at a time when industry was at its weakest. The German economy officially embarked on this path with the Four-Year Plan, launched in 1936 and led by Göring. Yet even Schacht's "New Plan" (*Neuer Plan*), two years earlier, pointed in this direction. The "production battles" (*Erzeugungsschlacht*) initiated at that time could openly serve the purposes of armament production. However, this kind of recovery further intensified the exodus from the countryside. Between 1933 and 1939 alone, 400,000 people left – mainly agricultural workers, *Landarbeiter* – while production potential reached its final limits (Huegel, 2003, pp. 448–449).

Long-term solutions could only be found in the rapid technological advancement of agriculture. This process was successful until the outbreak of war, between 1936 and 1939, when farms expanded their machinery fleets, and the efficiency of individual machines improved. However, after 1939, this boom ended, as raw materials for agricultural technology were redirected to military purposes (Niemann, 2000, pp. 112–115). At the beginning of the war, to introduce tractorization, a campaign was launched to enforce farm consolidation. This led to the demise of many dwarf and small peasant farms (Wunderlich, 1961, pp. 185–189). Alongside mechanization, women were also mobilized for work. By autumn 1943, the proportion of women employed in the German military industry was 34.0 percent, compared to 25.4 percent in the United States and 33.1 percent in Great Britain (Tooze, 2006, p. 515). Soon afterwards, in the official terminology, the term "peasantry" (*Bauerntum*) was replaced by "rural population" (*Landvolk*), to include all rural inhabitants regardless of occupation (Gutberger, 1999).

An important political shift came in 1942, when Darré was replaced at the head of the ministry by his deputy Herbert Backe, who was already clearly trying to assert technocratic priorities. He had previously contributed to the Four-Year Plan as Göring's trustee. Backe was satisfied with the ministerial position; he did not claim the role of "Reich Peasant Leader." Expectations of corporatism were also dissolved. In turn, the new minister proved to be a ruthless enforcer of Nazi policy in occupied Europe, particularly in the eastern territories. Backe sought to exploit these regions – considered part of the *Lebensraum* – to the utmost for German war efforts (Tooze, 2006, pp. 477–478).

In contrast to politicians and ideologists, experts had denied the possibility of returning to an agrarian state as early as 1933, when the Nazis came to power. The demographer Friedrich Burgdörfer, for example, was asked at this time by the Friedrich List Society *(Friedrich-List-Gesellschaft*), which propagated autarky, to investigate the possibility of this. Using statistical methods, he analyzed to what extent the population trends supported the reality of the concept. Burgdörfer concluded that although the "window of opportunity" in this sense remained open as long as rural fertility exceeded urban, in the long run, decline was inevitable in any case (Burgdörfer, 1933, p. 154).

Since much also depended on the extent of emigration to the big cities, it was argued that – given the poor quality of land in many areas and the expected decline in food consumption – instead of settlement (inner colonization), rural people should be retained in place by decentralizing industry (Burgdörfer, 1933, p. 154).

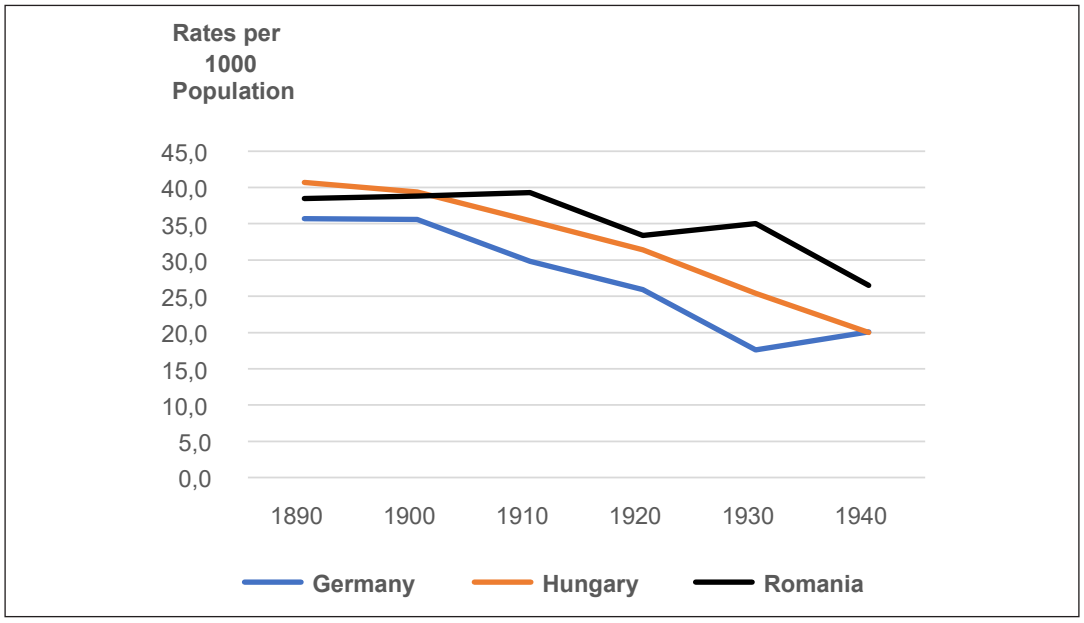


Figure 2 Number of Births in the First Decades of the 20th Century in Central Europe

Source: Mitchell, B. R., 2003, pp. 98–100, pp. 105–107.

Note: Within the boundaries of that time.

Table 4 Peasantry and the Beginnings of Fordism in East Germany in the 1940s

	Trends	**Public discourse/institutions/ measures**
Demographic characteristics	increasing rural migration, re-employment of foreign workers	less talk about "German work," women's employment
Technocracy	top economic ministry, state intervention, centralization, Four-Year Plan, rationing	"cannons instead of butter," compulsory labor service, consolidation in farm holdings
Science, technology	statistics, demography, sociology, economics of rural industrial resettlement	a less ideological approach, innovation in planning methods, market districts for each product
Welfare indicators	decentralization of industry, banknote press	"Ersatz" solves problems with food supply
Signs of agrarian state	family trees, runic writing, coats of arms	in phraseology, a "rural people" instead of "peasantry"

Source: Author's construction

2.1.4 Conclusions on the Pre-1945 Era

Pre-World War I history makes it clear that the "industrial state" emerged too rapidly, which provoked certain objections. By that time, the actual peasantry, due to the phenomenon of serf liberation, already represented a narrower social stratum. Nevertheless, peasantry and agriculture continued to play a significant role in Eastern national politics and ideology. The fact that strong agrarian fundamentalism was an integral part of this ideology became especially apparent during the grain crisis. At that time, it was argued that grain production was an important attribute of the peasantry, and that its destruction would endanger the entire economy. Additionally, ancestral inheritance was proposed as a means of maintaining the peasantry as a social class.

Regardless of migration, it is undeniable that a process of social mobility began in the interwar period. In response, conservative parties agitated rural voters by claiming that the peasant farmers also belonged to the middle class. In reality, however, the peasantry and the great estate had already become economically divided and even in competition with one another. This was made clear as the scandals surrounding "Eastern Aid" were revealed during the economic crisis, while the ultimate beneficiary – the laughing third party – was the Nazi Party. The main question of the dispute between the large estate and the peasantry lay in the question of which group would benefit more from state subventions.

In East German agriculture, Fordism primarily paved the way for the emergence of a broad class of agricultural laborers due to the expansion of intensive crops, such as sugar beet. Naturally, the peasantry, too – if it did not want to fall behind its rival, the large estates, in terms of performance – had to adapt. However, rising productivity gradually reduced the need for labor in agriculture. This exodus disproportionately shifted the burden of farming onto women.

3.1 Hungary as a "Control Region"

3.1.1 The Age of "Space of Experience"

Hungary had to embark on the path of industrial development after 1920, but this led to several contradictions. First, although the new country was increasingly converging with the West in its population relations after World War I, it retained its agricultural character. The agricultural area was small compared to the size of the peasant population, and even this limited land was mostly used for extensive production. In addition, exports of minimally processed agricultural products were promoted (Lipták, 1935, p. 21).

With regard to the large estates, there is no doubt that after 1920 their sense of social responsibility increased, and it became increasingly common for them to take farming into their own hands. Although Taylorist methods were identified prior to World War I, Kálmán Méhely's contributions were confined only to the industrial sector (Méhely, 1913). Industrial patterns were less strictly followed in the rationalization of agriculture, as evidenced by the fact that a significant part of the large estates still maintained the natural

wage system. Moreover, theory and practice were more separated than in Germany. As a result, the inspiration for Fordism came primarily from administrative professionals dealing with the situation of agricultural workers, such as András Heller, the sheriff of Székesfehérvár district. While Heller's book focused mainly on wage issues, it also discusses the question of Scientific Management (Heller, 1939).

It did not take long for poor economic conditions to arise. A major turning point in this was the economic crisis of 1929, which manifested itself as a sales crisis in the mainly agrarian exporting countries (Szuhay, 1962, pp. 31–43). Hungarian wheat could not compete with American and Canadian supplies either in quantity or quality. Later, during Germany's so-called "large-area economy," Hungary was expected to achieve "surplus production" even though its crop yields were below German indicators based on more intensive production.

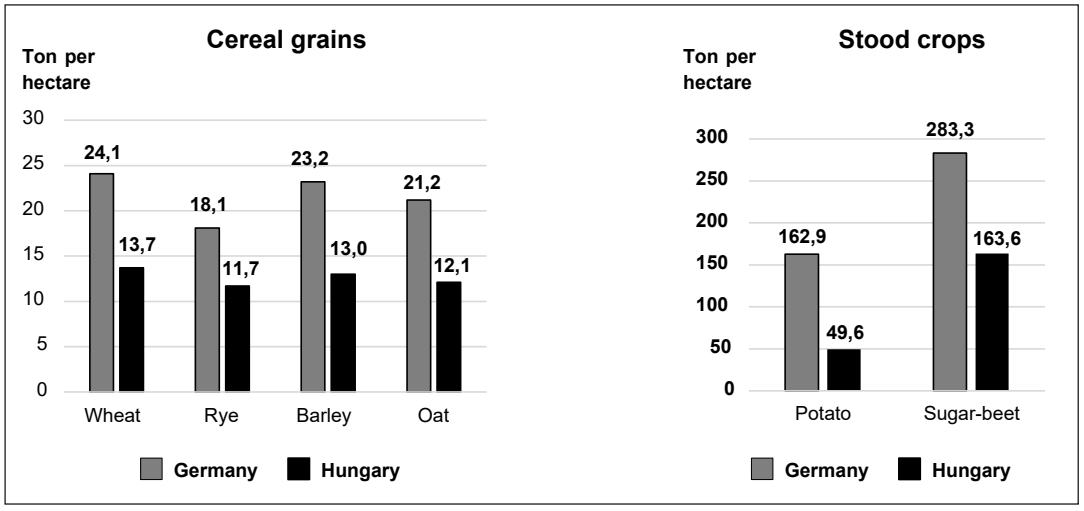


Figure 3 The issue of "surplus production" in Hungary based on the German and Hungarian yields of 1935

Source: Mitchell, B. R., 2003, p. 221, p. 226, p. 279, p. 284.

The only available solution was to unify and increase yields. This required uniform quality, ensured by using the same seeds everywhere in grain production. This, in turn, focused on plant breeding, an area in which Hungarian researchers were in the lead. At the same time, however, there was widespread skepticism about mechanization. Even Mátyás Matolcsy, one of the era's most dominant agricultural economists, believed that under Hungarian conditions – in contrast to the United States and Canada – redundant agricultural workers would not find work in other sectors.

Table 5 Peasantry and the Beginnings of Fordism in Hungary in the 1920s

	Trends	**Public discourse/institutions/measures**
Demographic characteristics	population beginning to decline, but not typical of city flow	family model with one child, homestead question, cult of youth, generational antagonisms
Technocracy	consolidating parcels, beginning of accounting, Italian patterns, fewer industrial solutions	centralization in umbrella organizations, tenant cooperatives entails refusal of mechanization
Science, technology	motorization, electrification, agronomic, mill industry, animal husbandry traditions	agricultural academies, research departments of interest, protecting organizations (OMGE)
Welfare indicators	Klebelsberg school network, farm schools, nurse network, housing policy	establishment of a Ministry of Welfare, social aspects come to the fore
Signs of agrarian state	industrial development as a "necessary evil," limited land reform, order of "vitéz"	division of large estates in an organic way, separation of activities by type of plant

Source: Author's construction

3.1.2 The Age of the "Horizon of Expectation"

According to Zsuzsanna Varga, the most prominent Hungarian politicians in the 1930s were both idealistic and realistic (Varga, 2014, p. 130). During Gyula Gömbös's far-right administration (1932–1936) as prime minister, the notion of an idealized, traditional "agrarian state" was discussed, but it remained at the level of political slogans. Soon it became evident that this intention was illusory, much like the radical land reforms. In his 1932 "National Work Plan," Gömbös elevated his peculiar interpretation of "agrarian thought" into a political doctrine that essentially meant the dominance of agriculture. According to this concept, a form of economic dictatorship was to coincide with gradual land reform, aimed at cultivating "Christian economic individuals" as the socio-political foundation of his agenda (Vonyó, 2011, pp. 5–9). Following Darré's model, Gömbös also sought to create a kind of entailed smallholding, but Hungary lacked the tradition of undivisive inheritance.

The propagation of "agricultural industries" fit well into these ideological frameworks, and appeared in other parties' programs. This concept was realistic to the extent that the economic conditions of the country were best suited to the development of the sectors processing agricultural products. There was widespread recognition that previous industrialization efforts had been unsuccessful, and instead, the agricultural price scissors had widened. Moreover, there were fears this would exacerbate rural impoverishment (Matolcsy, 1934, pp. 45–46).

On the opposite side, the "Garden-Hungary" concept envisioned by folk writers fits into this mainstream perspective. According to this Third Way concept, the main profile of the economy – in a small-ownership structure – would be grape, fruit, and vegetable production, supported by improved infrastructure and irrigation. These proposals should be viewed in the context of the German "large-area economy" that was emerging at that time, which required some adaptation. It is also necessary to take into account that the central role of grain production was presumed to decline. Some experts even suggested that under the given circumstances, Hungary could mirror Denmark's position in relation to England with its food deliveries (Adorján, 1941, pp. 38–39).

Table 6 Peasantry and the Beginnings of Fordism in Hungary in the 1930s

	Trends	**Public discourse/institutions/measures**
Demographic characteristics	proportion of industrial employees is slightly increasing	employment of women, intellectual overproduction
Technocracy	concentration and statist tendencies due to the crisis, German and Italian patterns, market research, advertising	"surplus-production," establishment of the Ministry of Industry
Science, technology	hydrocarbon research, plant breeding, aluminium production, discovery of vitamins, beginnings of tractorization	university research institutes, village research
Welfare indicators	infrastructure development, tax incentives, combating unemployment	"evolution of quality," realization of the need to increase internal consumption
Signs of agrarian state	"agricultural industries," refounding of the Smallholder Party	"land reform" as part of political programs, irrigation of the Great Plain, "Garden-Hungary," settlement by Gömbös, entailed smallholding

Source: Author's construction

3.1.3 The Age of the "Revelations"

During Béla Imrédy's premiership, the Hungarian economy embarked on a path of rearming with the Győr program, initiated in 1938. Regardless of political considerations, this marked a turning point, as Hungary transitioned from an agro-industrial to an industrial-agrarian country (Csikós-Nagy, 1996, p. 71). This shift also involved a move toward increased planning and state interference in economic processes, resulting in a gradual shift from "agricultural industries" to heavy industries, such as the chemical industry and vehicle manufacturing. For these purposes, a separate Ministry of Industry was created as early as August 1935, which also implied the decentralization of industry.

On the other hand, armaments brought agricultural and industrial interests closer together in Hungary. Within agriculture, both large estates and peasants were forced

to cooperate more and more economically. (Although the paths of the two had already separated politically as a result of the crisis, which was reflected in the reformation of the Smallholder Party.) Hungarian agriculture, increasingly oriented toward the German market, now encouraged cooperation within specific product lines rather than complementary production among individual holdings. The structures used for this were referred to as "one-handers." These economic groupings were established to position specific products in specific markets. It was about firms operating in a cooperative form, but with state support. Coordination was mainly carried out by large estates. These were cooperatives in name, but in reality state-supported companies which had little to do with the Roshdale Principles. It also appeared that cooperative development was increasingly moving towards vertical integration (Szuhay, 1962, pp. 248–252).

In Hungary, preparations for war also drew greater attention to the Taylorist Scientific Management methods. This was all the more necessary since, during the war, the Hungarian government consciously sought to maintain continuous production. Throughout the war, military production had to be adapted to the situation, as the rural population consisted of small peasants who were mostly difficult to mobilize. At the same time, there was a shortage of labor in agriculture. In the long run, this immobility gave rural industrialization an opportunity, while war management temporarily made it necessary to coordinate agricultural work.

The establishment of a delivery system that supplied both the army and the civilian population, along with price interventions and production guidelines, was an indication of a new era. The future of peasant farming was certainly questioned by the territorial revisions after 1938: while the agricultural population increased within the new borders, the amount of distributable agricultural land did not. In addition, in the regained territories, the quality of land was generally worse than in the motherland (Domonkos, 2017, p. 5).

Table 7 Peasantry and the Beginnings of Fordism in Hungary in the 1940s

	Trends	**Public discourse/institutions/ measures**
Demographic characteristics	fertility of large estates is higher than that of peasant villages	realization that population processes are not conducive to small peasant farming
Technocracy	top economic ministry state intervention,compulsory war delivery	increased role of planning, "one-handers"
Science, technology	innovations in heavy industry, chemical industry, agricultural economics, statistics	"circles of production," standard of living calculation, consumer basket, representative household statistics
Welfare indicators	decentralization of the industry, family house-benefit (ONCSA)	focus on community consumption
Signs of agrarian state	developing heavy industry, later German plans for the agrarianization of the country	Imrédy's draft small-scale lease law, re-evaluation of large plants

Source: Author's construction

3.1.4 Conclusions about the Pre-1945 Era

There was no doubt that industrial development could only be achieved at the expense of those living from agriculture. Even if the rural population had some reservations about industrialization, it was not anti-urban: in many cities, a significant part of the population was still engaged in agriculture. A healthy peasant policy undoubtedly had a basis, since small peasant farms remained widespread after serf liberation and had proven their viability during the grain crisis. It was therefore no coincidence that the counter-revolutionary system established in 1920 saw the peasantry as the most reliable element. Large-scale educational programs were launched to promote its advancement. Although the center of the discourse on land question seemed to focus on ownership change, the main question was, in fact, where to draw the line between large-scale and small-scale production.

However, in Hungary, agricultural rationalization followed industrial patterns less closely than in Germany. Backwardness was evident in the fact that the focus was more on the concentration of production, i.e., on the use of extensive methods rather than intensive methods, and on actual increases in productivity. On the other hand, since cereal production there relied less on the labor of agricultural workers than in Germany, modernization had to be extended primarily to peasant farms. In this process, large estates played a major mediating role. The crisis in Hungary, regardless of ideology, encouraged an even more pragmatic approach, given the scarcity of resources. (However, the problem was that the peasants there were less willing to cooperate with each other than in Germany due to the fragmented nature of rural society.)

4 Summary and Outlook

After reviewing the pre-1945 period, we can turn to later developments. In terms of peasant policies, the economic crisis demonstrated the need for a less ideological approach to economic organization and for more consideration of economic rationality. The idea of an "agrarian state," whatever this might have meant, was not supported by the population processes in any country. In the end, de-peasantization began instead, influenced by two major paradigms of the 20th century: Fordism and the Green Revolution. The Fordist methods used in agriculture before 1945 were characterized primarily by the pursuit of performance improvement and standardization. The fact that both countries had a reasonably diverse group of agricultural laborers before 1945 considerably aided the rise of Fordist tendencies. Fordism in Germany, at the time, involved high hopes for its social impact. The perceived social benefits of the new paradigm were described as follows: 1. the elimination of waste; 2. turning uneducated workers into a skilled workforce; 3. indirectly reducing the cost of living; 4. bridging the gap between graduates and workers in education; and, 5. forcing capital and labor to cooperate (Seedorf, 1925, pp. 30–31).

After the Second World War, both the eastern half of divided Germany and Hungary found themselves on the eastern side of the Iron Curtain. As in the other countries of the Eastern Bloc, collectivization began after 1948. From the organizational point of view, this process was inseparable from the institutionalization of previously scattered scientific

methods. However, by separating the physical and intellectual work in plants and shifting toward a sectoral structure, collectivization only increased migration out of agriculture. At the same time, while communist dictatorships regarded Fordism, which fit well with the planned economic system, as a means of catching up, little attention was paid to the peculiarities of agriculture (Schlett, 2014, p. 218).

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