



## Invited Paper

# The Transformation of Hungarian Production Cooperatives and Future Consequences

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This research examines the transformation of Hungarian agricultural production cooperatives. In contrast to early expectations, cooperatives did not experience much membership loss. Rather, the enterprises held together, although they downsized. The distribution of collective assets occurred quickly and created much tension. The sector experienced a severe decapitalization, and the efficiency of the sector fell. There was a sharp rise in unemployment. Sales and marketing were disrupted. Thus, the cooperatives transformed in a very hostile situation. They survived, and some prospered, yet, in general, they remain vulnerable to adverse economic developments. Healthy cooperatives will be vital to the success of smaller private farms.

As in other former socialist nations, Hungarian agricultural production cooperatives were formed against the free will of farmers, yet they evolved to dominate Hungarian agriculture. By 1989, 48.5 percent of agricultural output was produced by cooperatives, 15.9 percent by state farms, and 36.1 percent by small-scale producers who were mainly assisted by agricultural cooperatives. For grains and oilseeds 78.4 percent and for livestock 35.4 percent of output originated on production cooperatives. This progress resulted from a successful adjustment to their economic environment.

After 1968, the so-called new economic management system was adopted, which introduced elements of a market economy and generated rapid agricultural production growth. That growth was based on the production cooperative organization as well as on the diverse farming and ownership mix of the so-called "Hungarian model." Between 1987 and 1989, as economic reforms continued, several other measures positively affected Hungarian agriculture. A new and comparatively liberal Land Act largely eliminated restrictions on acquiring property. It also became possible for members to leave a cooperative. Further, preparations for a comprehensive land reform commenced.

Despite such progress, reform efforts sometimes faced political obstacles, and, as a result, new hopes were awakened with political changes in the late 1980s. Decision makers hoped that the expected benefits of the privatization of large-scale farms would overcome most of the handicaps and difficulties experienced

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by Hungarian agriculture. The majority party in the Parliament believed that farmers wanted to control their land and operate as individual family farmers. Hence, the agricultural production cooperatives were to be disbanded, and legislation was enacted to transform the farm structure of Hungary. The Compensation Act used a complicated and indirect method to implement a partial return of land to the general public with the average area obtained only three to four hectares (7.4 to 9.9 acres).<sup>1</sup> This resulted in a more fragmented ownership pattern for land than ever before. The mandatory transformation and full non-land assets distribution of cooperatives were established in a separate act.

This article reviews the impacts and consequences of these two acts, which governed the process of decollectivization in Hungarian agriculture during the period 1990 to 1994. The research is based on an analysis of the transformation of 104 production cooperatives—a representative sample of 10 percent (Tóth and Varga 1995). As described subsequently, this transition has been difficult for Hungarian agriculture and the nation as a whole. The effects experienced to date differ from the original expectations.

### Changes in Enterprise Organization Forms

One aspect of the transformation of agriculture in Hungary was that enterprises from the socialist period were required to reorganize and to select a business form appropriate to a market economy. For agricultural production cooperatives this occurred under very difficult circumstances as enterprises experienced a crisis of reduced earnings, liquidity problems, and disrupted marketing channels. Another setback for enterprises was the nearly complete termination of agricultural subsidies, although in Hungary these had been small compared to other socialist nations and even to Western Europe. Due to the economic and political pressure on enterprises, 28.8 percent of farmer cooperatives declared bankruptcy and liquidated<sup>2</sup> (table 1).

**TABLE 1. Number and Share of Farmer Cooperatives in Bankruptcy Proceedings and Liquidation by Region.**

Region	Cooperatives (1989)	Cooperatives in Bankruptcy, Liquidation (from 1989 to 1994)	
		Number	Share (percent)
Trans-Danubia	508	106	20.9
Great Hungarian Plain	569	183	32.2
Northern Hungary	182	76	41.8
Total Hungary	1,259	363	28.8

*Source:* Informational Directorate of the Research and Informational Institute for Agricultural Economics, Budapest, 1994.

The agricultural production cooperatives surveyed in this study reorganized during 1992. With reorganization, 94.3 percent selected a new form of cooperative operation, and 5.7 percent decided in favor of either a joint stock company or a limited liability company (table 2).

Reorganization as a new production cooperative meant changes as well. Under socialism the cooperative's power was formally vested in the membership

**TABLE 2. Organization Forms and Production Shares After Transformation**

Form	Farms		Production Profile					
	No.	Share <i>percent</i>	Mixed	Crops	Livestock <i>percent</i>	Service	Process.	Mktng.
Cooperatives:								
Farmer	65	62.5	77.0	16.9	1.5	3.1	1.5	0
Farmer, Serv. Production,	16	15.4	81.1	6.3	6.3	6.3	0	0
Serv., Mktng.	11	10.6	81.8	9.1	0	0	0	9.1
Other	6	5.8	66.6	16.7	16.7	0	0	0
Limited Liability	1	0.9	100.0	0	0	0	0	0
Limited Share	5	4.8	60.0	0	0	40.0	0	0
Total Successors	104	100.0	77.0	13.5	2.9	4.8	0.9	0.9

assembly which, in principle, made all decisions. A directorate was elected from that assembly with the responsibility for actual operating decisions. While a very similar structure remained after the reorganization of the cooperative, the balance of power shifted in favor of the directorate. A separate group of members to monitor the directorate was established. This structure gave the directorate more latitude to make decisions on enterprise operations without having to answer to the full membership assembly.

The transformation had three general trends:

1. one or more legal successors were established from the enterprise, but the former farm remained as an economic unit;
2. groups of members departed and formed independent economic units; and
3. members left the cooperative as individuals.

The farm remained intact in 28 percent of the cooperatives surveyed. The majority of cooperatives experienced some exit of members, either in groups or as individuals. In 6 percent of cases, groups departed to form their own independent economic units. In 50 percent of cases, only individuals left the cooperatives, and 16 percent of cooperatives experienced losses of both individuals and groups.

Despite the arguments and actions in Parliament favoring individual family farmers, exiting members or groups rarely consisted of members who were active in the operation of the farm. After years of cooperative farming under socialism, individuals lacked the skills and knowledge to be individual farmers. Only 6.6 percent of active members left as a group, and 3.5 percent of active members left on an individual basis. Individual members leaving the cooperatives were quickly confronted with experiences for which they were unprepared, and, as of mid-1994, 19.9 percent of these farmers had quit farming. Retirees were also reluctant to leave, perhaps due to the lack of alternatives, as 87.7 percent remained with the legal successor to the enterprise<sup>3</sup> (table 3).

The transformation was associated with very little change in the use of agricultural land. Successor enterprises retained 80.2 percent of their former land with only 4.5 percent of the land removed by exiting members or groups. The remaining land either passed to successor enterprises not surveyed in the study or was cultivated by members who, although no longer employed by the cooperative, continued to be members.

**TABLE 3. Resource Changes During the Transformation.**

Enterprise Type	Human Resources				Agr. Area	Capital	
	Active Members	Retirees Members	Employees	Total		Assets	Liabilities
	<i>number</i>					<i>hectares</i>	<i>million HUF</i>
Predecessor <sup>a</sup>	29,928	19,782	8,824	58,534	435,425	32,623	5,896
Successor <sup>b</sup>	16,226	17,350	3,237	36,813	349,404	32,733	5,770
Independent Groups	1,976	964	166	3,106	10,082	1,885	153
Individual	1,057	1,249	74	2,380	9,386	1,317	76
<i>Share of distribution: predecessor, December 31, 1989 = 100 percent</i>							
Successor <sup>b</sup>	54.2	87.7	36.7	62.8	80.2	—	—
Independent Groups	6.6	4.8	1.9	5.3	2.3	—	—
Individual	3.5	6.3	0.8	4.1	2.2	—	—
Altogether	64.3	98.8	39.4	72.2	84.7	—	—
Non-surveyed Utilization	35.7	1.2	60.4	27.8	15.3	—	—

<sup>a</sup>December 31, 1989<sup>b</sup>After transformation

A similar situation occurred for non-land tangible assets. Successor enterprises retained 90 percent and lost 10 percent either legally or through physical removal. Most of the removed property was distributed without encumbrance as exiting members assumed as little as 4 percent of the debt burdens. Thus, the burden for the new farmers was substantially less than justified by the value of the assets removed. Yet, in Hungary the political atmosphere did not support a more realistic solution. This situation is in sharp contrast to that in former East Germany where disagreements over assumption of old debts were and remain a handicap to the emerging farms.

As in other former socialist nations, the Hungarian transformation was associated with a downsizing of enterprises. The average land of legal successors fell by 20 percent to 3,359 hectares (8,297 acres). Information on the size of land for exiting members is unavailable, but these units ranged in size from a few hectares to several hundred. The average size of land held by exiting individuals is only 3.9 hectares (9.6 acres), which (outside of intensive cultivation, horticultural crops, for example) cannot provide sufficient income (table 4).

As noted before, very few cooperative members quit, although there was significant regional variation. Of those that did leave the production cooperative, the majority (86 percent) were blue-collar farm workers. In addition to the degree of entrepreneurial drive and financial resources available, strong emotional factors influenced the decision to leave the cooperative. The historic tradition of private production, the emotions associated with family farming, and a nostalgia for the "good old days" all played a role in encouraging individuals to exit the cooperative. The importance of that last emotion seems to be confirmed by the large share of retirees among those who left the cooperatives. In most cases, these retirees chose to go their own way in the hope of receiving support from their extended family.

**TABLE 4. Shifts in Production Resources During Transformation.**

Enterprise Type	Human Resources			Retirees per 100 Active Members	Ave. Agr. Area	Asset Value	Liability Value
	Active Members	Retiree Members	Employee				
	<i>percent</i>						
Predecessor	51.1	33.8	15.1	51	4,187	74.9	13.5
Successors	44.1	47.1	8.1	89	3,359	93.7	16.5
Partnerships	34.1	0.4	65.1	0.3		41.2	6.6
Independent Groups	63.7	31.0	5.3	45			
Individuals	44.4	52.5	3.1	110	3.9 <sup>a</sup>		

<sup>a</sup>Agricultural area per person.

### Ownership of Non-Land Assets After the Transformation

The transformation of Hungarian agriculture has radically changed ownership relations in the production cooperatives. A major force in this process has been the identification and distribution of former non-land collective assets among the co-owners. One purpose of this distribution was to create and foster the attitude of ownership.

The identification of non-land assets was implemented in two stages. Early reforms in 1989 enabled the identification of 50 percent of the collective assets, and the majority of enterprises and members took advantage of this. In the asset division, the cooperatives considered the number of years worked, the work performance, the time spent as a member, and the extent of assets contributed to the enterprise. After a long delay, the process of changing ownership began in 1992 and was implemented in an unrealistically short time—just over three months.

Several problems arose in this change, with the greatest difficulties caused by the formation of various groups of claimants with conflicting interests. The issue of outside owners was particularly sensitive<sup>4</sup>. One group of claimants consisted of members active in the farm's operation who were interested in the long-run use of the assets as well as securing a permanent job and income. They were interested in obtaining regular earnings from their labor, in increasing the value of the assets, and in the dividends on their holdings. They constituted 24 percent of claimants, and they received 41 percent of the assets (table 5). A second group consisted of retiree members who retained their rights concerning the management of the enterprise. Their interest was to increase their short-run dividends. This group represented 31.6 percent of claimants, and they obtained 39.2 percent of the assets. Nearly 20 percent of the collective assets passed to heirs of former cooperative members who, for the most part, were not involved in the enterprise. Their claim to enterprise assets was very hotly debated. This group represented the largest share of claimants—44.4 percent. They sought the highest possible dividends, obtained as quickly as possible. That is, they wanted to convert their claims to money as soon as they could.

At the same time as non-land assets were being distributed, it became possible for members to leave the production cooperative and to physically take their shares

**TABLE 5. Owner and Ownership Structure of Enterprises After the Identification of Collective Assets<sup>a</sup>.**

Owner Type	Number	Share	Asset Value	Division	Asset Value per Capita
	<i>persons</i>	<i>percent</i>	<i>thd HUF</i>	<i>percent</i>	<i>HUF/person</i>
Total Active:	22,931	24.0	11,877,126	41.0	517.9
Remaining	19,749	86.1	9,965,320	83.9	504.6
Group exit	2,102	9.1	1,246,196	10.4	592.8
Individual exit	1,072	4.6	557,042	4.6	519.6
Total Retiree:	30,237	31.6	11,350,485	39.2	375.3
Remaining	27,238	90.0	9,974,119	87.8	366.1
Group exit	1,345	4.4	719,020	6.3	534.5
Individual exit	1,308	4.3	543,454	4.7	415.4
Outsiders:	42,452	44.4	5,711,920	19.8	134.5
Remaining	41,275	97.2	5,506,748	96.4	133.4
Exited	1,176	2.7	205,167	3.5	174.4
Total	95,620	100.0	28,939,531	100.0	302.6

<sup>a</sup>For the 104 enterprises surveyed.

with them. This produced two basic problems. First, non-land assets designed for the large scale enterprises, like machinery, were not appropriate for use by the smaller-sized farms created by exiting members. Also, removal of these assets hurt the efficiency of those assets remaining with the enterprise.

The removal of assets from the cooperative—apart from the tensions created—did not create conditions favorable to individual farming. Thus, the overwhelming majority of the new owners (86 to 97 percent) left their asset holdings with the cooperative's legal successor (table 5). For these assets, they receive income in the form of dividends from the enterprise if it is profitable. Only 6.2 percent of claimants decided to use their assets outside of the successor enterprise. Nearly half of those who left the cooperative decided not to farm, but rather sold their share of the cooperative's non-land assets. This desire to cash their claims resulted from the dramatic decline in rural living conditions, which encouraged people to spend the unexpected money quickly. Thus, not only was the agricultural production cooperative harmed by the withdrawal of assets and capital, but the population consumed its productive assets.

### The Decapitalization of Hungarian Agriculture

The transformation of the Hungarian economy prompted an increased decapitalization of agriculture. During the middle 1980s, the expansion of productive capacity stopped due to inadequate financial resources, and, by the 1990s, even investment to maintain the existing technology ceased. Thus, Hungarian agriculture has been consuming its productive resources, and the level of technology employed, which had once been high by international standards, has been falling in recent years.

The extent of asset depletion during the transformation varied by asset type. Machinery and equipment—trucks and tractors—showed the greatest decline (table 6). The average age of machinery and vehicles in 1989 was six to eight years, but by 1993 had reached eight to ten years. Buildings and other structures exhibited more moderate changes—livestock buildings in 1993 averaged twenty-two to twenty-four years old. Capacity utilization also fell. In the enterprises surveyed, capacity use was as low as 68 percent.

The decline in productive capacity occurred because the legal successor enterprises did not have the financial resources to offset diminishing asset quantity and falling quality. Between 1989 and 1993, only half of the enterprises surveyed bought tractors, and only every third farm purchased combines or trucks (table 6). Much of the breeding stock was destroyed to generate quick money, and the breeding of animals was curtailed. These adjustments resulted in the low rate of capacity utilization in livestock buildings designed for large scale operations. In addition, 4 to 9 percent of the livestock were taken by those exiting the cooperatives. These people kept fewer animals than they had received when they left the cooperatives, as they slaughtered animals for quick cash. The slaughter rate for cattle was the highest at 70 percent, but more than 50 percent of the swine and sheep obtained from the cooperative were slaughtered. The legal successors to the production cooperatives also slaughtered large numbers of animals (table 7). Depending on the type of animal, only 40 to 60 percent of the 1989 livestock can be found in the successor organizations. Non-cooperative farmers also severely reduced livestock from 1990 through 1994. The number of cattle fell 19 percent,

**TABLE 6. Changes in Production Capacities from 1989 to 1993.**

Description	Total capacity of successors (1993)	Capacities taken out, sold from 1989 to 1993	Share of successors establishing new capacities <sup>a</sup>	Share of new capacities (1993)
	Total capacity in 1989=100	(percent)	(percent)	Total capacity in 1989=100%
Machinery				
Tractors	70.9	19.7	55.8	4.7
Harvesting	75.1	5.3	31.7	5.3
Trucks	56.8	2.2	30.7	2.2
Buildings				
Cows	83.6	9.9	1.9	2.6
Other cattle	83.7	11.3	3.8	0.8
Swine	85.7	8.4	1.9	0.5
Sheep	69.6	18.0	-	-
Poultry	57.7	8.3	-	-
Grain storage	104.4	4.7	8.6	3.1
Plantations				
Grape	38.3	33.8	2.8	0.1
Fruit	52.8	30.4	4.8	2.8

<sup>a</sup>Number of all surveyed successors = 100



**TABLE 7. Changes in Livestock by Livestock Type, 1989 to 1993.**

Type	Number of Farms <sup>a</sup>		1989	1993	Index
	Total	Share			
	<i>number</i>	<i>percent</i>		<i>head</i>	<i>1989=100</i>
Cattle	81	77.9	93,405	54,375	58.2
Cows			32,760	23,225	70.9
Swine	53	51.0	274,542	150,660	54.9
Sows			20,643	12,993	62.9
Sheep	45	43.3	93,664	34,848	37.2
Ewes			66,915	29,592	44.2
Poultry	23	22.1	1,202,789	529,553	44.0
Laying hens			225,344	228,829	101.5

<sup>a</sup>The 104 surveyed enterprises only.

with cows decreasing by 20 percent. Total swine numbers fell 44 percent, with sows declining 56 percent.

### Landed Property and Leasing

The major changes occurring in land ownership in conjunction with the new pattern of ownership for non-land assets adversely affected the performance of the sector. During the socialist years, Hungarian production cooperatives cultivated land in private ownership (34 percent), in collective ownership (62 percent), and land owned by the state (4 percent). The land in private and collective ownership could have served as a good basis to ensure that those who owned the land operated it. However, the compensation acts used crop land to provide partial compensation for former property owners and to redress social injustices. Thus, a considerable part of the land passed to owners either indirectly tied to agricultural production or to those unconnected with agriculture. This harmed those who were under fifty years old and earning a living from agriculture.

During the change in ownership, crop land and the non-land assets necessary for its cultivation became separated. Some new owners own only land and have no other productive assets. Others have non-land assets, but insufficient land to employ those assets. Thus, with multiple owners of all the different assets, combinations of production resources must evolve to efficiently use these factors, and that is very expensive. This situation is complicated by the fact that agricultural production cooperatives and other entrepreneurial partnerships—along with foreigners—are forbidden from acquiring land<sup>5</sup>.

For the production cooperatives in this study, 93.2 percent of the land passed to private owners, and 62.9 percent of that land is owned by active and retiree members. Outsiders own 37.1 percent of the land (table 8). Cooperative members actively cultivating the land comprise just over one-fifth of the owners, but actually own less than 20 percent of the land.

Thus, the transformed cooperatives had to and must continue to develop opportunities for the joint use of land by creating legal relationships for leasing while simultaneously settling unresolved ownership issues. The legal successors surveyed

**TABLE 8. Changes in Land Ownership\*.**

	May 31, 1989				Private of Which			May 31, 1994	
	Private	Coop. Owned	State	Total	Total Area	Member Owned	Outsider Owned	Coop.	Total
Tilled:									
Hectares	103,804	220,966	6,671	226,358	226,358	139,049	87,309	9,676	236,034
Share	31.3	66.7	2.0	100.0	95.9	61.4	38.6	4.1	100.0
Grape, fruit:									
Hectares	1,702	4,706	53	6,461	4,217	2,366	1,851	421	4,638
Share	26.3	42.8	0.9	100.0	90.9	56.1	43.9	9.1	100.0
Agr. area:									
Hectares	115,763	288,990	11,308	416,061	293,835	174,028	119,807	17,457	311,292
Share	27.8	69.5	2.7	100.0	94.0	59.2	40.8	5.6	100.0
Total area:									
Hectares	127,250	339,324	11,906	478,480	308,963	194,211	114,752	22,714	331,677
Share	26.6	70.9	2.5	100.0	93.2	62.9	37.1	6.8	100.0

\*The 104 surveyed enterprises.

**TABLE 9. Collectively Cultivated Area Leased, 1994.**

	Area Leased From:			Cooperative Owned Area	Total Area	Share of Collectively Cultivated Lessor Area <sup>a</sup>
	Members	Outsiders	Other			
Tilled:						
Hectares	114,024	60,220	3,670	9,676	187,590	
Share	60.8	32.0	2.0	5.2	100.0	79.5
Grape, fruit:						
Hectares	1,731	268	34	421	2,454	
Share	70.5	10.9	1.4	17.2	100.0	52.9
Agr. area:						
Hectares	147,563	71,238	5,632	17,457	241,890	
Share	61.0	29.5	2.3	7.2	100.0	77.7
Total area:						
Hectares	159,474	71,793	5,806	22,714	259,787	
Share	61.4	27.6	2.2	8.8	100.0	78.3

<sup>a</sup>Area of the surveyed legal successors on May 31, 1994, equals 100 percent.

used 78.3 percent of the total land collectively in 1994, of which 61.4 percent is leased from members, 27.6 percent from outsiders, and 2.2 percent from other landlords (table 9). The cooperatives themselves owned 8.8 percent of the collectively used land. This means that members lease some 85 percent of their land to the transformed production cooperatives, while outsiders lease around 60 percent of their land. Thus, enterprises using land became, in fact, leasee organizations without laws protecting the leasee—the user of the land. The legal environment, with respect to leaseholding in its present form, partly impedes the long-run development of land use and further reduces the competitiveness of already vulnerable enterprises.

For land of average quality, the rental price is between 1,800 and 4,500 HUF (Hungarian forints) per hectare—six to sixteen dollars per acre. Competitive pressures are bidding this rental price higher<sup>6</sup>.

Under socialism, enterprises controlled large areas with large fields. This pattern changed during the transformation, and farms face very significant technological problems. Enterprises fragmented and the size of the large fields fell in three-quarters of the farms. Field size declined from 20 to 50 percent. Individual use of land represents a new problem, as ground not cultivated by the cooperative can be accidentally wedged in collectively used fields or even in a leased plot. Such fragmented fields impede or make impossible the application of basic technologies (crop rotation, plant protection, or environmental protection). These unfavorable changes in land use increase cultivation costs and worsen the efficiency of machines designed for larger field sizes (Varga 1994).

The effects of this problem are not yet fully realized. The study indicated that, as a result of the unresolved compensation and unsettled land ownership issues, a long time will be needed to rationalize land use and ownership.

### Employment Patterns

The output composition of the Hungarian economy has been changing since before the transformation as well as afterwards. Primary production sectors, particularly agriculture, declined while service sectors grew. Through the end of the 1980s, these changes were coupled with a consolidation of labor use, but in the transitional period labor was shed at a more rapid rate. Prior to 1989, the economy saw annual decreases in labor use of 3 to 4 percent, but after that time annual decreases jumped to 13 to 33 percent. A small share of these people found new work. The overwhelming majority became unemployed.

Between 1989 and 1994, national employment fell nearly 25 percent—by 1.3 million persons. The largest reduction of employment occurred in agriculture, as more than six hundred thousand people lost their jobs, a rate two-and-one-half times the national average. The share of agricultural and agriculturally related employment in the national economy dropped from 17.9 percent in 1989 to 8.3 percent by the beginning of 1994. That meant that by 1994, employment was only 37.7 percent of the 1989 level.

The rate and magnitude of the employment decrease were the most intense in cooperatives as demonstrated by the following figures (the preceding year equals 100 percent):

Year	Companies and Partnerships	Cooperatives
	<i>percent change</i>	
1990	-3.9	-15.0
1991	-6.7	-27.6
1992	-31.7	-33.1
1993	11.8	-31.9
1994	-14.7	-20.0
Versus 1989	-41.5	-77.5

In 1994, transformed agricultural cooperatives employed only 22.5 percent of the labor used in 1989. This severely affected rural villages, as these enterprises have traditionally been and continue to be the major employers of village labor.

Within production cooperatives, the large decrease in employment was, foremost, a result of the shutting down of industrial and service activities once the responsibility of these enterprises. Under socialism, agricultural production cooperatives were more than production units. They handled functions that included those associated with local government as well as activities such as processing, repair, construction, and input industries. The cessation of many of these activities by the agricultural production cooperatives adversely affected employment and the range of activities performed in rural areas. One consequence was unemployment in Hungary on a scale last seen in the 1930s. In contrast to some optimistic forecasts, private farm numbers hardly grew and could not create enough jobs to absorb the labor released by the cooperatives<sup>7</sup>.

The employment decrease between 1989 and 1992 affected manual labor more than administrative staff, but that latter group also showed a large reduction of over 40 percent. The administrative staff reduction adversely affected the performance of cooperatives, as the system of supervision and management was extensively simplified and in many cases fell to unacceptable levels (Tóth and Varga 1993).

The transformed cooperatives preferred full-time employment, although small-scale agricultural production performed as part-time employment is no longer formally restricted. Indeed, even before the change, there were no real obstacles to increased household farming. The employment share of part-time labor and retirees, although not large, fell considerably. In the farms under survey, the release of labor did not cease with the transformation, and, on average, a subsequent decrease of 22.4 percent occurred (table 10).

Under the new Cooperative Act, the obligatory performance of work as part of membership was terminated in the transformed agricultural production cooperatives. At the same time, the cooperative was no longer required to provide employment to members. A member or employee negotiates an employment contract specifying the hours worked and the compensation. Members may also arrange to perform work as entrepreneurs within the cooperative, where they individually operate one or more units of the cooperative as entrepreneurs or may operate individual organizations as well. Active members can also maintain their membership without providing any work to the cooperative.

The termination of the employment obligation for members is fully appropriate from an economic point of view, as enterprises under socialism carried excess labor (Tóth 1993). The real problem is that no other employment alternatives have developed. Thus, the economically stressed production cooperatives became the most significant source of rural unemployment, and there is no proper social safety net to assist rural populations, which sometimes experience a 30 to 40 percent unemployment rate (Tóth 1993).

This is confirmed by Gere (1994) who followed six hundred former cooperative members between 1990 and 1994. Some 70 percent of those interviewed became unemployed, and only 25 percent soon found other work. Half of the unemployed were out of work for over one year, and 15 percent were unemployed for more than two years. Those seeking employment were often forced to find a different type of work or to relocate, as 75 percent found no demand for their type of work or profession in the vicinity of their residence. While 18 percent did find a job, it was at a much lower rate of compensation. An inadequate education was cited by 14 percent as an obstacle to employment, whereas 12.5 percent referred to their bad state of health. Around 15 percent of those who marked "already too old" were hardly over forty.

The agricultural cooperatives surveyed in this study showed the number of active members diminished 17.4 percent after the transformation. Only two-thirds of the members found a job on the enterprise (table 11). Nevertheless, many maintained their membership even though they were no longer employed by the enterprise. Unemployment among this group of members at 37.5 percent is very high. The management of the cooperative did not anticipate much improvement in the near future as 51 percent of the legal successors expected additional personnel reductions, with the average reduction expected to be 12 percent. Those reductions were expected to focus on blue-collar farm workers, although some reduction of management was also anticipated. Part-time employment and a reorganization of labor within the cooperative were not seen as very feasible ways to retain labor.

### **Sales and Integration Among Organizations**

An area of much tension for cooperative producers has been sales and marketing relationships among the different organizations. Producer prices for Hungarian

**TABLE 10. Changes in Employment in the Surveyed Enterprises.**

	Employee Numbers			Share by Labor Type			Percent change	
	1989	Transformation Year	1993	1989	Transformation Year	1993	Transformation Year	1993
Total	39,227	<i>persons</i> 18,996	14,744	100.0	<i>percent</i> 100.0	100.0	-51.6	-62.4
By Job Type:								
Blue	32,639	15,263	11,835	83.2	80.3	80.3	-53.2	-63.7
White	6,588	3,733	2,909	16.8	19.7	19.7	-43.3	-55.8
By Time:								
Full	34,314	16,910	13,308	87.5	89.0	90.3	-50.7	-61.2
Other	2,783	1,256	893	7.1	6.6	6.0	-54.9	-67.9
Part	741	192	186	26.6	15.3	20.8	-74.1	-74.9
Retired	2,130	830	543	5.4	4.4	3.7	-61.0	-74.5

**TABLE II. Composition of Members and Employees by Legal Status.**

	At Transformation		In 1993		Change from Transformation Year to 1993 <i>percent change</i>
	Persons <i>number</i>	Share <sup>a</sup> <i>percent</i>	Persons <i>number</i>	Share <sup>a</sup> <i>percent</i>	
Active Members:	20,294	85.1	16,756	82.2	-17.4
Employed	15,768	66.1	10,922	53.6	-30.7
Entrepreneur	89	0.4	185	0.9	107.9
Member only	4,437	18.6	5,649	27.7	27.3
Jobless	2,216	9.3	2,119	10.4	-4.4
Permanent Employee	3,550	14.9	3,623	17.8	2.1
Total	23,844	100.0	20,379	100.0	-14.5

<sup>a</sup>Calculated from total of members and permanent employed.

agricultural goods are often low and uncertain. Agricultural producers feel themselves handicapped because buyers of their outputs and sellers of input supplies often have market power that is used to the disadvantage of the cooperative. Additionally, contract sales, which producers could use to add certainty, have been loosely regulated and subject to abuse.

Several unfavorable trends occurred in recent years, and organized marketing channels deteriorated as previous marketing relationships became sporadic. The integration of small producers into the marketing system was stifled, and in some locations suppressed, by large enterprises struggling with other troubles. The transformed production cooperatives may now choose from among many more buyers than was the case five or ten years ago. However, as markets are not well regulated, sellers are hampered by the lack of confidence and trustworthiness in buyers. In addition to the continued existence of former sales relationships, the current selection of contract partners is limited by considerations of the buyer's solvency. Sellers must reckon with the high rate of uncertainty in sales and with the possibility of non-payment. The market position of agricultural producers is worsened by the lack of reliable market information. Due to their own liquidity problems, deferring a sale to a later date to obtain a more favorable price is not an option for most cooperatives (Varga 1993).

The survey results show that a major share of the transformed organizations prefer contract sales, which are considered to be more secure than other options. Of the enterprises surveyed 76.6 percent make, on average, 70 percent of their sales through contracts with permanent commercial organizations. The share of product sold in this way varies substantially by commodity. Contract sales account for 65.7 percent of crop products and for 80.8 percent of livestock product marketings. The share of contractual sales increases as enterprise size increases. Selling using the commodity exchange is not a general practice by the organizations surveyed. Few cereals are sold in this way—only 3 to 5 percent.

A potentially important role for production cooperatives is promoting the integration of small- and large-scale producers, and some successes have been achieved. Cooperatives have assisted part-time, small-scale producers by offering unique services that supplement the income of not only workers on the larger enterprises but also the general population in rural villages. An integral part of the cooperative's role can be the integration of small-scale production performed by others in the vicinity of the cooperative and the assistance offered to this production through the various services a cooperative can offer. The integration consists partly of sales of services to promote production—selling basic inputs and breeding stock, mechanical services, and consulting—and partly of purchases of output. About 40 percent of the population was involved in this way.

The legal successors of the cooperatives reduced the size and scope of these activities during the transformation. On 80 percent of farms, activities have been focused on field crops and interest shifted to vegetable growing and livestock raising. One reason was that, because services were offered at reduced prices, the costs of the cooperative were increased, and often these activities yielded only a modest profit. Diverse activities involving a large number of non-members required financial resources that many cooperatives lacked. Further, confidence in the cooperatives fell, and they were less able to provide the specialists needed by the small producers. The general disruption of the market, the debates and personal hostilities associated with the distribution of collective assets, and job losses adversely affected relations as well.

Increased efforts by cooperatives to integrate small producers based on the cooperatives' former experiences are indispensable for a strengthening of non-cooperative farms. These small farms lack the capital, the means, and the expertise to develop a secure foundation without the support that a large-scale cooperative can provide. Yet, cooperatives must have sufficient capital and profit opportunities to undertake this role. The provision of services to small producers may be decisive not only to the cooperatives' viability, but also may be the only realistic chance for non-cooperative agriculture to develop a secure foundation.

## **Conclusion**

This article examines the transformation of agricultural production cooperatives in Hungary. Because, under socialism, Hungarian enterprises had operated in a relatively liberal environment with little state support, expectations for Hungarian agriculture in a market economy were positive. Additionally, there was a belief that cooperative members wished to become independent farmers and that production cooperatives would disappear.

The actual transformation of Hungarian agriculture has occurred much differently. While the cooperatives were forced to reorganize into forms appropriate to a market economy, they did not experience a substantial loss of members. Most agricultural production cooperatives remained together, although they became somewhat smaller.

The transition entailed distributing collectively owned assets. This process occurred quickly and was the source of much tension. People tended to fall into one of three groups. One group consisted of active members who had an interest in the long-run success of the successor enterprise. Other groups tended to have short-run interests and sought current income at the expense of long-term goals. Exiting members could take their assets with them, and this harmed the successor enterprises.



There were other problems caused by the asset distribution. The sector experienced a severe decapitalization as livestock were slaughtered and old equipment and buildings were not replaced. Land was also distributed, and this created a fragmented pattern of land ownership that did not correspond to the ownership of non-land assets. This meant input relationships were distorted, and costly and complex relationships to use inputs efficiently had to develop. The technological level of Hungarian agriculture suffered. A related feature is the rise of leasing as enterprises continued to operate most of their original land, but did so by leasing that land from a large number of new owners.

The transition of Hungarian agriculture was associated with a sharp rise in rural unemployment. The economically stressed enterprises shed large numbers of workers. With the lack of job opportunities in other sectors, few of these people found alternative employment. This has worsened rural living conditions and furthered the decapitalization of the sector as people sought quick sources of cash.

Marketing and sales were also disrupted by the transformation. New marketing relationships had to be built in conditions that fostered much uncertainty. Contract sales offered an alternative to deal with such uncertainty. The use of contract sales varied much by commodity, with extensive use in vegetables and livestock products, but little use in marketing grain. Production cooperatives can help smaller producers in marketing and by providing other services, but, during the transition, the new cooperatives did not have the financial resources to actively pursue that role. The ability of small producers to survive will depend on the extent to which production cooperatives can establish connections to small farmers. Even the viability of cooperatives may hinge on these activities.

Thus, Hungarian agricultural production cooperatives transformed themselves in a very hostile environment. They have survived, and in some cases prospered, yet they presently remain vulnerable to adverse economic developments.

### Notes

1. Former owners were given compensation notes for lost property and could use these notes for land purchase at auctions or for other purposes, such as converting them into a life-annuity.

2. Tracing members of liquidated enterprises was not possible, so only reorganized cooperatives are discussed.

3. Retirees remain cooperative members with full voting rights.

4. Outside owners are those individuals not listed as workers or retirees who, at any time, had worked five years for the enterprise. These individuals or their heirs are entitled to lay claim to a portion of the assets.

5. Though the former Parliament made that decision, it is still in force more than one year after the present socialist-liberal government.

6. In the former cooperatives, retirees were aided by social supports with the main form being household farming. This has ceased and is being replaced by owners leasing their land.

7. The most recent survey of the Central Statistical Office shows the number of small-scale farms falling 14 percent from 1991 to 1994. Of them, thirty-six thousand people were full-time, self-employed farmers in 1991, compared with fifty-one thousand people in 1994.

### References

- Gere, I. 1994. A termelőszövetkezetek átalakításának fogalkoztatási hatásai. (Impacts of the transformation of farmer cooperatives on employment.) Manuscript. Budapest: Research Institute for Labor.

- Tóth, E. 1993. A foglalkoztatás helyzete, feszültségei és a változás kérdőjelei. (Situation, tensions of employment, and interrogative marks of the change.) *Gazdálkodás*, No. 2-3.
- Tóth, E., and G. Varga. 1993. A falusi foglalkoztatás égető foglalkoztatási gondjai és a megoldást célzó alternatívák. (Pressing problems of rural employment and alternatives aiming at solving problems.) Budapest: Research and Informational Institute for Agricultural Economics.
- Tóth, E., and G. Varga. 1995. A mezőgazdasági termelészövetkezetek helyzete és sorsa átalakítás időszakában. (Situation and future of farmer cooperatives in the period of transformation.) Budapest: Research and Informational Institute for Agricultural Economics.
- Varga, G. 1993. A mezőgazdaság és a szövetkezetek átalakulása. (Transformation of agriculture and cooperatives.) *Társadalmi Szemle*, No. 4.
- Varga, G. 1994. A mezőgazdaság új tulajdonviszonyai. (New ownership relations in agriculture.) *Figyelő*, No. 43.