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Abstract
After World War II, the large-scale Soviet agricultural production model was spread into the satellite states of CEE (Central and Eastern Europe). In spite of this, planned economic agricultural production was far from homogenous. This diversity – appearing inside and outside the Soviet Union – is worthwhile exploring, here represented by two of the most (in relative terms) productive agricultural regions of the Soviet bloc. The authors thus compare the agricultural development from the 1940s up to the 1980s in Post-War Estonia; a Soviet Republic, and Hungary; a Soviet satellite state. The authors’ methodology is commonly known as encompassing comparison. Estonia was forced to become an integral part of the Soviet Union and a planned economy already in 1940, while Hungary – in theory – was able to remain as an independent state. In both cases, however, trade was re-oriented towards the CMEA-market. After Stalin's death, and especially from the late 1950s, the eased conditions enabled states to deviate from the initial Stalinist model. Hungary did so in a more formal way because of the national political development after the Revolution of 1956 while Estonia had to find other informal ways of rejecting the centralised orders. The investigation shows that the Estonian kolkhozes and the Hungarian co-operatives, representing two forms of deviation from the Soviet kolkhoz model, were able to deviate by means of specific measures such as the personal impact from national politicians, as well as the neglect of centralised orders. The authors conclude that the main explanation for this was due to specific national institutional legacies, such as the landed property relations, work ethics, and market economy experiences. Both the formal and informal political resistance that was exercised provided motives for new thinking in agrarian organisation and management. This had long-term effects on Soviet agricultural policy from the mid-1960s.

Keywords: Socialist agriculture, Estonia, Hungary, Soviet Union, encompassing comparison

1 The authors want to thank the Research Institute at Umeå School of Business and Economics (USBE), Umeå University, Sweden, for benevolent financial support, which have enabled this comparative study.
**Introduction**

After the nationalisation of land and the forced mergers of private farms starting in 1929, large-scale kolkhozes and sovkhozes became the major symbols of the planned economic agricultural production system in the Soviet Union. Due to the Post-War Soviet presence and influence on reconstruction in CEE (Central and Eastern Europe), this model was introduced by force during the late 1940s. In large, this implied that the Soviet pattern of the 1930s was repeated. Resistance to collectivisation, mismanagement, and insufficient mechanisation created shortages in production, as well as resentment among the peasant workforce. A strategic concession, leaving a piece of market incentive and decision-making in the hands of the kolkhoz peasants, was therefore the introduction of private plots, as it had been fixed in the Model Charter in 1935. In spite of this, specific national regulations were circumventing these plots; they became indispensable, yet ideologically questioned, within the planned economic food-production system. Social discontent was increasing in the Eastern bloc from around 1970s, partly due to aggravated food access, which necessitated substantial and costly imports in the USSR and in CEE. However, the development among the Soviet satellite states or among various Soviet republics was far from homogenous.

The aim of this article is to explore two cases of the reorganisation and structure of agricultural production in two of the most (in relative terms) productive agricultural regions of the Soviet bloc. Estonia became an integral part of the USSR and Hungary was a satellite state in CEE. The relative success of Estonian and Hungarian agricultural development will be explored and compared in relation to the Soviet kolkhoz system. In this endeavour the authors will cover the events from World War II up to the period of economic and stagnation in the Soviet bloc during the 1970s and 80s, added to a historical background from the interwar period.

This article applies what is termed by Charles Tilly as *encompassing comparison*. Following his definition this “places different instances at various locations within the same system, on the way to explaining their characteristics as a function of their varying relationships to the system as a whole”. Here, the authors compare two cases within the system of the Soviet-type agriculture, implying two collectivised agrarian economies. These two cases – Estonia and Hungary – were at various locations: one within and one outside the Soviet Union. The first, essential dimension of

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the comparison carried out is based on the exploration of their respective relation to the Soviet Kolkhoz-model as a whole. This provides a way to investigate the second dimension: the similarities and differences between the two cases of collectivised agriculture. The author’s comparison thus goes from the descriptive level towards explanations of the diversity of the Post-War socialist agricultural development.4

At first, one may ask to what extent the Estonian and Hungarian cases are comparable? Estonia was annexed by the USSR in 1940 and became a formal Soviet Republic the same year. However because of the interlude of German occupation 1941-1944 a full-scale introduction of the Soviet model was postponed until after WW II. Hungary, which had sided with the losers in the WW II, fell under the Soviet sphere of influence as a result of the preliminary agreements between the Allied Powers. This was followed by the installation of a Moscow friendly government and the Sovietisation of political and economic life from the late 1940s. Both countries were thus subjugated to Soviet policies, planned economy, forced collectivisation, and the orientation towards the CMEA-market. The authors’ long-term synchronic perspective will cover the processes of forced collectivisation, reorganisation of farm-work, and management. For the comparison, specific national institutional legacies, the role of informal political resistance, management, and the long-term effects on the Soviet agricultural policy will be considered. The article is based on the results of the authors’ archival research, literature, and to some extent statements from respondents.

The first section of this article deals with the interwar property relations in Estonia and Hungary. In the next section the authors present the essence of the Stalinist system of agriculture and the export of the Stalinist model into Estonia and Hungary. In the third section the authors elucidate the main features of the deviation phase. As a means to enhance the comparison and analysis, a comparative matrix is presented with the conclusions at the end.

I. Before the Soviet system: interwar agriculture in Estonia and Hungary

Land reforms were carried out in many parts of Europe after World War I. Brassley (2010) suggests that in Europe in general, leaving the Soviet Union aside, the area under reform constituted close to 10 percent of the total

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agricultural land. In East Central Europe, this figure was around 20 percent.\(^5\) The greatest land-redistributions took place in areas previously belonging to the Russian and Habsburg empires. Land reforms were thereby part of both the creation of new nations and the redrawn boundaries in already existing states. An Agrarian Reform Zone was developing from Finland in the north down to Greece in the south.\(^6\) Most of these land reforms took place in countries which fell under Soviet domination after World War II. The Estonian land reform 1919-1926 has been described as one of the most radical in Europe because of the scale of expropriation of lands belonging to the Baltic-German nobility, the church and the state. Only 3.5 percent of the land was left untouched and maintained in the hands of municipalities.\(^7\) While frequent land transfers took place in the northern Baltic provinces from the early 1900s, the Baltic-German nobility still constituted the major landowners at the time for independence. One major characteristic of the Estonian land reform was the emphasis on viability, which transformed the rural landscape into a structure based on independent peasant proprietors. Towards the late 1920s this had resulted in a farm structure where the average peasant proprietor cultivated 24 ha, a farm size aiming at feeding a family with two horses.\(^8\)

Table 1 Farm-size distribution in Estonia 1939 (in percent and numbers)

<table>
<thead>
<tr>
<th>Size</th>
<th>Percent of holdings</th>
<th>Share of land in percent</th>
<th>No of holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–5 ha</td>
<td>15.8</td>
<td>12.7</td>
<td>22 051</td>
</tr>
<tr>
<td>5–10 ha</td>
<td>17.0</td>
<td>15.2</td>
<td>23 869</td>
</tr>
<tr>
<td>10–20 ha</td>
<td>28.8</td>
<td>27.3</td>
<td>40 288</td>
</tr>
<tr>
<td>20–30 ha</td>
<td>18.2</td>
<td>19.4</td>
<td>25 415</td>
</tr>
<tr>
<td>30–50 ha</td>
<td>15.5</td>
<td>17.4</td>
<td>21 704</td>
</tr>
<tr>
<td>50–100 ha</td>
<td>4.4</td>
<td>7.3</td>
<td>6 215</td>
</tr>
<tr>
<td>&gt;100 ha</td>
<td>0.3</td>
<td>0.7</td>
<td>442</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>139 984</td>
</tr>
</tbody>
</table>

Source: *Konjunktuur*, No. 64/65 1940, pp. 105-106 & 129.

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A majority of the Estonian interwar farms cultivated between 10 and 50 ha. Taagepera (1972), comparing the farm-size distribution among fifty countries by means of Gini index, concluded that the Estonian farm-size distribution in 1929 was the most equal.\(^9\) Table 1 shows the farm-size distribution in 1939, i.e. right before Soviet annexation in 1940.

In the 1870s the Tsarist Baltic provinces responded to the demands from the expanding St Petersburg region. Land sales from the early 1900s led to increased peasant farming and meat and milk production underwent further expansion during the short interwar independence. The land reform also became part of counteracting the failed re-industrialisation policy of the 1920s when trade with the USSR was increased. A turn towards increased refinement and marketing of agricultural products followed when the expanding producers’ co-operative associations, owned by the peasants and supported by the state, found new West European markets. In this context, the peasants became major actors.\(^10\)

The conditions in interwar Hungary, previously part of the Austro-Hungarian Monarchy, were remarkably different after World War I (see Table 2). Revolutions and interventions brought the dualistic state into disintegration. As a consequence of the Trianon Peace Treaty in 1920, Hungary’s territory, excluding Croatia, was reduced by two-thirds and its population by three-fifths.\(^11\) The country was thereby transformed from a medium-sized European state into one of the continent’s small nations where more than half of the working population was dependent on agriculture. However, part of the legacy was also an ill-proportioned land distribution dominated by large-scale estates. Consequently, large shares of peasants were either landless or cultivating insufficient dwarf-holdings.

The bourgeois revolution of 1918 had a land reform incorporated in their programme, but the law – declaring expropriation of estates over 290 hectares – was never enacted. However, the Hungarian Bolshevik Government, in place from 1919, saw the road to agricultural development differently. They applied the socialisation of large and medium estates (above 43 hectares) and created producer’s co-operatives on these estates. The results from the two revolutions and the associated reform attempts

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\(^10\) These co-operative associations created a relatively competitive force, e.g. on the British butter market, up to the point when the severe decline in world market prices during the Interwar Depression took on, which hit all agrarian producers hard. See: Köll (1994), pp. 63-73. See also: Jörgensen Hans (1999), “Competition and Market: Swedish Views on Estonia’s Agricultural Development and Butter Export 1918-1939”, *Acta Historica Tallinnensia*, No. 3. pp. 116 ff.

on land distribution left bitterness and resentments among the peasantry. The conservative regime coming to power in 1920 implemented a land reform. Yet, it only concerned 8.5 percent of arable land (approximately 650,000 hectares), a proportion in fact smaller than the 27 and 16 percent redistribution that took place in contemporary Rumania and Czechoslovakia.12

Table 2 Farm size distribution in Hungary 1935 (in percent and numbers) transformed from cadastral yokes (1 cadastral yoke = 0.58 ha)

<table>
<thead>
<tr>
<th>Size</th>
<th>Percent of holdings</th>
<th>Share of land in percent</th>
<th>No of holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2.9 ha</td>
<td>72.5</td>
<td>10.1</td>
<td>1,184,783</td>
</tr>
<tr>
<td>2.9–5.8 ha</td>
<td>12.5</td>
<td>9.2</td>
<td>204,471</td>
</tr>
<tr>
<td>5.8–11.6 ha</td>
<td>8.8</td>
<td>12.6</td>
<td>144,186</td>
</tr>
<tr>
<td>11.6–29 ha</td>
<td>4.5</td>
<td>13.5</td>
<td>73,663</td>
</tr>
<tr>
<td>29–58 ha</td>
<td>0.9</td>
<td>6.5</td>
<td>15,240</td>
</tr>
<tr>
<td>58–116 ha</td>
<td>0.4</td>
<td>5.0</td>
<td>5,792</td>
</tr>
<tr>
<td>116–580 ha</td>
<td>0.3</td>
<td>13.2</td>
<td>5,202</td>
</tr>
<tr>
<td>580 &lt;</td>
<td>0.1</td>
<td>29.9</td>
<td>1,070</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>1,634,407</td>
</tr>
</tbody>
</table>


Unfortunately, the Hungarian land reform left the predominance of large estates untouched. As Table 2 shows nearly half of the arable land was owned by a few dozen of aristocratic families, yet the proportion of non-aristocratic large estates was high. In contrast, roughly 20 percent of total arable land, representing four-fifths of all agricultural holdings, belonged to peasant’s holdings below 5.8 ha. Thus, less than 1/3 of the agrarian population was able to support their families from the land. Around 70 percent of the farmers had little or no landed property at all, and consequently they were compelled to do wage labour. Rural poverty therefore increased since industry was unable to absorb the rural labour surplus.13

II. The Stalinist model and its export into Estonia and Hungary

The essence of the Stalinist system of agriculture derives from the late 1920s, when the Communist Party within the context of “capitalist encirclement” made a decision to carry through industrialisation as rapidly as possible. This involved the issue of capital accumulation. As Stalin explained for the Central Committee plenum in July 1928, a rapid, state-generated industrialisation drive had to be based on the forced accumulation of internal, mainly peasants, resources for capital formation.

According to Stalin, the situation in the Soviet Union demanded that the peasantry not only paid taxes, direct and indirect to the state, but also relatively high prices for the input and industry goods needed. Secondly, they should not receive payments for the full value of the agricultural produce. This was an additional tax put on the peasantry in the interests of developing industry, which served the whole country, including the peasantry. This was seen as something like a “tribute” or a surtax which was necessary to extract temporarily in order to sustain and further develop the rate of industrial growth. Needless to say Stalin maintained that this situation was unpleasant. Stalin also meant that: “we would not be Bolsheviks if we curtailed this fact and neglected that our industry and our country, unfortunately, cannot manage growth without the additional taxes paid by the peasantry.”

According to Viola (2013), the Bolsheviks did not aim for forced collectivisation as such immediately. Rather, the policy was based on the necessity to procure more grain for both feeding the urban proletariat, as well the export market in order to purchase industry goods and technology.

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15 It has been debated in the scholarly literature whether a capital transfer took place at all. One may correctly make the point that the net transfer was actually much less than expected. On balance, it appears from the very low level of farm incomes during the thirties that as much as possible was transferred out of agriculture. However, there were also considerable transfers in the opposite direction (e.g., industrial inputs, training of managers, high urban consumer food prices on the free, as distinct from the state-owned, markets, etc.). See: Merl Stephan (1990), “The role of agriculture in Soviet industrialization”, in: Karl-Eugen Wädekin (ed.), Communist Agriculture – Farming in the Soviet Union and Eastern Europe, London & New York, Routledge, pp. 3-22.

necessary for rapid industrialisation.\textsuperscript{17} With the increasing problems of grain procurements, the organisation of large-scale non-private agricultural production units, by means of collectivisation, seemed to be a possible way out.\textsuperscript{18}

During the late 1920s and early 1930s, the peasants of the Soviet Union were however facing both forced deliveries plus collectivisation. Allen (2003) denoted this “Preobrazhensky in action”. The initiative from Preobrazhensky was adopted by Stalin, implying increased taxes on the peasantry. Towards the late 1930s, lower producer’s prices and increased turnover-taxes thus put heavy burdens on the collectives in order to provide capital resources for the Stalinist industrialisation.\textsuperscript{19}

The sovkhoz sector, the state farms, were initially foremost organised for grain farming in the steppe regions suitable for technical crops such as sugar beet, and for specialised animal breeding. In numbers, however, the sovkhozes were comparatively few up to the late 1950s when they became significant for state procurements, because of specialisation and refinement. The Sovkhoz was based on state budget funding. Capital access was better, and sovkhoz labour was paid regular wages.\textsuperscript{20} Because of state-ownership the sovkhoz expressed a higher form of social property than the kolkhoz, which was considered as “group property” – a lower level of socialisation.\textsuperscript{21}

From the beginning of collectivisation, the artel’ was the model organisation for collective farming. Incrementally, the artel’ was denoted kolkhoz (from kollektivnoe hozyaistvo, i.e., collective enterprise).\textsuperscript{22} The structure of the kolkhoz was determined by a Model Charter adopted on 17 February 1935. This Charter became compulsory implying that each kolkhoz had to adopt its individual charter almost literally along the lines of the Model Charter which only allowed for minor variations related to regional or local conditions. Although the Model Charter was changed in executive practice


\textsuperscript{22} Nove (1975), pp. 240-244.
during the 1950s and the 1960s, it remained formally valid up to 1969.\textsuperscript{23} When land was turned into “governmental property of all the people” in 1917, all private land disappeared. Along with collectivisation the kolkhoz received the right of free permanent utilisation and the allotted plots for private use to the member households.\textsuperscript{24} The regulations on private agricultural activities for members constituted an extensive and important part of the Charter. The private plots supplied to kolkhoz members were around 0.6 hectare per family, while kolkhoz workers in general only had half of the area at their disposal. The use of plots also included the right to keep livestock in sufficient numbers for the household’s own consumption and even for some sales on the free market.\textsuperscript{25}

During collectivisation all kolkhoz members were forced to hand over their machinery, tools, implements and draught animals to the kolkhoz. All work outside the household plots was carried out collectively, in brigades or in work groups. Each member had a fixed amount of work days to fulfil annually and they could only obtain a household plot under these conditions. “Labour day units,” were both used for measuring various kinds of work, as well as a measure for evaluating the work accomplished which served as a basis for the remuneration system. (The income of each member had been determined by the number of work units accomplished.)

It was clear that the \textit{kolkhoznik} (the kolkhoz peasant) did not receive a fixed wage. As a consequence of the so-called ‘remainder principle’ the members could only get their shares after fulfilling the financial obligations to the state and after contributing to the pooling of resources of production.\textsuperscript{26} The ‘remainder principle’, thus, guaranteed the absolute priority of state interests. As a result, the incomes derived from the work on the kolkhoz were scarce and not fixed. This underprivileged position was not only concerning the low incomes. Since kolkhozes were barred from owning their own machinery, they were dependent on the services of the MTS (Machine Tractor Stations).\textsuperscript{27} The MTS, which was the extended


\textsuperscript{24} Coming from the old Russian and Tsarist peasant law, the property rights of the kolkhoznik were vested with the household (in most cases identical with a family living together). The house and premises, animals, implements, and usage rights on the plot belonged to the household, not to individual persons.


\textsuperscript{26} The collective crop and animal output in kind was to be disposed of in the following way (by order of priority): state delivery obligations and seed loans, payments for work done by the MTS (cf. below), other contract obligations, seed and fodder funds for the next year’s production cycle. Davies (1980), pp. 69-71.

\textsuperscript{27} Nove (1975), pp. 181-184.
of the state, both controlled and interfered with production and decision-making on the kolkhozes. For the MTS the main interest was to maximise output. During the 1950s the MTS became the major instrument for channelling grain deliveries to the state by means of payments in kind from the kolkhozes. Of no less importance was political control, which was exerted in association with the services carried out.

**Forced collectivisation in Estonia**

Estonia was forced to allow for the establishment of USSR military bases and troops in September 1939. In June 1940 the Red Army started with full occupation and a puppet government was installed, confirmed in office by the rigged parliament elections held on 14-15 July. The new parliament voted in favour for joining the USSR and become a formal Soviet republic. President Päts had to resign and by the end of July he was deported. On 6 August Moscow accepted “the Soviet dictated Estonian request” to become a Soviet republic.28

Soviet annexation and control from June 1940 was matched with a land reform giving a maximum of 30 ha per farm unit together with a proportional reduction of animals, machinery and assets. Along came the deportations of more than 10 000 people, 13-14 June 1941, foremost concerning the urban elite.29 However, the real Sovietisation of farming was not possible to carry out due to World War II and not least due to the German interlude of occupation (June 1941 to September 1944). The Germans however, did not alter much of the imposed Soviet policies since Estonia was used for feeding the troops.30

According to Köll (2013), the German ambitions were to incorporate the Baltic territories as parts of the greater Germany and War planning. Beside land and agriculture, this also concerned the industries, banks and businesses that had been nationalised under the Soviet occupation. Initially the Nazi administration also supported peasants to take back and cultivate the land that had been transferred to new settlers under

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30 The Germans meant that the war had started 22 June, when no private property existed. The Germans also regarded themselves as liberators – as the true judicial descendants to the Soviet Union in the Baltic States. They maintained that restitution was not of any priority. Re-privatisation could, however, be possible in the long run. See: “The German State takes over all property in the Baltic States”, *Svenska Dagbladet (SvD)*, 25 October, 1941.
the Soviet occupation 1940-1941. However, this did not strengthen owner-ship rights, even though some cases of privatisation appeared in 1943 to 1944 because of the German setbacks in warfare and the needs for support from the Baltic peasants.\footnote{Kõll Anu-Mai (2013), \textit{The Village and the Class War – Anti-Kulak Campaign in Estonia}, Central University Press, Budapest-New York, 2013, pp. 9-10.}

The campaigns against so-called speculators began already in 1940 aiming at punishing those who profited from the transition from the market economy to the ad-hoc command economy. These people – often just petty traders – were among the first to be deported only a few days before the German interlude began in 1941. When the Red Army returned in 1944 they continued with the land reform, persecution of German collaborators and deportations.\footnote{Mertelsmann Olaf & Rahi-Tamm Aigi (2009), “Soviet mass violence in Estonia revisited”, \textit{Journal of Genocide Research}, 11(2-3), June-September, pp. 310-12.} Ten collective farms were formed between 1940 and 1941, but they were not reactivated after 1944 because of the lack of support. Thus, after the end of the War more emphasis was put on the land reform and expropriation shifted to serving the purpose of supplying land to Red Army veterans, the land-less, tiny farms, and to the increasing numbers of sovkhozes and newly established MTS. This transitional stage prepared for the later collectivisation.\footnote{Raun Toivo U. (2001), \textit{Estonia and the Estonians}, Hoover Institution Press, Stanford University, p. 177.}

The \textit{kulaks} became a specifically targeted group for speeding up the transition towards collectivisation. In Estonia, the concept of a kulak or a kulak household was just as elastically interpreted as it was in other parts of the USSR in the early 1930s. Landowners, shop keepers, anyone with incomes from commercial activities or supporters of capitalist activities, could be deprived of their assets and become prosecuted. From the summer of 1947 increasing taxes, confiscation of assets, and propaganda were used for speeding up collectivisation. However, the process was slow and district executive committees were therefore obliged to set up so-called kulak lists in order to collect the increasing agricultural taxes which the local level was responsible for delivering. A variety of definitions of kulaks thus appeared when the orders were to be executed.\footnote{Kõll (2013), p. 20-22.} Kõll shows that in the County of Viljandi it was quite common for farm households that were accused of so-called kulak-status to make appeals at the district level, often supported by letters from neighbours and friends, despite the potential risk it meant. Letters of denouncements were in fact much less frequent, which Kõll interpreted as a sign of weak support for

\begin{footnotesize}
\footnote{Kõll Anu-Mai (2013), \textit{The Village and the Class War – Anti-Kulak Campaign in Estonia}, Central University Press, Budapest-New York, 2013, pp. 9-10.}
\footnote{Raun Toivo U. (2001), \textit{Estonia and the Estonians}, Hoover Institution Press, Stanford University, p. 177.}
\footnote{Kõll (2013), p. 20-22.}
\end{footnotesize}
the hunting of kulaks.\textsuperscript{35} Initially the appeals also led to a large numbers of acquittals, but from the spring of 1948 things worsened. All the appeals and letters of support seemed to bring embarrassment for the party officials which led to the instructions that no official was allowed to write any letter in support of the accused.\textsuperscript{36}

The first Post-war kolkhoz in Estonia was founded in September 1947. Yet, up to 20 March 1949 only 8 percent of the farms had joined the kolkhozes on a ‘voluntary’ basis. Between 1947 and 1948 the estimated income tax rate for kulaks increased from 40 to 75 percent and for ordinary farmers it went from 30 to 35 percent. Still, collectivisation was met with reluctance, even though collectivisation was faster in districts with larger numbers of “kulaks” since higher taxes and confiscation deprived them the means for subsistence.\textsuperscript{37}

Collectivisation did not have any major breakthrough until the large-scale deportations began in March 1949. While many households labelled with kulak-status tried to avoid taxes and persecution by simply moving away, the smaller and poorer peasants were more stubborn.\textsuperscript{38} In this context, the mass deportations of around 21 000 Estonians took place. It aimed at speeding up collectivisation, eliminating enemies to the state, and to reduce the resistance to Soviet policies.\textsuperscript{39} As Taagepera (1980), wrote: “Farmers escaping deportation had little choice but to join the guerrillas, even if they had not supported them beforehand.” The immediate outcome was a quick increase in numbers of collectivised farms.\textsuperscript{40}

Already by the end of 1949 collectivisation had reached 80 percent. However, in the south east parts collectivisation had only reached 30 percent by July 1950 because of guerrilla resistance. For the Estonian republic as a whole, only 8 percent of the individual farms remained in the end of 1950.\textsuperscript{41} By the summer of 1952 collectivisation was more or less completed. The total numbers of deportees from 1949 amounted to between 50 and 60 000 people – or eight to twelve percent of the population.\textsuperscript{42} Deportations and resistance created huge losses of

\begin{itemize}
\item [36] Ibid., p. 122.
\item [40] Taagepera (1980), pp. 386-87.
\item [41] Misiunas & Taagepera (1993), pp. 102-103.
\item [42] Raun (2001), p. 179.
\end{itemize}
human capital and the initial years of collectivisation led to declining agricultural output. Collectivisation of the Baltic peasantry was completed in the mid-1950s. The Estonian communist party, however, had less than 3000 members in 1949 and very few of these lived in the rural areas among the thousands of small kolkhozes. Locally elected kolkhoz chairmen were rare since party members were predestined for these positions and local communists were often “simple activists”.

Collectivisation campaigns in Hungary

After 1945 Hungary’s international situation and political manoeuvrability was decisively influenced by the fact that the country had sided with the losers in the war, and that it fell under the Soviet sphere of interest as the result of the preliminary agreements between the Allied Powers. By 1949, all power was concentrated in the hands of the Hungarian Workers’ Party (HWP). On 3 March 1949 at the session of the Politburo the first secretary of the HWP, Mátýás Rákosi stated that, in the course of the first five-year plan (1950-1954), the transition was to be accomplished from small peasant farming to large-scale farming. According to the plans of the party leadership 60 percent of arable land was to be cultivated by co-operatives and 6 per cent by state farms, by 1954.

As things turned out, a major conflict would emerge between a socialist state, trying to push through collectivisation and private farmers committed to preserving their property rights. The reason that this conflict proved to be particularly sharp in Hungary, a country based on large estates in the interwar period, was that the land reform of 1945 had brought a radical change to the structure of landed property. As the large and middle-sized estates were redistributed, the number of small-holders grew significantly up to 1941. While almost 46 percent of the agricultural population belonged to the agrarian proletariat and 47 percent were small scale farmers prior to the land reform, the following land reform altered these proportions to 17 and 80 percent respectively. The great

mass of the newly created class of land-owning peasants had no intention whatsoever of giving up their land. This was not only due to land as a means to earn a living, but landed property also defined the family’s local social status. In a similar fashion the Hungarians distrusted the transformation of the agricultural and consumer oriented co-operative associations into the uniform Soviet-style model. Prior to WW II there were approximately 4000 co-operative associations in Hungary.47

By way of response to this situation the representatives of the governing leadership sought to set limits to commodity production, as well as to market relations; and they launched an attack on private property, especially landed property. The first victim of these violations was the wealthy ‘kulak’ stratum of the peasantry. A kulak was a person whose land reached or exceeded 14.25 hectares (ha), or whose net cadastral income reached or exceeded 350 gold crowns. In Hungary, the value of land was traditionally expressed in a conventional value unit, the “gold crown”.48 The measures used by the state in the campaign against the ‘kulaks’ included economic and administrative pressure, as well as the use of physical force, involving arrests, imprisonment and deportation to labour camps.49

Although the strength of the wealthy peasantry was shattered as a result of the state’s agrarian campaign, the broad mass of the peasantry could neither be forced nor persuaded to abandon individual farming. Only the landless and some of the poorest peasants showed any interest in collective farming. It was on the Great Plain, predominantly in Békés, Csongrád, Hajdú and Szolnok counties, that the first collective farms were formed.50 The vast majority was reluctant to join the co-operatives voluntarily. What they had seen as POWs or heard about the Soviet kolkhoz-system that had emerged had created profound distrust. The work organisation, not even mention the remuneration system of the kolkhoz, seemed so strange and disadvantageous for the Hungarian peasants, even for the agricultural labourers, that if they could they resisted following these principles.

While it was predominantly the burdens on the ‘kulak’ farms that increased in 1951, the burdens imposed on all peasant farms rose

50 Ibid., pp. 234-236.
dramatically from 1951-1952 on. The subjugation of village residents to arbitrary and coercive measures did not result in open resistance, but the negative consequences grew by leaps and bounds. Hundreds of thousands abandoned agricultural work, more and more land became left uncultivated, the total agricultural output declined, and so did the productivity of land. Thus while there was a catastrophic decline in private peasant farming, the newly established and continuously expanding co-operative farm sector was incapable of compensating for the shortfall in production. The quantity of agricultural production during the five-year plan – with the exception of the positive year 1951 – did not reach the levels of the last pre-war year, 1938. The production of bread grains, which was of crucial importance in public sustenance, showed similar tendencies. Animal stocks exceeded pre-war levels, by a few percentage points, for the first time in 1950. By the turn of 1952-1953 the situation in the agrarian sector had become threatening in its consequences for the whole of Hungarian society.

III. The phase of deviation from the Soviet model

Collectives and co-operatives: the first corrections after Stalin’s death

During the first years after collectivisation in Estonia, kolkhoz peasants were paid much lower than the sovkhoz workers. This was a general pattern in the USSR. Due to the low procurement prices paid by the state and the organisational form of kolkhozes, each kolkhoz member was paid an annual remuneration from the profits made from the surplus product in relation to the number of workdays carried out. In this sense the kolkhoz members were individually responsible for mistakes not only in management, but also in agricultural policy. The kolkhoz also paid income taxes prior to the distribution of incomes. In the sovkhozes workers were paid differently. While they had access to a smaller private plot, they earned a fixed monthly wage for which there was also a tax-free minimum. The sovkhozes workers were paid differently. While they had access to a smaller private plot, they earned a fixed monthly wage for which there was also a tax-free minimum. The sovkhoz was in comparison to the kolkhoz given ideological priority


since it represented a higher form of socialist ownership. The general kolkhoz households in Estonia therefore had to rely heavily on the sales of production from the larger plots for cash earnings up to 1958-1959. As a result, discontent was widespread and many chose to migrate from the countryside into the urban areas/cities.⁵⁴

A few months after the death of Stalin in 1953, and before Khrushchev formally became the supreme leader, some restrictions were eased. While this implied more opportunities for raising cattle on the plots, as well as less tax and delivery duties it also gave some ease to the previous Stalinist squeeze of agriculture.⁵⁵ In 1953, procurement prices paid by the state to the producers – both to kolkhozes and to private producers – were raised. By 1954 these prices had doubled in relation to 1952 and continued to do so up to 1959 when the average procurement price had trebled in relation to 1952. In 1959 the price indices for livestock products and potatoes (1952 = 100) had increased to 561 and 834 respectively. However in the early 1960s increasing retail prices also necessitated increasing subsidies for the urban consumers and there was a huge differentiation between the prices on kolkhoz markets and in the state retail stores.⁵⁶

In Hungary, the death of Stalin aroused expectations and lessened the danger of a violent explosion of resentment. The party and the leadership were called to Moscow between 13 and 16 June 1953, where they were informed of the necessary corrections.⁵⁷ Mátyás Rákosi was instructed to retain his position as the Party’s secretary-general, but to relinquish his prime-ministership to Imre Nagy whose special field was agriculture. The “advice” received was to introduce partial corrections of Stalinist agrarian policies, however, the corrections were not fully in line with the national circumstances since Hungarian agriculture was not dominated by co-operatives, but by peasant farms. The subsequent directives of Nagy’s government therefore significantly reduced the peasantry’s tax burdens and compulsory deliveries. More importantly, it also allowed for peasants to leave the collectives, which led to a reduction of almost one-fifth of the existing co-operatives and membership had fallen from 376 000 to 126 000 by the end of 1953. In 1954, 20 000 additional members chose to leave. Simultaneously, 200 000 private farms were reactivated between

1953 and 1954.\textsuperscript{58} All this meant that the Hungarian corrections and reforms went beyond what Moscow had anticipated. Moreover, a group of the party and state leadership, supporters of Imre Nagy began to work on a long-term development strategy for the Hungarian agriculture. On the one hand they wanted to reduce the squeeze on agriculture and on the other hand to give more room for Hungarian agricultural specialties and traditions instead of copying of the Stalinist model. Later on one can find these politicians and agrarian specialists at the core of the agrarian lobby.

Unfortunately, hardly two years had passed when, in the spring of 1955, Nagy was forced from office and Mátyás Rákosi regained power. Rákosi and his supporters quickly reverted to the pre-1953 policies. For the agrarian population this meant increased taxes and deliveries, as well as a start for a second collectivisation campaign in the autumn 1955. By the summer of 1956, this campaign had caused a severe crisis situation and the newly organised co-operatives began to disband spontaneously.\textsuperscript{59} This constituted a mass rejection of collectivisation and created a chaotic situation in the countryside.

The Kádár-regime, which had come to power by means of Soviet military aid and the suppression of the uprisings and Revolution of 1956, was however compelled to make radical changes in the agrarian policy. Because of the crisis Kádár’s regime needed to make up for lacking political legitimacy by means of increased living standards, which for a long time would need to be dependent on increased food supplies. In order to settle things between the party-state and the agrarian population, the severe tensions generated by the previous agrarian policy therefore had to be eased.\textsuperscript{60} The most significant measure was the abolition of compulsory deliveries, which meant a sharp break with the Stalinist model of agriculture since it removed one of the pillars of planned economic agriculture. Hungary was among the first of the socialist countries to carry out this measure.\textsuperscript{61}

As the Hungarian peasants were no longer obliged to deliver, the state had to offer a more realistic price and to establish commercial relations with the all agricultural producers, and to provide incentives for

\textsuperscript{58} Pető & Szakács (1985), p. 257.


\textsuperscript{61} Wädekin (1982), p. 65.
sales of the produce. In 1957, procurement prices paid by the state to the producers – both to co-operatives and to private producers – were raised. In 1957 the average procurement price indices (1955 = 100) had increased to 140.\textsuperscript{62} There were also some other reform measures that lightened the duties of the producers. As a result of these measures, two-thirds of the co-operatives dissolved themselves and along with that, several hundred thousand private farms started functioning.\textsuperscript{63} For the “surviving co-operatives” there were modifications imposed on certain aspects of their organisation and management, which led to further deviations from the Soviet Model. The co-operatives were able to widen their activities and for example, began to buy tractors and machinery.\textsuperscript{64} In Hungary this step was a step which began to undermine the monopolistic position of the MTS-system.

These corrections, or in fact changes of the agrarian policy, were closely related to the increasing importance of Hungary for the Soviet leadership after 1956. This “special treatment” implied a higher level of tolerance towards the Hungarian solutions.\textsuperscript{65} In the eyes of the Soviet Union, internal stability was considered important and therefore it was also possible to show remarkable flexibility towards certain tactical issues.

However, the relationship between the Kádár-regime and the peasantry came under stress again when collectivisation was put on the agenda at the end of 1958. This created a dilemma for the Hungarian communist party, which in order to make sure that agricultural production did not suffer from the new wave of collectivisation, had to make new concessions to the peasantry. During the third wave of collectivisation (1959-1961) co-operative members therefore managed to maintain a ‘bargaining’ position implying that they were able to keep more cattle on the household farms, to do share-cropping on the collective farm, to receive their premiums in kind, and to elect successful local farmers as co-operative presidents, etc.\textsuperscript{66}

\begin{itemize}
\item \textsuperscript{62} Pető, & Szakács (1985), p. 363.
\item \textsuperscript{63} Ibid., p. 301.
\end{itemize}
If one studies how the collectivisation was finished in communist Eastern Europe (except Poland and Yugoslavia) between 1958 and 1962, one finds a striking difference in relation to the first campaigns in the early 1950s. Khrushchev – who at that time was already preparing for catching-up with the capitalist West – wanted to complete collectivisation without serious shortfalls in production. Thus, behind the socialist facade of the newly collectivised agriculture there was considerable space for local specialties.67

Agrarian reforms in the late 1950s and during the 1960s

For the organisation of agriculture in the USSR a number of important changes were made in the second half of the 1950s, both related to management and planning. Khrushchev, who formally replaced Stalin in 1956, and initially was following Stalin’s aspirations on a more powerful position for the MTS at the kolkhoz level, was already in 1956 embarking on a different path. In the same year, Estonia was allowed to become first Soviet republic to apply regular payments/wages in cash for both kolkhoz members and sovkhoz workers. Towards the late 1950s, a specific strategy of the Estonian Ministry of Agriculture was to merge kolkhozes into sovkhozes, spurred by the sovkhozes organizational superiority and access to subsidies for machinery investments.68 The mergers of kolkhozes, which took place all over the Union from the late 1950s, often created financial problems because of the economic weakness of many kolkhozes. The equalization of wages between kolkhoz and sovkhoz in many other parts of the Soviet Union were therefore conditional and related to various premia or percentages of plan fulfilment.69 The Estonian case therefore showed a clear deviation from the original Soviet model by introducing fixed wages for kolkhoz peasants, which was in sharp contrast to the original ideas.70

The dissolution of MTS also began in association with the mergers of kolkhozes into sovkhozes. By 1957 it was obvious that the efficiency of the MTS – or in fact the whole issue of economic accountability for both MTS and kolkhozes – was hard to calculate. Since the kolkhozes use of MTS services were paid by contractual arrangements in kind (in percentages of the grain harvested etc.) the size of these payments/incomes was hard to calculate in monetary terms in advance. All this led to the decision in 1958 implying a transfer of the MTS machinery into the ownership of individual

70 Wädekin (1982), pp. 15-16.
kolkhozes.\(^{71}\) From an ideological point of view, the mergers of kolkhozes into larger units also enabled for the party to have a more direct political influence through the local cadres and the kolkhoz chairman. In addition, the sales of machinery to the kolkhozes not only cut down one out of two administrative apparatus, it was also a way to bring the larger units closer – now in possession of their own machinery – to the more aspired form of sovkhoz.\(^{72}\) Khrushchev also aimed for restrictions of the use and size of private plots, motivated by the apprehension that the work on plots was counterproductive with the work efforts needed in the large-scale collective agriculture. His visions of “accelerating the countryside’s advance towards communism”, were however facing several problems. Fulfilment of the seven-year plan 1959-1965 demanded that kolkhozes and sovkhozes were supplied with appropriate machinery, but due to the abolition of the MTS many kolkhozes became more or less depleted of financial resources for other purposes since they had to invest in tractors and machines from the dissolving MTS units.\(^{73}\)

As it turned out, however, and contrary to the Moscow orders, there were no restrictions imposed on the use or the size of private plots in Estonia – from 0.6 to 0.3 ha per household, as it was supposed to be when kolkhozes were merged into the sovkhozes. The Estonians kept the same 0.6 ha as before since plan fulfilment was superior to regulations.\(^{74}\) The first Party Secretary of the Estonian Republic, Ivan Käbin, confirmed this as a general pattern visible in the Baltic Republics and in several nearby regions.\(^{75}\) The Estonian Minister of Agriculture (1953-1965), Edgar Tõnurist, was also said to have had influence on Khrushchev’s policies through his close relations with Käbin, for whom he suggested the dissolution of the MTS to be presented for Khrushchev. Since Tõnurist understood that Estonia’s integration in the USSR economy was irreversible, he worked for maximising the access to federal resources and inputs for specialisation in dairy and meat.\(^{76}\) Tõnurist was thereby convincing Moscow to expand the efforts on higher agricultural education, often using the Estonian language of instruction. While only two percent of the Estonian kolkhoz chairmen and sovkhoz leaders had professional agricultural education in the early 1950s, there were on average 25 agricultural specialists in each

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\(^{74}\) This was confirmed by one informer, a former Estonian kolkhoz chairman: C.L. in an interview in Tartumaa, February, 2004. Jörgensen (2004), p.159.

\(^{75}\) Wädekin (1973), p. 314.

large-scale Estonian farm in the 1970s. This was eight times higher than the corresponding figures for the nearby Pskov-region.77

The implementation of the Sovnarkozy in 1958 was another major change, which led to more decentralised decision making in the planning procedure for each Republic. In Estonia, small enough to only host one of these sovnarkhozy, this meant a turn towards relying more on local resources, inputs, experts and leaders. Yet, a number of centralised orders and uniform strategies prevailed, which expressed the planned economic systems general lack of understanding for diversity and regional preconditions. Tõnurist was critical to this and not least the lack of machinery while Moscow’s recommended to intensify the use of fertilizers in order to increase the Union’s crop yields. Thus, Tõnurist regarded the Estonian problems mainly as due to the lack of proper machinery for tillage while the party – and Khrushchev – firmly believed in the use of more chemicals as the major solution to these problems.78 In the long-term however, the dissolution of the MTS and the rise in procurement prices during the late 1950s and early 1960s, increased access to machinery investments in large-scale agriculture.79

With the dismissal of Khrushchev in 1964 and the entry of Brezhnev in 1965, the Sovnarkhoz reform and many other Khrushchev reforms were abolished. In association with this an ideological debate began which had far-reaching effects on the planning and incentive system: the so-called Kosygin or Lieberman reforms. This led to profit oriented reforms, which replaced the previous one-eyed focus on plan-fulfilment: a higher share of autonomy for reinvesting the profits earned. By 1973, there was a clear-cut difference between the operation of the Estonian sovkhozes and the general Soviet pattern. While nearly half of the USSR sovkhozes were operating without subsidies, all Estonian sovkhozes were running on self-management – and without subsidies from 1968. In the early 1970s, the labour productivity of the Estonian kolkhozes was almost twice as high as the USSR average kolkhoz. For the sovkhozes the corresponding productivity was 61 percent higher.80

The agrarian Hungarian lobby, emerging as a new mediator between the party leadership and the peasantry in the early 1960s, managed to

79 In 1957 one Estonian kolkhoz with 4 500 ha, paid in kind: meat, milk and crops equal to a value of more than 155 000 roubles to the MTS for their services. This was equal to the price of eight new tractors in 1958. Purre (1964), pp. 19-20 & 41.
persuade the political leaders to making the concessions introduced during the final phase of the collectivisation permanent instead of only temporary. During the first half of the 1960s, more and more local co-operative initiatives concerning remuneration and work organisation were transferred from the category “banned” or “tolerated” into the category “favoured”, which significantly widened the scope of co-operatives. The liberal policy of the MSZMP towards the household plots of co-operative farmers also continued. As the products of these small plots could be sold freely at town markets, they did play an important role in supplying the urban population with vegetables, fruits, eggs, etc. This pragmatic approach was not the outcome of conscious planning, but took shape as a by-product of a number of decisions made in response to the challenges and problems (especially the intensive out-migration) of collectivised agriculture.

All this shows that most of the Khrushchev reforms – except the abolition of the MTS-system – were ignored by the Hungarian agrarian politicians. They followed a different problem solving strategy. Since the Hungarian political leadership did not want to question the excellence of the Soviet model, local co-operative initiatives had been authorised in the 1960s only in practice. Depending on the tolerance or dogmatism of the local party and state leaders, one can find, as it has been shown by Varga (2013), vast differences in the application of the agrarian policy, not only between counties, but also between districts.

The above mentioned initiatives coming from the grass roots were finally legalised by the new Co-operative Law (III/1967). This new law was a symbolic act of deviation of the Hungarian co-operatives from the original Stalinist Model Charter. Referring to the most important novelties one should mention the right of co-operative members to receive their regular payments in cash. After 1967 every co-operative member could have a personal household plot (max. 0.5 ha). Beforehand this right went to the co-operative family. Co-operatives themselves gained increased

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autonomy. In addition to control over input plans, co-operatives also gained the right to make independent contracts with other co-operatives and state farms, including contracts for the marketing of output. The range of their activities became wider not only in food processing, fodder production, but also in auxiliary industrial and service activities for which there was a demand.  

Most of Hungarian agricultural reform measures preceded the official introduction of the NEM (New Economic Mechanism) in 1968. The overall goal of the reform was to alleviate the problems of the planned economy by reducing the role of central planning, and partly by increasing companies’ independence. One further objective of the NEM was to open the economy towards the capitalist world. Hungary’s policymakers were well aware of their economy’s critical dependence on the East for energy, raw materials, and markets, and on the West for technology and many basic goods and intermediate products. Continued economic growth was therefore crucially dependent on Western imports. In this exchange the agrarian export did play an important role. Thus, the agrarian lobby convinced the political decision-makers about the necessity to import modern agricultural technology from the West, not only machinery for cultivation, but also closed production systems, foremost from West Germany and the U.S. In exchange, for example, the export of corn, the Ministry of Agriculture and Food granted a relatively free hand to large agricultural units to import a certain amount of technology. One should refer to the fact that as a consequence of the NEM the ratio and the volume of agricultural investment had increased significantly compared to the earlier periods. Where in the beginning of the 1950s, agricultural investment amounted to 10 to 11 per cent of the total investment of national economy; this proportion surpassed 14 per cent annually during the third five-year plan (1966-1970).

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86 Agricultural price limits were adjusted upward in two price reforms, one in 1966 and one in 1968, and many cooperative debts were cancelled. See more on this: Varga Zsuzsanna (2002) “Agriculture and the New Economic Mechanism”, in: Anssi Halmesvirta (ed.), Hungarologische Beiträge 14. Kádár’s Hungary – Kekkonen’s Finland, ed. Jyväskylä, Kopi-Jyvä, pp. 201-217.
88 MNL OL M-KS 288. f. 15/163. Ő.e. Előterjesztés a tőkés országokkal való gazdasági kapcsolatok irányelvei. [Submission on guidelines of the economic relations with the capitalist countries] 11 November 1966.
In order to prepare the co-operatives’ and state farms’ leaders for the acceptance and adaptation of new technology, the agrarian lobby put efforts on modernising the medium- and high-level agrarian system during the 1960s. As a result, a highly-skilled and experienced labour force emerged in the large farms during the 1970s. While only one percent of the Hungarian co-operative chairmen had a university degree in the mid-1950s, 82 percent of them had professional agricultural education twenty years later. Among the state farm leaders, this ratio was 94 percent in the mid-1970s.

**Large-scale agriculture in action: results and limits during the 1970s and 80s**

Between 1960 and 1978 there was a substantial increase in gross production per agricultural worker in the USSR. In an all-Union perspective the Baltic republics were in the lead and Estonia was the leader. By 1978 the average for Estonia was 177 in comparison to the USSR average of 100. According to Evans (1981), this was an anomaly because of the branch structure and specialisation. Because of incomplete mechanisation in the USSR, livestock and dairy farming tended to be more labour intensive and costly. But from another angle, productivity may have been spurred by the relative lack of agricultural work force due to the demographic trend and the level of urbanisation in the Baltic and Slavic republics, while the opposite relations prevailed in Kazakhstan, Moldavia, Transcaucasia and Central Asia. In line with this discussion about the relative efficiency of large-scale agriculture in the Estonian republic, Järvesoo (1973) wrote: “Despite high wages for agricultural labour, the cost of production of major farm commodities is the lowest among the Union republics, an indication of efficient use of labour and other resources.” Järvesoo suggested that these differences largely reflected different rates of progress that took place between 1918 and 1940.

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91 The minister of Agriculture and Food, Imre Dimény (1967-1975) developed a special concept of a technical development in agriculture that considers training, up-to-date knowledge as equally important to the application of new breeds, fertilizers and chemicals and mechanization. The author’s interview with Imre Dimény, 31 January 2012.


95 Järvesoo Elmar (1973), ”Progress despite Collectivization”, in: Arvid Ziedonis, Jr et.al. (eds.), Problems of Mininations – Baltic Perspectives, San José, California State University, pp. 137ff.
Throughout the Soviet period and foremost from the late 1970s, the density of cattle per ha in Estonia was increasing. Estonia and Latvia were the most efficient in both dairy and meat production in the Union. On average, the cattle delivered for slaughter in the early 1980s were 15 to 25 percent heavier than the corresponding USSR average. This was partially due to organisation. Leasing agreements were introduced in the late 1970s, which turned the private plots into resorts for the feeding of cattle that was sold back before slaughter to the socialised sector. In this context the value of production on private plots became more important. Another side of the coin, however, was that the Estonian SSR was never self-sufficient in fodder grain. Livestock production was heavily dependent on cheap energy and fodder imports from other parts of the USSR. Thus the Estonian production system was deeply integrated into – and dependent upon – the All-Union planned economy, which supplied a kind of hidden subsidies.

Increased agricultural investment from the 1960s enhanced for maintaining this leading position.

Another pattern visible in the late 1970s and throughout the 1980s was the improved attractiveness of the rural areas, because of the needs for labour and the better conditions for living. Owing to the structure of large-scale farming, many kolkhoz and sovkhoz families resided in the old family farmsteads, to which the necessary plot was attached. Many kolkhoz leaders also used federal investments and credits for purposes beyond agricultural production, which enabled for the construction of housing. In addition, the access to larger private plots spurred the settlements in rural areas.

In sum, this covered some of the out-migration from the countryside in the 1950s and 60s. But the net inflow was still not sufficient. Relatively costly investments were made in Estonian agriculture during the 1970s and 1980s because of the decrease of available agricultural workers. Towards the second half of the 1980s this gave record levels of agricultural output.

The agricultural experimental reforms in the Baltic republics began in the early 1980s with the introduction of new working groups on the kolkhozes, which to some extent replaced the previous brigades. While it was not officially acknowledged in the media before 1984, this was a first step to transform agricultural production towards the ‘family

98 Abrahams & Kahk (1994), pp.75-76.
farm principle’ since it meant that the responsibility was put on a family or a group of friends. The outcome was promising because of better results reached than the work brigades, which had problems both with continuity and responsibility.  

Significant for this change was that these types of contracts were also open to people outside the farming sector. In comparison to late 1940, when the average Soviet kolkhoz household had 2.2 persons occupied in the kolkhoz work, it was 1.0 in 1985. The others either worked on the plot or in other occupations. The economic motive to join kolkhozes was thus to get access to a plot from which a share of the produce could be sold on kolkhoz markets. In the end of the 1980s this generated net annual incomes between three and eight times the earnings from their regular work on the kolkhoz/sovkhоз.

During the 1970s, Hungarian agriculture was able to import and rapidly disseminate a certain amount of the western technology it needed. By 1981, 96% of all large agricultural units (state farms, collective farms) were participating in some so-called closed production system the goal of which was to optimise yield, minimise costs, and maximise profits in specialised areas of production, such as corn, wheat, or livestock operations. 90 percent of the country’s corn and 88 percent of its wheat crop were produced by system members. The rapid and widespread dissemination of these new production systems meant that practically all large farms in Hungary adopted modern agricultural machinery, and combined it with modern know-how.

If one tries to measure the contribution from imported technology to growth, the following statistical data could be taken into account. Within crop farming, the greatest success was with cereals, chiefly wheat and corn. Yields, which were between 7 and 8 million tons in the previous decades rose to 11.4 million tons in the first half of the 1970s. With respect to the successes achieved in crop farming it should also be borne in mind that, besides the transformation of the material and technical conditions of production, there were major changes in the use of new varieties of crops. During the 1970s this was, for example, leading to

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101 When a family or a group of related people took on a long-term rental contract for managing certain fields or stables it was in their interest to maximize the profit and even though this profit could not be reinvested it could at least be consumed. Misiunas & Taagepera (1993), p. 291.

102 An Estonian scholar told me that he as a young teacher in 1982 and 1983 earned extra money during the summer by joining a group with responsibility to clear the weeds on a large field with beetroots and sugar beets.


changes in the cultivation of wheat and corn. As a result, average wheat yields per hectare rose from 3.3 tons in the early 1970s to 4 tons by the end of the decade. In the same period, corn rose from 4.1 tons to 4.8. This dynamic increase in average yields laid the foundations for a rapid development of livestock keeping and meat production.\(^\text{106}\)

Between 1970 and 1985, total meat production rose by 37 percent, from 957,000 tons to 1,300,000 tons. While beef production more or less stagnated, the production of pork, chicken and mutton increased more rapidly. In the first half of the 1970s an annual average of almost 1.9 billion litres of milk were produced. Ten years later this had increased to almost 2.7 billion litres. During the same period egg production rose from 3.5 billion to almost 4.4 billion and raw wool production increased from 8,300 to 12,200 tons. The results achieved in grain and meat production made it possible for Hungarian agrarian exports to triple between 1965 and 1975. This was of particular significance because of the reduction of imports of bread-grain and meat that existed up to the mid-1960s.\(^\text{107}\)

The achievements in cereal and meat production were significant even by international standards. In terms of per capita production of grain, Hungary was ranked fifth in the world in 1985. The 1391 kg produced per capita followed such extensive – with the exception of Denmark – grain-producing countries as the United States, Canada and Australia. In terms of wheat production Hungary was second after Canada, and in meat production only surpassed by Denmark, Holland and Australia. In the mass-scale production of eggs, Hungary was second to Holland.\(^\text{108}\) The ‘Hungarian agricultural miracle’ became a topic among western analysts who tended to talk about the ‘Hungarian model’.

Later, in the 1980s Hungary became a symbol as a laboratory for liberalising reforms in the socialist block.\(^\text{109}\) However, the everyday realities of the co-operatives showed a different picture. Just like Estonia, Hungary was heavily dependent on cheap energy imports. From the mid-1970s, the boom in energy and raw-material prices radically changed


\(^{108}\) This data was published by the Central Statistical Office of Hungary (KSH) but it is based on calculations made by the United Nations Food and Agriculture Organization (FAO). See: *A magyar mezőgazdaság nemzetközi összehasonlításban.* [Hungarian agriculture in international comparison] (Budapest: KSH, 1987), pp. 25-28.

\(^{109}\) Harcsa & Kovách & Szelényi (1998), pp. 21-42.
the Hungarian terms of trade.\textsuperscript{110} As result, the costs of the energy-intensive agricultural systems were increasing significantly and the potential for adjustments to the new conditions were limited. Due to the increasing economic burdens and external debt-payment dues, agricultural incomes were cut-down by the leadership of MSZMP.\textsuperscript{111} However, the increasing crisis of large-scale farming was hidden for some time because of two major reasons. The first was due to the non-agricultural activities carried out by the auxiliary/supplementary branches of agricultural co-operatives. By early 1980s about half of all income of the co-operatives came from non-agricultural activities.\textsuperscript{112} The second reason, which also significantly influenced the output of large farms, was the small-scale production on household plots.\textsuperscript{113}

In this context of growing tensions, the co-operatives began to search for solutions to improve farming results. The labour force became increasingly more expensive, and the significance of rent seeking to stimulate more economic and professional labour increased. In the 1980s agricultural co-operatives and state farms began to lease out not only agricultural land and animal stocks to small producers, but also farm buildings and, to a smaller extent, machinery. Private producers were able to establish contract-based enterprises, not only in single segments of production. By renting farm buildings, and occasionally the necessary machinery, they could even organise the entire farming process.\textsuperscript{114} These simultaneous reforms reflected the inflexibility that was caused by the absence of a market for land and other assets. These barriers could only be removed after the change of the political system.

Conclusions

This comparative study has elucidated the Post-War collectivisation and agrarian development in two parts of the Soviet bloc: Estonia as a case within, and Hungary as a case outside, the USSR. The deviations from the Soviet model, taking place from the mid or late 1950s and


\textsuperscript{111} By 1978, a debt of 8 billion dollars had been accumulated by Hungary. \textit{Ibid.}

\textsuperscript{112} Swain (1985), pp. 141-143.

\textsuperscript{113} \textit{Ibid.}, p. 70-79.

the subsequent events are here interpreted as related to specific national characteristics and socio-economic legacies. While the authors are aware of the methodological and empirical problems of comparing the two cases, because of their different positions within the Soviet bloc, the benefits of the comparison is nevertheless that it pinpoints both the specific or unique and the similar features, which may spur more of similar comparisons. The analysis here rests on the fact that the socio-economic legacies in Estonia and Hungary were – if not markedly – at least partially different from the ones in Soviet-Russia. The general lack of acceptance for building or establishing a kolkhoz-based system constitutes one important factor in in this regard. While the comparison, as shown in Matrix I below, can be enhanced by referring to specific comparable issues, this article nevertheless stresses the implications from specifically unique features.

The Emancipation Manifest in Tsarist Russia after 1861 was not sufficient for creating a class of individual peasant proprietors out of the peasant serfs. This was not only due to the lack of redemption payments and resistance from the ignorant nobility. Another group resisting the changes was the Narodniki in favour of preserving the old Village Community Obschina, which held back the spread of market conditions and private ownership in many parts of Tsarist Russia. However, when regarding the property relations, the development in the Russian Baltic-German provinces and in the vast and expanding Siberian areas, the conditions seemed much more similar to the changes taking place in Central Europe. Prior to the Russian revolution in 1917, the growth of producer’s co-operative associations and market integration was profound. The Estonian, Latvian and Lithuanian independence from 1918 allowed for continued land redistribution/land reform and expanded peasant farming. In most other parts of Post-revolutionary Soviet-Russia peasant farming was terminated when private ownership of land was practically abolished in 1917.

In spite of the interwar problems associated with land reforms and the effects from the Great Depression (1929-1933), there were at least two divergent directions of the farming systems in the USSR and in CEE before 1940. This concerned the property relations and market adaptation. When Hungary and Estonia were integrated in the Soviet production system, formally after 1945, the initial Soviet style land reforms aimed at reducing the amount of land cultivated by the large landowners/estate owners. In rhetoric the new system was favouring the small and medium sized peasants, which also constituted the majority of population. However, both the Estonian and Hungarian peasants, as well as the owners of larger estates were market oriented, relying on private ownership of land. For the small-holders the well-developed co-operative associations were
important in this regard. This gives an explanation to why the execution of collectivisation by the communist parties was met with such strong resistance from the peasantry in both cases.

Matrix I  Agricultural development in Estonia and Hungary (1920s to the 1980s)

<table>
<thead>
<tr>
<th>Issues</th>
<th>Estonia</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interwar Property Structure 1939</td>
<td>Radical land reform ending Baltic-German landlordism (1919-26). 3.5% of land left untouched by the land-redistribution. 140,000 ‘viable’ farms created, on average 24 ha (aiming at supporting a family with two horses). In 1939,95% of the farms possessed between 10 and 50 ha.</td>
<td>Europe's most extreme estate system. Nearly half of all arable land owned by large estates. 20% of total cropland belonged to small-holders. 80% of all farms had below 5.7 ha, out of which less than 1/3 could support a family. 70% had insufficient land and were dependent on wage labour.</td>
</tr>
<tr>
<td>Farm structure 1940s on</td>
<td>A handful of kolkhozes established 1940-41. Tax squeeze and kulak hunting when voluntary association failed. 439 kolkhozes were founded 1947-48. March 1949: forced collectivisation and large deportations. Collectivisation completed 1953. By means of mergers and reorganisation 648 kolkhozes and 154 sovkhozes existed in 1960</td>
<td>Spontaneously formed co-operatives during WW II, not approved by Moscow. Forced collectivisation in three waves: 1949-53; 1955-56; 1959-61. In 1961 there were 271 state farms, approximately 4200 co-operatives and almost 165 000 individual farms. 70% of cultivated land was owned by co-operatives, employing ¾ of the agrarian workforce.</td>
</tr>
<tr>
<td>Relations in the 1950s</td>
<td>In 1950 the average kolkhoz had 961 ha of land. In 1980 it was almost nine times larger. Estonia specialised in dairy and meat production for the USSR market. Mechanisation was increasing faster in the Baltic republics than in other parts of the USSR.</td>
<td>Post-1953: criticism and attempts at correction followed by the 1956 uprising, which had a permanent impact on Hungarian-USSR relations. More tolerance as a means for preserving internal stability. By allowing flexibility, the special Hungarian agrarian development could proceed</td>
</tr>
<tr>
<td>The role of MTS</td>
<td>Introduced during collectivisation as the extended arm of the party for control and maximising plan fulfilment from kolkhozes. Up to 1958 only sovkhozes were equipped with large-scale machinery. The dissolution of MTS in 1958-59, aiming at improving access to machinery, was matched with restrictions on private plots.</td>
<td>From 1948 to 1952 a network of 364 MTS was built for proving technical support for collectivisation and for supervising the work of the co-operatives. However, a Central Committee decision in 1964 ordering that the MTS was to be wound up by the end of 1965.</td>
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<tr>
<td>Land status and property relations</td>
<td>Only state land after 1940. However, the previous farmsteads could informally continue to some extent. Private plots on kolkhozes allowed for 0.6 ha/family and for 0.3 ha/family on sovkhozes. In the 1970s and 1980s the access to a private plot was one of the reasons for the migration into the countryside.</td>
<td>Almost 3/4 of co-operatively utilised land remained in private hands. From 1967 land under co-operative use could only be inherited by members. Leaving the co-operative implied handing over the title to land, yet with a minimal five-year compensation for rent. Members of co-operatives thus had partial ownership rights acknowledged.</td>
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<tr>
<td>The role of private plots</td>
<td>The limits on private plot production in favour of large-scale production implied mergers of kolkhozes into sovkhozes. But the plots became indispensable due to insufficient mechanisation. In Estonia the plots thus remained untouched, partially due to the native management in kolkhozes and sovkhozes. Brezhnev’s reintroduction of the plots all over the USSR – a means to improve the access to egg, meat, vegetables and berries – rather strengthened the role of private plots.</td>
<td>While co-operatives achieved good results in the highly mechanised branches of plough-land crops, private/household plots excelled in labour-intensive products, such as meat, poultry, vegetables and fruit. In the 1970s, household plots produced 25 percent of the combined total income from crops and animal husbandry in the co-operatives. Yet, the plots, representing 12 per cent of the co-operative agricultural area, were generally poorly equipped with mechanisation.</td>
</tr>
<tr>
<td>Management &amp; leaders</td>
<td>Up to the late 1950s both kolkhozes and sovkhozes were administratively – not technically – managed. Separately organised for planning and supply. Native kolkhoz managers trained in Estonia taking over from the late 1950s. From the 1960s Estonia turned into a show piece for USSR agriculture. In the 1980s Estonian kolkhoz leaders were able to use federal investments for housing projects, which together with the access to private plots implied increased attractiveness for the countryside.</td>
<td>The typical co-operative president in the 1950s was a political cadre of usually 'worker' origin, in place for ensuring the Soviet model. 1959-61 the party showed readiness to accept managers of middle-peasant or 'kulak' origin. The party thus went from appointing the 'elected' president of co-operatives among loyal party members to let the local communities elect the head of their own co-operative. This development had well experienced and generally respected local farmers take over the leadership.</td>
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<tr>
<td>Autonomy</td>
<td>The earliest agricultural reforms in the USSR: the Brigade-contract system in 1982 gave increased incentives for production and larger private plots. In 1987-88 so-called reform farms, based on eternal leases of kolkhoz land were able to function as private farms.</td>
<td>The Law of 1967 created a new co-operative concept. The co-operative was defined as a large agricultural farm that carried out company-style farming on the basis of individual accounting. It also stressed the organisational and economic independence of co-operatives.</td>
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</tbody>
</table>
Specific institutional features | Interwar legacies of agricultural co-operative associations and export production. Agricultural training and schools. Closeness to large markets in St Petersburg & Pskov for private plot production. | Substantial organisational and institutional change with the establishment of a body to represent the interests of co-operative farms. The National Council of Agricultural Co-operatives and its regional alliances founded in 1967.

National influences or deviations from the Soviet model | Initial mergers of family farms into kolkhozes. Many families resided on their farmstead. Native Estonians dominated in management from the late 1950s. Mid-1960s: kolkhoz/sovkhoz division about to vanish when regular cash payments were introduced in kolkhozes. | The revolution in 1956 brought forward important agrarian policy changes and corrections, unprecedented within the socialist bloc. The Kádár-regime was compelled to secure food access and thereby increasing living standards in order to make up for lacking political legitimacy. The New Economic Mechanism (NEM) introduced in 1968 was the most radical and theoretically most innovative reform in the region – not mentioning the one in Yugoslavia. Its aim was to alleviate the problems of the planned economy by reducing the role of central planning, and partly by increasing companies’ independence.


In Estonia, the resistance could only be broken through massive deportations. In Hungary it took more than ten years to force the peasants into agricultural co-operatives, which had not succeeded until a third campaign was closed. In association with collectivisation in the 1950s, large-scale migration out of the villages appeared in both cases, which led to shortages of labour and negative effects on production in the newly established large-scale socialist farms. For a significant period of time, conditions were worsened by the fact that it was not possible to compensate for missing manpower through mechanisation.

A uniting feature was the initial difficulties of food supply. This forced the local political administration into emergency situations, especially in Hungary. Public consumption was significantly restricted in favour of the development of heavy industry and food restrictions contributed greatly to the outbreak of the revolution in 1956. Following the repression of the revolution, the Kádár-government, aided by the USSR, was only able to pacify Hungarian society by increasing living standards. This, in turn, was only feasible through a corresponding growth in agricultural
production. In order to achieve this, they had to depart from the original Stalinist model of the kolkhoz-system. This development required a group of agrarian experts who were able to ensure the necessary political support. In Hungary, it was a lobby group formed around the Agricultural Department of the Central Committee, in Estonia it was a group around the minister of agriculture who managed to assume a mediating role. Subsequently there were increasing numbers of nationally trained specialists and experts who became leaders of kolkhozes, co-operatives and state farms, who knew about the local conditions and had the ability to adapt to the circumstances quite well.

Of importance for the development in both countries – away from the Soviet model – was the use of the household plots. In the original kolkhoz model, this kind of farming was – just like the kolkhoz itself – only considered as a transitional solution. Even though Khrushchev liberalised the conditions of household farming, as late as in 1958, he also set out to eliminate it. This measure was neither followed in Estonia, nor in Hungary, probably because of the fact that plan fulfilment and national subsistence became a higher priority for the policy makers than the ideological burden the plot in fact constituted for Moscow.

From the late 1960s, the modernisation of agriculture in the two cases compared here went into different directions, implying deviations from the general Soviet model and instructions. This was, for example, seen in the application of various measures in order to compensate for the shortcomings of price policy and planning procedure, for example, the organisational structure of farming in general, and specifically the pricing reforms in Hungary and the extended role of private plots in Estonia. All this enabled for the large-scale farm units to make greater individual adjustments, both among co-operatives and kolkhozes, as well as among sovkhozes, for example, in terms of reduction of planning targets. Estonia became a kind of a show piece for the USSR and specialised in dairy and meat production. From the beginning of the 1970s on, Hungarian agriculture had been able to satisfy the requirements of three different kinds of market: the home market, the market of COMECON and the one of capitalist countries. This was a unique achievement within the Soviet bloc.

Thus, geography, time and organisational characteristics seemed to have been important. Both Hungary and Estonia had a short period under Stalinism, implying that less damage was done before a window of opportunity appeared. In line with this, Alec Nove (1998) emphasised that the preservation of the “peasant spirit” in the Baltic republics was not only due to late collectivisation. In comparison to other parts of the USSR, most kolkhozes were formed by mergers of the existing peasants’ farmsteads, which gave a different village structure. Fewer younger people also chose
to leave the countryside. Infrastructure was more developed and work ethics were different too. In addition, the party representatives could act more independently on the local level.\textsuperscript{115} From the late 1950s when more investments were directed towards agriculture and its associated upstream and downstream industries it was possible to take some advantages of these national institutional features.

High-quality professional training in agronomy, agricultural economics and associated fields of higher agricultural education, played a key role in both Estonia and Hungary. Towards the 1970s Hungary could also – based on its experiences – provide influences to other parts of the Soviet bloc and take advantages from its farm structure and management, which was the outcome of the previous resistance towards forced collectivisation. In fact, in the search for increased food production, party decrees from Moscow in 1977 and in 1981 emphasised the increasing role of private plot production by referring to the positive experiences of better utilisation of the existing productive potential based on the Hungarian model.\textsuperscript{116} Through the export of agricultural products to Western Europe Hungary was able to purchase western technologies and implements. This facilitated mechanisation of the large farms that showed excellent results both in crops, as well as livestock farming, poultry and egg-production. The Estonian kolkhozes, which had less organisational freedom, were also in relative terms more mechanised than the kolkhozes in most other Soviet republics. Yet, production itself was dependent on the symbiosis between the large-scale farming and the production on the private plots. In spite of the specialisation in dairy production and meat for the USSR market.

From the late 1950s, in both Hungary and Estonia, national political choices seemed to be to a larger extent in the hands of dedicated party members with visions for the future that allowed for specific reforms that were spread within the Soviet bloc. In this regard the pressures from below, initially from the private farmers exposed to the changes and later from the members of co-operatives and kolkhozes, seemed to have played a major role.
