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AGRICULTURE AND INDUSTRY IN HUNGARIAN ECONOMIC DEVELOPMENT: HUNGARIAN AGRICULTURAL POLICY IN THE 1980s

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The more than 40 years that have passed since the end of World War II have changed the Hungarian economy. During this period, Hungary has been transformed into a moderately developed industrial country and the life of the people has changed considerably. Despite the industrialization of the past decades, Hungarian agriculture has preserved its importance. Indeed, among the recent achievements of the Hungarian economy, it has been the achievements of the agricultural sector that have really attracted wide ranging international interest and appreciation. In this study, we shall examine the development of Hungarian agriculture in comparison with the development of industry. We shall try to show the most important characteristics of the agricultural development, as well as the main features of present-day Hungarian agricultural policy.

GROWTH IN AGRICULTURE AND IN INDUSTRY

The last few decades have been a most successful period for the Hungarian economy. Table 1 gives information about the growth of gross and net agricultural production since 1950. We can see that during the 36 years from 1950 to 1986 the volume of agricultural production more than doubled, and after the completion of the socialist reorganization of agriculture in the early 1960s, production increased by about 100%. Net agricultural production grew to a considerably smaller extent; it was only about 20% higher than in 1950.

Examining the last 5-year period, we regard it as a significant achievement that agriculture managed to increase its gross output by 19% between 1980 and 1986. The growth of agricultural production was particularly rapid in Hungary in the 1970s, 3.2% annually, but even between 1980 and 1986 the annual growth rate averaged 1.3%. Of course, growth was not uniform within agriculture (Table 2). The fastest development was observed in cereals, pig farming and poultry husbandry, while horticultural output and bulk feed production lagged behind.

The food industry developed more slowly than industry as a whole until the mid 1970s. In the past decade this branch was more successful in keeping pace with the development of agriculture and its growth was somewhat faster than the industrial average. Food industry production increased by 17% between 1975 and

1980, and by 13.5% in the period from 1981 to 1985. In the past 5 years the annual growth rate of food processing has exceeded the average growth rate of industry in every year.

Table 1

Indices of Agricultural and Food Processing Industry Production

At comparative prices. Year 1950 = 100

Year	Gross agricultural production			Net agricultural production			Gross production of food processing industry
	Plant cultiv. &hortic. productn.	Live animals &animal breeding	Total agricultl. products	Plant cultiv. &hortic. productn.	Live animals &animal breeding	Total agricultl. products	
1951	134	94	117	145	73	123	114.7
1952	80	95	86	73	74	73	141.0
1953	123	80	105	130	49	105	158.5
1954	107	103	105	103	80	96	167.9
1955	124	109	108	125	88	114	180.6
1956	101	104	102	94	80	90	176.8
1957	124	106	117	121	81	109	182.9
1958	121	125	123	113	104	110	189.8
1959	130	124	128	125	90	114	207.5
1960	121	118	120	112	80	102	217.6
1961	113	125	118	98	90	96	239.3
1962	120	125	122	107	89	101	257.3
1963	130	126	128	117	84	107	278.2
1964	131	138	134	117	95	110	304.8
1965	122	134	127	105	87	99	312.1
1966	139	139	139	123	78	109	321.5
1967	143	145	144	126	75	110	346.6
1968	141	149	145	120	85	109	357.0
1969	161	146	155	144	77	123	368.8
1970	135	162	146	104	86	98	392.8
1971	148	171	157	116	83	105	416.8
1972	156	169	161	123	71	105	439.3
1973	169	177	171	126	78	110	454.7
1974	169	188	177	127	71	108	482.0
1975	177	193	183	128	74	109	494.1
1976	165	198	178	110	80	100	501.0
1977	188	217	198	131	88	116	550.6
1978	182	225	200	118	92	110	552.8
1979	176	225	197	107	91	103	567.2
1980	190	230	206	125	86	111	581.4
1981	193	235	210	121	90	111	598.8
1982	211	247	226	145	96	127	624.4
1983	195	253	220	126	101	118	633.9
1984	205	256	226	.	.	121	654.0
1985	194	241	213	.	.	114	642.0
1986	201	244	219	.	.	117	650.7

Source: Hungarian Statistical Yearbooks, KSH, Budapest

Table 2
The Average Annual Rate of Growth of Agricultural Production

	Average annual growth		The ratio of the branch within gross agricultural production	
	in the 1970s	1980-1985	in the 1970s	1985
	(%)	(%)	(%)	(%)
Average for fast developing branches of which	6.3	1.5	55.5	56.3
— grain	7.2	1.8	12.3	13.0
— maize	5.7	0.8	12.1	9.5
— pigs	6.1	2.2	28.2	20.4
— poultry	6.5	1.3	13.0	13.4
Average for more slowly developing branches of which	1.4	-2.2	29.6	30.3
— vegetables	2.4	-0.2	3.7	5.1
— fruits	1.4	-1.4	5.1	4.3
— grapes	-0.65	-7.9	4.8	3.2
— cattle	1.8	0.1	12.1	13.6
— bulk feed	1.9	-1.4	3.9	4.1
In other agricultural activities	1.3	0.7	14.9	13.4
Total for agriculture	3.2	1.3	100.0	100.0

Source: Agricultural Statistical Yearbooks, KSH, Budapest

The production of Hungarian industry increased faster than the development of the agricultural economy. In 1985, industrial production was 9.2 times higher than its 1950 level (the national income within this period increased fivefold). The growth of industrial production is shown in Table 3. The development of industry after World War II up to the end of the 1970s was virtually unbroken. Between 1951 and 1968 the growth rate was around 8% and even between 1970 and 1978 it topped 6% annually. Then growth came to a sudden halt. In 1979 the growth rate fell back to 3% and in 1980 the absolute volume of production actually dropped. After that, industrial production started to increase again. But this increase up to the present has been modest; it has averaged about 2% annually. In earlier years the growth rate of industry was always faster than that of agriculture, but in the 1980s, the growth rate in agriculture surpassed the industry rate in several years.

Table 3
Indices of the Production of Socialist Industry

Year	Gross production value 1960 = 100	Net production value 1960 = 100
1960	100.0	100.0
1961	108.3	110.6
1962	115.8	118.6
1963	123.6	124.7
1964	132.4	134.3
1965	137.7	139.1
1966	146.8	151.1
1967	154.0	164.1
1968	166.0	171.0
1970	170.8	177.7
1971	196.8	203.2
1972	207.2	217.9
1973	221.7	237.6
1974	240.5	258.5
1975	251.9	272.1
1976	263.5	290.4
1977	278.8	306.8
1978	294.1	323.2
1979	303.3	339.4
1980	298.0	329.7
1981	305.1	344.6
1982	312.4	360.0
1983	316.0	364.3
1984	326.3	372.7
1985	328.5	359.4
1986	341.0	360.8

Source: Hungarian Statistical Yearbooks, KSH, Budapest (Central Statistical Office)

The development of the two main sectors of the Hungarian economy can be assessed by comparison with international standards and in the light of the country's economic and natural resources.

The growth of Hungarian agricultural production deserves appreciation even by international standards. Hungarian development has outstripped world food production. According to the FAO's figures, in the period between 1971 and 1980 world agricultural production increased by an average of 2.2% annually, and this pace continued in the early 1980s[1]. On a twenty year time horizon the rate of Hungarian agricultural development was more rapid than in the majority of developed countries and one of the highest within the socialist group.

The relatively favourable natural conditions for agricultural production in Hungary are reflected in the achievements of Hungarian agriculture. As regards the proportion of its area devoted to agriculture, 70.6% of the total, Hungary ranks among the highest in Europe. (In 1986, the agricultural land amounted to 6.6 million hectares and more than half of this was under cultivation.) Our relatively good supply of arable land is accompanied by soil quality and climatic

conditions which are good by international standards. Hungarian economic policy recognized the possibilities in these relatively favourable natural conditions.

The development of Hungarian industry cannot be regarded as an extraordinary achievement by international standards. Until the end of the 1970s, annual growth rate was around the world average or a little above it and higher than in the majority of developed capitalist countries. In these years, the rate of development of domestic industry adapted itself well to the tendencies observable in the socialist countries. But even then development of Hungarian industry fell behind the average of the socialist countries.

The stagnation which started in 1979 and which is still continuing today, deserves special attention. Hungarian economists attribute the slow down to our late and inappropriate reaction to the world economic changes that started in the early 1970s. In fact, this explanation is an oversimplification. It is my conviction that the negative features of the industrial policy of the 1950s and 1960s are reflected in our present-day problems. The main factor is that in developing industry we did not build sufficiently on the actual natural and economic resources of the country (we shall return to this when examining the relationship between agriculture and industry). The shortcomings of our economic management, some of which are having especially unfavourable consequences in the current world economic situation, also play a part in our present problems.

THE ECONOMIC ROLE OF INDUSTRY AND AGRICULTURE

The development of the last few decades outlined briefly in the previous section made industry a crucially important sector of the Hungarian economy. In the early 1980s, industry accounted for 46% of the national income. Industrial organizations employ 31% of the working population and take up 25% of the operating fixed assets of the national economy. About one-third of investments is allotted to industry, and industrial products account for 74% of our total exports, excluding food industry products. It is evident that the economic development of Hungary depends first of all on the performance and efficiency of its industry.

But the role of agriculture and the food industry in the Hungarian economy should not be underestimated. For many years the importance of the sector showed a downward trend within both gross and net production. It is noteworthy that this decline has stopped in recent years; in the early 1980s, the share of agriculture in the production of national income started to increase again slightly, and the number of people employed in agriculture also grew. In 1985, agricultural production in the narrower sense accounted for 16.3% of gross national production and 16.0% of net national production, as compared with 15.1% and 13.9%, respectively, in 1980. The share of agriculture in the employment of the working population was 20.7% in 1985.

In Hungary, the importance of food production is determined by the fact that agricultural land is the only abundant natural resource which, if properly used, is permanently available, and can even be improved in quality. Hungarian food production has great traditions and its products are world-famous[2]. So in this country every effort should be made to produce foodstuffs in excess of domestic demand so as to permit considerable food exports.

In the last few decades, Hungarian food production has almost always had a positive balance of trade. A considerable surplus, however, has been produced only since the end of the 1960s. Hungarian food production provides this country with a steady supply of good quality foodstuffs, and in addition: some 30 to 35% of agricultural produce is sold on foreign markets; the food economy accounts for 25% of total foreign trade turnover; more than a third of non-ruble-accounting exports consists of agricultural and food products; and food production in recent years in both ruble-accounting and non-ruble-accounting trade yielded a substantial export surplus (approximately US$1 billion and 21 billion forints' worth of rubles).

On the basis of all this, Hungarian agriculture has become a very important stabilizing factor in the national economy, a vital source of foreign exchange at a time when industry is not capable of producing a net export surplus and when paying off debt is a very important task for the country. Hungarian food production makes it possible to import materials and energy carriers which are indispensable in our economic life, and it is one of the most important sources of the foreign exchange we need for industrial development.

Hungarian agriculture, apart from its role in our positive foreign trade balance, normally contributes to solving the financial difficulties of the national budget and the economy. However, in recent years the income position of agriculture has become decidedly unfavourable. The balance of subsidies and grants allocated to agriculture has become adverse in recent years (Table 4). The position of agriculture further deteriorated because the cost increases resulting from the rise in price of agricultural means of production have been higher than the price increases of agricultural products. (Between 1981 and 1985 the prices of the means of production used in agriculture rose by 32%, while those of agricultural products rose by only 22%.) As a result, the profitability of producing agricultural products deteriorated considerably. Profitability decreased especially in the production of animal products, causing a slight reduction in the volume of production (see Table 1).

Table 4

Subsidies and Withdrawals in Hungarian Agriculture (Billion Fts)

Year	Total subsidy	Total withdrawals	Balance
1980	29.6	26.9	2.7
1981	31.9	31.4	0.5
1982	32.1	38.1	-6.0
1983	30.5	42.0	-11.5
1984	29.7	47.8	-18.1
1985	27.8	51.6	-23.8
1986	32.3	51.8	-19.5

Source: Financial Accounts for Agricultural Enterprise, 1980–1985, (KSH) Central Statistical Office, 1986.

The situation on the world market for foodstuffs is reducing the favourable influence exerted by Hungarian food production on the development of the country's economy. It is even exerting an unfavourable influence on the whole Hungarian agricultural sector. More than 50% of Hungarian food exports go to non-ruble-accounting markets. This market is greatly distorted by the agricultural protectionism of developed OECD countries but mainly by that of the EEC. The enormous subsidized surplus food exports of the developed capitalist countries harm the market position of those otherwise efficiently producing countries which do not want (or are not able) to take part in the price competition financed by state budgets. Instead of a competition in production by agricultural producers in the individual countries, the world market for agricultural products is becoming a competition between state budgets. In this situation there are both winners and losers. Obviously the smaller and poorer exporting countries are on the losing side, while the solvent importers can be found on the winning side.

Hungary is one of the countries most unfavourably affected by the protectionist policies influencing the world market:

Hungary, like the other small agricultural exporting Central European countries, has been driven out of its historical markets for agricultural products, the developed West European countries and the EEC, without any compensation; in other words, its exports directed there are being hard hit by the present discriminatory measures.

At the low world market prices caused by the protectionist policy of the developed capitalist countries the Hungarian food economy is becoming less and less capable of competing with the export-subsidized products of the rich countries.

At the CMEA level preference is given to domestic production only in an indirect way: even within the CMEA the system of bilateral agreements can only partly give protection against the effects of the export policy of the developed capitalist countries, which is state-subsidized and aims at selling accumulated surpluses, and which therefore damages Hungary's price position.

It is evident that an agricultural world market free from protectionism, or at least less protectionist, would immediately bring economic advantages for Hungary. Every step towards agricultural free trade would considerably improve the favourable effects of Hungarian food production on the development of the whole economy, and would provide additional resources which would help us to meet our debt payment obligations and to lay the financial foundation for structural change in industry.

INTERSECTORAL RELATIONS BETWEEN INDUSTRY AND AGRICULTURE

The large-scale development of industry and agriculture in Hungary has opened up new prospects in the relations between the two sectors. These possibilities are of great importance from the point of view of the development and efficiency of the whole economy.

Table 5 shows how much material of agricultural origin has been used in industry. We can see that agriculture supplies a relatively small proportion of the materials consumed by industry. These figures indicate that industry has only partly exploited the primary production possibilities provided by the economic and natural resources of Hungarian agriculture. In the 1970s, development of the sectoral structure of Hungarian industry was determined by central development programs. Unfortunately, in these programs (natural gas, aluminum, public vehicles, computer technology, petrochemicals) and in the big investments associated with them, developments related to agricultural production potential were not emphasized. Programs initiated in recent years pay more attention to the possibilities of agriculture. The foremost developments now include pesticide production and biotechnology, but as regards its relation to agriculture, Hungarian industrial policy has not changed substantially.

Table 5
Material Consumption by Hungarian Industry

	1970	1975	1979	1982	1984	1986
Total consumption of materials of agricultural origin in percentage of the total	17.2	16.8	18.1	16.4	15.9	17.0
Index with 1970 = 100	100.0	148.6	214.2	304.7	341.2	383.8
Total material consumption with 1970 = 100	100.0	164.4	220.7	320.0	369.1	389.7

Source: Hungarian Statistical Yearbooks, KSH, Budapest

The relative backwardness of the food industry and the fact that it did not benefit from the main developments of past years, and of the last 10 years in particular, constitute very serious disadvantages for Hungarian food production. Almost three-quarters of our agricultural exports consist of products which have gone through some sort of processing. The level of processing is not only visible in our export products, but to a large extent it also determines their prices and saleability. Because of the saturation of the markets the requirements concerning the quality of foodstuffs and the demand for up-to-date packaging have risen considerably. Consequently, the competitiveness of Hungarian agricultural exports is decided by these factors. Can we meet these increasingly rigorous quality and packaging requirements or not? Because, if we cannot, our economical agricultural production and all the efforts made and partial successes achieved in the earlier stages have been in vain. We cannot hope to continue to export our food industry products profitably.

Domestic industry has only partly exploited the market potential offered by the rapid development and industrialization of Hungarian agriculture. Signs of change have been observable in the last few years, but owing to the shortage of capital in the whole economy, adjustment to the needs of agriculture has been

much more difficult than it would have been in the 1970s. The share of the machine industry in the supply of the means of production to Hungarian agriculture is particularly modest. In fact, almost the whole stock of basic machinery in Hungarian agriculture originates from foreign markets and foreign factories. In 1984, of the 3,663 new tractors which were put into operation in Hungarian agriculture only 251 were Hungarian made. Combines and trucks used in agriculture were all imported. (In 1984, 1,012 new combines and 4,242 new trucks were put into operation in Hungarian agriculture.)

As a consequence of all this, the industrial background of modern agricultural production has only partly developed in Hungary. The majority of the means of production come from abroad; the choice is poor and often accidental. In the renewal of technologies the agricultural sector is the decisive one. The partial absence of a domestic industrial background is unfavourable on the whole, even though by means of imports, Hungarian agriculture can obtain means of production which Hungarian industry would not be capable of producing. In our domestic circumstances mainly import-based mechanization results in a narrower choice of technologies and greatly reduces the possibility of accommodation to concrete circumstances by individual farms in the choice of technologies.

THE ENTERPRISE STRUCTURE OF HUNGARIAN AGRICULTURE

Before the land reform of 1945, Hungary was a country of large estates. Approximately 1.5 million farmers (i.e. 94% of the farms) cultivated 32% of the land while two-thirds of the land belonged to 6% of the owners. The land reform affected more than one-third of the land of the country. On average each man received 2.9 hectares of land without paying compensation and 400,000 new small estates were established. The agricultural structure of the country was one of small farms comprising mostly 3 to 4 hectares, which proved to be very viable. By 1949, agricultural production had surpassed the prewar level. The government, on the other hand, reached a crossroads in 1949 and the question was how to go on.

The question was rapidly, possibly too rapidly, settled by the political situation in the country at that time. In the autumn of 1949 the organization of the cooperatives was started under vigorous political and economic pressure without adequate preparation and their numbers continually increased until 1953. The coercive organization method of the cooperatives and their weaknesses led to failure, first in 1953 and later in 1956.

An upswing in the establishment of the cooperatives manifested itself again after 1960 but this time upon an almost entirely new political and economic basis. The Hungarian Socialist Worker's Party drew conclusions from earlier failures and elaborated in 1957 a new agrarian policy which (confirming the abandonment of compulsory delivery) introduced new agricultural prices which covered the costs of production. The Party also allotted the leading role in the development of agriculture to the large-scale enterprises and among them to the cooperative farms.

The collectivization carried out between 1959 and 1961 can be evaluated at present as a useful, well prepared but undoubtedly difficult step. It should be particularly stressed that the organization of the cooperative farms was not accompanied by a decrease in production. The prosperity of agricultural produc-

tion between 1957 and 1959 can be attributed to the radically improved and renewed political climate of the country and to the well functioning economy. The varying solutions to the organization and remuneration of labour in the recently established cooperatives were adapted to the local needs on the one hand and the basis was constructed, on the other hand, for a system of interest which has continually developed since then. It is characteristic that the diverse types of remuneration, which are still in effect today, were often named in special literature from certain villages or from the president of the cooperative farm who applied it first. The type of cooperative farming which was often called the Hungarian type in fact was a very heterogeneous one and it has remained so until the present day. In my opinion the official reluctance to enforce uniformity is one of the most important factors determining the satisfactory result.

Members and employees are working in the cooperatives. Their comparative share within the total personnel is 9 to 1 and it has remained constant for a number of years. Differences between the status of members and employees are diminishing. As a general rule, it is worthwhile to be a member in a good cooperative, whereas it is better to be an employee in a weak cooperative farm. The majority of the employees, however, are working in the industrial units of the cooperatives and a large majority of them are skilled workers. The cooperatives are farming on land partly owned by the cooperative farm itself and partly by its members. The members receive a land rent for their privately owned and collectively cultivated land. The privately owned land of the cooperative members is inherited by their children. But when the children are not members of the cooperative they are obliged to sell the inherited land to the collective farms and thus it becomes collective property. It is also worthwhile to mention that since about 10 years ago, land owned by the state but cultivated by the cooperatives may also become collective property.

The cooperatives are enterprises and social institutions at the same time. Their independence is increasing in both respects. As enterprises, the cooperatives cover their expenses from their returns and they accumulate diverse funds. The sharing fund which is the source of personal income was established earlier according to the so called 'residual' principle. This means that material costs, the taxes and other obligations were subtracted from the returns and the amount of the residual was distributed according to the total of the so called 'work units'. At present, the cooperatives also pay guaranteed monthly wages. At the end of the year, 6 to 20% is added to the guaranteed sum and this share depends upon the financial result of the enterprise.

Cooperative democracy forms the basis of the management of the farmers' cooperatives. The general assembly is the supreme decision making body of the cooperative. The activity of the cooperative farm is directed by the leading body which is elected by the general assembly and directed also by the president in close consultation with the diverse commissions elected by the general assembly.

The second type of enterprises, besides the cooperatives, are the state farms. The purpose of their establishment was that there should exist such enterprises which can apply modern techniques, present examples, and give assistance to the cooperative farms. They have fulfilled this role more or less successfully so far, and a reasonable labour distribution was established until now, but no doubt a certain rivalry does exist between the state and cooperative farms. Generally, state farms work at a high technical level and have a high productivity rate. The

cooperative farms on the other hand produce with somewhat greater flexibility, with less up-to-date technology, but often have lower costs of production than the state farms.

Table 6
Average Size of State Farms and Cooperative Farms in Hungary

	State farms					1985 as percentage of 1970
	1970	1975	1980	1985	1986	
						(%)
Number of farms	184	150	132	129	129	70.1
Agricultural area (ha)	5,171	6,235	7,125	7,078	7,078	136.9
Value of fixed assets (in million Ft)	151	290	468	544	557	360.3
Employment (persons)	844	965	1,092	1,075	1,046	127.4
Gross value of production (in million Ft)	-	209[a]	310	398	414	194.4[b]
Net income (in million Ft)	9	19	30	44	49	488.9
	Cooperative farms					1985 as percentage of 1970
	1970	1975	1980	1985	1986	
						(%)
Number of farms	2,441	1,598	1,338	1,268	1,260	51.9
Agricultural area (ha)	1,942	3,078	3,823	4,037	4,063	207.9
Value of fixed assets (in million Ft)	24	73	126	160	167	666.7
Employment (persons)	336	410	465	467	444	139.0
Gross value of production (in million Ft)	-	47	86	114	119	242.5[c]
Net income (in million Ft)	-	7[a]	12	13	14	185.7[b]

[a] from 1976

[b] 1985 in percentage of 1976

[c] 1985 in percentage of 1975

Source: Hungarian Statistical Yearbooks, KSH, Budapest, 1986.

The number of the farmers' cooperatives decreased between 1970 and 1986 from 2,441 to 1,260. After numerous mergers, the average acreage of the cooperative farms increased from 1,942 to 4,063 hectares (Table 6). The number of state farms dropped from 184 to 129 in the course of 16 years and the average size of state farms increased from 5,171 to 7,078 hectares. The largest agricultural enterprises undertaking complex activities were transformed into agricultural conglomerates. There is a great dispersion behind the average data. However, according to Hungarian agricultural economists this is a reasonable process since

there is no optimum farm size which exists independently of space and time. The size of the Hungarian state and cooperative farms is sufficient to accept the most up-to-date techniques. Besides the present size of the enterprises, the difficulty of establishing direct incentives causes problems. However, the cooperatives have progressed further than the state farms in finding a solution to this problem. Nevertheless, there is a trend for state farms to adopt a number of methods to provide incentives (labour payments in proportion to yield, remuneration of small groups, etc.) which were regarded earlier as 'primitive'.

In addition to the above two types of large-scale enterprises, about half a million private plots and small farms are under cultivation. The employment structure and social situation of the population is quite varied.

The comparative share of large-scale enterprises and small farms in Hungary is 85% and 15% with respect to the agricultural land and 66% and 34% with respect to the gross value of production. These different proportions indicate first of all the different structure in production and also the different forms of land use rather than the supremacy of small-scale farming. The large-scale enterprises produce the bulk of wheat and corn. There is, furthermore, no sugarbeet and sunflowers and no significant green forage production on the small-scale farms. On the contrary, however, these small-scale farms deliver about half of the total production of vegetables, fruit and wine. Livestock husbandry is conducted in both types of enterprise and the distribution of labour between the small and large-scale farms is not so clear. The share of the large-scale farms is increasing more and more with respect to cattle husbandry, poultry keeping and sheep farming. The role of the small-scale farms is still greater than that of the large-scale ones for the production of pork, eggs, and hare meat.

There is an increasing trend in Hungary for the establishment of collaboration and joint ventures between several agricultural enterprises. Among these new collaborative ventures, the technically organized production systems (TOPS) should be mentioned first, since they are outstanding with respect to the volume and efficiency of their labour compared with other joint ventures. At present, they already make up a significant part of arable crop growing, horticultural, and livestock breeding activities. TOPS make use of modern technical and biological developments as well as the latest scientific results. The core of the TOPS is a farm enjoying adequate intellectual and material background (i.e. the so-called 'master of the system'). The large-scale agricultural enterprises which voluntarily join it are supplied by the TOPS with the technologies needed for up-to-date production techniques, with professional advice and services, and at the same time the system offers a guarantee for a well defined increase in output. The enterprises which avail themselves of the services of the system are obliged to pay a fixed charge for them. The first TOPS was organized by the Agricultural Combine of Babolna in the area of poultry breeding.

Another type of economic cooperation is represented by joint ventures which operate in particularly varied forms. Their establishment began in the second half of the 1960s. At present, there are more than 500 such enterprises. Joint ventures were founded for the performance of such activities which surpass the possibilities of the single enterprises. They were established by state and cooperative farms which united a certain part of their capital and complemented it with bank credits and if possible by applying for state subsidies. There are certain joint ventures which operate as independent units in the framework of a cooperative

farm, but it is also common that they themselves become both legally and economically independent enterprises. The founder farms settle the distribution of the profit realized on the basis of their share in the capital contribution. Joint ventures are most common in the building industry, food processing, and marketing as well as in services and certain other agricultural activities.

THE CHARACTERISTICS OF PRESENT-DAY HUNGARIAN AGRICULTURAL POLICY

The principles of Hungarian agricultural policy that are predominant in the present stage of development were established in the course of the last quarter century. They are: voluntary gradualness, independence, material-financial interest, socialist democracy and support from the state.

This agrarian policy has made possible the effective implementation of the socialist transformation of agriculture. Even before the recent general reforms in economic management, it offered an opportunity for the introduction of new elements in management of agriculture. Furthermore, it is used at the present time as a basis for the state management of Hungarian agriculture.

In the second half of the 1970s, Hungarian agriculture reached a turning point in several aspects. On the one hand, a reasonably modern well equipped food industry had been established and was proving to be effective. At the same time, significant growth had been achieved especially in the large-scale farms. Nevertheless, it became obvious that it was no longer enough simply to increase food production. Production considerably surpassed the self-sufficiency of the country, and was growing steadily, but the demand for Hungarian food products on foreign markets had begun to fluctuate much more than in the past. The importance of increasing the efficiency of production became obvious, and at the same time, the necessity to obtain convertible foreign currency through food exports was also confirmed.

Let us now consider the major characteristics of Hungarian agricultural management during the first half of the 1980s.

As was mentioned already, the fundamental principles of present-day Hungarian agricultural policy were established at the end of the 1950s and in the 1960s. The application of these fundamental principles, however, was and still is, adapted as far as possible to changing conditions.

1. It is a fundamental goal of Hungarian agricultural policy that the agriculture and food industry should totally satisfy the quantitatively increasing and qualitatively changing domestic demand with respect to all products which can be produced in the country, and should produce as much surplus for export as possible, mainly in the area of dollar transactions. From the beginning of the 1970s, Hungarian agriculture has been able to satisfy the needs of the population and to increase the quantity of produce delivered to the consumers. At the beginning of the 1970s, food consumption of the population increased on average 3.3% annually. Characteristics of the per capita food consumption are summarized in Table 7. Later on as a result of the declining increase of real income, increasing consumer prices of foodstuffs, and last but not least the high level of consumption, the rate of increase year by year diminished and even stopped in 1980. Thus among

the factors determining the development of agriculture was the urge to export more and more i.e. the requirement that convertible foreign currency returns should be increased became the most important motivating force.

2. Agrarian policy considers the socialist large-scale enterprises, the cooperative and the state farms, to be the bases for the increase of production and the fundamental pillars of the agricultural system. The production of the large-scale agricultural enterprises increased rapidly in recent years. The acceptance and rapid propagation of advanced techniques and methods, the significant support granted by the state, the improved rentability, as well as the more flexible state management, offer together favourable circumstances for the development of the state farms and the cooperatives.

Table 7
The Development of Per Capita Food Consumption (kg)

	Year				1985 as percentage of 1975
	1975	1980	1985	1986	
Meat (including fish)	71.2	73.8	79.1	80.3	112.8
Milk and diary products	126.6	166.1	182.0	183.9	145.3
Eggs	15.2	17.6	18.0	17.5	115.1
Fats, total	29.1	30.5	34.0	33.8	116.2
Sugar	39.4	37.9	35.4	35.4	89.8
Cereals, total	122.2	115.1	110.0	109.2	89.4
Potato	66.8	61.2	54.1	50.0	74.9
Vegetables	85.2	79.6	75.6	75.0	88.0
Fruits (incl.citrus goods)	74.0	74.9	71.0	73.8	99.7

Source: Hungarian Statistical Yearbooks, KSH, 1987.

3. In spite of difficulties from time to time, in general the development strategy of agriculture adjusts itself to the social, economic and financial possibilities of the country. Parallel with the implementation of a top ranking technical level, a definite effort can also be observed in the agrarian policy which aims at the efficient use of local resources and capacities. The former means development of large-scale agricultural production which is based upon advanced techniques, using production means of industrial origin to an increasing extent, sparing labour and producing with the use of existing productive capacities of diverse technical levels, prompts the maintenance and then the support of small-scale agricultural production and the opening of new paths for the rapid and efficient extension of the area of activity of large-scale farms.

4. Small-scale production, which is organically linked with the development of viable socialist large-scale enterprises, form an integrated part of Hungarian agriculture. In the 1970s, parallel with the development of the cooperative and state farms, small-scale agricultural production increased and consoli-

dated. In the course of this process its character was also transformed from self-sufficiency farming to that of commodity producer. In this respect, the establishment of financial-material interest, the ready and permanent availability of inputs, and other important factors, were decisive for the viability of small-scale production. The household plots of cooperative members are regarded as an integral part of the large-scale enterprise and the interrelations between the collective and household farms in the area of production and marketing are an extension of large-scale farms. The agricultural activity of people not employed in agriculture cannot be underestimated either.

5. Better utilization of local resources and the satisfaction of local demands at a higher level is an important aspect of the agrarian policy and contributes to the non-agricultural and servicing activities of the agricultural enterprises. The so-called subsidiary and auxiliary activity of the agricultural enterprises which proved to be advantageous for both the individual and national economic interest and which also satisfied real social needs, has significantly broadened in recent years.

6. Agriculture was compelled to extend its activities in several respects. Because of the inadequate industrial background, the production of inputs and servicing activities needed for the development of crop growing and livestock husbandry had to be established within its own organization. As an extension of the process of agricultural production certain processing activities also appeared in the agricultural enterprises which produced 14% of the food industry production in 1980. Large-scale agricultural enterprises replaced the small and medium size processing firms which were lacking in initiative in several areas and they performed their tasks of production without any great investments. The income earned with auxiliary activities contributed not only to the improvement of the living standard of the rural population but considerably augmented the development resources of the large-scale agricultural enterprises. In the course of the 1970s, this auxiliary activity more than doubled at constant prices, it increased on average by 8.5% annually and produced in recent years about one-fourth of the gross returns of the large-scale agricultural enterprises.

7. The multiplicity of enterprise types available as well as the desire to apply those types of organizations which can best be adapted to existing conditions, is now a characteristic of Hungarian agriculture. As a result of this policy, the enterprise structure of agriculture is particularly diverse. State farms, agricultural cooperatives, associations, joint ventures, large and small farms all exist.

8. An essential element of Hungarian agricultural policy is the application of the principles concerning the independence of the enterprises and their financial-material interest. The new system of state management was established in 1968 when the reform of economic management was implemented. This reform replaced the old centralized management system which was based upon direct orders, with indirect means. That is, economic regulators (prices, credit and tax system, subsidies, exchange rates etc.) have become

the means by which the state manages the activities of both the production enterprises and the whole national economy. The independence of the agricultural economic units has continued to increase in the 1980s, although the direct intervention by the state and other social organizations has not ceased entirely.

NOTES

1 Agriculture Toward 2000, FAO Rome, 1981.
2 The amount of arable land per capita in Hungary is among the highest in Europe.

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