STRATEGIES AND TACTICS FOR FAMILY FARMING

FINNISH-BALTIC JOINT SEMINAR
RIGA LATVIA 1991

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STRATEGIES AND TACTICS FOR FAMILY FARMING IN FINLAND, ESTONIA, LATVIA AND LITHUANIA

Finnish-Baltic common seminar
Riga Latvia 1991

Abstract: Agricultural economics from Finland and the Baltic countries had their second joint seminar in Riga , May 27-30, 1991. The seminar topic concerned the strategy and tactics of family farming in the participating countries. The seminar was organized by the Latvian Research Institute of Agricultural Economics. This publication contains most of the presentations given in the seminar or summaries of them

Agricultural economists from the host country examined the economic policy in agriculture during the transition period to market economic relations and the means of the realization of the agrarian reform in Latvia. The regulation of prices and the level of income as well as problems related to fodder were other interesting subjects in Latvian agriculture.

Finnish presentations concerned the state legislation and economic policy in relation to family farming and the small - scale enterprises in the rural areas. Other topics dealt with the agricultural policy of the new government , the bookkeeping systems, the calculation of production costs and the planning of farm activities and management.

Lithuanian economists considered the planning of family farms' activities and the social economic problems of Lithuanian agriculture in the period of the transition to market relations. Policies of agricultural prices, incomes and food production in the Baltic republics were analysed as results of the joint studies between the economists from Luthuanian and the USA.

Estonian economists presented reviews of the present situation of agrarian policy through an historical survey of the development of family farming in Estonia. Practical solutions to issues concerning the economics and bookkeeping of family farms and the trends in the formation of procurement prices of agricultural output were other topics of the presentations.

Index words: Family farms, Finland, Estonia, Latvia, Lithuania

Cover: Seminar participants in front of the Agricultural Academy of Latvia in Jelgava (Latvijas Lauksaimniecibas Akademija)

Photos by Maija Puurunen and Marja Hokkanen

Contents

AGRARIAN ECONOMIC POLICY IN LATVIA DURING THE TRANSITIONAL PERIOD TO THE MARKET RELATIONS

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1 General principles

Agrarian economic policy in Latvia should be guided by the following basic target;

- self-sufficiency in providing citizens of the Republic with foodstuffs, and industry - with the agricultural raw materials;
- stimulation of surplus of agricultural produce export to the East and West;
- providing to citizens working at the agricultural enterprises and farms income not lower than in other branches of the national economy;
- promotion of the preservation of the rural population, its way of life and traditions, as well as cultural environment.

From our point of view, in the process of formation the new agrarian economic policy one should conform to the following principles:

1) under conditions of the market economy the principle of free enterprise should be observed and private initiative should not be restricted. This implies that every natural or legal person must have the right to be engaged in any kind of economic activity,which is not prohibited by the law. To achieve this it is necessary to have equality of rights and equal legal security of all forms of property (private, state and joint) and of all forms of the economic management. At the same time, each object acting as the owner of property is responsible for its success or failure, but not the state. In this case an important role should have the bankrupt law. This is especially important, because the soviet system of the economic management virtually excluded the possibility of bankruptcy, which resulted in the irresponsibility of the managers of the enterprises for the results of their activity. This demands the equal rights and equal legal security of all forms of property, as well as of all forms of the economic management;

2) taking into consideration, that the state property has a monopolistic domination among forms of property and all forms of property and economic management did not have constituted equality of rights, the Government should stimulate private enterprise activity using special program for state property privatization and program supporting private entrepreneurs.

It is known that in agriculture collective forms of economic management is predominating. Therefore a special support to the newly created farms and cooperatives set up on the basis of the collective farms is of vital importance. It should not be done at the expense of destroying the latter, but by the gradual transformation of the collective farms into other more efficient forms (joint-stock companies and mixed).

3) The world experience proves that in any country a rational regulatory influence of the state on the economic processes is always needed in order to harmonise free manifestations of the initiatives of a certain natural or legal person with the interests of the society;

4) the main levers of the carrying out economic policy by the state are prices, taxes, subsidies, terms of crediting, terms of foreign trade, which influence the motivation of the managing subject.

But taking into consideration that the effect of the economic regulators on the changes in the managing processes does not come immediately (since the economic processes are inert by nature), in case when immediate change in the economic processes is necessary to prevent deterioration of the situation, non-economic (administrative) methods should be used. Such methods may include laws, resolutions issued by the state bodies and administration;

5) the policy of the Government should be directed not towards the unilateral subordination of the managing subject activity to the interests of the society, but towards coordination and harmonization of the interests of the entrepreneurs and society as a whole, i.e. towards that which is called "social market economy" in Germany or "social partnership" in Austria. Prosperous society cannot exist without rich entrepreneurs. Interests of the entrepreneurs are part of the interests of the society and therefore these interests should meet each other's requirements and consensus should be found between them;

6) one of the important principles of the market economy is free competition. In the absense of the market competition between the producers prevalence of the interests and the requirements of consumers is impossible, that is, the condition when the interests of the consumers would be the main moving force cannot be created. Therefore the Government should create conditions which give rise to the free competition. This implies that one entrepreneur or a group of them must not dominate over the too big sector of the market, which allows them to dictate their conditions to the customers;

7) simultaneously with the development of the market relations social security should be guaranteed for the population. Every citizen must have definite guarantees allowing to maintain living conditions on a certain minimal level adequate to the human dignity. Otherwise social discontent will grow, this will find its expression in the increase in crime,

apathy and in other forms of the opposition to the policy of the Government. At the same time such guarantees should not be too high or otherwise people will not be interested in earning money.

Social guarantees are necessary not only for certain individuals, but also for the entrepreneurs, and this is often forgotton. Entrepreneurship is always linked with risk and therefore special support funds for the enterpreneurs are needed if they face a failure.

2 Conversion of property in agriculture

Conversion of property in agriculture first of all is linked with the reform of the landownership. Here from the point of view of the agrarian policy it is necessary to highlight the following problems:

1) reprivatization, that is, restoration of the property rights of the former (according the status in 1940) peasant proprietors. This is an extraordinary complicated problem, and in the first instance it is connected not with the economic expediency, but with politics, with restoration of the social justice for those, whose land was unjustly nationalized. The basic problem here is that new unjustice should be avoided concerning those who are working now at the collective and state farms. Many of these persons working at the collective farms are not heirs of the lands which were forcibly nationalized from the peasant proprietors in 1940, as well as they are not guilty in the repressions before and after the war. But as a result of the reprivatization they may loose their means of subsistence. Therefore already now it is necessary to find a legal solution to the problem of the distribution of the collective property between those who remains in the collective farm and those who will chose to become a farmer. For the solution of this problem the law (statute) of the transformation of the collective farms is needed;

2) as peasant farms will with draw from the collective farms the problem arises how during the period of the reform to maintain production level. A lot of the collective farms will be transformed and this may result in the reduction of the agricultural production since new peasant farms will not be able to immediately compensate the reduction of the production. In order to make a peasant farm a commodity producer it should be properly arranged, provided with material and technical resources including farm machinery. It takes time. Therefore it is necessary to seek the forms of cooperation of collective and peasant farms and to carry out gradual transformation of the collective farms into the cooperation of the individual peasant farms taking into consideration actual resources of the national economy. Significant assistance should be rendered to this process by the entrepreneurs of other branches and by the state itself on the basis of the corresponding program of the peasant farms development;

3) in order to restore the ownership of the agrarian property it is expedient to create joint-stock companies or other forms of the proprietors' associations instead of the present collective farms as transitional form of the economic management. In this connection it

is necessary to determine a share of the collective property which is due to every person working at the collective farm. But this by no means implies that the owner of the share must immediately get the right to leave the collective farm because this may result in the destruction of agriculture. This right should be stipulated provided that a certain gradualness should be observed (3-5 years) depending on the real conditions. Every application of the shareholder who decides to drop out of the shareholders' association should be considered separately;

4) to create real estate market, including land market, it is necessary to restore the special financial institution for it. This will help to solve the problem of compensation to the former proprietor if his real property cannot be returned to him or if he does not want to use this property for production;

5) special attention should be given to the solution of the problem of the agroservice and agricultural processing enterprises.

Although these enterprises exist only because they are needed for the producers of the agricultural products, the role of the latter in the management of such enterprises is of little importance. Therefore it would have been expedient if producers of the agricultural products owned a share of the property of agroservice and processing enterprises in order to participate in the profits of these enterprises in proportion to their share in the enterprise capital.

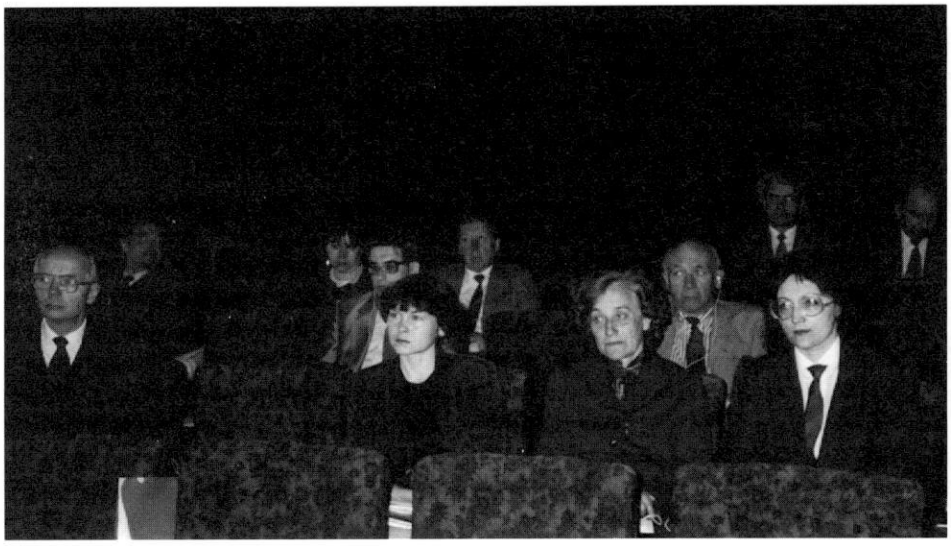
Workers of these enterprises should be given a possibility to buy a certain share of the property of the agroservice or processing enterprises with the aid of cooperative credit. Otherwise they will not be interested in efficient work.

In brief, in the relations between the producers of the agricultural products, on the one hand, and agroservice and processing enterprises, on the other, it is necessary to find mutually advantageous forms of cooperation based on the economic profitability.

At the same time, one should not exclude other forms of the conversion of the agroservice and processing enterprises' property. Leasing of such enterprises by the producers of the agricultural products with the following right to buy them, selling to proprietors (especially this concerns small-size enterprises, such as workshops, centers of collection and processing of milk, canteens, transport. etc.) are also possible. But in this case enterprises, where the competition is well developed and it is not possible to dictate conditions to the producers of the agricultural products, should be sold to the proprietors.

6) The state should render assistance in strengthening material and technical base of the agroservice and processing enterprises for some time, because their poor situation is the result of the wrong governmental policy in agriculture. Therefore, first of all a special state program of agroservice and agricultural product proces-sing development is needed. Secondly, it is necessary to exempt agroservice and processing enterprises for five years from profit tax which is used for strengthening their material and technical base as well as for the development of production. Thirdly, it is necessary to exempt agroservice and processing enterprises, agricultural enterprises including peasant farms, from paying custom tariffs and from payments to the state budget from profit in hard currency received for export and import operations, if they are connected with the development and

Director Inesis Feiferis and Deputy Director Dimitrijs Romanovs hosted the successful seminar of aricultural economists from Finland and the Baltic countries in Riga May 27.-30, 1991.



Simulaneous interpretation in English and Russian was provided in order to facilitate the work of participants representing different nationalities.

modernization of the production. It is also expedient to introduce licencing of imports, so that hard currency was used for production requirements and not for purchasing consumer goods.

3 About market infrastructure

A market mechanism in agriculture will not be able to function well in the absence of the proper infrastructure,which provides successful movement of the agricultural products from the producers to the consumers. In addition to the unsufficient state network of trade and procurement of the agricultural products existing today it is necessary to develop intermediary services, commodity exchanges, auctions, fairs, consulting marketing firms, transport services, the network of state, cooperative and private shops. In this connection an attitude to the entrepreneurs (cooperatives) performing intermediary functions should be changed. Producers will fail to sell their products without such intermediaries. For successful marketing of the products one must know the market situation, be informed about customers and consumers, about prices, requirements to the quality of products, possess proper professional skills. To achieve this it is necessary to be specialized in this field of activity. It should be noted that only the most established producers can both to produce and sell their products.

First and foremost producers themselves should create sales organizations, a network of cooperative shops, by a way of cooperation.Simultaneously, permanent commodity markets, auctions should be set up; network of markets should also be extended. Exchanges, auctions, fairs should have permanent locations in various parts of Latvia. They will become centers where producers, intermediaries and consumers can get any information about the market situation, prices, terms of product deliveries, requirements to the quality of products, make deals on purchase and sale. On the other hand, permanent location of exchanges, auctions, fairs is also necessary for providing proper working conditions: enclosure auctions, information center (data bank), telecommunication services, banking operations, etc.That is why it is necessary to speed up the adoption of the law on commodity exchanges.

STATE MEASURES TO DEVELOP FARMS AND SMALL SCALE RURAL INDUSTRIES IN FINLAND

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1 Practices up to the present and need for reform in legislature

Up to 1991 various attempts have been made to promote the development of small-scale enterprises in the countryside. In this work the Farm Act, which concerns agriculture and forestry proper, has been central, and a separate act has been in force for the promotion of other industrial activities. Through government decisions, it has also been possible to pay start support to young farmers. In addition, it has been possible to support small-scale entrepreneurial activity through various stipulations. Naturally, the development of agriculture has been influenced by the Farm Income Act regulating the livelihood of farmers and prices, as well as by the support policy of the state as a whole.

The preconditions for activity and the environment of agriculture and rural small-scale enterprises have changed a lot in the past couple of decades. Overproduction alone has led to various regulations and control measures affecting agriculture. Livestock production and crop production have been restricted through various means. The price and income policy of the state have been used to restrict and direct production. Certain measures have clearly had an adverse effect on the development of the structure of agriculture and hindered the overall positive development in the countryside. The fact that an attempt has been made to promote agriculture and forestry proper separately from other entrepreneurial activity has for its part slowed down the desired development in rural areas.

Securing the income development of farmers, the liberalization of international trade and the European integration alone impose new requirements to agriculture and to entrepreneurial activity in general. In order to be able to cope with these in agriculture and in entrepreneurial activity, the production structure of enterprises must be developed and productivity improved. This is also the objective of legislature directing industries. The new Act on Rural Industries, which came into effect in the beginning of 1991, aims at promoting the development of rural areas through all possible means.

2 What is included in rural industries?

The Act on Rural Industries covers agriculture and forestry as well as rural small-scale entrepreneurial activity, practiced either alone or in connection with agriculture and forestry. The act also concerns the acquisition of residential farms. Reindeer husbandry is excluded.

Agriculture and forestry refers to agriculture proper, specialized agriculture, and forestry. In the new act the concept is wider than earlier because it also covers farms that are engaged solely in forestry. Specialized agriculture refers to garden and nursery production, fur farming, horse husbandry, fisheries, beekeeping, or other comparable entrepreneurial activities.

Apart from agriculture and forestry, rural small-scale entrepreneurial activity refers to activities that are based on the continuing production capacity of nature and practiced in connection with it that employ, on the average, the maximum of three annual workers, in addition to the entrepreneur and his family. If the activity is practiced, for example, in connection with agriculture and forestry, these jobs are also included. Small-scale entrepreneurial activities may also include e.g. the production of peat, timber for energy, etc. Farm as a concept is quite broad: it may be a single farm or a combination of several farms or parts of farms.

The so-called residential farms of over two hectares may also be included in the development act for the part of the residential building and the building site.

3 General objectives

The act concerning the support of small-scale entrepreneurial activities includes the condition that the entrepreneur must reside on the location of the enterprise or close to it. The distance to the residence must be expedient.

One important condition for the support is that the enterprise is regarded as capable of continuous profitable activity. The results of the activity must be examined by means of calculations indicating the liquidity and, in general, the profitability of the enterprise. A loan should not be granted if, for example, the expenditure on debts of the enterprise is too high in relation to income.

When considering the entrepreneurs applying to join the activity, personal qualifications are also taken into account. The principal rule is that the entrepreneur will receive his livelihood primarily from the enterprise in question. The support is subject to the further condition that the entrepreneur meets certain requirements with regard to age, financial position, other circumstances and personal characteristics, so that supporting him can be considered expedient. In practice, this means that the entrepreneur has received professional training, has acquired sufficient professional skills through experience, or can otherwise be considered capable of practicing the entrepreneurial activity in question.

When the primary livelihood of the entrepreneur is examined, his taxable income from another trade or profession is taken into account. At the moment the limit that the other

income may not exceed is FIM 130,000 a year. The total taxable income of spouses or family members may not exceed FIM 165,000 a year.

The purpose of the Act on Rural Industries is, in particular, to pay attention to

- improvement of productivity, rational use of production inputs, promoting cooperation, expanding the size of enterprises, economy and expediency of projects in terms of production policy
- improvement of capital structure and reducing the need for financing
- balanced regional development of agriculture and forestry and other rural industries
- improvement of the age structure of farm population and promoting transfer of farms to descendants
- improvement of housing conditions as well as residential and working environment
- environmental considerations
- keeping rural areas inhabited

4 How are agriculture and forestry and rural industries in general developed?

Financing agriculture and forestry

Farmers under 35 years of age may be granted a start subsidy from the state funds for the acquisition of the first farm (or, in the case of change of ownership, for acquiring at least 1/3 of the farm).Investment subsidy can be granted to a farmer for investments in production in agriculture and forestry, or investments related to the environment or occupational safety and health for the maximum of 60% of the costs.A loan for purchasing land may be granted for buying a farm or additional land for the maximum of 75% of the purchase price. In this connection, it is possible to finance purchases of stock at the same time. It is also possible to receive the loan for purchasing forest land or a collective forest share.An investment loan can be granted for financing building of farms, renovations and expansion for the maximum of 80% of the approved costs. If both a subsidy and loan is granted for the same purpose, the total may not exceed the aforementioned 80%.

Financing small-scale entrepreneurial activity

In principal, an attempt is made to promote small-scale entrepreneurial activity in the same way as agriculture and forestry. However, subsidies are not granted for purchasing the real estate. It is possible to receive investment subsidy for the acquisition of fixed assets as well as for alterations and renovation, among other things. The subsidy may amount to the maximum of 55% of the approved costs. A subsidy for starting an enterprise may be granted to cover the wages and labor costs of the first three years. In this case, too, the maximum is 55%. In addition, it is possible to receive development subsidy (the maximum of 75%) for costs caused by e.g. developing production methods and marketing, training and conservation of the environment.

An entrepreneur may also receive a loan for purchasing fixed or current assets for the maximum of 50% of the costs in question. The amount of the loan and subsidy may be the maximum of 80% of the total costs of the project.

Housing loan

A farmer or small-scale entrepreneur may receive from the banks a housing loan that is subsidized by the state for the construction, expansion or renovation of a residential building as well as for trimming the surroundings for the maximum of 60% of the costs. For those over 65 years of age or whose financial position is weak, a subsidy may be granted for renovating a residential building. In certain cases it is possible to grant a loan for purchasing land for the acquisition of a small, so-called residential farm.

5 Loan terms and regional problems

The loans granted by the state are paid through banks. Entrepreneurs may receive loans of two kinds. State loans proper are granted by banks and financial institutions from the Development Fund of Agriculture and Forestry. The fund receives part of its income from the budget. The major part consists of repayments and interests. It has been considered that the preconditions for activity and liquidity in agriculture and forestry and other enterprises vary in different parts of the country so that in the north the liquidity weakens. This has been taken into account in the loan terms. The interest percentage of the loans varies as follows:

Area 1.	4% (the northernmost area)
Area 2.	5%
Area 3.	6%
Area 4.	7%

The state may take a partial responsibility for the security. If the assets of the entrepreneur are not sufficient for a full security, the state guarantees the excess.

The loans may also be granted as so-called interest support loans, in which case they are paid from the funds of banks and financial institutions, and the state pays interest support to the banks. The interest collected by the bank may be the maximum of the interest applied in the case of other loans granted for similar purposes. The interest paid by the customer is half of the total interest, e.g. 8% of a 16% loan.

In the early 1990s the need for loans based on the Act on Rural Industries has been estimated to be about FIM 1,900 mill., and the need for subsidies almost FIM 500 mill. Full financing will not be reached, however.

6 Executive organization

The National Board of Agriculture supervises the development of rural industries. It is responsible for the expediency of the use of the funds from the Development Fund of Agriculture and Forestry for loans and subsidies. Similarly, it supervises granting interest support loans. The Board gives directions on directing the funds with respect to the amounts, region and target groups. It also directs the research and surveys on the field and grants funds for this purpose. In supervising the activity, the National Board of Agriculture may rely on agricultural districts, which represent expert knowledge on the different regions. When the activity is being inspected, the person receiving a loan or a subsidy must present all the necessary accounts and other documents to the authorities. The Act on Rural Industries is supplemented by an executive order concerning it, as well as directions prepared by the National Board of Agriculture. In practice, decisions on loans and subsidies are made in agricultural districts and, in part, in counties, where the authorities are assisted by agricultural boards and agricultural secretaries.

7 Summary

In this paper, the development of farms and small-scale entrepreneurial activity has been dealt with solely on the basis of the Act on Rural Industries, the purpose of which is mainly to start and develop the structure of only agriculture and forestry and rural small-scale enterprises. In this connection, for example, the versatile regional direct support of agriculture, which is connected with maintaining the income level, as well as social benefits have been left out. Similarly, for example, advisory activities and training, which play a central role in the development of rural areas, are excluded from this paper.

Farmers' organizations, cooperatives, agricultural businesses, etc. promote agriculture and the development of rural areas in various ways. These are also not dealt with in this connection.

The central objective of the state measures presented in this paper is to secure the income development of rural entrepreneurs in the future as well. The purpose of the measures is to facilitate the transfers of farms to descendants and help young farmers get started on the farm. The attempt to achieve a reasonable interest level and preventing the increase in the prices of farms and land hold down the rise in the costs of agriculture. Financing construction and rural environment also contributes to the positive development. Secondary incomes of farmers and other small-scale activities provide additional income to rural population, which is most welcome. Successful financing is subject to the condition that directing the funds is appropriate, and the funds available for loans and subsidies are sufficient.

Table 1. The estimated need for public financing in enterprises covered by the Act on Rural Industries in 1991, FIM mill.

	DFAF[1)]	Interest support loans	Total
Loans:			
Loans for purchasing land	720	530	1 250
Investment (outbuildings, etc.)		255	255
Housing loans		230	230
Other (incl.small enterprises)	100	80	180
Loans, total	820	1 095	1 915
Subsidies:			
Agriculture			220
Residential buildings	20		20
Residential build. and small enterprises			230
Subsidies, total			470

[1)] The Development Fund of Agriculture and Forestry

With respect to the sufficiency of financing in relation to the need it can be noted that, for example, in 1991 about FIM 650 mill. can be granted from the Development Fund of Agriculture and Forestry and FIM 875 mill. as interest support loans. The amount of subsidies will also be smaller than the need. The funds available are affected by the overall economic situation and the agricultural overproduction. A central objective in the development act of rural industries is making agriculture and forestry more competitive and diversifying the industrial life in rural areas, as the number of active farmers decreases continuously.

PRICE AND INCOME POLICIES FOR FOOD AND AGRICULTURAL PRODUCTS IN THE BALTICS

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1 Introduction

The Baltic Republics have initiated pricing policies that will lead to greater reliance on market forces in determining price levels. Among the first steps being taken by the republic governments is to increase producer and consumer prices coupled with wage increases or direct income subsidies to partially offset the burden of higher consumer prices. A major motivation of these price reforms is to cover higher costs of production inputs and to reduce or eliminate the large food-price subsidies, but they should also be designed to improve allocative efficiency in the economy. For many commodities price reforms are still within the framework of a state pricing system, while some commodities no longer have fixed prices; but these reforms are one step toward opening the potential for the development of private enterprise in the agribusiness sector.

This paper examines the role that prices play in the agricultural economy under planned, mixed and market economy systems, reviews options and steps involved in the transition from state planning to market economy systems and evaluates selected price information and pricing reforms that are underway or anticipated, demonstrates how they relate to the transition, and assesses their impact on the agroindustrial sector.

2 The Role of Prices in Market, Mixed, and Planned Economy Systems

A market economy is based on the principle that individuals know best what is good for them and that the welfare of society is maximized when individuals are free to make their own allocation decisions and are faced with market-determined prices. Free markets do not always generate correct market prices, such as when there is market failure or when there are externalities that individual decision makers do not take into account. Governments often intervene in an attempt to correct for such market imperfections and to achieve other social or political objectives. Unfortunately, government failure in such interventions can also lead to costs that exceed the benefits of intervention.

A planned or command economy system is based on the premise that government decisions are superior to individual decisions in maximizing social welfare and that the welfare of society is more than the sum of individuals' welfare. A mixed economy system (as used in central planned economies) allows more individual choice by permitting market transactions to occur outside the planned economy system. This may improve the welfare of individuals and achieve some efficiency gains, but these gains will always be limited becuse of the basic incompatibility of the planned and market economy systems. The results of experiments in many countries around the world indicate that there is no "third way" between market and planned economy systems that is viable and sustainable. Market economy systems with selective government interventions have proven to be much superior to planned economy systems with selective market insturuments.

In a market economy, prices play a key role in the decision making process of firms and households. At the firm level, prices influence decisions on the choice of enterprises to be undertaken, the allocation of fixed resources among enterprises and the choice of variable input levels and profitability. At the household level, prices influence the allocation of income between consumption and savings, the allocation of consumption expenditures among different products within each of these groups, and the standard of living (or the material well-being) of consumers. There are no examples of a pure market economy, since governments intervene to tax or subsidize certain commodities, tax or subsidize or otherwise restrict imports and exports of commodities, tax or subsidize production inputs or provide direct income transfers to producers and households to correct market imperfections or achieve social or political objectives. However,governments around the world are working to reduce the magnitude of these interventions. especially those that distort trade and international prices. Experience has shown that reduced trade barriers lead to greater economic growth.

In the planned economy, by contrast, prices play a very limited function, since the availability of production inputs and consumption goods as well as the choice of enterprises and level of production are usually constrained by state planning decisions. In this system the major function of prices is in determining the profitability of firms and the material wellbeing of households. Since product and input prices in this system usually bear little resemblance to relative resource costs and comparative advantage indicators, price and resource allocation distortions and, hence, production and distribution inefficiencies are generally very large.

In a mixed economy, there is a parallel market where prices and product quantities are not controlled for certain consumer goods and perhaps for production inputs, where individual producers or cooperatives may directly market some produce and where consumers and perhaps producers can purchase additional quantities of goods outside the state system. Prices in the parallel market are generally higher than the state prices because of commodity shortages and high transaction costs. These constrains are reflected in the ratio of market prices to state prices and can vary considerably from year to year and even from week to week. The market prices in the parallel market do not indicate what prices would be in a market economy, since both production and consumption, and trade patterns could change significantly and transactions costs in the private market would generally decline. Prices in a market economy could be higher or lower, depending on the new structure of production, distribution and consumption. In an open market economy, price levels would be determined by world market prices, the intermediate costs between the external and internal markets, and the exchange rate.

2.1. Options and Steps in the Transition Process

It is important to recognize that moving from the past state controlled production, distribution, and pricing system toward a market economy system involves a number of essential steps and that the sequencing of these steps is crucial to a successful transition from a state or mixed economy to a market economy. These steps include institutional reforms that clarify the ownership of assets and the rights of producers and service providers to control input purchase and output marketing decisions; the development of financing, information, and marketing institutions to support private production and marketing activities; and the development of the supporting infrastructure for the private distribution of inputs and outputs. Associated with all of these is the reduction or elimination of state control over production and distribution and the education of citizens to function effectively under economic systems. These measures are primarly in the category of internal liberalization measures. In addition, external liberalization measures would include reducing or eliminating state control over external trade, reducing trade barriers, creating a convertible exchange rate to reflect the market value of the domestic currency, and developing the supporting infrastructure for private trade enterprises.

The price reforms that have been initiated are an important step not only because of the savings to the government budget and the improved allocative effeciency that is expected but also because the private sector cannot develop without government subsidies unless there are adequate margins between input costs and output prices. Current conditions make it very difficult to determine what the relative prices of inputs and outputs would be in a properly functioning market economy, since the current structure of production and processing was developed under state planning and many inefficiencies still exist. When the current structure of production is inefficient, than prices that would insure a given profit or income level to producers and processors are not the same as the prices that would emerge in a market economy after the structure of production and processing has adjusted to market economy conditions. For example, there is often a large excess of labor on state and collective farms that leads to high production costs. If prices are based on the costs of an inefficient production structure, there will be less incentive to improve efficiency.

Relative prices of inputs and outputs that are considered to be necessary at the beginning of the transition to maintain producer incomes are probably not the ones that would be desirable in the longer run. In fact, it may be preferable to move more quickly toward sustainable relative prices and protect producers and displaced workers, where necessary, with income payments and employment programs. This is analogous to the approach being taken with consumer prices, where consumer losses are partially offset by direct income payments. It may be less difficult to periodically review and revise income payments and employment programs than to revise the whole set of prices. It has been the experience in other countries that protecting producer and labor incomes with high product prices or low input prices leads to inflexibilities and inefficiencies that are difficult to correct. It is more economically efficient to use direct wage or income subsidies.

It is difficult to discover what market prices should be unless the market is permitted to determine prices. All guesses would be wrong, but some guesses may be better than others. Information about relative prices of inputs and products in existing markets in other

countries may be useful information, although absolute prices would be less helpful as long as the exchange rate is not convertible. As an example, we review price relationships in Latvia before and after price reform and make some comparisons to relative prices in other markets that may be used for reference purposes.

The other steps in creating an environment for the private sector to develop may be even more difficult than price reforms. Creating a price structure than encourages private business to take over the functions of the government monipolies in input supply, processing, and distribution is one step. Creating the legal and institutional system that will enduce the private sector to undertake these functions is also essential. Land ownership or clear property rights can give farmers control over the use of certain resources, but they also need to be able to obtain the inputs they need when they are needed and to have control of their marketing alternatives.

3 Price Relationships and Implications for Price Reform

It is evident from the experience of planned economies all over the world that the information and decision making systems responsible for setting appropriate prices, resource allocations, and product procurement and distribution have failed. The first response to the problems associated with state planning was to move to mixed economy systems, where portions of some products and inputs can be marketed and purchased outside the state system. The first large-scale experiment with a mixed economy system for agricultural and food products occurred in China and was very successful in stimulating rapid growth in agricultural production from the late 1970s to the mid 1980s, when the reform process stagnated. More than two years ago, Vietnam completely eliminated the state market in the food and agricultural sector, which was an important factor in generating exportable surpluses of rice for the first time in decades.

3.1 Prices and Price Reforms in the Baltics

The Soviet Union has actually had two parallel retail markets for many commodities. One is the cooperative retail market, where farms and cooperatives can sell products outside the state market, and the other is the private market, which is legally sanctioned for food products but not for manufactured goods. As an example, the Latvian data for these markets in Table 1 indicate that cooperative market prices were generally higher than state prices but that private market prices were much higher than both. From 1985 to 1989 the ratio between market and state prices for beef, potatoes, vegetables, and fruits increased slowly and the ratio in 1989 varied from 266 percent for fruits to 350 percent for potatoes. Market prices increased substantially in 1990 and 1991 as inflation and the relative scarcity of goods increased, further widening the gap between state and market prices. In fact, market prices have continued to incrase, even after the large state price increases in 1991 (Table 2).

The variation in prices and in price increases in different cities may indicate different degrees of scarcity as well as differing costs of transport and handling from producing areas to consuming areas. This kind of price pattern is expected to induce private marketing by whatever means is available to move goods from producing areas like the Baltic republics to high price consuming areas like Leningrad. Of course, these price differentials are also an incentive for consumers to spend the time and money to shop in a more distant market. As long as the government is in the procurement business, it will have to compete with private markets for goods. This will be a larger problem if the transition from state to market economy is slow, because private market prices are likely to be higher than procurement prices as long as state procurement and retailing operations continue and the quantity of goods in private markets is scarce. On the other hand, if the state market is phased out more quickly, competition will generally cause prices in the private market to decline.

The increases in procurement and retail prices implemented by Latvia near the end of 1990 are reported in Tables 2 and 3. Similar price reforms were implemented in Estonia earlier and in Lithuanian later, although the price levels differ somewhat (Table 4). The price reforms were accompanied by wage increases or cash income payments to workers to partially compensate them for the increse in retail prices. (Savings account balances were also credited with 40 to 50 percent increases, but these funds cannot be used for consumption.) Since these income payments or wage increases do not fully compensate consumers for the price increases, one effect will be to shift expenditures from nonfood to food products, to shift consumption from higher cost foods such as processed products to lower cost basic foods, and possibly to reduce the total quantity of food consumed. A detailed evaluation of these effects requires a substantial amount of research that needs to be undertaken by researchers in the scientific institutes.

A recent study by Kazlauskiene, Devadoss, and Meyers (1) on price reforms in Lithuanian provides some preliminary evidence on these effects. The analysis estimates that the 1991 price increases will lead to increased food expenditures of about 240 percent and an increase in the proportion of income spent on food from 27 percent in 1990 to 57 percent in 1991. Per capita consumption for most foods is estimated to decline ,but this decline is most dramatic in the less essential foodstuffs. The cash income subsidy is estimated to cover about one-third of the foregone food price subsidies. The decline in consumption of commodities also leads to fewer imports of grains and greater export availability of livestock products.

Consumer data collected in Poland after large price increases in 1990 show that consumer expenditures on food increased from 39 to 54 percent of household budgets, and expenditures on clothing, housing and most other consumption items declined (2). In general, past per capita food consumption levels in eastern Europe and the Soviet Union were very high relative to incomes, because food prices were kept at very low levels and the availability of other goods was very limited. Low prices of foodstuffs such as wheat and potatoes also led to excessive use of these products for animal feed. For example, food consumption per capita in East and West Germany was very similar prior to unification, even though income levels in the East were much lower. The major differences in the composition of consumption was that in the East, consumption of cereals and potatoes was much higher and consumption of fruits much lower (3).

As food price subsidies are removed, it is inevitable that consumers will shift to consumption patterns more consistent with their income levels. This usually means a lower quality diet with fewer livestock and processed products and more basic foodstuffs. However, if these price increases are also accompanied by the introduction of market economy systems, consumers will benefit from the greater availability of food and the redused time spent in shopping. The economy as a whole will also benefit from productivity increases, as workers spend less time in queues to buy food. These benefits are no consolation to the unemployed and pensioners, but it is preferable to devise safety net programs for the disadvantaged than to subsidize both the rich and poor.

Since a major objective of the increase in consumer prices is to reduce the large expenditure on food price subsidies, procurement prices for agricultural commodities have not been increased as much as retail prices. If processing and handling subsidies between the farm and retail market are to be reduced or eliminated, the difference between retail and farm prices of commodities needs to be large enough to cover the cost of processing and handling. The difference between these prices, of course, depends upon the amount of processing and handling that occurs and the cost of the resources employed in this activity. In the United States, for example, the retail price of eggs is 154 percent of the farm value, while the retail price of frozen corn, which is more highly processed, is 900 percent of the farm value. What these relationships would be in Latvia, Estonia or Lithuania would depend upon the amount of processing and transportation involved in moving from the farm to the retail level as well as on the technology employed and the efficiency of the processing industry. The study by Kazlauskiene, Devadoss, and Meyers (1) indicates that the price structure in Lithuania initially provided a large enough gap between producer and consumer prices to at least cover the past levels of processing subsidies in aggregate. This was certainly no longer the case after the substantial procurement price increases in May 1991.

3.2 Pricing in Harmony with International Markets

If one goal of the reforms is to exploit comparative advantage through international trade, prices should be based on international market prices. Although only a few of the many products consumers buy have well-established international market prices, a well-functioning domestic market together with linkages to international prices for primary agricultural inputs and products would provide appropriate price relationships. A major difficulty in linking domestic and international prices is selecting the appropriate exchange rate to use in converting international prices into local currency when that currency is not convertible. Without knowing the exchange rate, it is still possible to set internal prices in harmony with international prices by focusing on the relative prices of commodities and inputs rather than on the absolute level of these prices. If all prices are slightly higher or lower than international prices by the same proportion, import and export goods will have the same degree of protection; and resource allocation will still be relatively efficient by international standards. It is also possible to examine import and export parity prices for a range of possible exchange rates.

Investigations could be undertaken to compare the relative prices that exist in external markets, such as the international, the European Community, the Polish or the U.S. market as a quide to setting relative prices within Latvia, Lithuania and Estonia. As an example, relative producer prices of selected commodities in Germany, Denmark and the United States are compared to the new Latvian procurement prices (Table 5). The prices of other grains, potatoes and cattle are computed relative to wheat, and the prices of livestock products are computed relative to cattle. Although more detailed work is needed to be sure commodities are defined in the same way across markets, this indicates that for most commodities the new relative prices in Latvia do not differ greatly from nearby European neighbors. Only the relative prices of broilers and eggs are substantially higher in Latvia. In the United States, where there is generally much less government influence on commodity market prices, relative prices for most commodities are substantially different from those in EC. In comparison with relative market prices in the United States, Latvian price ratios are substantially lower for potatoes and cattle and substantially higher for barley, pigs, eggs and butter.

Relative prices in external markets are not a completely reliable indicator of appropriate relative prices in the Baltics, since production efficiencies, technology and the quality and price of fixed resources would not necessarily be comparable. Moreover, relative prices in most market economies and to a lessor extent in international markets are also distorted by government policies that influence these price levels. Poland may be one of the best markets for comparison, because of its proximity as a competitor and its open market policies. However, the transition process is still in progress in Poland, and many inefficiencies in the internal market structure still exist. Ultimately, greater reliance on international market prices and internal market forces is the best means of moving toward a more efficient pricing system.

To provide an example of international prices that may be of interest to the Baltic republics, we report selected border prices calculated for Poland in the World Bank report (2). Since these were calculated for Polish ports on the Baltic Sea, they would approximate border prices for Estonian, Latvian, and Lithuanian ports. Although the structure of production could change with reforms, the Baltic republics are likely to be exporters of livestock and dairy products and importers of crop products. The data in Table 6 are arranged to show border CIF prices for likely importables and border FOB prices for likely exportables, which are then converted to rubles with exchange rates of 2 rubles per dollar and 4 rubles per dollar as examples. To estimate an equivalent internal price at the farm or wholesale level, it would be necessary to add the transport and handling cost (margin) to the CIF price for importables and subtract the transport and handling cost (margin) from the FOB price for exportables. In Poland, the margin was estimated as 10 percent of the border price for wheat and rye imports and 35 percent for beef and butter exports. Some margins were even higher, but all are subject to reduction as the efficiencies of the intermediate sectors improve.

It is important to note that these border prices are likely to vary significantly from year to year as well as within a year. Most governments protect the domestic market from such international price fluctuations, but the degree of protection and the means of protection vary greatly among countries and among commodities within countries. Such policies can benefit consumers as well as producers, except for cases where prices are not only insulated from the international market but also set at a much higher level. Without internal price

stabilization, it would be difficult for private producers to bear the financial risk associated with buying and selling at international market prices.

Finally, it is not possible to discuss pricing and trade for the Baltics without reference to markets to the East, especially the Russian , Ukrainian and the Belorussian republics. For example, in 1990 these three republics provided more than 80 percent of the imported inputs for agricultural production and processing in Latvia and purchased more than 80 percent of the exported products of the sector. The prices of inputs and products established in those republics and the trading relations that are developed between them and the Baltics will be very important, especially in the short run. While it is desirable for the Baltics to seek trade opportunities elsewhere, it will be a long and difficult process. First, world product markets for livestock and dairy products are cluttered with import barriers and export subsidies, which depress the prices of these products. Even New Zealand finds it hard to compete with the treasuries of the European Community and the United States. Second, the former COMECON countries of Eastern Europe have lost much of their agricultural market in the Soviet Union since they agreed to trade only in hard currencies. So they are also seeking markets for many of the same products in the West and have a head start on the Baltics. Third, the production and processing infrastructure of the Baltics is designed for trade with the East; and it will take some time to make the changes that would be needed for substantial trade with the West. For import goods, many of these problems would not be severe, but hard currency may be a constraint. In this complex environment it would seem prudent to nurture the old markets while also trying to develop new ones.

3.3 Input Markets

A very important factor that we do not have much data on yet and is a large area of uncertainty to producers and processors is the price level and availability of inputs, including operating capital. The typical situation for production enterprises that has emerged from the Soviet system is that there is too much labor, insufficient capital, and many inputs have been heavily subsidized. The input subsidies will not continue, so enterprises will have to cut other costs to remain viable. The experience in Eastern Europe indicates that a large share of these cuts will most likely come from labor. To keep the same labor force in production agriculture means higher production costs and continued pressure for higher producer prices or income payments.

An alternative is to provide transition programs (investment, training, etc.) that make it easier for workers to move to other jobs. This also requires public funds but it would assist rather than impede the adjustment process in agriculture. In Estonia, Latvia, and Lithuania a potential area for increased investment and employment expansion is in processing, handling transportation and marketing in the agribusiness sector. Investment data indicate that these areas of production have been neglected, and they need to be developed in order to build a market economy system and to create more products with market potential in international markets.

4 Implications for Future Research

While this paper has only touched on a few issues and provided limited information regarding the pricing of food and agricultural products, it is clear that a substantial research effort is needed to assist government decision makers with pricing reforms and related measures associated with economic restructuring. This research would involve assessment of the (1) consumer and producer response to price changes; (2) cost structure of the production and processing industry for food and agricultural products; (3) potential for reducing production costs and improving the efficiency of producing, processing, and distributing food and agricultural commodities; (4) timely market information on external markets for imported and exported commodities; and (5) alternative government measures to moderate the human and social costs of adjustment while minimizing the efficiency costs associated with government intervention.

In this time of rapid and dramatic change in the Baltics, many difficult choices must be made on the basis of limited information. Even the best research and analysis cannot answer all the questions that arise in these uncharted waters, but it is important to provide decision makers with alternative means to achieve policy goals as well as the potential consequences and pitfalls of these choices. Some of this information can come from experiences of other countries. For example, in small economies such as the Baltics it is important to develop open economy policies so that trade is encouraged. Measures that isolate or overly protect domestic industry, including agriculture, will reduce competitiveness and trade development. At the same time, domestic industry needs to mature before it can face the full brunt of international markets. Thus, protection and stabilizing policies should be seen as temporary measures and designed so they are not difficult to remove in the future.

The implementation of policy reforms cannot await the completion of all the research that may be desired to support the policy reform process. However, as immediate reform measures begin to address some of the major imbalances and inefficiencies in the agribusiness sector, future refinement of these policy reforms can rely more heavily on research and analysis results from the scientific community

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Table 1. Latvian average state, cooperative, and market retail prices for main food commodities (rubles/kilogram) in 1985-89.

Commodity	1985	1986	1987	1988	1989
Meat:					
state retail price	1.95	2.01	2.03	2.05	2.07
cooperative price [a]	2.05	2.02	2.10	2.10	2.04
market price	4.86	5.23	5.03	5.23	6.23
mkt/state, price ratio, %	249	260	248	255	301
Potatoes:					
state retail price	0.12	0.14	0.16	0.19	0.23
cooperative price [a]	0.21	0.30	0.21	0.24	0.24
market price	0.52	0.56	0.65	0.71	0.81
mkt/state, price ratio, %	222	216	266	284	317
Fruits:					
state retail price	1.43	1.25	1.38	1.54	1.92
cooperative price [a]	1.75	1.62	1.58	1.94	2.46
market price	3.17	2.70	3.67	4.37	5.11
mkt/state, price ratio, %	222	216	266	284	266

[a] Cooperative retail system.
Sources: Statistics Review 1989, "Avots" 1990, Riga, Latvia.

Table 2. Latvian old and new state retail prices compared with recent private market prices (rb./kg).

Commodity	State price			Market
	Old Price	April 1991	Increase (%)	Price [a]
Beef	1.80	7.20	(300)	13-15.00
Pork	1.94	7.30	(276)	18.00
Chicken	2.70	6.50	(141)	12-15.00
Milk	0.26	0.60	(231)	3.00
Gottage Cheese	0.75	5.05	(573)	12.00
Cheese	2.90	8.60	(197)	--
Butter	3.40	10.00	(194)	20.00
Sour Cream	1.20	4.00	(233)	14.00
Eggs	1.00	[b]	[b]	4.00
Potatoes	0.12	[b]	[b]	1.20

[a] February or March 1991.
[b] Contract prices (negotiated, not fixed).
-- Not reported
Sources: State price data from Latvian Research Institute of Agricultural Economics, market prices from Newspaper "Atmoda", Riga, Latvia.

Table 3. State procurement prices (rubles/metric ton) in Latvia

Commodity	Before 1990	October 1990	May 1991
Soft wheat	130	250	410
Rye	170	300	410/630
Oats/ecologically pure production [a)]	130	250/490[a)]	410/630[a)]
Barley (feed)/ ecologically pure production[a)]	130	250/300[a)]	410/600[a)]
Barley (for beer)	180	380	650
Sugar beets	58	82	136
Flax (I grade)	460	1240	2110
Flax (low grade)	310	780	1330
Cattle (beef)			
Higest category of weight	1860	4810	5500
Medium category o f weight	1550	4010	4600
Low category of weight	1162	3000	3450
Hogs			
I Category	2280	4750	5700
II Category	2110	4420	5180
III Category	1894	3970	4600
IV Category	1553	3030	3500
V Category	3000	6600	7600
Poultry (chickens and broilers)	2100	3320	3820
Milk			
I Grade			
< 10 C	320	695	715
> 10 C	310	580	695
II Grade	288	535	640
Low quality	248	320	380

Source: Latvian Research Institute of Agricultural Economics, Riga, Latvia

Table 4. State retail and procurement prices for main food commodities as of April 1991.

Commodity	Lithuania	Latvia	Estonia
Food prices, rubles per kilogram			
Beef	7.80	7.20	7.55
Pork	6.20	7.30	4.80
Sausage	8.30	12.30	8.36
Hot dogs	7.10	7.30	6.49
Chicken	8.50	6.50	4.53
Milk (1 liter)	0.73	0.60	0.62
Butter	9.90	10.00	9.90
Sour cream (1 liter. 35% fat)	3.90	4.00	6.24
Cheese	8.75[a)]	8.60	8.02
Sugar	3.75[a)]	0.90[b)]	2.20
Eggs (10 units)	2.40	[c)]	2.95
Procurement prices, rubles per metric ton			
Beef (live weight)	5,671	5,260	6,150
Pork (live weight)	5,138	4,985	5,250
Poultry (live weight)	3,535	[c)]	5,050
Mutton (live weight)	[c)]	6,500	[c)]
Milk	567	705	590
Grains	640	550	600
Sugar beets	250	136	--
Eggs (1000 units)	135	[c)]	[c)]

[a)] Average price
[b)] As of March 26, 1991
[c)] Contract prices (negotiated, not fixed)
-- Not available

Table 5. Relative Latvian prices compared with German and Danish market prices and EC intervention prices.

Commodity	Latvia	Germany	Denmark	U.S.
Percent of wheat:				
Barley (per mt)	100	89	98	73
Potatoes (per mt)	61	54	69	145
Cattle (per mt)	1122	909	838	1471
Percent of cattle:				
Pigs (per kg)	100	82	87	68
Broilers (per kg)	83	45	42	69
Eggs (per 100)	585	346	332	385
Butter (per kg)	217	177	203	126
Cheese (per kg)	187	236	216	160
Milk (per kg)	15	17	17	17

Sources: Germany and Denmark, prices for week ending March 30, 1991, Agra Europe, April 5, 1991;
Latvian procurement prices, May 1991, table 4 above ;
U.S., average farm crop prices for 1989/90 and 1990/91, average of 1990 and 1991 wholesale prices for livestock products, FAPRI.
Relative prices computed from basic data.

Table 6. Approximate border prices for selected commodities in the Baltic Republics

Commodity	Border prices $/mt	Rb/mt (2 Rb/$)	Rb/mt (4 Rb/$)	Internal Prices [a]
Importables (C.I.F)				
Wheat	146	292	584	+
Rye	110	220	440	+
Sugar	430	860	1720	+
Exportables (F.O.B)				
Beef meat	1470	2940	5880	-
Pork meat	1440	2880	5760	-
Butter	1200	2400	4800	-
Skim milk powder	800	1600	3200	-
Full milk powder	1250	2500	5000	-
Cheese				
Cheddar	1400	2800	5600	-
Gouda	1650	3300	6600	-

Source: World Bank 1990, p. 99.

[a] "+" means that transport and handling costs from the border to the wholesale (farm) market needs to be added to get the equivalent wholesale (farm) price.
"-" means that transport and handling costs to the border from the wholesale (farm) market needs to be subtracted to get the equivalent wholesale (farm) price.

CURRENT SITUATION OF AGRICULTURAL REFORM IN ESTONIA

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Summary

Due to the fact that the amounts of purchased fodder have diminished, the animal production in Estonia has also diminished. During the first two months of the current year the realization of meat and poultry meat made 81 % and that of milk 82 % from the last year level. The milk yield per cow was 90 % from the last year level. It means that there is a great amount of unused producing capacity in the production and an extensive concealed unemployment in rural areas.

At the same time the establishing of farms continues. According to the valid Law on Peasant Farms former owners should hand in their farm applications before the end of the current year.

As a whole the political situation in the countryside is tense, the interests of different ranks of rural population are confronted.

A new political party for rural population has come into being. In comparison to the existing Agrarian Centre Party it expresses more the interests of large-scale producers. Also a new Minister of Agriculture has been appointed. According to the decision of the Supreme Council the government has to submit the law drafts on agricultural reform and property reform before March, 1. But the government had difficulties in reaching unanimity and these law drafts were submitted at the end of March.

Some words about these drafts. In the law in agricultural reform the emphasis is put on the maintenance of existing large-scale production. As to the law on property reform the government did not come to one variant and proposed to the Supreme Council for choosing the known variants concerning compensations, restoring of assets and shares.

As a government is critized for not having made the agricultural policy public, an attempt was made to elaborate the policy in a workshop. 20 people from the Ministry of Agriculture, several banks, political parties and scientific research establishments took part in the workshop.

ECONOMIC AND SOCIAL PROBLEMS OF LITHUANIAN AGRICULTURE IN CONDITIONS OF TRANSITION FROM COMMAND TO MARKET ECONOMY

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Summary

Lithuania is one of the countries, where old economic structures and mechanisms are colapsible and new are created. Before characterizing the goals of transitional period, I'd like to assess shortly the situation in agrarian sector during the last years.

Lithuanian agriculture, its development and functioning effectiveness till the year 1989 shouldn't be valuated in one meaning.

In the context of USSR, to which Lithuania was incorporated since 1940 till the Act of Independence of March 11, 1990, Lithuanian agriculture should be characterized as highly developed, especially what concerns cattle - breeding. Lithuania took the first place in USSR in meat production per capita and the second place per 1 hectare of agricultural land after Estonia. In this context according to the indices of economic effectiveness and to the social development our republic looked quite well.

But in the context of developed countries, even with worse climatic conditions, Lithuanian agrarian sector took humble place. Meanwhile during the prewar times the difference wasn't essential. In 1927-1930 the rye productivity in Lithuania was 23.2 centners per hectare, in Germany 33.2, Latvia 21.2, France 22.4, Italy 26.1, Denmark 33.8 centners per hectars, etc.

Besides that, and that is most important, agriculture wasn't capable of ensuring the optimal level and structure of food - stuffs consumption.

One more negative consequence , Lithuanian agriculture and economy on the whole are highly dependent on USSR. The majority of agricultural technic, energetic resources, the majority of mixed -feed are bought in USSR. That can badly influence the functioning of Lithuanian agriculture.

The aforementioned problems demonstrate that the reform of agrarian sector is necessary in terms of structure and mechanism of functioning.

The main goals of the reform carried out in Lithuania should be the following:

- during the shortest period to satisfy the need of Lithuanian residents in food - stuffs according to rational norms of consumption;
- to extend the export of production on the base of barter to USSR, and on coverted currency to the West countries;

- to improve the social and economic conditions of living in the countryside.

A great job has been done for the achievement of aforementioned goals in developing the different conceptions, programs and projects of legal acts, some of them have been adopted allready by the Supreme Council of the Republic. There should be mentioned the Project of Program of Agrarian Reform, the Law of Agricultural Stock Companies, The Law of Land - taxation, Project of Law of Land Reform, the Project of Law of Privatization of Property of Agricultural Enterprises, etc. Besides that, some government decisions, controling agrarian relations have been made.

It is necessary to note that reform takes place on a very complicated situation. It can be characterised by the unstable political relationship between Lithuanian Republic and USSR, under the economic pressure from the side of USSR.

Those are the factors that prevent the agrarian reform and the reasons why the agrarian sector should be reconstructed. But we must take into account that the policy of spasmodic development or the policy of revolutionary reorganization shouldn't give positive results and should cause serious social and economic sequencies. Therefore the opinion becomes prevailing that the agrarian sector should be changed in the way of evolution. That is expoundable, because the level of production shouldn't be allowed to decrease, what happened in 1990, and especially in the first quarter of current years. Besides that observations and investigations demonstrate that agricultural workers aren't ready for great changes because of many reasons.

In the nearest years the problems caused by the current situation should ne solved in scientific, technical and practical level to achieve the abovementioned goals:

1) To carry out privatization with the minimal social and economic negative effects for the majority of citizens and production.
2) To improve pricing mechanism for agricultural production, to maintain price equivalence.
3) To create legal guarantees and economic mechanism for collective and state farm transformation into new effective forms of farming.
4) To create necessary material, financial, legal and scientific preconditions for the further development of family farms.
5) To found scientifically short - term and long - term development prognosis to agrarian sector.
6) To make up and realize the program for adaptation of current social infrastructure, to forecast its further development accounting for changes in the system of farming.
7) In response to complicated political - economic situation in USSR, what can disturb economic activities of Lithuania, it is necessary to create multivarient programs of agricultural functioning in extremal conditions.

There have been formulated only basic issues and ways how to do with them in agrarian sector of Lithuania. They will be disclosed in detail in my report.

NEW GOVERNMENT - NEW AGRICULTURAL POLICY?

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A new Government took office in Finland in April. The Centre Party, traditionally associated with agriculture, and the Coalition (Conservative) Party are the main parties in the Government. The Minister of Agriculture belongs to the Centre Party. It is therefore interesting to see whether State agricultural policy will change during this Government's term. Surplus production, high food prices and restructuring are all questions which must be addressed. The Government has a wide variety of means to curtail surplus production, but lowering food prices may prove difficult, since this would mean lowering producer prices, for one. The central instrument of agricultural policy, the Act on Agricultural Income, should be revised, but this process is bound to run into difficulties. A new law has been passed on restructuring, supporting viable agriculture but leaving small farms without support. Any substantial restructuring will first require the elimination of surplus production.

1 The new Government

A new Government has been appointed in Finland. The Centre Party won a major victory in the parliamentary elections in March, whereas the two main parties in the previous Government, the Social Democrats and the Coalition Party, suffered a defeat. As a result, the Centre Party was automatically entitled to form the new Government. When the Social Democrats announced that they would go into opposition voluntarily, the only alternative left was to form a right-wing Government, with the Centre Party and the Coalition Party as the nucleus. The Swedish People's Party is also involved, as it is in nearly every Government, as is the Christian League. These parties jointly account for 115 Members of Parliament out of 200. The Prime Minister is the young chairman of the Centre Party, Esko Aho, whose career has enjoyed an upward swing both within the party and with the public at large. The deputy chairman of the Centre Party, Martti Pura, is the Minister of Agriculture.

The section of the Government programme dealing with agriculture is fairly short. The Government's agricultural policy is based on self-sufficiency in foodstuffs and on securing the livelihood of farmers. Surplus production is to be reduced by degrees. Arable land will be reduced by green fallowing, forestation and bioenergy production.

Attempts will be made to lower food prices by adjusting the costs of the various links in the production and distribution chain. The Government will guarantee a lower level of value added tax on basic foodstuffs.

International factors will probably play an important role in agricultural policy in the near future. Reductions in agricultural subsidies will be an especially sore blow to Finnish agriculture. In the GATT negotiations, Finland promised to cut export subsidies by 60% by 1996. Furthermore, the Finnish proposal estimated that total subsidies would decrease by 20% to 30% and import protection by 5% to 10%. According to the Government programme, "The Finnish GATT proposal will remain unchanged, unless other countries change their proposals."

Practising a new form of agricultural policy will require a revision of the Act on Agricultural Income. However, there is no reference in the Government programme to the preparation of a new Act on Agricultural Income, even though this was mentioned in the draft programme at the insistence of the Coalition Party. The Committee on the Revision of the Act on Agricultural Income, set up by the previous Government, will continue its work unless otherwise instructed.

The Central Union of Agricultural Producers (MTK) is worried about the Government's proposal. The Ministry of Finance wants to reduce both agricultural subsidies and the funds available for reducing output. This is due to the budget outline approved by the previous Government, in which the expenditure of the Ministry of Agriculture was cut. This can be implemented in practice only by reducing agricultural subsidies, since the agricultural budget consists largely of such subsidies.

2 Problems

Finnish agriculture is faced with a number of challenges. The production surplus is still rather large, and efforts are being made to eliminate it. No adequate steps have yet been taken, although some things have already been achieved. The size of the grain surplus, in particular, has taken the Government by surprise. This surplus is partly accounted for by the excellent harvests of the past two years, but the situation is expected to remain difficult, since reductions in livestock production will put yet more surplus grain onto the market.

High agricultural prices provoke constant criticism from consumers. Producer prices are rising all the time, and the gulf between our prices and world-market or EC prices is widening. Finland is truly a land of high prices. Production inputs are also expensive and this makes production costs high. Expenditure-busting is a fashionable thing in agriculture, pursued by farmers and researchers alike. It has been the subject of much heated public debate. High producer prices are not a problem for the producers, of course, but in the long term critical public opinion will have a negative effect on agriculture.

Food prices and surplus production are the major targets for critics of agricultural policy. The very complex question of a suitable agricultural structure is linked to these two. There are still about 130,000 active farms in Finland, with an average size of slightly less than 16 hectares. A farm of such size is much too small for cultivation using modern technology. However, there has been no policy of actively increasing the size of farms or

businesses, since this would lead to a dwindling of the farming population and rural settlements. This problem must also be tackled.

Thus, the Government's agricultural policy is expected to provide efficient action to cut surplus production, lower prices and restructure agriculture. The first two of these will reduce the farmers' income, while the third is primarily a sociopolitical measure. All three are decidedly difficult assignments for the Centre Party, traditionally seen as the farmers' party. The other large Government party, the Coalition Party, is more willing to carry out these measures, even though a sizable proportion of its supporters, too, are farmers.

3 Plans

The Government has at its disposal several means of reducing surplus production which have already been in use for some time. These include agreements on the voluntary reduction of output, concerning milk, pork and eggs. The agreements on voluntary reduction of milk production signed at the beginning of this year will reduce total milk output by 10% in 1991. The volume of egg production has also been cut by voluntary agreements which guarantee the producers compensation for income lost due to lower output levels.

There is also a double-price system for milk and eggs; all producers must adhere to the quotas defined. These quotas define the ceiling up to which the producer is paid the full price for his produce. Any excess is paid for at the substantially lower world-market prices. These systems have effectively prevented any growth of output in milk and eggs.

This spring, a compulsory fallowing system came into effect, under which every farmer is obliged to fallow 15% of his arable land. For this, the farmer receives compensation of FIM 1,000 to 1,300 per hectare. If he does not fallow as specified, a cost-of-export charge of FIM 1,000 per hectare is levied. Thus, fallowing is, in practice, compulsory. The aim is to reduce the grain surplus. According to existing calculations, there is 20% to 25% arable land in excess of the self-sufficiency level.

There are very few means available to the Government for lowering the high prices. In the GATT negotiations, the Government has committed itself to not raising the overall level of agricultural subsidies. This effectively prevents prices from rising, since the reduction in production is minimal. Direct subsidies unlinked to production are the only means available for securing the healthy development of agricultural income. This method has been increasingly adopted in Finland, as elsewhere. Part of the need to raise producer prices has been met through a per-hectare subsidy in the past two years. This year, the subsidy comes to FIM 500 to 600 per hectare, with young farmers receiving larger subsidies.

Reducing production costs is a vogue topic in Finland today. The subject was discussed by a special committee towards the end of last year, but the committee's proposal did not satisfy the Minister of Agriculture. Thus, the task was further delegated to a one-man working group. The subsequent proposal sparked far more active debate, but produced few results. Reducing costs is the subject of an extensive research project at the Agricultural Economics Research Institute.

The price of food is not dependent only on agriculture. Of the price paid by the consumer, processing and trade account for over half. These costs can be cut by making both processing and services more efficient. The question is how. Competition can be enhanced by opening up borders to foreign competition, but this solution does not suit everyone.

Restructuring would be important both to lower prices and to secure future income development. The policy is not so active in this area, although the new Act on Rural Areas makes it possible. According to this Act, only efficient farms will be subsidized. Thus, large, prosperous farms are most eligible for subsidies, while unprofitable small farms will find it difficult to get any.

Surplus production will have to be cut before we can bring about structural improvements. It is only then that an increase in the unit size of milk producers, for instance, can be allowed. Quotas, say, would have to be given up for this purpose, since they are the largest obstacles to the rationalization of agriculture.

4 Assessment

The Government's agricultural policy proposal is non- committal, and no far-reaching conclusions on the future of farm policy can be drawn. Since the Government hinges on the Centre Party, we may assume that it will aim, as far as possible, to preserve the system as it is now. The Act on Agricultural Income, in particular, will probably be kept as is, meaning that producer prices will rise at the same rate as inflation. The production ceilings will be somewhat reduced, but the Act does not specifically forbid surplus production.

A change of course in agricultural policy will require above all a revision of the Act on Agricultural Income. With such a revision, both the automatic compensation of higher costs and the lowering of production ceilings will have to be scrutinized. If the Government significantly alters these points, we may consider the agricultural policy to have changed. The Coalition Party seems to be calling for reductions in export subsidies, among other things, but whether the Centre Party is ready for such a move remains to be seen. Some change must take place, but no really great changes are foreseeable from a domestic viewpoint.

However, Finland may be forced to trim her agricultural policy as a result of international negotiations. If the GATT negotiations reach agreement, this will inevitably entail reductions in agricultural subsidies, forcing Finland to lower its producer prices.

Finland will also have to seriously consider joining the EC. Membership of the EC would cause a profound change in our agricultural policy. The level of prices and subsidies would have to drop drastically, and even if Finland were left with some leeway to subsidize its agriculture, it is probable that the EC scenario would significantly reduce the potential for farming on the present scale.

Thus, uncertainty persists in Finnish agriculture. So far, the situation has not changed, and farmers need fear no political decisions for the moment. Even a possible EES agreement will not come into effect until the beginning of 1993, and will only affect the horticultural sector to any major degree. The Finnish farmer will thus have a while to

THE REALIZATION OF THE AGRARIAN REFORM AND THE CHANGING OF THE FORMS OF MANAGEMENT IN THE REPUBLIC OF LATVIA

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In fact, agrarian reform in our Republic had already begun before the law about Carrying out the Land Reform in the Countryside of the Republic of Latvia was accepted in november 1990. The beginning of this reform was a Resolution of the Council of Ministers of the Republic about the Family Farms accepted in October 1988. This year the first family farms were created but there was still no any legal basis for such action. Now the Supreme Soviet of the Republic has accepted a number of laws regulating the carrying out of the agrarian reform of the Republic. About 8,5 thousand family farms are already functioning which are cultivating 5 per cent of the total area of the arable land of the Republic. The preliminary data of the summing up of application of new family farms show, that to the end of 1996 the number of them will reach more than 20.000 farms. The average area of such farm is about 20.1 ha.

Along with the creation of family farms the question of the privatization of the property of state and collective farms has become very actual. At the Supreme Soviet there has already been the first reading of the draft Law about the Privatization of Agricultural Enterprises. This law will refer to the collective farms as well as to the state farms because the majority of the latter ones were created on the basis of the former ones. The fact of the capital created on the basis of the state budget will be counted off of the total capital to be converted.

The family farms are interested in getting the fact of the property created by them in the collective farms therefore the intensive work is carried out to count the shares of capital of physical and legal persons. The methods are worked out to make such accounts.

After the definite number of the members has left the collective and state farms to create their family or other kinds of enterpreneurship in the sphere of agricultural production or service the collective and state farms will be transformed into one or another kind of share holding companies. Transformation and the registration of new formation must be carried out till May 15, 1992.

At the same time the transformation of state and collective farms into share holding or joint-stock companies might not produce the expected effect without changing the organization of production in the society itself. It is necessary to find the effective methods how to use the large production objects (the cattle farms, mechanical shops, grain dryers, the shop of processing the agricultural output and so on). It is possible to leave the part of these objects at the disposal of common use of the basis of co-operation without conversion.

The small share holding companies could also be created to use some of these large production objects. On the basis of mechanical shops and other objects of service the agroservice formations are being created in the Republic to attend the family farms. The agrarian reform is developing in the Republic.

The Development of the Agrarian Reform and Privatization in Agriculture in the Republic of Latvia

The agrarian reform began with the acception of the Resolution about the Family Farms by the Council of Ministers in October, 1988. In May, 1989 the Supreme Soviet accepted the Law about the Family Farms. After the acception of this resolution the process of the revival of family farms began. Till May 1, 1991 8,5 thousand family farms have been registred, which cultivate 171,3 thousand ha or 5 % of the total arable land, which is at the disposal of state and collective farms.

There was a period when the creation of family farms were developing quicker than the acception of laws, legal and economic regulation of processes of formation and functioning of them. Now the legal basis has been created for the realization of the agrarian reform. In November 1990, there was accepted a number of laws, such as about the Landreform in the Countryside of the Republic of Latvia, about the Land Comissions. The Regulation about the Realization of the First Stage of the Agrarian Reform in the Countryside of the Republic of Latvia have been worked out.

The following laws have been also accepted: about Joint-stock Companies, about Shareholding Companies and about the Companies with Limited Responsibility". The first reading of the draft law about the Privatization of Agricultural Enterprises" has taken place at the Supreme Soviet.

Many of these laws are already functioning. They are taken into account during the realization of the first stage of the agrarian reform.

It is well-known that the Law about the Land Reform includes two stages of the reform stage from 1990-1996; the second stage 10-15 years. During the first stage till the middle of the year 1991 the former landowners, the existing users and all those who are to become new land owners, must hand in the applications to obtain land.

During the second stage the inventory of the undistributed land will be carried out, the formation of new farms will be continued, as well as the land will be sold to become a private property.

The society is worried by the question: How would be the reform carried out under the conditions of our deficit economy?

Will there be those who wish to work in agricultural production independently? The experience shows that this process will develop. The agricultural worker wants to become the master of land, his output and income.

The Law about the Agrarian Reform envisages that all the phisycal and legal persons who want to obtain land for use, must hand in applications till June 20, 1991 at the local or regional land commissions. Not much time is left till June 20. The preliminary summing up of the data shows that about 12.000 applications are being handed in to form family

farms. It is cleary seen that till end of 1996 there will be more than 20.000 family farms which will cultivate about 13-15 % of the total arable land of the Republic.

The main factor slowing down formation of new family farms is the lack of material and technical resources. Mean while much is done in this direction by the Ministry of Agriculure of the Republic, by the Government. The regional machine building is being organized in Baltic Republics. The part of machinery is passed over to the farmers by state and collective farms, the part of machinery is brought abroad.

The co-operation of family farms has begun to use the agricultural technique commonly. This kind of cooperation is developing not only among the family farms, but also among the farmers and collective farms.

This kind of co-operation is also necessary because at the initical period of the agrarian reform the small farms have been formed. The average area of the farm is 20.2 hectares. The farms with the total area not exceeding 20 hectares constitute 20 %, exceeding 20 hectares 44 %, more than 40 hectares about 7 %.

At the present period very actual question during the realization of the agrarian reform is the transformation of state and collective farms into shareholding and joint-stock companies in order to privatize the collective property. The draft law about the Privatization of Agricultural Enterprises envisages the order of privatization of state and collective farms and agricultural enterprises. The order of the privatization of collective farms refers to the state agricultural enterprises due to the fact that majority of these state farms were created on the basis of the collective farms, besides the purchase prices didn't differ much from the prices used at the collective farms. It is also forseen that the part of the capital created by the means of the budget will be counted off of the total convertible capital.

The Law of the Republic of Latvia about the State Register indicates that all the state and collective farms should be converted into shareholding companies and registered till March 15, 1992.

The intensified work is carried out in state and collective farms to personify the capital of the existing enterprises without payment and to reorganize the production to create the family farms, the state holding companies and joint stock companies or any other entrepreneurical enterprise. Till the May 1, 1991 already 85 farms (15 % of the total number) partly or fully have made calculations to determine the share of the capital to every physical or legal person in the common capital to be converted.

The seminars, symposiums, consultations, the exchange of the experience are being organized concerning the methods how to calculate the capital shares.

The state is stimulating economically the creation of family farms. In 1991 the state has allocated 102 million roubles from the budget to render assistance in construction the production buildings and dwelling houses, in obtaining the cattle, land reclamation, telefonization and road building.

The family farms are being formed at the present moment, therefore it would be unjust to compare the results of their work with those of the collective and state farms, but the results of work of some family farms are already better than those of the neighbouring collective or state farms, therefore one can be sure in the effectiveness of the revival of the family farms in the production organization.

The program of the seminar, which focused on the possibilities and management strategies of family farms, included altogether 18 papers that had been prepared in advance, views presented by various organizations, and plenty of discussions on the topics involved.

The discussion on the future of agriculture continued in smaller groups during coffeebreaks.

PROFITABILITY STUDY OF AGRICULTURE IN FINLAND

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1 Introduction

Official profitability study of agriculture has been conducted in Finland since 1912. Participation in the activity has been voluntary during all this time. Agricultural Centers, including 17 Finnish and 3 Swedish organizations, are responsible for choosing the farms and compiling the data. In the past few years the number of bookkeeping farms has been around 1,100.

In the beginning of 1968, a reform of the taxation of agriculture was realized in Finland. Earlier, taxation was based on the average pure return of agricultural land, which was determined annually. In the tax reform, taxation was based on tax bookkeeping on the farms. According to the income tax act for agriculture and forestry, a farmer is responsible for keeping books of the receipts and expenditure of agriculture, with adequate specification of the farmer's receipts from agriculture and the expenditure caused by agriculture. The records of receipt and expenditure items must be based on documents, unless they are self-evident or minor amounts. The books and the documents must be kept for at least six years after the end of the year that they concern.

Tax bookkeeping is performed on the basis of a cash principle, which means that a receipt item is included in the income of the year when it is received. Correspondingly, an expenditure item is recorded as expenditure of the year when it is paid. Tax bookkeeping mainly concerns cash receipts and expenditure, i.e. stock property, livestock, and their value changes, among other things, are excluded. Similarly, human labor or labor by machines is not recorded. In this case it is not possible to calculate the economic result of the tax year unambiguously.

The bookkeeping applied in taxation forms the basis for the bookkeeping system of the profitability study of agriculture, and the data is supplemented to make it possible to determine the economic result and profitability of the accounting period. This paper is confined to the bookkeeping system applied in the profitability study, which in several respects resembles single entry bookkeeping in other fields.

2 The realization of the bookkeeping in practice

The information needed in the bookkeeping is recorded on the farms in books prepared for this purpose, including a list of property, a cash book and a book of working hours. Agricultural advisory organizations are responsible for printing the books and delivering them to farms, as well as for various other practical tasks.

2.1 List of property

Farmers keep quite detailed accounts. In the list of property they record the data on their assets and liabilities. The main groups of assets are agricultural property, residential buildings, forest property, private property, property related to subsidiary earnings, as well as current assets. If necessary, advisers will assist farmers in estimating the property shares. The property shares are subdivided as follows:

Agriculture
- Product stocks
- Purchased stocks
- Livestock
- Machinery and implements
- Farm buildings
- Subsurface drainage
- Agricultural land

Residential buildings

Forestry
- Stocks
- Machinery and implements
- Land and growing timber

Subsidiary earnings

Current assets
- Cash reserves
- Receipts from accounts
- Stocks and bonds
- Bank deposits

Private property

In the case of agricultural property, product stocks are specified in the list of property on the basis of products. Similarly, in the case of purchased stocks, e.g. fertilizers, feed, pesticides and fuel are recorded separately. Livestock is specified according to the species of animal. The capital values of machinery and implements are presented separately for the part of tractors, combine harvesters, hauling equipment, crop cultivation equipment and other agricultural equipment. Farm buildings are classified into livestock buildings, crop cultivation buildings and other farm buildings.

The main groups of liabilities are account debts, debts from financial institutions, the state and private parties, as well as rented capital. In the case of debts, rented capital refers to the value of rented real estate, which is also included in assets with the same value.

In the list of property, the capital values of the different property shares as well as debts are noted both at the beginning and end of the accounting period. On the basis of the data in the list of property, own capital and the change in it during the accounting period is calculated as the difference between assets and liabilities.

2.2 Cash book

On the farms, cash receipts and expenditure are recorded in cash books, and in their specification the requirements of taxation are also taken into account. It has been considered important that the bookkeeping can also be applied in taxation. In addition to the data on the cash transactions of agriculture, the cash receipts and expenditure of forestry, subsidiary earnings and private household, with the respective specifications of accounts, are also recorded in the cash book. Bank deposits, purchases and sales of stocks and bonds as well as debts and repayments are followed in the money transactions, too. Furthermore, the interest payments and taxes are also included in the cash book.

2.3 Book of working hours

The consumption of both human labor and labor by machines are followed in the book working hours. In the case of labor by machines, the working hours by tractors and combine harvesters are recorded. The working hours of the farm family and hired employees are given separately in the book. In the bookkeeping system of the profitability study, working hours are classified as follows:

Crop cultivation work
Livestock work
Other agricultural work
Investment work of buildings
Investment work of machinery and implements
Subsurface drainage
Land clearing
Forestry work
Subsidiary earnings
Work in the private household
Management

It can be seen that the recording of the working hours is quite detailed, and it has been possible to apply the results in various studies. The purpose of recording the working hours is to examine the consumption of different kinds of labor. This is needed e.g. in the economic planning on the farm. In the profitability study, working hours are used in determining the value of the labor of the farm family, i.e. the wage claim. This is calculated by determining the price for the working hours of the farm family. Working hours are also used as the basis for dividing the labor cost, both for the part of human labor and labor by machines. This is particularly significant in determining the labor cost of agriculture in those cases where those employed in agriculture have also worked outside agriculture proper, for example, participated in the forest work of the farm.

2.4 Other data

In addition to the data on the cash transactions, property and consumption of labor, the records of farms also include data on the use of arable land and yields, as well as on the unpaid transactions within the farm. This data are needed for calculating the return and costs of agriculture, among other things. Consumption of agricultural products produced on the farm in the private household of the farm family increases the return of agriculture. Correspondingly, the value of timber from farm's own forest used for the needs of agriculture is included in agricultural costs in the result calculation.

3 Balancing of the accounts

At the end of the accounting period local advisory organizations collect the books from the farms and feed the data into computers. The transfer of data from the advisory organizations to the Agricultural Economics Research Institute is performed on discs by mail. The balancing of accounts is prepared completely by computers. The major part, about 70%, are prepared at the Agricultural Centers and the rest at the Research Institute.

In the profitability study the calculation of the economic result is based on the gross return and production cost of agriculture.

3.1 Gross return of agriculture

Gross return refers to the total value of the products produced on the farm. Thus, for example, feed grain produced on the farm, if it is used on the farm to feed the livestock, increases the gross return as livestock products. In addition to cash receipts, changes in the product stocks and livestock, sales proceeds, i.e. account receipts as well as the money value of the unpaid products from agriculture to be used by the farm family and for other purposes are also taken into account in calculating the gross return. Roughly, the calculation proceeds as follows:

Cash receipts
- account receipts at the beginning of the year
+ account receipts at the end of the year
+ increase of the value of livestock
- decrease of the value of livestock
+ increase of the value of product stocks
- decrease of the value of product stocks
+ value of agricultural products used
  in the private household without pay
+ housing benefit
= Gross return of agriculture

Gross return is calculated in both livestock and crop production for each product separately.

3.2 Costs of agriculture

The timing of return and costs to the same accounting period is essential in calculating both costs and return. Cash expenditure forms the starting point for determining costs. The calculation method can be presented as follows:

Cash expenditure
- account debts at the beginning of the year
+ account debts at the end of the year
- increase in purchased stocks
+ decrease in purchased stocks
+ depreciations
+ unpaid transfers to agriculture
(e.g. timber from farm's own forest)
+ use of a private car in agriculture
= Costs of agriculture

4 Economic results

In the case of economic results, several concepts involved are calculated. The most central ones are farm family income, taxable net return and profitability coefficient. Farm family income is the compensation to the farm family for the agricultural labor and capital invested in agriculture. It is calculated as follows:

Farm family income = Gross return - Costs

Pure taxable return is arrived at when, in addition to costs, the value of the labor of the farm family is deducted from the gross return. This is compensation for the capital invested in agricultural property. In the calculations of the profitability study, the value of the labor of the farm family, i.e. the wage claim, is determined by pricing the working hours performed in agriculture by the farm family.

Profitability coefficient indicates the proportional profitability of production. In this, the economic result arrived at, the farm family income, is compared with the total of the value of the labor of the farm family, i.e. the wage claim, and the calculatory interest cost, i.e. the interest claim of capital. The latter is calculated from the capital value of agricultural property according to a certain percentage. Profitability coefficient is calculated according to the following formula:

$$\text{Profitability coefficient} = \frac{\text{Farm family income}}{\text{Wage claim of farm family} + \text{Interest claim of capital}}$$

The wage claim of the farm family and the interest claim of capital can also be regarded as targets set for production. If the coefficient is one, the targets have been reached. If it is more than one, net profit has accumulated, and if it is below one the result is unprofitable.

As was presented above, farm family income includes the capital income and labor income of the farm family and the possible net profit. It can be divided proportionally between the capital income and labor income as follows:

Labor income = profitability coefficient x wage claim of the farm family
Capital income = profitability coefficient x wage claim of capital

Above, the net result is also divided between labor and capital, in proportion to the targets set for production.

Recently the data from the bookkeeping farms have also been applied in various separate studies of the total disposable income of farmers. In this case the focus is on the net receipts of agriculture, forestry, subsidiary earnings and private household. In the studies the use of disposable income to the expenditure of the private household and the investments in agriculture and forestry, among other things, have been examined. The calculations also indicate the need for additional loans and changes in the current assets of farmers (deposits, stocks) (cf. e.g. PUURUNEN and TORVELA 1989 and 1991). It seems that there is a lot of demand for this kind of calculations concerning the whole economy from various quarters.

5 Services to farmers

Farmers participating in the profitability study receive annually the result of the balancing of accounts of their farm. This includes data on the yield and return level of the farm, and specifications of the labor and capital input invested in production as well as of the return and costs. It also includes a detailed specification of the cash receipts and expenditure of agriculture, forestry, subsidiary earnings and private household. The changes in debts and current assets as well as the economic results indicating profitability are also included.

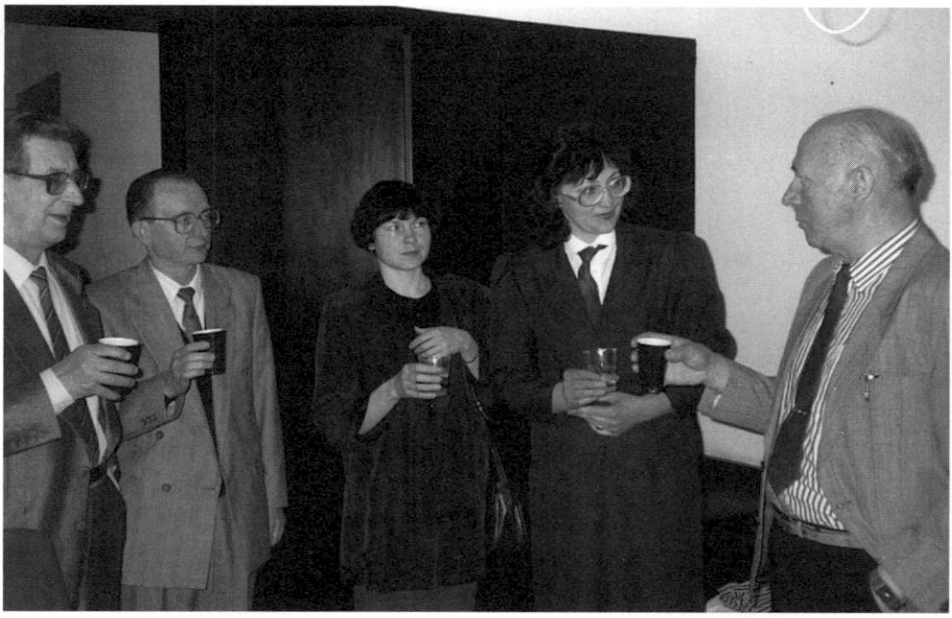
In addition to the data on the actual balancing of accounts, farmers also receive an output in which the bookkeeping data of the farm is compared with the average bookkeeping results of the farms in the same region representing the same production line and size class. The purpose of this is to make it easier to analyze the factors that have led to the achieved economic result. The data have been well received on farms.

6 Publication of the bookkeeping results

Statistics on the data from the bookkeeping farms are compiled annually at the Agricultural Economics Research Institute. The average results for different regions, farm size classes and production lines are calculated. There are four research regions, and six farm size classes, formed on the basis of the arable land area. The production line of the farm is determined on the basis of the gross return: on a highly specialized dairy farm, for example, the share of the return of milk and beef must account for at least 80% of the gross return of agriculture.

Average bookkeeping results are published annually in the "Research Reports" series of the Agricultural Economics Research Institute, as well as every three years in the official "Research Publications" series of the Institute. The results of the bookkeeping farms are used as data in various studies in the field of agricultural economics.
practise his trade under fairly stable conditions.

The traditional Hotel Riga provided a handsome setting for the seminar and took an excellent care of the participants.



Between the presentations the researchers also has the chance for more informal conversations.

THE DEVELOPMENT OF FAMILY FARMING IN THE REPUBLIC OF ESTONIA

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Before World War II the development of agriculture in the independent Estonian Republic was successful. The production of basic agrofood products per capita of the population was high. The surplus of food in 1938 enabled to export agricultural products. The main articles of export were butter and bacon.

During the time of independence the construction of houses was intensive in Estonia. There were approximately 350,000 new agricultural buildings built in Estonia (2, p.4). Estonian farms had no specialization. The four most common kinds of domestic animals were bred, i.e. cattle, pigs, sheep and poultry. On average, there were 5.0 cows, 3.0 pigs, 4.9 sheep, 16.1 domestic fowls, mainly hen, 0.7 hives and 1.5 horses per a family farm. In 1939 there were also 1,792 tractors in Estonia. The bigger machines were for common use in machine co-operatives. The total number of machine co-operatives was 3,226 with 285,000 members.

The normal development of family farms ended with the Soviet occupation of the Estonian Republic in 1940. Before the occupation the farmer was the private owner of land. In 1940 land was declared to be state-owned. The farmer was allowed to use land with the maximum size of 30 ha per a farm.

In october 1940 began the parcelling of farms. A part of large farms were fully nationalized. Farmers were deprived of 3,779 farms (1, p.7). 32,891 farms with more than 30 ha of land were cut off the rest. Altogether 54,000 farms of 10-11 ha were given to people who did not own land before. The established new farms were small and lacked vitality. The average size was only 13.3 ha of land, of which agricultural land formed 5.3 ha.

In Estonian the establishment of large-scale production in agriculture began in 1947. Among farmers there was great opposition to collectivization. After the deportation of the owners of larger farms in spring 1949, the compulsory collectivization was carried out during a comparatively short period of time.

In Estonian the large-scale agricultural production was at considerably higher level as compared to the agriculture in the Soviet Union as a whole. But in the development of the large-scale production more and more negative phenomena have started. For that reason and due to democratic tendencies in the development of Estonia a new development of family farms has begun.

The establishment of family farms started in Estonia in 1988. In 1989 already 400 farmers settled to spring work. By the month of November, the same year, the number of farms had doubled reaching 826. An essential factor in the further establishment of farms was the acceptance of the Farm Law in December 1989. By the end of the year the number

of farms increased up to 1,053 and was doubled by May 20, 1990. The re-establishment of farms has carried out at high speed - by January 1991 the number of farms reached already 3,590.

The preliminary explosive establishment of farms brought out also many factors that had restraining effects on the farms' development. We shall name only the most essential of them. We shall also bring out some drawbacks in the previous development of farms.

(1) The essential factor restraining the establishment of farms is the absence of the Land Law and Property even in spring 1991. The absence of the right of property to land arouses uncertainty in farmers and as long as we lack the right to land as property, we also lack the real sense of proprietor. The absence of the Land Law arouses in its turn hesitations. The taxation of land is also not clear yet. The maximum size of 50 ha of arable land per a farm permitted with the Land Law may be considered too small, especially if a farm has specialized on grain growing. In April 1991 it was started to investigate the property that was nationalized in 1940 and that needs privatization now. In agriculture the problem of returning property is especially complicated as the property could have been the property of land on which during the past fifty years villages, towns, roads, factories, etc. could have been built. That is why compensating injustice done to farmers with the Land Law of 1940 is complicated being so one restraining factor for the development of family farms.

(2) One factor restraining the re-establishment of farms is the instable situation in agriculture and the rapid rise of prices, comparing the prices of agricultural machinery in 1990 with the prices in 1991 it becomes evident that the level of prices has practically doubled. We could take, for example, a tractor T-40 which price rose from 3,600 to 7,445 roubles, i.e. 206,8 per cent. The price of a tillorry SAZ-3507 rose from 4,000 roubles to 13,650 roubles or 341,3 per cent. In the conditions of continuous inflation it is very difficult to make economic calculations and calculations of profitableness.

(3) The development of farms is also restrained by the insufficiency of material-technological resources. In large-scale production there were less tractors needed. So in 1989 there were on average 1,5 tractors in large-scale agricultural production per 100 ha of arable land. Practically every new family farm needs a tractor as the machine co-operatives analogical to the pre-war ones cannot arise at once. There were plenty of tractors in private property, at the beginning of 1991 for example, 15,700 tractors, but the so-called newfarmers owned only 1,500 tractors or 9 per cent.

(4) There are also subjective factors restraing the re-establishment of farms. Among them the opposition of large-scale farms, especially to the establishment of such farms that wish to get land near the centre of a large scale farm and on better soil could be brought out. The lands of a farm could parcel out large plots of arable land or harm the interests of large-scale production in some other way. The influence of subjective factors is revealed specially clearly in some collective or state farms where practically no family farms are established.

(5) Another factor restraining the development of farms is the establisment of too small farms and the farmers wish to start breeding four kinds of domestic animals as it was done half a century ago. After a couple of years such a farm will not be able to compete as it will lose to those farms that have specialized from the very beginning on breeding separate kinds of animals or on plant growing.

(6) A series of problems that would conduce to the development of farms have not been solved. The system of marketing of farm production, supplying farms with purchasing materials, especially with building materials could be pointed out. The farmers advisory service and the system of servicing and repairing farm technics have not been formed. Getting loans is also insufficient.

The establishment and development of farms have turned out to be topical problems in Estonian press. Instead of the intensive popularizing of farms, serious work should be done in order to guarantee the development of family farms both legally and economically.

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The excursion to the countryside, which was favored by a sunny weather, took the participants to Tervete farm in Jelgava, where they could admire the handsome Latvian breeding-horses grazing freely.

Tervete farm with its diverse production possibilities was an excellent example of a large farm in Latvia.

PRODUCTION COST CALCULATIONS AS THE BASIS FOR PRICING DECISIONS

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1 Introduction

A systematic agricultural pricing policy based on agricultural income legislation has been in effect in Finland since the 1950s. This systematic pricing policy, which includes regulation of producer prices for agricultural products, has been considered necessary for realizing the aims of agricultural policy. The aims of the Agricultural Income Act include guaranteering a fair level of income to farmers, guiding and balancing agricultural production, stabilizing prices and improving the quality of agricultural products.

Means for attaining these aims include regulating producer prices on the main agricultural products and paying subsidies from Government funds either by product or on some other basis.

The producer prices for agricultural products and the income development of the farming population are decided on in the agricultural income negotiations between the government and agricultural producers. Any increase in target prices is based on the rise in agriculture costs as per the overall cost calculation and on the negotiated agricultural income increment. Agricultural income is compensation for the work done by farmers themselves and for the own capital invested in agriculture. Increases in production costs and in agricultural income are covered by the target prices for agricultural products and by Government subsidies.

The target price is the same throughout the country. Government subsidies are graded so that small farms and the northern parts of Finland receive the largest amounts. The Agricultural Income Act requires that the domestic and foreign market situation for the products, the international price level, and the trend in production costs for the various products must be taken into account in determining individual target prices for products, i.e. in distributing the income increase over the range of products.

The cost structure varies by production sector, so the changes in the prices of production materials affect different sectors in different ways. The overall agricultural cost calculations prepared at both the Agricultural Economics Research Institute and at the Central Statistical Office of Finland chart overall agricultural income and costs and the net agricultural income, which is the difference between the two. However, the overall calculations treat agriculture as an entity, so they do not show incomes and costs within agriculture. The overall agricultural income as per the overall calculation can be distributed over the range of products according to sales income, but distributing overall costs and the increases in them among different products is difficult.

2 Production cost calculations with a farm model

Determining the real average production costs on a national scale for any specific product is complicated, since farms differ widely in production technology, in the use of production inputs and in yield and output levels. For this reason, partly theoretical farm models must be used to calculate production costs on the basis of arbitrary production input combinations and output levels. Production cost calculations can be prepared by production sector, by farm size or by area, and such calculations can be used to illustrate the level, structure and development of production costs for different products.

This report focuses on the creation of the farm models and the accounting procedures for production costs which underlie production cost calculations; the use of production cost calculations in agricultural income negotiations will not be discussed.

At the Agricultural Economics Research Institute, production cost calculations based on farm models are prepared annually for the major agricultural products, i.e. milk, beef, pork, lamb, eggs, and feed and bread grain. In addition to these target price products, calculations are prepared for sugar beets and oil plants.

As indicated above, the product prices of agricultural products are determined according to the income targets agreed on in agricultural income negotiations. The production cost calculations based on farm models are intended to aid decisionmakers; they show the trend in production costs for various products, as well as the changes in price-cost relations.

In the production cost calculation farm models each 'farm' specializes in the production of one product. Although the situation is rarely so clear in reality, the typical production input and cost structure for each production sector has been simulated. The model calculations also illustrate the relations between the production costs of different products. Calculations are prepared in three different volume classes for each product, showing the effect of farm size on production costs. The production costs include all costs incurred in agricultural production, including the value of the work done by the farmer's family and the interest payable on the capital invested in agricultural production.

The production costs for the farm models are calculated by defining the production inputs to be used and the prices for them. All production costs are totalled and divided by the output volume of the farm, giving a figure which represents production costs per unit produced.

Information acquired from the bookkeeping farms included in the profitability study has been included in drawing up the farm models. Various standards and recommendations have also been used. Although both cost levels and cost structures have been designed to correspond to reality as well as possible, the farm models actually represent farming conditions in southern Finland and a level of agriculture more efficient than average. Consequently, the cost level is that of a farm of this type, rather than the approximate national average.

The cost structure of the present production cost calculations is based on the production costs determined at the price and cost level of the second quarter of 1980. These have been used to weight the indices used to monitor the development of production costs. No changes in the cost structure have been taken into account since then. The models have

been used only to monitor the different costs. Either the production input prices or other comparable available price indices are used as the basis for monitoring. The MTTL is currently revising the cost structure of the production cost calculations.

2.1 Production cost calculation for milk production with farm models

The following is a more detailed presentation of farm models for milk production and the breakdown of expenditure in production costs. In designing the models, the size of the production unit, the production arrangements (i.e. the type of feeding used) on the farm, farm machinery and equipment, type of barn, use of human labor, etc. have to be determined.

The livestock yield, harvests, and use of production inputs and labor are calculated from standard figures based on information acquired for bookkeeping farms in southern Finland. When the use of the various production materials has been determined, they are priced so that production costs can be calculated. The price data come from several sources. The working hours for both the farm family and hired help are evaluated according to the average hour wage for agricultural workers. The production costs per unit produced depend greatly on the amount of milk produced. The farm models created represent farms with 8, 16 and 32 cows and with 11, 22 and 45 hectares of arable land, respectively. Table 1 shows a detailed breakdown of production costs in dairy farming on farm models. The costs in the model are grouped into purchased materials, labor costs, general costs and property costs. General costs include those linked indirectly or directly with dairy farming. The property costs consists of depreciation, i.e. the normal wear, repair and maintenance costs, insurance costs and interest on buildings, machinery, equipment and drainage. An interest rate of 6% has been applied to agricultural equities and borrowed capital.

Milk production is a labor-intensive sector. In 1980, the year this cost structure was drawn up, labor costs account for 35% in the smallest (eight-cow) farm model. With bigger farms, the share of labor is smaller and the share of materials larger. In the sixteen-cow farm model, the labor costs account for 30.2% of all costs, and in the largest (32-cow) model, labor costs (27.3%) account for less than material costs (30.3%). Capital costs are also high (40%).

I n desinging the models for milk production, production was considered to be based mainly on feed produced on the farm. Thus the costs for purchased feed include only mineral supplements. The cost structure of a specialized dairy farm was researched extensively in preparing the model. However, to simplify price monitoring and calculation, the model was simplified by combining certain costs into groups where prices can be monitored with existing indices.

The larger the farm, the smaller the production costs per unit produced. If the production costs for one liter of milk on an eight-cow farm are representated by an index of 100, then the indices are 80 for the sixteen-cow model and 70 for the 32-cow model.

Table 1. Production cost structure (%) in dairy farming, on farms with 8, 16 and 32 cows.

Cost	Share (%) 8 cows	16 cows	32 cows
Purchased materials	22.0	26.6	30.3
- seed	2.1	2.6	2.9
- fertilizers	8.4	10.3	11.8
- plant protection agents	0.2	0.2	0.2
- feed preservation agents	1.2	1.4	1.6
- purchased feed	1.2	1.5	1.8
- bedding	-	0.2	0.2
- other domestic animal expenses	2.1	2.6	3.0
- electricity	2.0	2.1	2.1
- fuels and lubricants	0.8	0.9	1.1
- machinery rent	4.0	4.8	5.6
Labor costs	35.1	30.2	27.3
- farmer's family	35.1	26.3	15.2
- hired help	-	3.9	12.1
General costs	3.5	3.2	3.0
Property costs	39.4	40.0	39.4
- depreciation on buildings	5.2	5.2	5.3
- depreciation on machinery and equipment	10.3	10.3	9.1
- depreciation on drainage	0.7	0.9	1.0
- repair and maintenance of buildings	1.3	1.3	1.3
- repair and maintenance of machinery	4.1	3.2	2.7
- farm insurance	0.6	0.6	0.5
- interest rate (6%)	17.2	18.5	19.5
Total	100.0	100.0	100.0

2.2 Bread grain production cost calculation with farm models

Production cost calculations on grain are done on both feed grain and bread grain for farms with 20, 40 and 80 hectares of arable land. The feed grain farm models illustrate the production costs of barley and oats, while the bread grain farm models illustrate the production costs of spring wheat and winter rye. The production costs for bread grain are slightly higher than those for feed grain. This is due to the smaller harvests of bread grain and the extra expenditure caused by processing for sale.

In the models created, the entire arable area is used for grain production, with part of the area reserved for fallowing. The farm owns its own equipment for cultivation, harvesting and drying. The models were desingned to represent efficient farms in terms of both crop yields and use of production inputs. Table 2 shows a detailed breakdown of the production cost structure in bread grain farm models in the different size categories. The cost structure is that of the 1980 calculations.

Table 2. Production cost structure (%) in bread grain production, with farm sizes of 20, 40 and 80 hectares.

Cost	20 ha %	40 ha %	80 ha %
Purchased materials	27.4	29.1	34.4
- seed	9.7	10.7	12.8
- plant protection	2.0	2.2	2.7
- fertilizers	9.6	10.6	12.7
- other purchased materials	6.1	5.6	6.2
Labor costs	12.8	11.3	10.3
- farmer's family	12.8	11.3	10.3
- hired help	-	-	-
General costs total	4.8	4.4	4.1
Property costs	55.0	55.2	51.2
- depreciation	24.6	25.6	22.0
- repair and maintenance	7.3	6.7	5.3
- insurance	0.7	0.6	0.4
- interest rate (6%)	22.4	22.3	23.5
Total	100.0	100.0	100.0

On grain farms, labor costs are relatively lower than on livestock farms. The labor input is concentrated in spring and autumn. The property costs are high, over 50%. The share of labor costs and property costs is lower with larger farms.

As with dairy farms, the production costs per unit produced are lower with larger farms in grain farming. If the production costs for one kilo of grain on a 20-hectare farm are representated by an index of 100, then the indices are 90 for the 40-hectare model and 75 for the 80-hectare model.

3 Production cost precentage on bookkeeping farms

The bookkeeping farms of the feasibility study provide information which can be used for monitoring agricultural incomes and costs and in the analysis of the cost structure. The bookkeeping farms are grouped in sectors by overall production. Since the farms do not specialize in one particular product each, the costs per unit for each product cannot be calculated on the basis of the accounting figures. However, the accounting data does provide costs per hectare of arable land.

The following is a presentation of the production cost precentage calculated on the basis of the bookkeeping farm data; this percentage can be used in determining profitability per sector. However, such calculations are not prepared for use in negotiating agricultural incomes. The production costs include all running costs of production, labor costs and property costs. The production costs were calculated per hectare. The production cost percentage was calculated as follows:

$$\frac{\text{production costs x 100}}{\text{total gross return}}$$

Table 3. Production cost percentages by production sector on bookkeeping farms between 1985 and 1989.

Year	Cattle (I)	Cattle (II)	Pig farms	Other livestock	Grain farms	Other plants	Average for all
1985	109.0	109.1	97.5	103.3	97.9	96.1	103.6
1986	109.6	109.4	95.0	102.9	95.7	90.1	102.2
1987	112.5	112.2	103.4	111.3	113.7	104.0	109.6
1988	113.1	111.4	95.9	103.9	109.5	96.7	106.1
1989	101.0	101.6	89.1	95.4	83.5	87.2	93.9
Average arable area (hectares) in 1989							
	27.8	28.5	33.5	31.4	41.6	35.9	31.8

Only pig farms and grain farms have a production cost percentage of under 100, i.e. the total gross return has exceeded the calculated production costs. The pig farm group include the bookkeeping farms on which pig raising accounts for no less than 50% of total agricultural production. The grain farm group include the bookkeeping farms on which grain accounts for no less than 50% of total gross return. The farms of the group cattle I (dairy farms) are the least profitable. 1987 was a bad year, and all farms did poorly; 1989, on the other hand, was a good year.

This survey gives an overall view of the situation on bookkeeping farms by production sector. A more complete picture would require a more detailed survey of conditions in different parts of the country and on farms of different sizes.

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FARMING ECONOMICS AND ACTUAL PROBLEMS OF BOOK-KEEPING

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Summary

The main problems of farming economics in the present stage are following:

I The size of the restored or founded farm
II The choice of the production line
III Expenses, price and profitableness
IV The system of book-keeping which enables analysis and expresses economic results.

I) Legislatively the main pressure has been put upon restoring the former farms because the former owners and their inheritores are privileged in restoring the farms until Jan.1, 1992. The more extensive foundation of new farms is possible only after this date. Some opinions have been expressed that if we restore farms in previous limits farms will be too little to give commodity production and therefore the greater farms should be established immediately e.g. 100-200 ha.

Proceeding from the present situation in supplying with building materials and technics we can say that we don't have the economic possibilities for establishing large-scale farms in large number. The calculations show that already a farm with 40 ha of cultivated land and 20 cows needs the capital of 450 000 roubles while starting from the very beginning. To this extent neither the farmers nor the republic have no means for every applicant. Therefore the beginning must be more reserved and feasible for everybody while taking into account the existing potential and giving the highly capable ones the possibility to get more land in addition in future. There are 133 500 private past-time farms where the production is already runnig and in many of them even in measures of average farm production. These 133,5 thousand households own only the land of 46 000 ha officially. Giving the applicants a possibility to get additional land it is potential relatively with small spendings and in a short period of time to get additional production, for the initial capital is available and the normal expansion of production is proceeding. Thus, the former private past-time households are very basis from which the future farms grow without foreing business artificially.

II) While choosing the production line first of all we must take into consideration the knowledge and skill of farmer, the location, the condition of cultivable land and suitability for growing certain cultures.

In the first stage, taking into account the lacking of equipment and distribution system serving the farmers, there might be some difficulty in deeply specialized farms willy-nilly the farmers have to think about their provision with primary needed from their own production. The situation can be improved by co-operation of farmers. The main problem will still be the production which is based upon the self-produced feed.

III) Comparing with large-scale farms a private farm can lessen such unproductive spendings as transport expenditure, for the average distances are diminishing and also the ceneral expenses are decreasing. To some extent the use of machines is growing worse, which of course prolongs their period of use and lessens the cost of repairs.

The essential factor in lessening the spendings on per-yield-per-unit production is doing the work on time, which quarantees high yield and feeding the animals with of full value fodder according to their feed need (the regular relation between the number of animals and the amount of fodder). The realization should be with contract prices on free choice of a farmer.

While taking the government production of services from a farmer's side we must quarantee him the resource cover. In our republic's conditions the necessity of subsidizing the production of agricultural products remains unstable in order to be competitive in foreign market.

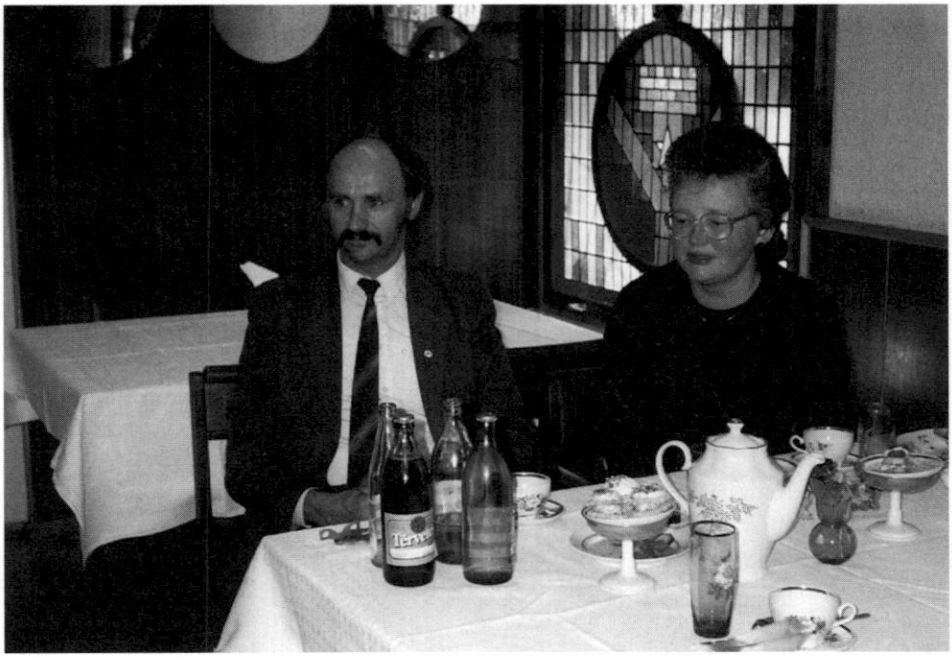
IV) Book-keeping on the farm must give a review of the results, enable to analize the results and work up statistically on the farm chosen for that:

Book-keeping can be of two kinds:

1) Simplified book-keeping on the principle of
   a pocket-book-storehouse-book-income on one page,
   output on the other, both in kind and financially.
2) Through single book-keeping according to three
   forms:

a) a book of property
b) a book of profits-expenses
c) an economic book

The farmers who get their training for using the system and the farms chosen for book-keeping keep it for statistical budgetary researches.



Director of the Agricultural Departement of Dobele District Mr. Vitauts Pashkauskas told about the structure and development of the local agro-industrial production which could be enjoyed of during the lunch.

Home brewed beer was served to the seminar visitors by a local family enterprise on the surrounding of the beautiful lake.

PLANNING AND MANAGEMENT OF THE FARMS

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1 Objectives of a farmer as an agricultural entrepreneur

In entrepreneurial activity in general, the objective is as high profit as possible and, through this, return on the invested capital. The objective of agricultural enterprises may also be maximization of profit, but usually this is not the only, or the most important objective. In addition to acquiring a reasonable livelihood, farm families have other, more or less social or spiritual goals, like living in the country, raising children in a healthy environment, managing a farm inherited from the parents, and continuing their valuable work. In agriculture, too, economic profitability forms the only sound basis for continuous entrepreneurial activity.

2 Preconditions for success as an entrepreneur

Farmers' success as an entrepreneur is largely dependent on his personal characteristics and abilities related to managing an enterprise. The natural conditions on the farm also affect the profitability of agriculture. However, entrepreneurship is one of the most central factors influencing the profitability of agriculture and causing variation in the total income of farms. It has been noted that there is a strong positive correlation between the level of entrepreneurship and the profitability of agriculture. E.g. TURKKI (1988) has described entrepreneurship through an index in which the professional training of a farmer, the stage of managing the farm, attitudes, and activities related to business management are taken into account. According to the study, farmers of economically successful dairy farms have good entrepreneurial abilities, they usually have professional training in agriculture, they are in a completely established stage of managing the farm, they plan, observe and calculate their actions and are capable of cooperation. Turkki states that investment in know-how and capabilities in general will improve the profitability of agriculture considerably.

3 The significance of planning in agriculture

Managing an agricultural enterprise is dynamic activity, in which situations vary and things do not always go as intended. Every farmer has to make several different kinds of plans and strategies in order to maintain and develop production on the farm. At the same time a farmer must, more or less consciously, anticipate the future even for many decades ahead. Anticipating the future always involves a risk. The risk to an entrepreneur consists of the uncertainty of receiving the expected future return on the economic investment. Efficient and productive entrepreneurship involves as essential components recording the plans concerning production, follow-up of their realization, and drawing conclusions in order to be able to alter and improve the plans and activities, if necessary.

As complete data as possible on the production level and the use of production inputs on the farm form the basis for the planning related to production. Anticipating economic results, for its part, requires detailed data in marks on the returns, costs and production resources of the farm. Many farmers are more oriented to practical activities, and they are not too keen on "paper work". However, Finnish farmers are not alone with their "paper work", because today they can rely on versatile expert services from many different quarters in the planning and realization of production. There are many different systems available for recording and analyzing the return and input data as well as the economic results. Apart from the data needed in taxation, however, following the results of the farm is largely up to the farmers themselves.

4 Calculation and planning systems needed on farms

In the following, an attempt is made to briefly introduce certain, most central calculation and planning systems applied in connection with established agricultural production and their practical realization on farms. Apart from tax bookkeeping, which concerns all farms, these planning systems of continuous production include cultivation plans, recording of production, breeding and, in part, forestry planning. Because a separate paper on the systems of the profitability study of agriculture is presented in the seminar, the result calculation of the bookkeeping farms and the double entry bookkeeping have been excluded from this paper. The advisory services needed on farms in connection with certain special situations are examined as another category related to the planning and advising in agriculture.

4.1 Taxation data and budgeting

The receipts and expenditure of agriculture must be recorded on all farms for the taxation of agriculture and forestry. In practice, this means that the receipts of purchases and sales must be kept. Taxation according to the forest area, based on a quality classification, is in force in forestry, which means that it is not necessary for farmers to keep accounts on

income from forest sales. Dairies, slaughterhouses and certain retail businesses help farmers with the tax bookkeeping of agriculture by mailing a summary of the accounts at the end of the year. Banks also mail summaries of the data on debts and interests. Filing the tax form concerning agriculture and forestry is a very detailed process because, for the part of agriculture alone, the tax form includes 50 separate receipt and expenditure items, with their various sub-sections and calculations. Many farmers fill out their tax forms themselves, whereas some leave this to private accounting offices. Internal revenue offices can also counsel farmers in the details of taxation. By means of the income and expenditure of agriculture reported in the tax form, it is possible for a farmer to follow the result of his farm in marks from one year to another quite well. The taxable pure income is also used as the official criterion of the income of the farm when, for example, state support, social benefits, etc. are decided on.

Even if the result of the year would be satisfactory when evaluated in retrospect, in order to avoid financial crises a farmer must anticipate the receipts and expenditure of the farm for periods of time shorter than a year, too. In addition to the available cash reserve, the need for short-term financial planning is determined by the regularity of the receipts and expenditure on the farm and, in particular, their timing in relation to each other. In production lines where receipts come at long intervals or the production period is long, like in beef production, the need for short-term financial planning is particularly clear. The money transactions of the different production lines and private household are often joined, and, consequently, it is expedient to include all receipts and expenditure in one budget. It is necessary to follow the realization of the budget continuously in order to notice a possible deviation in the cash position in time.

Agricultural Centers provide paid advisory services on taxation to individual farms, and they also organize seminars on taxation for farmers. For the purposes of taxation planning and the annual budget made in connection with it, Agricultural Centers have in the past few years developed a special computer program (VÄRMA), which facilitates and speeds up the work of the advisor on the farm. It is also possible for farmers to buy the program to be used in tax bookkeeping and budgeting. Also the sum of taxes can be calculated by means of the program. The "computer boom", however, is only getting started among farmers. It is sensible for a farmer to prepare an intermediate balancing of the accounts, either on paper or by means of a computer, well ahead of the turn of the year, even if the actual tax form is not due until the end of March. The intermediate balancing is useful because in cash based taxation it is possible to balance annual variation in incomes by altering the times of the sales and purchases located around the turn of the year. At the same time, it is possible to examine the realization of the annual budget prepared in the previous year and the liquidity of the farm in general.

4.2 Cultivation plan

Because almost all farms are engaged in crop production of some kind, preparing a cultivation plan forms an essential part of the annual planning routines of farms. A successful cultivation plan is based on an up-to-date soil analysis, which should be repeated every few years. Soil analyses are concentrated to the big laboratories of the Soil

Analysis Service. Farmers receive the results indicated on maps of their arable land, which they have mailed to the service. The general advisory organization has at its disposal a computer program (VISU), by means of which the plans for sowing, fertilization and liming can be made as accurately as possible, according to the results of the soil analysis. Naturally, cultivation plan is also based on the data on the yield level of the farm. By means of a guidebook on interpreting the results of the soil analysis as well as special planning forms, farmers usually manage the planning by themselves. A preliminary cultivation plan should be prepared already in the fall so that part of the supplies could be purchased in the winter when the prices are lower. In the spring it is necessary only to review the plan.

4.3 Recording of production and breeding

In order to manage the production on the farm, a farmer also needs data on the production quantities of the farm and the amount of inputs needed to achieve the production. There are various follow-up systems for this purpose. The most extensive system for recording production is the traditional milk recording. At the beginning of 1991 this activity shifted from private recording associations to the agricultural centers. About 47% of farmers delivering milk to dairies are included in milk recording. The average cattle size of these farms, about 13 cows/farm, is slightly above the average of all farms. In 1989 the average yield level was 6,200 kg/cow, while the average yield of all cows was below 5,500 kg.

By means of milk recording, it is possible to find out the yields per cow and to determine the fat, protein and cell contents of milk. In addition, a feeding plan for the cattle, based on the farm's own feed supply and the cows' need for feed, is also prepared. In spite of the separate organization, breeding operates in close interaction with the recording. Consequently, the data obtained in milk recording can be used, apart from planning the feeding, in planning the feed production and economy of the farm and in breeding, too. By participating in the recording concerning the economy of milk, beef and crop production, the farms also receive the economic results of the production line in question, calculated by means of the gross margin method. Similar recording and advisory services are available in pig, poultry and other livestock production, too, although in these cases the activity is performed by various specialized organizations.

4.4 Forestry plan

Forest is an integral part of a Finnish farm. Measures related to forest have effects that extend far into the future. From the viewpoint of planning and follow-up of forestry management and liquidity of the farm, an up-to-date forestry plan is a central source of information. At present more than half, in certain regions more than 80%, of farmers have a forestry plan in force. These include an assessment of the condition of the forest and estimates of the possibilities for felling and the necessary measures according to the type of forest for ten years ahead. The plan includes a recommendation for the annual measures in the forest and an estimate of the income and expenditure of forestry. Forestry plans and the modern planning programs related to them provide more flexible possibilities than

earlier to take advantage of the forestry income, according to the varying needs of the whole farms.

5 Special advisory services

In a farmer's lifetime there are situations on the farm that arise only once, or a few times, but that have long-lasting consequences. These situations include changes of the production line, large investments, like construction or subsurface drainage, and settlements related to transfers of farms to descendants, giving up production, and retirement, among others. Assessing the economic profitability of the project and arranging for the necessary financing are usually central in these plans related to a change in the production conditions on the farm. In situations like these, farmers should turn to an expert advisor.

Acquiring a farm is the first major investment every farmer has to make. In this connection, it is necessary to consider the situation from the viewpoint of all activities of the enterprise and the farm family. For planning the economy of the whole farm, the advisory organization has at its disposal a comprehensive liquidity and profitability calculation (LIKVI). The calculation is based on an estimate of the annual cash receipts and expenditure of the whole farm during the calculation period. It is the most time-consuming and extensive of the numerous planning services available. Because the calculations are usually made for ten years ahead and they include altogether six outputs, the calculation is very informative. In the past few years LIKVI calculations have been made for about 6,500 farms each year. Their number will increase because at present receiving state subsidies and low-interest loans is also subject to the condition that approved profitability and liquidity calculations for the part of investments have been prepared for the farm.

In transfers of farms to descendants, the sale price of the farm must first be estimated for calculating the possible inheritance tax, on the one hand, and for fulfilling the requirements of the start support and farm loan from the state, on the other. In LIKVI possible changes of the production line are taken into account according to the results of the economy plan (TALSU), which is based on the gross margin method. The replacement investments and investments for expanding production required during the period when the calculation is made as well as the financing effects caused by them are included in the calculation. It is also possible to estimate the profitability of investments by means of the investment plan (INSU). The liquidity output can be considered the most central output of LIKVI. On the basis of this, it is possible to follow and analyze annually the receipts, the use of money and the cash position of both the enterprise and the family for the whole calculation period. It is possible to draw conclusions on whether the farm is capable of managing the necessary expenditure and keeping the production machinery going by means of financing through incomes. In the course of time the incomes should be adequate so that part would be left for covering new investments and, possibly, part would also be saved. In the transfer of a farm to a descendant, the price of the farm is one new investment. In addition to incomes, the results of the calculation indicate how much money is needed each year as loans and withdrawals from savings. In order to assess profitability, LIKVI gives the average annual income produced by the project and changes in the balance sheet.

6 Follow-up of the realization of the plan

A good plan is based on adequate and correct data. An efficient planning program makes the work of the advisor both quicker and easier. When a farmer has accepted a plan, he should also make an attempt to adhere to it. Follow-up of the plans is an integral part of managing an agricultural enterprise. There is help available for farmers upon need, or if they want it, for planning the production and the whole economy of the farm. Most advisory services must be paid for in one way or the other, because agricultural advisory organizations must finance part of their activity through incomes from their services.

At present the objective in advising is that farmers could perform the routine tasks related to recording of production, bookkeeping and managing the farm themselves to an increasing extent, in which case the resources of advising could be concentrated more to the changes and special situations. Computers are gradually becoming more and more common, especially among younger farmers, and in advising constant efforts are made to develop more easily applicable programs for farmers. Today economic planning is more significant than earlier in the training of farmers, too, and in the future managing the farm will play a more important part than before in the activity of farmers.

Planning methods:

VARMA	Planning program applied in the taxation of agriculture and forestry
VISU	Program for planning the sowing, fertilization and liming in crop production, based on soil analysis
TALSU	A comparison program concerning the profitability of different production lines or levels ofproduction intensity, based on the gros margin method
INSU	A comparison program for the profitability and effects on liquidity of alternative investments
LIKVI	A comprehensive liquidity and profitability calculation for planning the economy of the whole farm

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THE REGULATION OF PRICES AND THE LEVEL OF INCOME IN AGRICULTURE

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Agriculture has a specific position in the total economic policy of the Republic of Latvia.The following parameters characterize the position taken by agriculture in the Latvian economy - in 1990 it produced 20.4 % of the gross domestic product, it gave 25 % of the national income, and 26 % of the total production capital belonged to it (for comparison, industry produced 60% of the gross domestic product and 45% of the national income, and 38% of the production capital belonged to it). Agricultural gross production includes 20% milk, 20% all kinds of poultry, 18% beef, 11% pork, 5% grain, 2% eggs and 1% potatoes. On the average, 115 kg meat, 705 kg milk and 305 kg eggs were produced per capita in 1990.

While implementing the land reform, a very rapid establishment of peasants' farms as well as an increase of land areas within the farms of other natural persons is taking place. In 1991 86 per cent of the total sowing area belonged to the public sector farm sowing areas (in 1990 it was 90%). Of the total sowing areas, 5% belonged to the peasants' farms.

In 1990 the shares of private auxiliary farms and peasants' farms of the respective total production volume of the republic were as follows: 61.9 per cent (629,000 tons) of potatoes, 50.2 per cent (75,600 tons) of vegetables in open areas, 66.6 per cent (15,700 tons) of fruit and berries, 26.8 per cent (82,600 tons) of meat (slaughter weight), 28.9 per cent (547,000 tons) of milk, 10.3 per cent (84.400 tons) of eggs and 68% (236 tons) of wool. The state agricultural policy is to ensure stable economic interests of this producer group, not only to maintain the same level, but to increase agricultural production.

Agriculture is a highly labour intensive and capital intensive sector. The previous economic policy has not stimulated more efficient farming. In 1990 the average return of property in this sector decreased 17 per cent (3.6 per cent in industry). Also the average wages of those engaged in agricultural production were among the lowest in 1990, compared with other sectors of the national economy - it was 281 rubles a month (309 rubles in industry). During the first half of 1991 it was 317 rubles. It had increased by 24 per cent compared with the respective period a year ago.

Besides the basic production, auxiliary production has been developed for many years in order to improve the financial position of agriculture. In 1990 auxiliary production gave 28 per cent of the total revenues on the collective and state farms. The profit obtained from agricultural production amounted to 575 million rubles, and that from auxiliary production was 198 million rubles.

1 The price reform

Starting from January 1991 the price formation in all food production stages changed substantially, i.e. in the agricultural enterprises - the purchase prices of raw materials, and in the processing enterprises - the wholesale prices for the ready-made produce.

The policy of retail prices also changed substantially. The consumer purchased food products for prices that corresponded to the real value of the product. Accordingly, the buyer is not subsidized (granted) while purchasing the commodity but later on when he gets a certain part of the rise in the retail price in the form of compensation.

When determining a fundamentally new price formation mechanism, the objective was to create prerequisites for a transition to market economy, which is essentially manifested through a gradual transition to contract prices and free market prices.

Evaluating the current situation, which is characterized by the shortage of food products, fixed purchase prices are retained for the main agricultural product types. State purchase prices were determined for the following types of products: milk, meat, grain, sugarbeets, flax.

In order to stimulate the producers' interest in realizing the produce through the state procurement, the purchase prices were determined according to the following principles:

- uniform prices on the whole territory of the republic and for all producers irrespective of the production forms. The prices are differentiated only with respect to the product quality;
- the prices are based upon socially necessary production costs that have been established for farms with worse natural-climatic and economic production conditions;
- the prices include all additional payments to purchase prices (additional payment for the produce realization to the state above the average level achieved during the previous five years and differentiated additional payments) that have been valid since 1983;
- the amount of price increase (as it was during the price formation period) has been added to the price of the production means and services;
- the amount of profit has been projected into the price determining the necessary profit for the development of the sector.

The new price system is flexible. The state purchase prices have been revised:

- first, in connection with the rapid increase in production costs when raw materials have become more expensive;
- secondly, in connection with the changes in the purchase price level in the neighbouring states that require immediate actions from the part of the government in order to protect the internal consumer market;
- thirdly, in connection with the necessity to stabilize the agricultural economy during the current privatization process in order to restrict the decrease in production.

Considering all the above mentioned factors, the purchase prices of agricultural products have been revised several times.

On March 19th the purchase prices of grain were raised 1.2 times, of sugar beets 1.24 times and of flax 1.7 times. On April 25 the price of milk was raised 1.2 times and that of meat, on the average, 1.15 times.

During the last years the self-sufficiency in grain has become crucial. In the whole republic we are acutely aware of the shortage of bread grain as well as of feed grain. In 1990 only 43 per cent (or 216,000 tons) of all bread grain consumed (501,000 tons) was grown domestically, including 20 per cent of wheat and 79 per cent of rye. Correspondingly, of all feed grain consumed (1.7 mill. tons), only 65 per cent (1.1 mill. tons) was grown in the republic.

In 1991 the amount of domestic grain was even smaller, as due to unfavorable climatic conditions in the previous autumn the winter crops for the 1991 harvest were sown only for 58 per cent, and 90 per cent of the planned total amount were ploughed. In 1991 the large farms and the peasants' farms received concentrated feed only for 86 per cent, which resulted in the use of self-grown grain for feed to a great extent.

In order to prevent the decrease in grain crop sowing areas and to encourage the peasants' farms as well as individual producers to enlarge the grain crop sowing areas, on August 1st the prices of grain were raised repeatedly, 1.9 times on the average.

The raise of purchase prices of grain created a necessity to raise the purchase prices of livestock products as well. Accordingly, on September 12th a decision was made to raise the purchase prices of milk 1.4 times, and those of beef and pork the average of 1.3 times. The reiterated changes in the purchase prices of the main agricultural product types this year are shown in table 1.

Simultaneously with the purchase prices of agricultural products, the taxes and factors regulating producers' income are to be analyzed. The total 1990 balance on the collective and state farms amounted to 713 mill. rubles, from which the following expenses took 99.5 mill. rubles or about 14 per cent total:

- expenses for production capital 40.2 mill. rubles or 5.6 per cent
- wages and salaries 10.4 mill. rubles or 1.5 per cent
- interest on short-term loans 9.1 mill. rubles or 1.3 per cent
- deduction into central funds and reserve 39.8 rubles or 5.6 per cent

The gross return of the agricultural enterprises planned for 1991 will amount to 728.5 mill. rubles from which the labour and capital costs will be 191.5 mill. rubles or 26.3 per cent. The largest share are the social payments - 50.4 per cent (194.4 mill. rubles) of the total cost, and the land tax, respectively, 17.3 per cent (66.9 mill. rubles).

The producers of the agricultural output are exempt from the property and profit tax.The land tax was determined in the Republic in order to make the land users and the local self-governments interested in more efficient cultivation of the lands located in their territories. The tax rates were differentiated from 10 to 96 rubles per hectare of agricultural land.

Table 1. The state purchase price changes in 1990-1991.

	1990		1991		
	1	2	3	4	5
Soft wheat					
class II	420	720		1340	
class III	365	670		1250	
class IV	300	630		1180	
class V	250	410		760	
Rye					
class A	300	630		1180	
class B	300	410		760	
Oats					
very valuable var.	490	700		1300	
common var.	340	630		1180	
forage	250	410		760	
Barley					
beer var.	380	650			
very valuable var.	300	650		1210	
forage	250	410		760	
Sugar beet	82	136		250	
Flax stocks					
no. 0.5	495	845			
no. 0.75	820	1390			
no. 1.0	1240	2110			
Unpolled flax					
no. 0.5	210	360			
no. 0.75	380	650			
no. 1.0	780	1330			
Milk					
first rate					
temperature < 10 °C	595		715		1050
temperature > 10 °C	580		695		1000
second rate	535		640		930
Cattle (beef)					
highly fattened	4810		5500		7300
medium fattened	4010		4600		6300
below med. fattening	3000		3450		5280
Pigs					
category I	4750		5700		7700
category II	4420		5180		7300
category III	3970		4600		6800
category IV	3030		3500		6000
Sheep					
highly fattened	6900		6000		
medium fattened	5550		4800		
below med. fattening	4100		3600		
Chicken and broilers	3320		3820		5500

2 State budget funds for agriculture

The regulation of the prices of agricultural products is only one of the measures to provide the income level necessary for the production development of state farms, collective farms and peasants' farms, and to bring the income level of those working in agriculture and those working in industry and other sectors of the economy closer to each other.

The second step to stabilize the agricultural economy by regulating the income of the agricultural producers is the direct payments from the budget: subsidies, credit reliefs and realization of the agricultural support program. In 1991 the budget allocations to finance the national economy amounted to 1584.2 mill. rubles, of which 1575.4 mill. rubles were directed to the Ministry of Agriculture.

The Ministry of Agriculture has distributed the budget funding for capital investments for the amount of 274.2 mill. rubles, including 102 mill. rubles or 37 per cent of all the to-be-financed capital investments to the peasants' farms. The distributed budget funds for capital investments that are in accordance with the regulation confirmed by the Ministry of Agriculture are assigned to those peasants' farms that are farming the minimum of 10 hectares of agricultural land. The distributed amount is intended for the following concrete objectives:

- land reclamation and the reconstruction of the existing reclamation systems;
- electrification and telephones;
- road building and reconstruction;
- acquisition of high capacity agricultural machinery and transport vehicles for joint use;
- building houses and production structures, their reconstruction, renovation, enlarging and capital repairs;

When receiving these budget allocations the priority should be given to those peasants' farms that in addition to the livestock breeding, will specialize in the growing of technical crops - sugar beets, flax, potatoes and cereals. For their part, the state farms have been assigned the amount of 65.6 mill. rubles in 1991 budget funds for the land reclamation work performance.

3 The indexation methodology of agricultural costs and incomes

Agriculture is the only production sector in which the impact of the existing price policy is very unfavourable. The rapid price rise of the material and technical resources applied in the production of agricultural output as well as the service tariff increase created for the agricultural producers extra costs which couldn't be covered by the state fixed purchase prices.

In order to encourage the agricultural producers not to decrease the production volumes the government must ensure that agricultural producers do not suffer from the damaging impact of the inflation. In this connection the methods of indexation of costs and incomes of the agricultural production have been worked out.

The aim of these methods is to determine the rise in the prices of production resources and services in agriculture. The methods include:

- the fixing of an index of agricultural production costs. This index characterizes the total level of price changes of the applied material and technical resources and services of agriculture during the accounting period as compared with the basic period;
- the fixing of an income index characterizing the level of income change obtained by agricultural enterprises during the accounting period as compared with the basic period.

The following formula is used to estimate the cost index:

$$I = \frac{p_1 q_1}{p_o q_1}$$

p_1 = the price of the material-technical resource unit or service tariff during the accounting period;

p_o = the price of the material-technical resource unit or service tariff during the basic period;

q_1 = the amount of the material-technical resource or service in a certain selected aggregate during the accounting period.

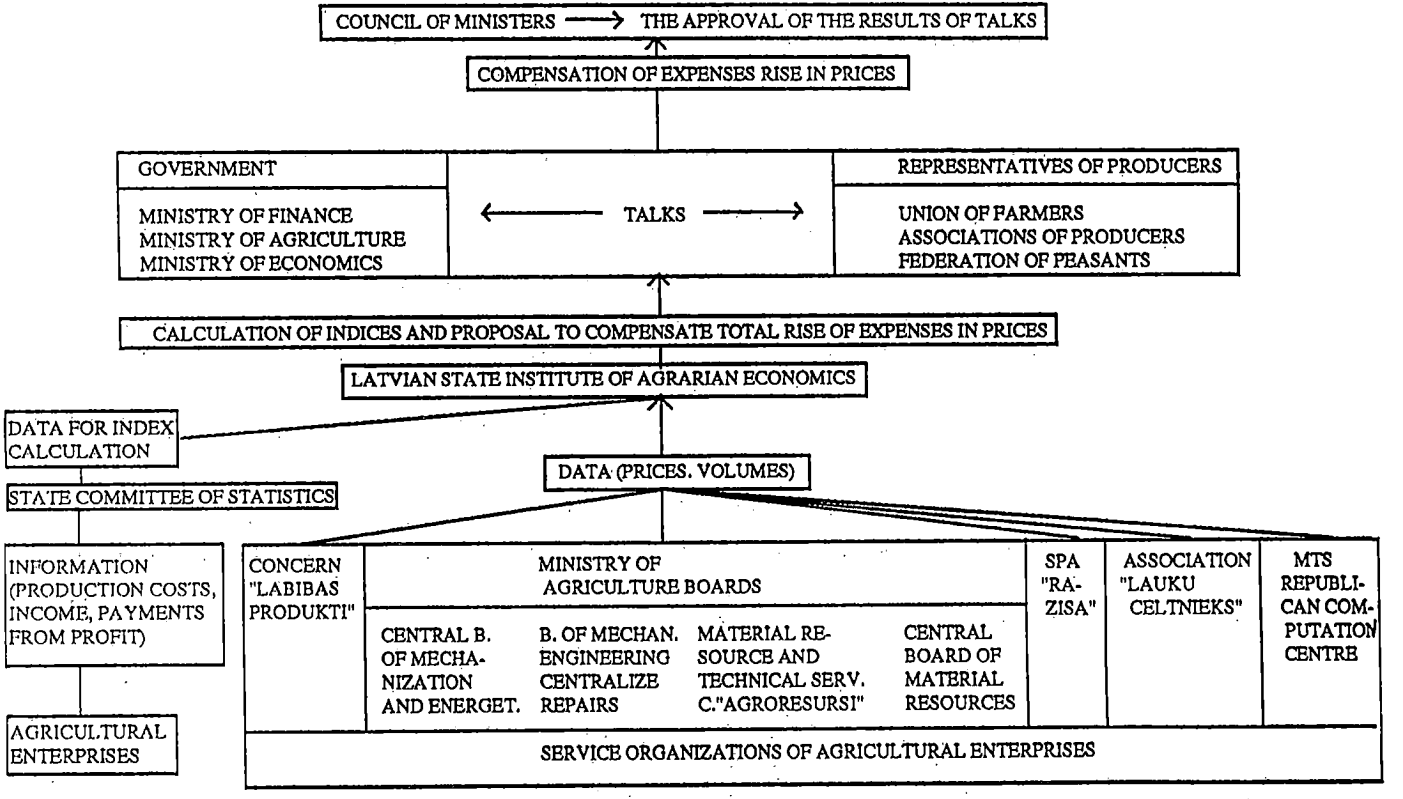
The basis for the cost index estimation are individual indices of separate cost types and service tariffs. The same formula as is used for the cost index estimation applies for the income index estimation. When relating the estimated production cost index to the income index, the amounts of cost increase not covered by prices and the compensation volume are determined.

In order to fix the final amount of compensation and forms of its payment, plans have been made to establish a council of income regulation in agriculture, taking into account the experience of Finland. The council will comprise the representatives of the Government: (Ministry of Agriculture, Ministry of Finance, Ministry of Economic) and of producers (Union of Farmers, Federation of Peasants and Association of Producers) (see the figure). Both sides arrive at a solution concerning compensation for the rising expenditure as a result of negotiations.

The results of the indexation showed that during the first half of 1991, as compared with 1990, the speed of price increase of the production implements have outrun the speed of the increase in the state fixed purchase price by 55 per cent. The production costs during the same period have increased by approximately 97 per cent, but the income from the realization of production by only 42 per cent.

To cover the extra losses caused to the agricultural producers during the inflation process, a resolution of compensation fund of 393 mill. rubles was adopted. The compensation fund was distributed among the regional agricultural departments in proportion to the uncovered amount of price increase in production costs. In their turn the

FIGURE: SCHEME OF INDEXATION



agricultural departments distributed this among the agricultural producers as compensation for production costs as well as for the increase in flat and municipal economy costs, for the pay-off of interest on bank loans, and for the payment of land liming work, taking into account the concluded contractual agreements on the agricultural produce supply for the state needs in 1991.

4 Price and income regulation in 1992

A rapid transition to free prices in agricultural produce realization is not desirable in the current economic situation of agricultural production, because

- the problem of ownership rights of the main production input - land - is not yet settled,
- there is a shortage of material resources necessary for production,
- the money system has not been stabilized in the Republic,
- the new social and economic relations in the countryside are being made at the moment.

It would only encourage agricultural producers to increase their income by raising the prices and not by trying to increase the volume of agricultural production. The free prices that would be formed as a result of demand and supply, taking into account the current market conjuncture, would rise at least three times compared with the current retail prices.

The increase in the prices of agricultural products will undoubtedly create a chain reaction in other sectors of the national economy. As a result, the parity of incomes between people working in agriculture and other sectors of the national economy will not be reached. However, this ought to be the main objective of the state price and income policy.

To create the economic basis, a transition period is necessary for market relations in agriculture. This transition period might be the year of 1992. During this year the main prerequisites for the transition to market economy are to be created:

- guaranteed purchase prices for agricultural production are to be determined,
- the indexation of agricultural costs and incomes is to be launched and the Agricultural Income Regulation Council is to start its work,
- the tax formation policy is to be revised,
- the grant and subsidy system for the agricultural producers is to be elaborated,
- the work on the land quality evaluation is to be continued,
- processing and trade enterprises are to be demonopolized,
- processing enterprises are to establish their own marketing systems,
- normal activities of provision organizations are to be promoted,
- an economic mechanism to make the processors and traders look for producers is to be elaborated, and not vice versa, when the producers are looking for sales targets.

PLANNING OF FAMILY FARMING

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Three main questions should be solved to secure the sufficient profitability and income of family farms:

1) optimum farm size;
2) rational choice of farm branch structure;
3) effective and economic farming.

Usually in practice the third of these conditions is paid the greatest attention. There can be no doubt that effective methods of farming can secure the success. It should be noted that the results of the correct farming can be inconsiderable because of bad production organisation on the whole.

It must be considered that in practice family farm is never free in the choice of type of farming. Not only the objective conditions should be taken in the account - farm size, soil characteristics, but the personal skills and gifts too.

The greatest effectiveness of family farm is obtained when all objective production conditions are consirered in setting to family farming. The size of farm is a factor of great importance. Large-scale farm has the better possibilities in the choice of production type. It's not so important to get a greater quantity of production per unit of area to them, because the expenses per unit of area are considerably smaller than in small-scale farms.

Large-scale family farms have good possibilities for grain production, as they can use the complex of progressive agricultural machinery most effectively. Grain and oil-seed production, breeding of meat and milk livestock is profitable in large-scale farms. But the utilization of large plots of land for the production of intensive agricultural branches demands not only the greater labour resources, but larger capital investments too, and that is too difficult for most of family farms. Besides that, managing of such farms becomes burdened.

The experience of German Federal Republic shows that the most stable are farms with 20-30 ha and 30-50 ha. In Finland during the period of 1959-1987 the total number of farms decreased about 1.7 times. The number of farms with 1-10 ha decreased 2.3 times and the number of farms with 20-50 ha increased 1.7 times.

Family farms of different sizes have been organized in Lithuania. The average size of farms is 17 ha. Calculations and careful analysis have shown that the farms of that size can't compete with large-scale ones. Preliminary modelling and calculations have shown that family farms, having 50-60 ha agricultural land, will be the most profitable in the Republic's conditions. Very specialized farms such as vegetable farms, can be smaller.

Determinating the size of a concrete family farm, it is necessary to take into account the number of able-bodied family members, capital investments, necessary for the branch of production, specialization and other characteristics of farming conditions.

Plannig of family farming must be performed gradually. Firstly, analysis should be done to improve farming and increase farm income. The farmer might get profit from the economic evalution of production unit and budget analysis of activities, and that should create possibilities for the correct solution of farming problems.

The analysis of farming activities should be done according to the norms, that exactly display the complexity of material, economic and legal factors and their concrete relation to this farm.

The attention should be paid to such factors of production as seeds, fertilizers, pesticides, the quantity of labour input, need of technic, etc., and accordingly in livestock production fodders, labour input, expenses for veterinary service, transportations, toxic chemicals, maintenance of production buildings etc. Indexes of these expenses should be calculated for each culture or agricultural branch. The volume of production for each kind of production should be determined, data about target prices, the size of all expenses and production marketing prices collected.

Comparative norms should reflect the characteristics of production; type of soil, climatic conditions, production buildings and equipment, and their impact on farmer's expenses and his practical activities.

In production planning a great role is played by preliminary establishment of prices. The prices farmer uses must be expected in the future. Setting of preliminary price is a hard work. In practise it is based on intuition or prefound analysis of price tendencies.

The next stage of planning is to establish the real expenses of family farm for plant-growing and livestock production. When the expenses are assessed, it is necessary to account for a total spectrum of factors, especially the essential ones.

It is very important for the family farmer to get the detailed and reliable data about the possible trends on his farm. The question must be answered - are the results of analysis really trust-worthy, what is the extent to which we can rely on them in the choice of one or another trend of production and make decisions on the utilization of material-technical resources, and what kind of production lines and breeding of animals are possible. For answering these questions the budget analysis of family farm activities must be done. On that basis the evalution of resources, calculation of indexes for each separate trend, assessment of internal and external trade links and evalution of farm's financial results should take place. The goal of budget analysis is to set up prospects of potential changes in farm organisation, capital investments, technological methods of managment, in trade market, supply system and service for necessary farming activities.

In most cases a family farmer has to decide what culture or complex of cultures are possible and to establish what part of the total agricultural land should be fixed for each kind of culture. Special attention should be payed to the ratio between yields and areas of each competing culture. Two situations are possible in this case: 1) the yield is constant and independent from the absolute size of land area occupied by the culture, 2) the yields decrease depending on the increase of area.

Because the resources of family farms are limited, in order to establish a pair of competive cultures it is necessary to define the size of absolute and relative income for

each culture separately. Those calculations are necessary for family farm to assess the level of profit in replacing one culture with another with such a way that would produce the best income increase. There is no doubt that such factors as crop rotation, diseases and damages should be taken into account when products can be incompatible.

Livestock family farms bear complicated problems, that are to be solved for the maximum income. Every farm must plan its livestock production depending on the existing conditions, farm's resources and situation of market.

The relation between the prices for livestock on one hand and prices for some kinds of fodders on the other determinates the essance of choice, that is to be made by the family farms in the conditions of specialization. An important role is played by the farmer's skills for developing of livestock farm, basic means, labour and other resources. The necessary attention should be paid to the analysis of relations between production and the change of possible livestock trends, evaluation of market demands in production suitable for the family farm, setting the optimum farm-size and taking account for a farm managing requirements.

PURCHASING PRICES FOR AGRICULTURAL PRODUCE IN THE ESTONIAN REPUBLIC

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Summary

Last year (1990) the all union prices were abandoned and a transition to prices worked out in Estonia took place. At present the agricultural products are realized with the following prices:

1) constant state purchasing prices. They have been set for grain, milk, beef, pork, poultry meat and eggs.

2) agreed, i.e. free-market prices. With these prices potatoes, vegetables, sheep, flowers, seeds, etc. are sold.

In 1990 90 % of the produce was sold with constant state purchasing prices. This pricing was based on the average cost prices on Estonian farms. For those producers who work in more difficult natural conditions tax allowances and subsidies from the budget are provided.

The retail prices have been formed on the basis of purchasing prices, processing and trading costs. A small state grant is paid to milk and meat.

In connection with the pise of wholesale prices in the Soviet Union the prices of purchased implements will rise 1,6...3,2 times, the wages and taxes will increase. This raises also the cost prices of agricultural poroducts 1,8...2,6 times. Therefore, it is planned to set also new higher purchasing and retail prices in Estonia. The subsidies from the budget to producers will not be increased, wages and compensations for non- working population groups (children, old-age pensioners) will be raised. The differentiated tax system and subsidies to producers will be maintained.

The aim of price policy is to diminish the share of production purchased with state prices and make it possible for producers to sell more of their poroduction with free-market prices.

FODDER PROBLEMS IN THE LATVIAN AGRICULTURE

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Problem of fodder concern farmers' household as well as more than 600 state and collective farms. Therefore we give information about fodder problems in Latvia as a whole and on private farms in particular.

According to the latest statistics 7909 farmers' households has already been registred in Latvia. These private farmers possess 161529 ha of arable land, or more than 6 % of total Latvian agricultural land. In the process of formation of private farms the results of their work are not so significant. Last year they produced about 2,5 % of total milk and meat production volume. There were many reasons, which prevent the development of private farms in Latvia. One of the main reasons was fodder problem.

In 1940 the Latvian agriculture was livestock oriented. Now the structure of animal production is different. While the number of cattle has increased by a factor of only 1,5, the number of pigs by a factor 3, the pourtry livestock with a factor 6, the number of sheep and dairy cows has decreased.

It can be said that present structure of animal production is not in accordance with the local conditions. It doesn't allow to use fully the own resource of green fodder. Because of this structure Latvia is forced to import great quatities of raw materials for animal feed production.

Latvia mainly imports grains, but also a number of so called semiproduct, as soya meal. For example, in 1989 Latvia imports 1276,5 thousands tons grain and 166,8 thousand tons soya bean meal.

In 1989 Latvia produced 1597,000 tons of grain. The consumption of grain in the year was 2752,000 tons, of which 508,400 tonnes for human food and 1959,000 for animal feed production.

If the figures of the grain imports were compared with those of grain consumption in Latvia, we can conclude that the level of self sufficiency in grain is less than 60 %.

Latvia can produce enough rye, oats and barley for the food industry, but needs to import wheat. Concerning the grain for the animal feed industry there was a negative tendency on imports. The average animal feed composition contains approximately 70 % grains, while the protein balance is far from optimum. Latvia is mistaken in grain imports for animal feed production by resons of dependence on structure of foreign trade of USSR. Because of the protein disbalance in Latvia, raw materials should be imported containing a high level of protein.

Besides, the subsidies on grain prices stimulated the feed producers to use grain more than other raw materials. Although at the same time the price level of the byproducts of the food industry was low too, the feed manufactures in Latvia were, due to the low technology level, not able to fully use these byproducts, and were driven back once more on the usage of grains.

At present the price system is changing gradually and the animal feed industry is looking now for new ways to solve the problems in feed production , which are caused mainly by protein deficit.

Compound feed production

Looking into the history of the Latvian compound feed production we see that the first step of the Latvian feed industry has been done in 1948. In this year the Riga feed mill produced only 2,000 tons. At present, after many reconstructions, it is the biggest of the two feed mills of the "Labibas product" concern. In 1989 the Riga feed mill produced more than 400,000 tonnes complete feed, which is about 23,2% of the total animal feed production in Latvia.

The feed mills of "Labibas product" produce 38 different kinds of complete feed and protein supplements, based on 2,300 compositions. The vitamin protein supplements take part in less than 5% of total production.

Most of these feed mills are equipped with machineries for pelleting. The total capacity of this pelleting equipment covers approximately 30 % of the total animal feed production in Latvia. Besides there are 55 feed mills owned by state and collective farms (sovchozes and kolchozes) and only one co-operative enterprise called "Straume". They however produce only feeds for cattle and pigs, and use a limited number of ingredients, including the protein supplements, supplied by the industrial feed mills of concern. The average capacity of a feed mill, owned by the state and collective farms, is less than 5 t/h. The co-operative feed mill "Straume" produces about 50,000 tons per year, but due to the simple technology they use, they are not able to pelletize the produced feed. The total annual production of the last category of feed mills covers about 7% of the total animal feed production in Latvia.

In 1989 the total compound feed production of the "Labibas product" concern feed mills was 1760 thousand tons, what exceed compound feed production in Finland by about 20%. However in connection with low protein level the feed efficiency of these feeds was worse. For example, amount of crude protein in the complete feeds for growing pigs in Latvia is 11-13 % where as in Finland 18 % of total content. Owing to protein balance in feeds, its usage is more efficiency. So feed use per 1 kg pork in Latvia was 6,39 feed units in 1987, but in Finland it was two times less. As to milk production, the usage was 1,14 feed units per litre of milk in Latvia. Accoding to statistics on the milk recording 1989 in Finland feed use per kg of milk was 0,65 Finnish feed units, or 0,75 Latvian feed units per 1 litre of milk.

Structure of feed products import in Finland is different than in Latvia. In normal year only 2-3 % of the total need for energy of livestock comes from imported feeds. As to protein corresponding share is about 10 %, but effect of them are much more bigger, because it improves the quality of own feeds.

Feed quality is difficult problem to solve especially for private farmers. It should be noted that last year the volume of import of grain decreased 32,4 % and soyabeans 24,5 %. Compound feed production decreased accordingly 25% in comparison with the year1988. Sale of compound feed for private farmers was 130 thousand tons, or about 9% of total production. However there were complete feeds available with low mineral contents for dairy cows, which could be used for pigs too. Despite high price level (66 kop per kg), amount of crude protein in that complete feed is only 11%. Of course we can not expect good agricultural results from these compound feeds.

Postcripts

1. The political as well as the economic situation in Latvia is changing so dynamically that it is very difficult to give a prognosis for the near future concerning the agricultural development and the feed industry.
2. The Latvian goverment decided to change the animal production structure: the main goal is to decrease the pig production and to improve the milk production. Besides the agricultur must orientate more into milk production. However this change will take at least 5 years.
3. If Latvia will become more independent and the foreign trade can be effectuated by Latvia itself, it will give the opportunity to change the structure of imports (i.e. less grain and more raw materials with a high protein level).
4. In the past Latvia went the way of improving the feed production quantities, now they break new ground by starting to think more about the guality of the produced feedstuffs. New intensive and more flexible relations between the feed mills and consumers of their products, as well as free price system which is now developing , can be helpful to achieve this.
5. Besides the changes in price system for grains and grainproducts will give positive impulses to search for new raw materials to be used in feedstuff production (including the byproducts from the food industry). This will give way to a better use of Latvia's own resources and will also bring lower prices for feedstuffs.

At the end of successful seminar the host had the pleasure to thank the delegations of the participating countries for the amount of work done at the different research institutes for the seminar. At the same time, he noted that the seminar tradition between agricultural economists from Finland and the Baltic countries has been born and said that he is looking forward to the third seminar in Vilnius in 1992 with satisfaction.

The joint seminars of Finland and the Baltic countries are considered an important forum for presentations and discussions that give a great deal to all parties.

MEMORANDUM

The second seminar between the agricultural economists of Finland and the Baltic countries was jointly arranged in Riga 27.05 - 30.05.91. The topic of the seminar was: "The strategy, tactics and experience of Family Farming development in Finland, Latvia, Lithuania and Estonia". The participants consisted of five economists from Finland, seven from Latvia, five from Lithuania, four from Estonia.The seminar was organized by Latvian Research Institute of Agricultural Economics.

On the part of Finland the state legislation and financial policy in relation to family farming and the small - scale enterprises in the rural areas were presented. The participants of the seminar were also acquainted with the new agricultural policy of the new government of Finland the most important element of which is the Act of Agricultural Income. The following subjects were also presented: the book-keeping on the Finnish farms, the sequence of the calculation of production costs, the planning of farm activities and management.

The Latvians acquainted the participants of the seminar with the economic politics in agriculture during the transition period to the market economic relations, the ways and problems of the realization of the agrarian reform. The following subjects were also presented: the regulation of prices and income in agriculture, the book-keeping on family farms, the problems of fodder in agriculture. The presentation was given about the work of Farmers' public organizations. The participants of the seminar were also acquainted with the work of Latvian Agricultural Ministry in the development of family farms.

The Lithuanian economists considered the planning of family farm's activities, the social and economic problems of Lithuanian agriculture in the period of the transition to market relations. Lithuanian economists working together with the economists from the USA analysed the policies of agricultural prices and incomes and food production in Baltic Rapublics.

Estonian economists gave account of the present situation of the agrarian policy in Estonia. The historical survey of the development of family farming in Estonia was presented. The following subjects were also presented: the practical solution of economic and book-keeping questions of family farms, the trends in formation of procurement prices of agricultural output, the possibilities of the mathematical simulation of family farms and making use of it in consulting with the farmers.

The presented reports acquainted the participants of the seminar with the problems of family farming development and the ways of their solution. They also gave the opportunity to better understanding of strategy and tactics of further development of agriculture.

The participants of the seminar came to the conclusion that research and extension in the field of privatization, price and income policy, structural policy and social policy are central in Baltic Republics because the family farming becomes more and more important in the development of agriculture. At the same time the research must be developed in the field of real coexistence of different property and management forms and their interaction.

Some wishes were expressed to live up and coordinate the co-operation in scientific research in the field of agricultural economics. This co-oeperation should take the form of exchanging researchers on the basis of non-currency exchange. It was noted that exchange of research reports also would be useful.

The organizing institute promised to make a report from the seminar where the presented papers will be published in English and in Russian.

From the discussions it appeared that there is a need for future seminars. It was decided that the next seminar will be held in Lithuania in 1992. The responsibility for the organization of this seminar was assumed by the Lithuanian Institute of Agrarian Economics.

The participants expressed their votes of thanks to the Latvian Research Institute of Agricultural Economics for a well organized seminar. They also thanked the Latvian Ministry of Agriculture which had supported the seminar financially.

Riga 29.5.1991

MATIAS TORVELA,
Representative of the
Finnish delegation

INESIS FEIFERIS,
Representative of the
Latvian delegation

VALDEKS LOKO,
Representative of the
Estonian delegation

RAIMONDAS DUZINSKAS,
Representative of the
Lithuanian delegation

OPINIONS, STRATEGIES AND TACTICS FOR FAMILY FARMING

The Second Seminar of Agricultural Economists of Finland, Estonia, Latvia and Lithuania

Time: May 27-30t,1991
Place: Hotel Riga conference hall, Apazijas boulevard 22, Riga

Program

Sunday 26.5.	Arrival of delegations
Monday 27.5.	Opening of seminar
10.00-10.20	Introduction speech Minister for Agriculture of Republic of Latvia Dainis GEGERIS (cancelled)
10.20-10.50	Problems of development of agriculture in the Republic Deputy Minister for Agriculture in the Republic of Latvia Uldis BENIKIS Discussion
11.00-11.30	Economic politics of agriculture in the Republic of Latvia Director Inesis FEIFERIS, Scientific Research Institute of Agricultural Economics of Latvia Discussion
11.40-12.00	Coffee
12.00-12.30	Governmental support for farms and small enterprises in Finland Professor Matias TORVELA, Director of Agricultural Economics Research Institute of Finland Discussion
12.40-13.10	Price and income policies for food and agricultural products in the Baltics Dr. William H. MEYERS, Professor of Economics and Associate Director Center for Agricultural and Rural Development, Iowa State University Dr. Natalia KAZLAUSKIENE, Lead Scientist of Lithuanian Research Institute for Agricultural Economics
13.20-14.20	Dinner
14.20-14.50	Current situation of agriculturial reform in Estonia Director Valdek LOKO, Scientific Research Institute of Agriculture and Land-reclamation of Estonia Discussion

15.00-15.30	Economic and social problems of Lithuanian agriculture in condition of transition from command to market economy Dr. Raimondas DUZINSKAS, Lithuanian Research Institute for Agricultural Economics Discussion
15.40-16.00	New government, new politics in the agriculture Professor Lauri KETTUNEN, Agricultural Economics Research Institute of Finland Discussion
16.40-17.10	The realization of the agrarian reform and the changing of forms of management in the Republic of Latvia Deputy Director Dimitrijs ROMANOVS, Scientific Research Institute of Agricultural Economics of Latvia Discussion
17.20-17.50	Accounting in the agriculture Head of bureau Juhani IKONEN, Agricultural Economics Research Institute of Finland Discussion

Tuesday 28.5.

9.00-9.30	The development of family farming in the Republic of Estonia Director Jaan KIVISTIK, Estonian Agricultural Academy Discussion
9.40-10.10	Calculation of production costs - the base for price establishing MSc Marja HOKKANEN, Agricultural Economics Research Institute of Finland Discussion
10.20-10.50	Farming Economics and actual problems of book-keeping Lead scientist Jaan TIMMERMAN of Estonian Scientific Research Institute of Agriculture and Land-reclamation. Discussion
11.00-11.20	Coffee
11.20-11.50	Plannig and management of family farms Dr. Maija PUURUNEN, Agricultural Economic Research Institute of Finland Discussion
12.00-12.30	The regulation of prices and the level of income in agriculture Head of price formation group Biruta ARNTE, Scientific Research Institute of Agricultural Economics of Latvia Discussion
12.40-14.00	Dinner
14.00-14.30	Plannig of family farming Division head Jonas VEGYS, Lithuanian Research Institute for Agricultural Economics Discussion

14.40-15.10	Purchasing prices for agricultural produce in the Estonian Republic Dr. Enno KOIK, Estonian Scientific Research Institute of Agriculture and Land-reclamation Discussion
16.00-16.20	Coffee
16.20-16.50	Foundation of book-keeping on family farms of Latvia Methodist Voldemars KALNINS, Advisory Services Center for Family Farmers of Latvia Discussion

Wednesday 29.5

9.00-9.30	Fodder problems in the Latvian agriculture Researcher Tamara GIRGENSON, Latvian Scientific Research Institute of Agricultural Economics Discussion
9.40-10.10	About activities of Latvian Federation for Family Farms Chairman of Council Andris ROZENTĀLS, Federation for Family Farms Discussion
10.20-11.00	Discussion
11.00-11.20	Coffee
11.40-13.00	Discussion
13.00-14.00	Dinner
14.00-15.00	Closing the seminar, acceptance of Memorandum

Thursday 30.5.

Visit to the countryside

Publications of the Agricultural Economics Research Institute

No 46 Tutkimuksia Suomen maatalouden kannattavuudesta. Tilivuodet 1979-1981. Summary: Investigations on the profitability of agriculture in Finland business years 1979-1981. 1983, 121 s.

No 47 The Economy of Crop Production. The fifth Finnish-Hungarian-Polish seminar on agricultural economics Finland, June 13-16, 1983, 182 s.

No 48 HEIKKILÄ, A-M. Perheviljelmän koko ja viljelijäperheen toimeentulon lähteet. Summary: The size of family holdings and the sources of farm family income. 1984, 95 s.

No 49 KETTUNEN, L. Maatalouden omavaraisuus Suomessa vuosina 1970-83. Summary: Self-sufficiency of Finnish agriculture in 1970-83. 1985, 75 s.

No 50 KETTUNEN, L. Suomen maatalous vuonna 1985. 1986, 42 s.

No 50a KETTUNEN, L. Finnish agriculture in 1985. 1986, 42 s.

No 51 Tutkimuksia Suomen maatalouden kannattavuudesta. Tilivuodet 1982-84. Summary: Investigation of the profitability of agriculture in Finland in business years 1982-84. 1986, 136 s.

No 52 KETTUNEN, L. Suomen maatalous vuonna 1986. 1987, 44 s.

No 52a KETTUNEN, L. Finnish agriculture in 1986. 1987, 44 s.

No 52b KETTUNEN, L. Finlands lantbruk 1986. 1987, 44 s.

No 53 Maatalouden kannattavuustutkimus 75 vuotta. Summary: Farm accounting in Finland 75 years. 1987, 123 s.

No 54 KETTUNEN, L. Suomen maatalous vuonna 1987. 1988, 36 s.

No 54a KETTUNEN, L. Finnish Agriculture in 1987. 1988, 36 s.

No 55 Tuotantokustannuksista maatilamatkailuun. Matias Torvelan 60-vuotisjuhlajulkaisu. 1988, 161 s.

No 56 KETTUNEN, L. Suomen maatalous vuonna 1988. 1989, 52 s.

No 56a KETTUNEN, L. Finnish agriculture in 1988. 1989, 52 s.

No 57 Agriculture in difficult circumstances. Finnish-Hungarian-Polish seminar, Saariselkä, Finland 1989. Helsinki 1989, 99 s.

No 58 AALTONEN, S. & TORVELA, M. Maaseudun kehittämisen ongelmat Suomessa. Problems in rural development in Finland. Helsinki 1989, 30 s.

No 59 Tutkimuksia Suomen maatalouden kannattavuudesta. Tilivuodet 1985-87. Summary: Investigation of the profitability of agriculture in Finland in business years 1985-87. Helsinki 1989, 144 s.

No 60 KETTUNEN, L. Suomen maatalous vuonna 1989. 1990, 52 s.

No 60a KETTUNEN, L. Finnish agriculture in 1989. 1990, 52 s.

No 60b KETTUNEN, L. Finlands lantbruk 1989. 1990, 52 s.

No 61 Family farming possibilities. Finnish-Baltic Common Seminar, Helsinki, Finland 1990. Helsinki 1990, 121 s.

No 62 PUURUNEN, M. A comparative study on farmers' income. 1990, 114 s.

No 63 KETTUNEN, L. Suomen maatalous vuonna 1990. 1991, 56 s.

No 63a KETTUNEN, L. Finnish agriculture in 1990. 1991, 56 s.

No 64 KOLA, J. Production control in Finnish agriculture. 1991, 134 s.

No 65 KETTUNEN, L. Suomen maatalous vuonna 1991. 1992, 59 s.

No 65a. KETTUNEN, L. Finnish agriculture 1991. 1992, 59 s.