

MAATALOUDEN TALOUDELLISEN
TUTKIMUSLAITOKSEN
TIEDONANTOJA N:o 102 a

*THE AGRICULTURAL ECONOMICS
RESEARCH INSTITUTE, FINLAND
RESEARCH REPORTS, No. 102 a*

FINNISH AGRICULTURE IN 1983

LAURI KETTUNEN

HELSINKI 1984

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Preface

This publication is a brief review of agricultural development, production, prices, incomes and policy in Finland in 1983. The early publication of the review just after the turn of the year means that many of the statistics are very preliminary. This is particularly true of farms income for 1983, which may include a sizeable error. Despite the uncertainty, the statistical data give the trends in the most important factors in agriculture and should thus be useful to the reader.

Part III of the publication contains a short review of agricultural policy. It does not cover the whole sector but concentrates on areas which the author considers most interesting.

I thank Lulu Siltanen, Seppo Hassinen, Helena Koivula and Merja Manninen for helping me prepare this publication. I also thank the English Centre for checking the English translation.

This report has also been published in Finnish in Research Reports No 102 of the Institute.

Helsinki, January 17, 1984

Lauri Kettunen

I INTRODUCTION

1. Economic situation

slight recovery characterised the economic situation in Finland in 1983. The increase in the gross domestic product was about 3 % on the previous year. According to forecasts, growth could be slightly greater in 1984 but some experts estimate that the upswing reached its peak in 1983. This would mean that the upturn was rather modest during this economic cycle.

Strengthening of domestic demand and a slight increase in exports were the most important reasons for the economic growth. Investments also grew a little during the past year. The balance of trade was in equilibrium and since economic growth had also recovered in the OECD countries, exports to the West likewise increased. The growth in exports by the forest industries in particular was rather rapid in the latter part of the year, which raised the total volume of exports. On the other hand, the growth in exports to the Soviet Union came to a standstill since imports could not be increased correspondingly.

Unemployment in Finland, which was about 6.3 % in 1983, is lower than average for the OECD countries, and even though this figure is still high, the rate of unemployment has been satisfactory by international standards and there was no increase last year. Employment is expected to improve in 1984 and the annual unemployment rate is expected to fall to 5.7 %. The biggest problem is inflation, which was still 8.4 % in 1983. The goal of the Government's economic programme is to force down the rate of inflation to 6 % during 1984, but the annual rate will probably remain at about 8 % in 1984. Since this rate of increase in inflation is clearly higher than that in the OECD countries, international competitiveness will weaken, and this is likely to reduce economic growth in Finland.

The money market was rather relaxed during the first part of 1983, but after the Bank of Finland had restricted lending a clear tightening of the money market was to be seen during the latter part of the year. This will affect private consumption rather than investment.

The State budget has been financed with heavy loans for a long time, and the national debt is slowly becoming so large that it is beginning to hamper the use of budget policy in the economic policy. The proposed budget for 1984 had to be rather tight and the gross tax rate will rise, even though official policy has been to keep it constant. Otherwise, the economic policy has produced no surprises: foreign trade is in balance, economic growth is satisfactory and the unemployment rate has not risen as high as in many western European countries.

It was rather a good year for agriculture and so the economic situation did not affect it. On the contrary, it can be said that agriculture has contributed to the recovery of the economy. The recession in the forest industries has affected farmers' income and since the recommendation by the forest industry and farmers' central organisation on stumpage price was not reached until November, felling decreased considerably during the latter part of 1983.

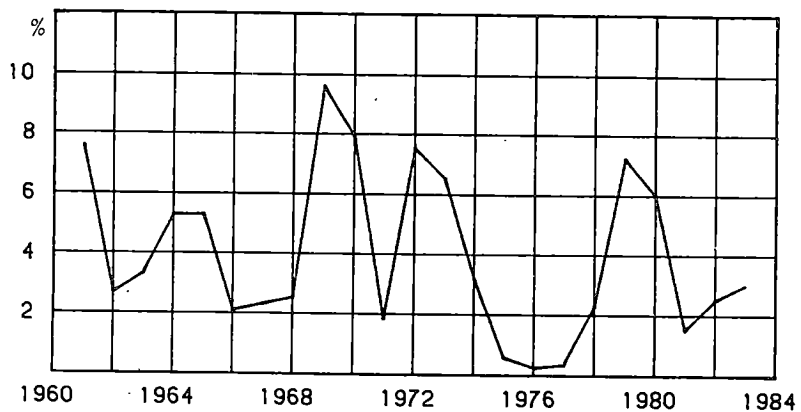


Figure 1. Growth in the volume of the gross national product in 1960-83.

II PRODUCTION PRICES AND FARM INCOME

2. Plant production

Record yields in terms of both quantity and quality were obtained for the second year running in 1983 (Table 1). Measured in feed units per hectare, the total yield was about 12 % above the long-term trend (see Figure 2).

The increase in yields is partly a result of increased use of fertilizers. Purchases of fertilizers for the 1983 crop were about 15 % up on the previous year in terms of quantity. However, the good yield was really due to the weather. The snow cover in winter 1982-83 was not very thick, and the snow melted earlier than usual. Spring advanced very rapidly and sowing was started 1-2 weeks earlier than usual. There was clearly sufficient rain in May and June and sprouting took place under favourable conditions. The growth of hay and silage was rapid, the

Table 1. Yields of the main crops in 1982 and 1983.

	1982			1983		
	Area	Yield		Area	Yield	
	1000 ha	100 kg/ha	total mill. kg	1000 ha	100 kg/ha	total mill. kg
Winter wheat	15,7	30,9	48,5	31,7	35,5	112,6
Spring wheat	127,2	30,4	386,9	127,9	34,2	436,9
Rye	16,3	21,5	35,0	46,7	24,9	116,1
Barley	540,4	29,6	1598,5	550,4	32,1	1764,4
Oats	459,3	28,7	1319,9	449,3	31,3	1406,5
Potatoes	39,1	153,7	601,1	45,3	177,5	804,0
Sugar beet	32,4	233,4	756,1	32,9	322,8	1062,0
Hay	445,3	37,9	1689,4	490,3	42,0	2057,4
Silage	244,4	176,7	4319,2	203,8	207,7	4232,5
Oil seeds	63,7	15,1	96,3	60,9	16,6	101,2
Other crops	64,3			56,4		
Total	2048,1	2526 ¹	5094,4 ²	2095,6	2814 ¹	5807,3 ²
Pasture	205,4			166,4		
Fallow	74,2			52,4		
Soil bank	74,1			66,8		
Other land	114,8			85,4		
Total acreage	2516,6			2466,6		

¹ f.u./ha without straw

² million f.u. without straw

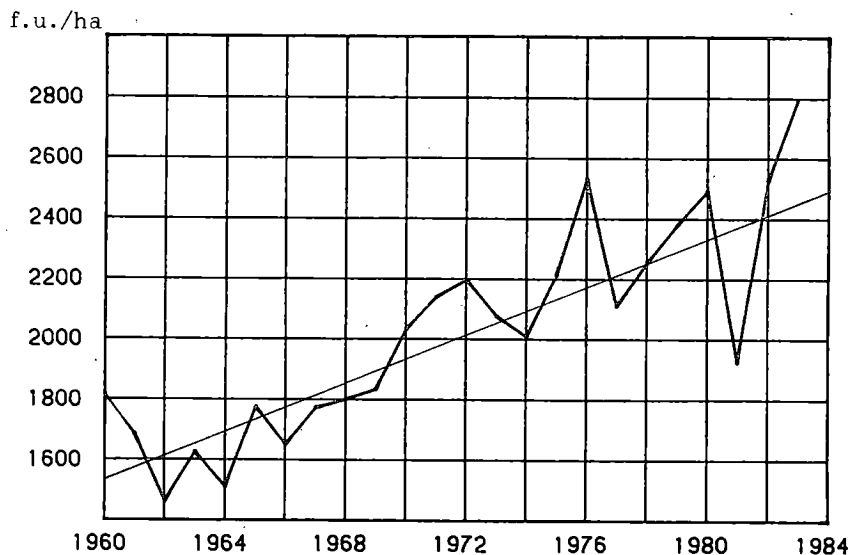


Figure 2. The total yield, without straw, in feed units, in 1960-83.

first harvests were obtained earlier than usual and the yield was good. Even though July and August were sunny and good for holiday-makers, plants did not suffer from drought. On the contrary, harvesting conditions were excellent and good-quality grain was harvested. Drying costs were lower than normal, because not all grain even required drying.

The average yield measured in feed units was 2814 f.u./ha, an all-time record. Record yields were reached for almost all plants. The yields of rye, wheat, oats, barley and hay were larger than ever. The yields of potatoes and sugar beet were the only ones below the records of the 1970s. The total yield without straw was 5807 million feed units which exceeds the earlier record from 1976, even though the hectareage under cultivation has decreased by 4.4 % on 1976. However, the decline in hectareage has ceased and the cultivated area appears to be constant at 2.3 mill. ha.

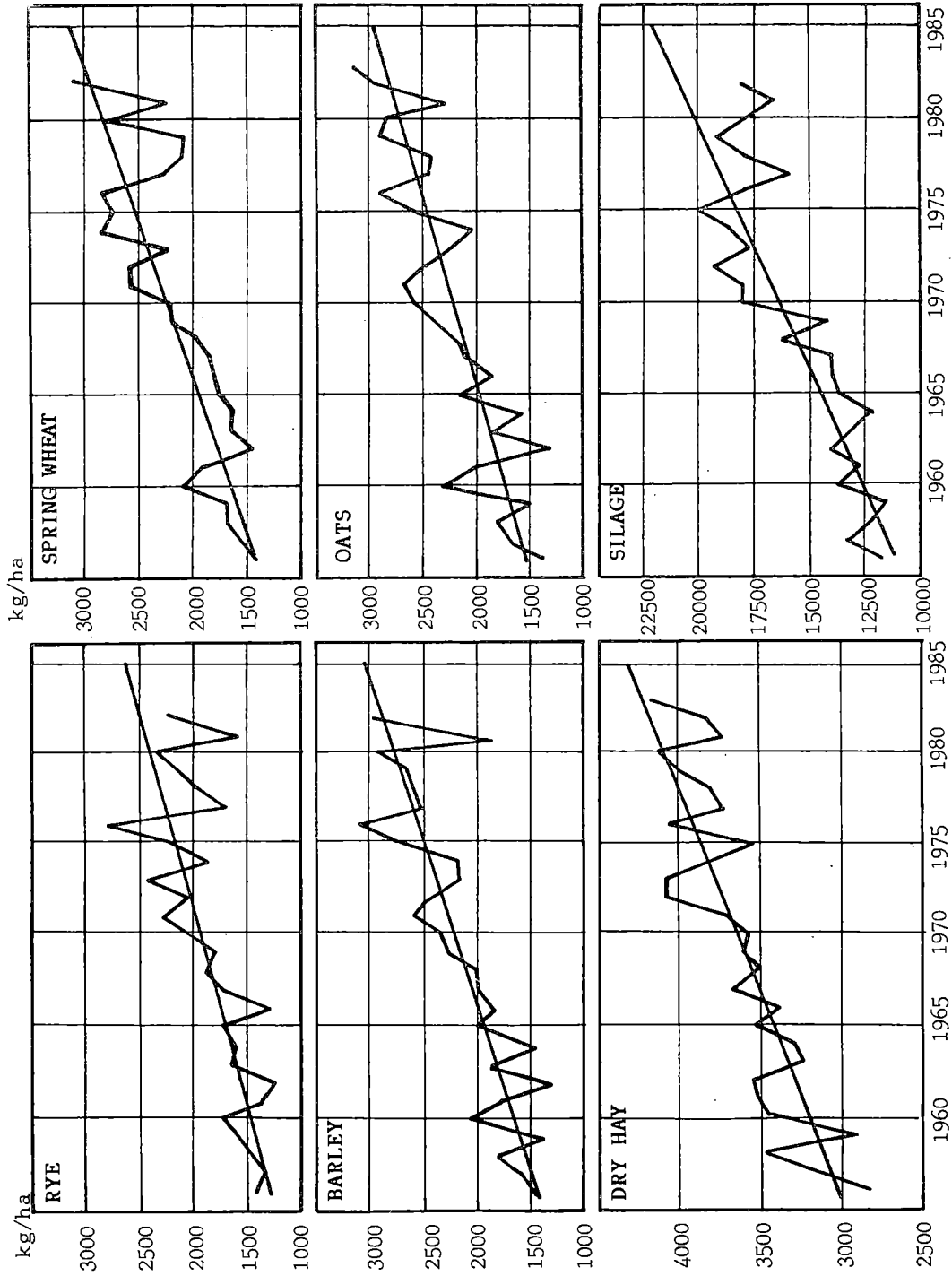


Figure 3. Yields of rye, spring wheat, barley, oats, dry hay and silage in 1955-83, kg/ha.

The bread grain yield was sufficient for domestic consumption in 1983. The hectareage under rye was about 47 000 hectares and since the yield per hectare was good, there will be no need for imports as in the previous years. The yield of wheat is also sufficient for domestic consumption, even though the hectareage did not reach the target of about 220 000 ha.

The yield of feed grains was good in terms of both quantity and quality. It has been estimated that the total feed yield exceeds the domestic need by nearly one million ton. Feed grains were exported during the latter part of 1983 because all stores were full.

The yield of sugar beet rose to 1062 million kg, exceeding the upper limit imposed by the legislation on sugar by about 260 million kg. The oil seed yield was also good even though the hectareage was a little lower than in the previous year. The dry hay and silage yields were good in terms of both quantity and quality.

The vegetable yield was also good, which caused a drastic fall in prices. The yield of strawberries, however, was about average and so they were marketed better than in the previous year. The fruit yield was good, however.

The good yields are reflected in the quantities marketed (Table 2). The quantities of all crops rose considerably, which also meant a growth in farmers' incomes.

Good yields inevitably cause marketing problems and criticism of agriculture. However, it should be born in mind that in economic terms, a good yield is always advantageous. A better output is achieved using

Table 2. Quantites of domestic crops marketed in 1977-83,
mill. kg.

	1977	1978	1979	1980	1981	1982	1983 ^e
Rye	94	57	60	90	64	30	74
Wheat	341	97	108	208	184	251	432
Feed wheat	136	113	59	5	42	59	14
Barley	723	615	588	592	527	587	942
Oats	374	261	273	347	322	386	600

the same inputs and the increase in output always has some value, whether it is sold abroad or stored. Extra exports naturally cause problems in the State budget, but at the same time, taxes rise and cover some of the extra export subsidies. The better yield is felt in the economy as a growth in farmers' income and in demand, particularly in rural districts. Thus it has a stimulating effect on the economy as a whole.

3. Animal production

Milk production rose by 3 % in 1983. Growth was particularly rapid in the first part of the year, because the yield in 1982 was lower than usual owing to the poor crop in 1981. However, during the latter part of 1983 the milk yield was slightly lower than in the previous year. According to official statistics, the number of dairy cows has decreased rather sharply (Appendix 4), but it is likely that this decrease is not a real one. The statistics are based on a sample survey. The sample has just been renewed, which may explain the figures.

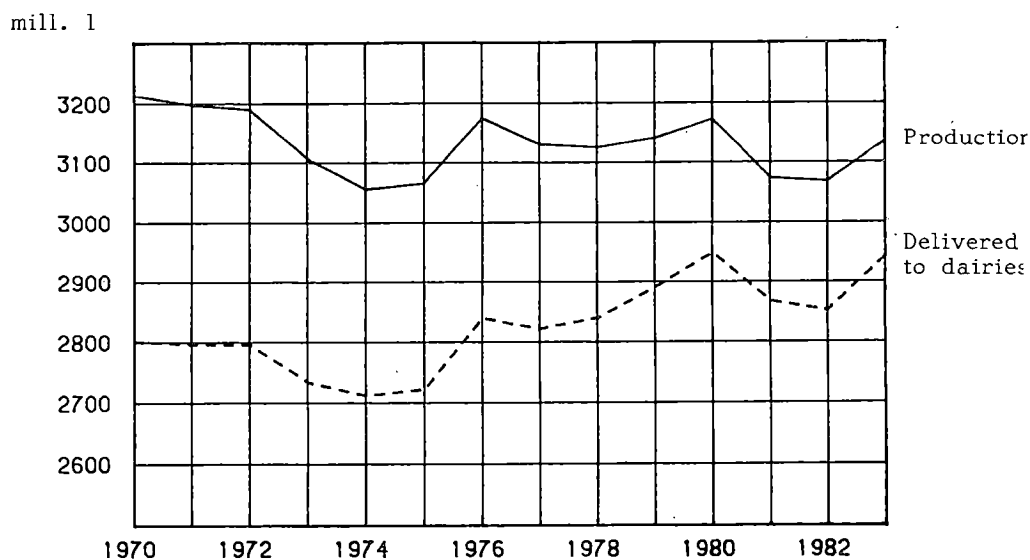


Figure 4. Milk production and the quantity of milk delivered to dairies in 1970-83.

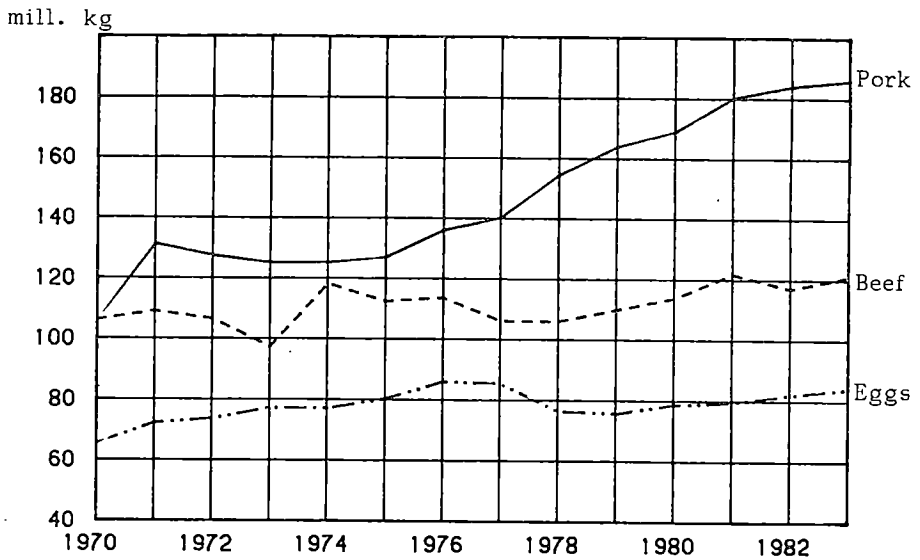


Figure 5. Production of beef, pork and eggs in 1970-83.

The volume of milk delivered to dairies, which has an effect on marketing fees, rose to about 2945 mill. litres, exceeding the production ceiling by 155 mill. litres. This caused big problems, as explained in the agricultural policy review in Section 9.1. According to the forecast, milk production will remain at about the same level next year as this year unless stringent restrictions are imposed on supply. Beef production rose to 121 mill. kg or by about 6 %, whereas pork production stayed at the level of the previous year. The over-supply of pork is diminishing, and the excess over the production ceiling is not very large, since pork consumption has increased. The target is still to cut pork production somewhat in 1984.

Table 3. Animal production in 1977-83.

	1977	1978	1979	1980	1981	1982	1983 ^e
Milk, mill. litres	3130	3125	3141	3174	3082	3068	3135
Beef, mill. kg	106	106	110	114	122	117	121
Pork, mill. kg	140	154	164	169	179	184	186
Eggs, mill. kg	85	76	76	79	80	82	84
Poultry, mill. kg	13	12	14	15	17	17	19
Other meat, mill. kg	2	2	2	2	2	2	2

The excess supply of eggs is relatively the largest and production has risen to 160 % of that required for self-sufficiency. Measures to control supply have not been effective. Production grew by 2 mill. kg or 3 % last year. This trend seems to be continuing in 1984.

About 55 000 moose were killed in 1983, providing about 7 mill. kg of meat. This has a considerable impact on beef consumption. Moose meat competes with beef, especially during the autumn. Reindeer meat production in 1983 was about 2 mill. kg considerably higher than earlier.

4. Consumption

Previous trends applied in the consumption of milk products. Consumption of liquid milk products decreased by 1 % and that of butter by 2-3 %; cheese consumption grew by about 5 %. There are some difficulties in compiling the statistics, e.g. for stocks, and the annual figures may include some errors. The 1982 figure for butter consumption has been corrected from that reported earlier. Butter consumption has been decreasing slightly in the long term, but in recent years it has been more or less stable. An attempt was made to raise butter consumption through a sale in December (the price was reduced by about 15 %). Cheese consumption, however, is clearly increasing. Cheese is an income-bound product, i.e. when income increases cheese consumption increases, too. On the other hand, it seems that consumption habits affect consumption of milk products more than do economic factors (such as prices and income).

Table 4. Consumption of milk products in 1975-83, kg per capita.

	Milk	Butter	Cheese
1975	291.8	12.9	6.2
1976	287.5	12.6	6.2
1977	282.3	12.0	6.2
1978	279.1	11.7	6.5
1979	276.0	12.2	6.8
1980	272.6	11.3	7.2
1981	264.0	11.5	7.7
1982	264.2	12.1	8.1
1983 ^e	261	11.8	8.5

Table 5. Consumption of meat and eggs in 1975-83,
kg per capita.

	Beef	Pork	Poultry	Eggs
1975	24.2	26.7	2.4	10.9
1976	23.6	25.9	2.4	10.6
1977	22.6	27.3	2.7	10.9
1978	22.0	27.8	2.5	11.6
1979	23.3	28.9	2.9	11.6
1980	23.1	29.5	3.2	11.7
1981	22.3	29.3	3.5	10.7
1982	20.8	28.6	3.4	10.6
1983 ^e	21	30	3.5	11

Pork consumption rose by 5 %, whereas beef consumption remained at the previous level. Egg consumption was rather stable, too. Beef consumption is forecast to stay at the present level in 1984, but pork consumption is expected to grow by nearly 1 kg/capita per year. Consumption of poultry and mutton is still relatively low, even though attempts have been made to stimulate the mutton economy to make the supply more stable. Consumption of poultry, especially broilers, can be assumed to grow faster than today.

5. Foreign trade

Foreign trade was particularly affected by the cessation of grain imports in 1983. Therefore the value of imports of agricultural products was clearly lower than in the previous year. Imports consisted mainly

Table 6. Exports of some agricultural products in 1975-83
mill. kg.

	Butter	Cheese	Milk- powder	Pork	Beef	Eggs
1975	11,9	21,3	20,1	2,0	1,6	28,5
1976	21,2	30,2	22,0	12,0	2,4	34,4
1977	15,6	33,6	29,1	11,1	0,5	33,8
1978	14,9	36,5	27,4	22,1	0,8	22,2
1979	17,4	40,9	28,1	27,3	0,4	21,0
1980	9,8	41,1	30,5	25,5	0,9	25,8
1981	14,7	37,6	28,4	39,5	16,1	27,5
1982	8,8	33,3	23,2	37,5	8,4	30,1
1983 ^e	26	28	25	27	16	32

Table 7. The value of exports and imports (Brussels Nomenclature 1-24) in 1975-83, mill. mk.

	Exports	Imports			
		Total	Coffee and tea	Fruit	Drinks and tobacco
1975	719,8	2472,3	368,5	341,4	184,9
1976	921,4	2332,4	692,3	366,0	155,7
1977	1303,3	2899,9	1012,9	404,1	166,0
1978	1127,3	3107,2	904,4	447,1	226,9
1979	1284,2	3679,9	932,7	533,9	226,7
1980	1669,9	4598,1	1097,1	638,0	255,6
1981	2639,4	4462,2	825,4	688,9	335,1
1982	2151,9	5308,9	990,5	710,6	286,0
1982 ¹	1568,1	4059,2	793,2	472,8	202,6
1983 ¹	1866,5	3514,5	803,0	507,8	226,1

¹ January-September

of tropical products such as coffee and fruits, and these were at about the normal level. Exports of agricultural products, however, rose considerably owing to the increase in exports of milk products.

World market prices of agricultural products have dropped. For example export prices of butter and cheese are approaching the minimum export prices set by GATT. This has particularly affected export subsidies, which have grown considerably.

6. Agricultural income decision

The regulation of agricultural prices is based on the Farm Incomes Act. The new act, which was applied for the first time in spring 1983, will be effective for the three following price years 1983/84 - 1985/86. The content of the new act is primarily the same as that of the earlier ones. The increases in producer prices are negotiated by the State and the producer organizations as earlier. The rise in costs is compensated twice a year, in spring and autumn. The increase in farms income (compensation for farmer's labour input and his own capital) is negotiated in spring.

According to the act, farmers are wholly compensated for the rise in costs due to the increase in input prices. A total calculation of costs is approved by the price council and used to determine this compensation. The calculation is an index calculation, the weights of which are the average use of inputs in the three previous calendar years. Costs are compensated by raising the target prices so that the value of total production increases according to the increase in costs.

The raising of farm income is the real object of the negotiations. The new act states that farmers must have a fair income level, i.e. they should receive the same income as is obtained in other sectors of the economy. The law states further that the change in farm income is compared with the change in wages and salaries in industry. The most difficult point in applying the law is determining the absolute level of farm income; it is easier to determine wage levels in industry. The act further implies that if there are any differences in the starting values, this gap should be abolished, even though the act does not state strictly when this should happen. Different model calculations have been made to monitor the evolution of income level in order to apply the system.

6.1. Spring decision

When the farm income decision is made, the wages and salaries in other sectors of the labour market have to be followed closely. In spring 1983, general negotiations went more slowly than normal, even though the negotiations were started early in the autumn of the previous year. An exceptional two-part farm income solution was reached in spring 1983 since it seemed likely that no agreement would be reached in the general labour market before the end of February, by which time the farm income agreement should be made, according to the act. By the end of February the cost compensation alone was paid to farmers according to the basic calculation made by the agricultural prices council. This calculation showed a 466.5 mill. mk increase in costs. The previous price solution included an index clause, which meant a rise in farm income by 8.7 mill. mk. These amounts were transferred to the target prices beginning March 1.

Table 8. Cost calculations in 1.3. and in 1.4. 1983.

	Price level in autumn 1982 mill. mk	Price level in spring 1983 mill. mk	Change %
Gross return			
Target price products	12.808,6	12.808,6	
Other products	1.428,5	1.558,4	9,1
Rent incomes	482,6	487,2	
After payments	429,9	429,9	
Price support	1.762,4	1.782,4	
Total	16.912,0	17.066,5	
Costs			
Requisites	7.720,8	7.672,0	5,5
Wages	404,3	432,2	6,9
Machinery and implements	2.739,0	2.986,2	9,0
Building costs	935,2	982,2	5,0
Rent costs	381,9	388,0	1,6
Other costs	689,7	641,9	-6,9
Total	12.420,9	13.102,5	5,5
Farm income	4.491,1	3.964,0	
Change		527,1	

The real income increase was therefore not decided in February and had to be left until later. The agreement in the general labour market was reached in March. Agriculture was therefore able to follow it and the final agreement was made in March. The new target prices became effective beginning April 1.

The average rise in costs was 5.5 %, which was slightly more than the general inflation. The rise was greatest for machines and implements, about 9 %. The price change for other products was rather steady.

The final sum of the price decision in agriculture was 975.7 mill. mk. This was divided so that 868.7 mill. mk was for target prices and 78 mill. mk for price subsidies. It was agreed to subsidize the production of rye by paying a special premium of 400 mk/ha, making 25 mill. mk. The farmers share 4 mill. mk of summer vacation costs. The increases in target prices were applied rather evenly to all products. The spring decision also included a preliminary increase in grain prices, which

Table 9. Income and cost calculation for the spring decision.

	Mill. mk
Increase in costs	+681.6
Increase in gross return in other products	-154.5
Deviation from target prices 1981	-163.1
Deviation from target prices 1982	+102.5
Total	466.5
Cost calculation	466.5
Index clause	8.7
Increase in farm income	500.5
From autumn decision	47.1
Total	1022.8

became effective at the beginning of August. The reservations were 6 p/kg for rye and wheat and 4 p/kg for feed prices. This was rather a good solution; the grain growers knew in good time what the final producer price for grain was and could accordingly plan their cultivation at the beginning of the spring period.

A new feature of the price system is that grain prices are determined at the farm gate. Earlier the target prices for grains were determined as wholesale prices at the State Granary, and so the price obtained by farmers was lower than the target price. It was not possible to record the price obtained by farmers as in the case of other products.

The equal increases in target prices mean that the decision-makers consider the target prices to be in the right relation to each other. This conclusion is supported by the cost calculations made for different production lines at the Agricultural Economics Research Institute (AERI). Cost trends can differ considerably from each other, but currently they seem to be about the same in all production lines. It can be assumed that productivity increases differ from each other, and this should be taken into account in the careful guidance of production. For example, the target price of eggs has been raised in line with general inflation and the result is obvious: egg production shows an undesirable increase.

6.2. Autumn price decision

In the autumn price decision, only the rise in costs is compensated for; the change in capital costs is compensated for only in the spring decision. Post-payments are taken into account only once a year, in the autumn decision. These post-payments are paid by cooperative dairies and slaughter-houses according to the financial result. They are rather high, for milk, being about 15 p/l (about 8 % of the target price). The rise in costs totalled 355.2 mill. mk, but with the rise in post-payments (63.9 mill. mk) and the price increase on grain in the spring decision (47.1 mill. mk) deducted from this sum, the final amount was 244.2

Table 10. Cost calculation, autumn 1982, mill. mk.

	Price level in spring 1983	Price level in autumn 1983	Change %
Gross return			
Target price products	13.724,5	13.724,5	
Other products	1.558,4	1.558,4	
Rent incomes	487,2	487,2	
After payments	429,9	493,8	14,9
Price support	1.860,4	1.860,4	
Total	18.060,4	18.124,3	0,4
Costs			
Requisites	7.676,8	7.935,7	3,4
Wages	432,2	455,1	5,3
Machines and implements	2.986,2	3.015,1	1,0
Building costs	982,2	998,7	1,7
Rent costs	388,0	415,4	
Other costs	641,9	642,5	
Total	13.107,3	13.462,8	2,7
Farm income	4.953,1	4.661,8	
Change		291,3	

The parts of the decision:

	Mill. mk
Increase in costs	355,2
Increase in income	-63,9
Increase in the price of grains decided in spring	-47,1
Vacation and substitute compensation	-9,0
Total	235,2

Table 11. Target producer prices in 1981-83.

		1.9.81	1.3.82	1.9.82	1.3.83	1.4.83	1.9.83
Rye ¹⁾	p/kg	187,00		207,00			220,70
Wheat ¹⁾	"	172,00		190,00			204,80
Feed barley ¹⁾	"	128,00		142,00			151,00
Feed oats ¹⁾	"	119,50		133,50			141,50
Milk ²⁾	p/l	171,90	182,90	188,90	197,20	202,70	205,70
Beef ³⁾	mk/kg	19,44	20,44	20,73	21,56	22,01	22,31
Pork	"	12,31	13,01	13,14	13,68	13,98	14,18
Eggs	"	8,20	8,75	8,88	9,23	9,46	9,60
Mutton ⁴⁾	"	22,30	23,40	23,80	24,80	25,30	25,30

1) Beginning 1.8. Prices are in farm price level from autumn 1983. Prices from 1.9.1982 are: rye 202,70, wheat 185,80, feed barley 138,00 and feed oats 129,50 respectively.

2) The additional price of milk is paid as follows:

Beginning 1.9.1981	15 p/l	up to 200 000 litres
Beginning 1.3.1982	16 p/l	"
Beginning 1.4.1983	15 p/l	"

and in addition

Beginning 1.3.1981	9,8 p/l	up to 30 000 litres
Beginning 1.9.1981	10,5 p/l	"
Beginning 1.9.1983	11,5 p/l	"

3) Production premium for beef:

	Bulls	Bulls	Heifers	Heifers
Time	160-210 kg mk/kg	Over 210 kg mk/kg	130-160 kg mk/kg	Over 160 kg mk/kg
Beginning 1.9.1981	1,50	2,50		2,50
Beginning 1.3.1982	1,90	2,90	1,00	2,90

4) Production permium for mutton 2.50 mk/kg beginning 1.9.1981 and 2,90 mk/kg beginning 1.3.1982 and 3.20 beginning 1.9.1983.

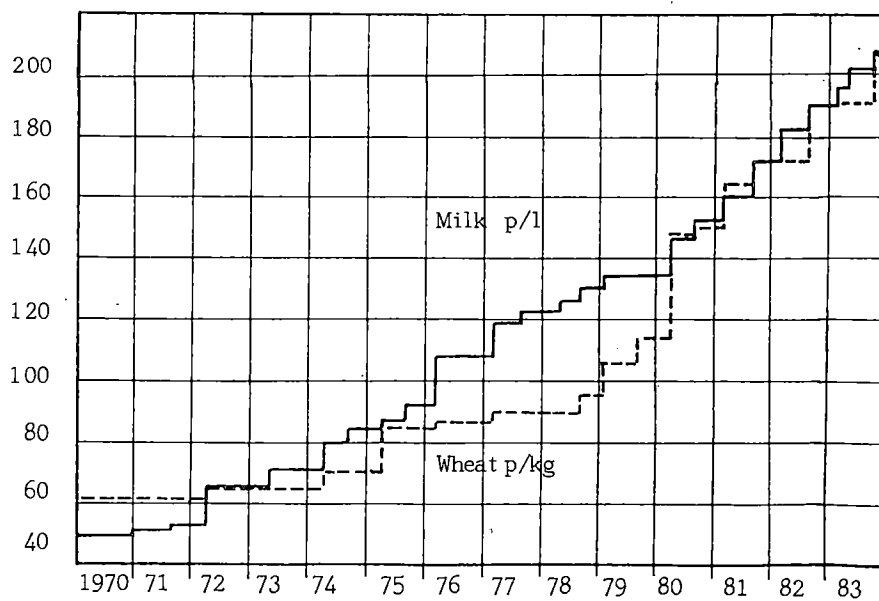
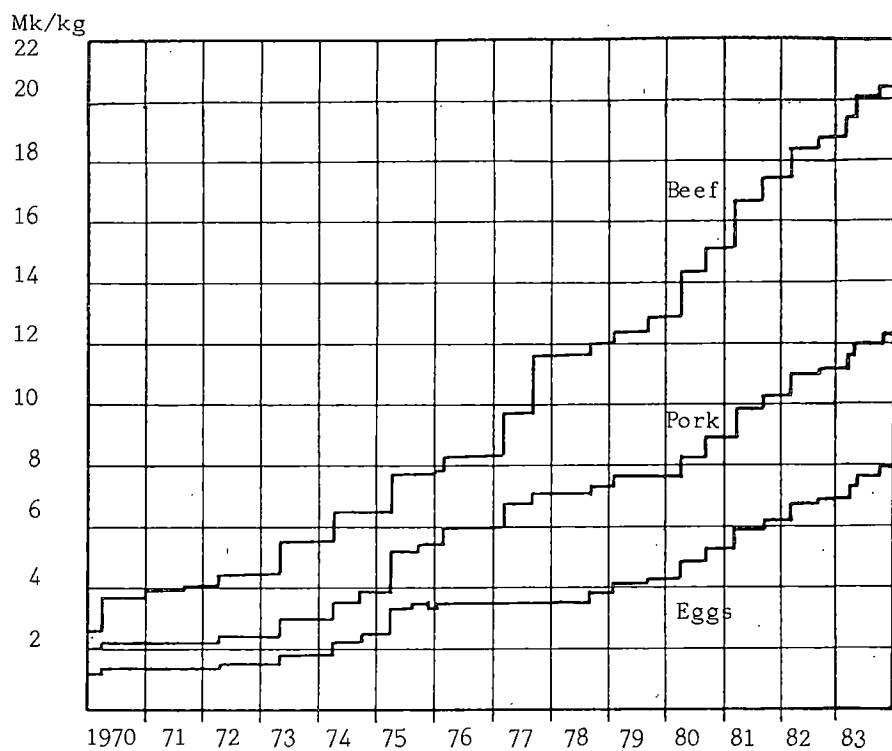


Figure 6. Trends in some target prices in 1970-83.

mill. mk or 1.4 % of the total value of production. The trend in costs was rather slow during the latter part of the year. The greatest part consisted of purchased feed, making about 3/4 of the total compensation. It must be noted that the price of oil went down, reducing the inflation pressure.

Of the total amount, 23.7 mill. mk were for price policy support and 211.5 mill. mk for target prices. Only the target prices of animal products (milk, beef, pork, eggs and mutton) were raised, by an average of 1.4 %. In addition, this decision included a rise of 30 p/kg in the production premium for mutton. The additional price for milk rose from September 1 by 1 p/l up to 30 000 litres. Thus the additional price for milk is 26.5 pennies up to 30 000 and 15 p between 30 000 - 200 000 litres, after which no additional price is paid (see Table 11).

In total, the target prices of agricultural products were raised by 8.5 % and regional and acreage payments by 10.9 % in 1983. On the basis of this it can be estimated that agricultural product prices rose at the same pace as inflation, thus making it possible for a rather good development of income in agriculture.

7. Income development

The total calculation made by the Agricultural Economics Research Institute (Appendices 6 and 7) is based on annual financial transactions or on the revenue obtained from production and costs paid for farm inputs. Machinery, implements and building costs are included, however, in the depreciation of capital and not in final purchases of capital or building costs. The farm income obtained from this total calculation is rather close to the taxable income. Depreciation, however, is estimated differently in the AERI calculation than in taxation; the consumption of a farm's own products, which is included in the AERI calculation, is not taxed.

From National Accounts it is possible to obtain a figure which indicates the farmers' income. It differs from the farms income of the AERI in that production and costs are determined according to the production

period and not according to the selling or buying period. Therefore, these two income indicators, farms income and income from agriculture, differ from each other to some extent, which occasionally causes problems of interpretation.

The total calculation by the AERI is, however, used for the farms income negotiations as a basis for cost and value calculations, and the price decision can best be evaluated using the total calculations of the institute. The calculations is therefore justified. Both authorities (Central Statistical Office and the AERI) cooperate closely, utilizing the same basic statistics.

The total calculation is given in detail in Appendices 6 and 7 up to 1982. Table 12 gives the preliminary estimate of farm income for 1983. Many forecasts and estimates are used to make it and the final calculation, which unfortunately will not be ready for two years, may differ considerably from the present estimate. The preliminary revenue calculation can be done more easily, but there are many cost items which are still very uncertain. The errors may either eliminate each other or accumulate into the farm income, which is the difference between the total revenue and costs and only about one third of the total value of production. The relative error is largest for farms income. Farms income rose about 34 % according to the preliminary estimate. The good yields in 1982 and 1983 had a very marked impact on incomes development. Production grew by 9 % on the previous year. The

Table 12. Farm income trends in 1975-83, mill. mk.

	Total revenue	Total costs	Farm income	Index
1975	8.091,2	4.991,9	3.099,3	100,0
1976	9.261,0	5.762,7	3.498,3	112,9
1977	9.967,0	6.231,0	3.736,0	120,5
1978	10.233,1	7.191,8	3.041,3	98,1
1979	11.105,5	8.185,4	2.920,1	94,2
1980	13.118,4	9.714,1	3.404,3	109,8
1981	14.729,3	11.221,6	3.507,7	113,2
1982	17.587,4	12.795,9	4.791,5	154,6
1983 ^e	20.083,7	13.675,2	6.408,5	206,8

quantities of grain increased particularly much. The good yield is also reflected in feed purchases which fell by about 16 %. The purchase of fertilizers increased by 6 %, but since prices did not rise very much, the cost of fertilizer rose only at the same pace as other costs. The volume of total costs decreased by 2 %.

Producer prices increased by 6.6 % and input prices by 8.5 %. Production rose by 9 % but farm inputs decreased by 2 %, so the good incomes development is easy to understand. The yield in 1983 was exceptionally good and this must show up in the incomes development in both 1983 and 1984. The catastrophic year of 1981 has now been compensated for: agriculture is back on its feet and able to build its own future.

III AGRICULTURAL POLICY

8. The year of overproduction

Overproduction was the most critical subject of agricultural policy in 1983, and it pushed other matters aside. The acts and statues used for the collection of export fees were changed during the year. At the end of the year policy decisions were made by the government on how to proceed in the restriction of production, and two of the acts had already been passed by Parliament by the end of the year.

The partitioning of the price decision into two phases, first into cost compensation at the beginning of March, and second into the increase in income at the beginning of April aroused debate, because this type of procedure is not mentioned in the prices act. Some of the parties concerned considered the procedure rather doubtful, since they thought it improved the status of the farmers in the negotiations. Agriculture was able to prolong the negotiations, because the cost compensation had already been made. On the other hand, the procedure was of little advantage to agriculture. No increases in farm income were obtained for March, which caused a loss. On the other hand, prolongation of the negotiations by the State may be harmful to agriculture, since there are no sanctions against the State for prolonging negotiations.

The increase in the production of animal products was one reason for the delay to negotiations in the spring. Marketing fees, as they were still called in 1982 (the new act speaks of export costs) were about 130 mill. mk in 1982 but in 1983 they were estimated to be about 300 mill. mk. The growth of milk production in particular caused headaches to decision-makers. Restriction of production again became topical. A two-price system or quota system was again discussed, and a working group was set up in the spring and the group was able to finalize its proposal for an agricultural policy. It is reviewed in Section 12.

9. Supply control

Restriction and guidance of agricultural production has continued to play a key role in production policy. The production ceilings of the Farm Incomes Act naturally set production goals, but since these goals have been exceeded, supply control has remained the most important objective of agricultural policy. No new action was taken during the year; only the marketing fees were raised.

A framework act was passed for supply control in 1983. Within its framework the Government can decide on different actions by issuing statutes. Since all production ceilings have been exceeded, all measures are aimed at reducing the farmers' marketing fees. In a way, these actions aim to raise farmers' incomes, since any overproduction lowers farmers' incomes as world market prices are much lower than production costs. World market prices are not high enough to cover even variable costs.

9.1. Restrictions on production

About 67 000 hectares of land were still out of production under the soil bank system in 1983. The compensation is decreasing stepwise to the north and it was 225-380 mk/ha in 1983.

The soil bank system was started in 1969 and compensation (according to the area) is paid annually if the whole farm is taken out of production. No new agreements have been made since 1974 and the hectarage in the soil bank system has been gradually decreasing. In 1983 an act was passed by Parliament to speed up the abolition of the system. Namely, the entire compensation may be obtained for the remaining period of the contract even though the land is taken into agricultural use (with some exceptions). Considered against the present overproduction situation, this is not in line with other policy measures.

The milk bonus system was continued in 1983. If milk production is reduced by at least 25 % (or at least 10 000 litres per year) farmers are paid a compensation of 65 p/litre. The system included about 20 600

dairy cows and the decrease in milk production is estimated to have been nearly 100 mill. litres, at the annual level.

Contracts for decreasing pork production were taken into use in 1983. They refer to both pork and pig production. Compensation is 15-20 % of the total value of production (with some exceptions). There are about 400 contracts and the production effect is about 6.5 mill. kg and over 100,000 pigs at the annual level.

Two methods have been applied to the restriction of egg production: slaughtering of hens and restriction of hatching. If the egg producer agrees to stop producing eggs for 18 months and sells the hens for slaughter, he receives compensation of 25 mk per hen. About 244 000 hens were taken out of production in 1983 under this system. The decrease in production was about 4 mill. kg. Hatching was allowed to remain at the same level as during the previous year. Despite these measures, the production of eggs rose in 1983 and the same trend is expected to continue in 1984.

The regulation of the establishment of large production units is one way of curbing the growth of production. Permission from the Board of Agriculture is required if the production unit is to have over 200 pig places, 1000 hens, 30 000 chicken places, 20 dairy cows or 120 beef animals. In addition, a permit from the local authorities is required for the establishment of a production unit of over 100 pig places or 500 hens. A further requirement is that the quantity of feed produced by the farm itself must be at least 1/3 for pork and egg production and at least half for milk and beef production. As mentioned in Section 12, these requirements will be stepped up in 1984.

Marketing fees should also have a restrictive effect on production. The export fee on milk was 1 p/l in the period 1.1-30.4., 5 p/l in 1.5.-30.6., and 7.5 p/l from July 1, which is also effective from January 1, 1984. The export fee on pork was 5 p/l in 1.1.-30.4 and 25 p/kg thereafter. Since January 1 1984 it has been 15 p/kg.

The proportion of export fees paid by agriculture is also covered by excise taxes levied on fertilizers and feed mixtures. Fertilizer tax was 6 p/kg until the June 30 and 10 p/kg thereafter. It will be 10 p/kg until the end of the fertilizer season 1983/84. The tax on feed mixtures was 2 p/kg until May 1, when it was raised to 12 p/kg for poultry feed and to 8 p/kg for other feeds. In June the tax was raised to 16 p/kg for poultry feed and to 12 p/kg for other feeds. At the beginning of 1984 the tax on poultry feed was further increased to 20 p/kg.

These marketing fees are not enough to cover the total sum of 496 mill. mk, but 130 mill. mk is being carried over to 1984. It is estimated that the proportion of exports subsidies paid by agriculture in 1984 will be 672 mill. mk, over 10 % of the farm income. This shows the difficulty which agriculture would face without any production restrictions in 1984. Most of the burden will, in any case, be carried by the farmers, since the effect of any measures is always delayed.

The value of the excess production was about 750 mill. mk in 1983. It created the necessity for an export subsidy (the proportion paid by agriculture) of about 420 mill. mk. The other 330 mill. mk was received by farmers as compensation for all costs. This obviously does not cover even the variable costs (fertilizer, feed, oil, etc.), so the excess production caused a loss of income.

9.2. Steering of production

Production is usually steered by the prices policy. However, the Government has a special means for accomplishing this, namely the act for guiding animal production. Its purpose is to support the transfer from milk production to other lines of production, either plant husbandry or beef production. A farmer who has made a contract to change his production line is paid compensation according to a special system based on earlier production.

9.3. Production support

In spite of the many measures taken to restrict production the Government has also supported production, especially of beef and mutton. The background to these measures is the calculation that when the number of dairy cows decreases the potential for beef production decreases because of the smaller number of animals, and so production may decline and the final result may be the necessity for continuous importation of beef.

A special production premium system has been developed to support beef production. The basic target price for beef concerns only slaughter weights below 160 kg. Any production above this limit is supported by the payment of a special premium (see the note to Table 11). This support averaged about 1.65 mk/kg for all meat produced in 1983 (in addition to the target price). The premium for mutton (2.60 mk/kg) concerns carcasses of over 15 kg and its purpose is to increase production.

The increase in beef production, and at the same time a decrease in milk production is the aim of the special beef programme. A farmer received a premium of 850 mk/cow in 1983 if he agreed to keep at least two cows for the milk feeding of slaughter calves and not to sell calves or cows for milk production. In 1983 there were agreements covering about 8000 cows.

There has been some need for beef exports in recent years. Production has increased faster than expected because of the increasing slaughter weights. On the other hand, the number of dairy cows has not decreased as much as was forecast. Production cannot, however, increase indefinitely since it has clear biological constraints. The market situation for beef can no longer deteriorate; a better balance is expected in the future, since milk production must be reduced from the present level.

One of the measures supporting production is the premium paid for on bread grain production. In 1983 this premium was 400 mk/ha for rye. Wheat production was no longer supported in 1983, even though it could still be expanded.

Grain production is partly supported regionally. A premium of 5 p/kg was paid for feed grains grown in the northern-most parts of the country.

Finally, production support is, in a sense, a means of steering production. The hectareage under cultivation has not increased as a result of the supports, but is in fact declining. Animal production is mostly based on domestic feed, since in a normal situation only limited importation of protein feed is permitted. The increase in the production of one product thus lowers the production of another. Any growth in production is possible only by raising the yields per hectare.

10. Investment policy

10.1. General

The gross investment in agriculture was about 3600 mill. mk in 1982. It comprises 250 million for basic improvement of land, 2670 million for machinery and implements, and 670 mill. mk for buildings.

Investment is naturally regulated by the money market. The available funds comprise the farm's own money, of which forest income is often a significant source, and external funds. External financing is obtained a) from the normal money market at the market interest rate or from funds supported by the state or b) from the development fund set up by the Government.

Investment policy is aimed mostly at the support of general structural policy. Its aim is to advance both the internal and external rationalisation of agriculture. The agriculture of developing areas can be mentioned as a special section of the investment policy. The loans from the development fund usually go to developing or disadvantaged areas.

Investment support may be thought to be in contradiction to the restriction of production. Undoubtedly the building of new cow-houses, pig-houses and hen-houses is questionable in a state of increasing

overproduction. However, the structure of agriculture must be renewed in order to keep a certain basic production structure modern and efficient. Investments are, in fact, usually made at the change of generations on a farm, but production capacity has to be renewed in other cases, too.

10.2. Public support

The low interest rate loans granted by the State are administered by the Agricultural Development Fund, which is funded from the national budget each year (570 mill. mk in 1983). In addition, the interest and amortization payments on existing loans are available for further lending. Thus, the total loans in 1983 were about 780 mill. mk.

The loans received from the development fund are mostly available for buying land and for construction if the investment fulfils the requirements set by the act. These requirements include the condition that the farm is economically sound but does not exceed the maximum regional limits. The interest rate varies from 3 to 5 % (in some cases 6-7 %). The repayment time is 10-25 years plus 1-5 years free of interest payments in some cases.

The low interest rate loans are granted by the private banks but the State pays a subsidy (78 mill. mk in 1983) so that the real interest rate is the same as for the Development Fund loans. These loans are usually granted in southern Finland, whereas the loans from the development funds go to central and northern Finland. The total amount of these loans was 450 mill. mk in 1983.

The State grant to encourage young farmers was expanded in 1983. A young farmer (under 35 years) may be awarded a subsidy of up to 50 000 mk when he starts to cultivate a farm which he has inherited. This programme has been developed further so that about 61 mill. mk are available in 1984, enough to support all young starting farmers.

11. Income distribution

The equalization of the internal income differences in agriculture is a focal part of the farm income system. It is basically realized in three ways: a) a hectarage payment is made to subsidize the income of low

income farmers, b) the additional price of milk is paid by a step-wise method, and c) regional income differences are equalized by regional price support.

Hectarage subsidy is paid to farmers whose taxable income was less than 36 000 mk in 1981. It is paid according to the so-called 'producing unit' which is based on the area of arable land and the number of animals on the farm. The subsidy is at a maximum when the farm is seven hectares, declining after that so that no subsidy is paid to farms over 18 hectares in southern Finland and 30 hectares in northern Finland. The subsidy was 510 mk per 'producing unit', rising towards the north up to 766 mk per unit. The hectarage subsidy is tax free.

The additional price on milk also has an equalizing effect on income since it is larger for the smaller quantities of milk (26.5 p/l up to 30 000 litres, 15 p/l between 30 000 and 200 000 litres and nothing after that). Figure 7 illustrates the average price of milk as a function of milk quantity.

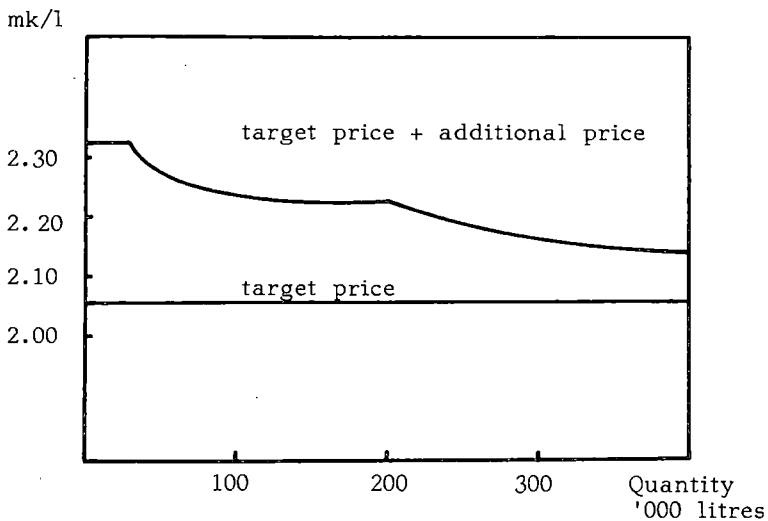


Figure 7. The average target price of milk beginning September 1, 1983.

Regional subsidies are paid to milk and meat producers. They are paid as an additional price per producing unit. For example, the regional subsidy for milk is 57 p/l, 6.90 mk/kg for beef and 0.75 mk/kg for pork in the northernmost parts of Finland. In addition, a regional subsidy for milk production is paid according to the number of dairy cows.

Feed price subsidies are also included in regional policy measures. They may form up to 45 % of the costs, the maximum being 7200 mk per farm, however.

All these forms of support are internal transfers within agriculture. In each incomes agreement, part of the total increase in target prices is made over to price policy support, which is realized through the State budget. Thus, the price policy support can be considered a consumer subsidy, too. It amounted to about 1860 mill. mk or about 10 % of the total value of production in the last prices agreement. This amount is an efficient tool in equalizing income differences.

12. Proposal for an agricultural policy programme

A parliamentary council was set up in 1979 to plan a long-term agricultural policy programme. Its term expired in April 1983, but it had not finished its work by then. A new working group was set up in spring 1983 to continue, and it issued a proposal at the beginning of November. Although this proposal was intended to be merely a background paper for further work by a new committee, some of its proposals have already been submitted to Parliament, and there is reason to believe that, despite its unofficial nature, it is going to form a basis for future agricultural policy. This assessment does not exclude the possibility (or even hope) that the programme will be further handled within a committee or in some other corresponding body.

The production goals for 1990 set by the working group are based on proposals made by earlier committees that have worked on similar subjects. The goal for milk production would, in principle, be 115 % self-sufficiency, but the corresponding stock of dairy cows would not secure a sufficient supply of beef. Thus, the goal for the number of dairy cows for 1990 is 550 000 (at present it is about 665 000) which

will give 124 % self-sufficiency for milk and 100 % for beef. The total milk supply would then be about 2800 million litres or about 10 % less than the present level. The goal for pork production is 105 % self-sufficiency (160 % in 1983). No reduction in arable land is considered necessary, since e.g. the acreage for wheat and oil seeds may be raised.

The present problematic overproduction was, of course, reflected in the proposal by the working group, who presented several measures for solving the problems. The following have already been handled by Parliament and will become effective in 1984: investments in new animal production units are frozen (with few exceptions) for a year; establishment of new animal farms made more difficult (the limits are: 8 dairy cows, 30 beef animals, 25 pigs, 100 hens and 15 000 broilers, see section 9.1); the milk bonus system made more effective and attractive by raising the compensation to 90 p/l (previously 65 p/l) and lowering the minimum to 5000 litres per annum; following system reintroduced (the area must be 1/4 of the total area of the farm and the premium is 1200 mk/ha in southern Finland, 1100 mk/ha in central Finland and 1000 mk/ha in northern Finland); the slaughtering compensation for laying hens was raised to 50 mk/hen (previously 25 mk) and the contract period will be four years (earlier 18 months).

A two price system was proposed from the beginning of September, 1984. The bill is still under preparation. It has only been agreed that all farms may freely produce 30 000 litres annually. The original proposal of the working group aims to set up a quota system in which the target price would be paid for the quota and the world market price for the excess production on each farm.

The working group also proposed a reduction in imports of protein feeds, a change in the price ratio of butter and margarine (in favour of butter), improvement of retirement schemes and a decrease in imports of processed and unprocessed foods.

Even though the proposals of the working group were made in a hurry, they include the key goals of agricultural policy, and a good choice of policy measures are presented for achieving these goals. The most

important interest groups were represented in the working group. Bringing up the programme in a new committee could not essentially change it, although there are some aspects, such as incomes and regional policy, which need elaboration. On the other hand, the decision-makers have not been idle, and some of the proposals have already been realised. New winds are blowing in the Ministry of Agriculture and Forestry.

IV SUMMARY

The economic situation improved slightly in Finland in 1983. The growth of the gross domestic product was about 3 %. Exports increased, particularly during the latter part of the year, and accelerated the economic growth. The unemployment rate was still 6.3 % in 1983, although it is expected to fall to 5.7 % in 1984. Inflation has caused most concern, being 8.5 % in 1983: it is not expected to decrease very much in 1984. The deficit in the national budget is also slowly making the economic policy difficult to handle.

Agriculture had a record yield in 1983. The average yield in feed units was 2814 f.u./ha: it was higher than ever and about 12 % higher than the long term trend value. The total yield was 5807 mill. feed units, which is also larger than the previous record in 1976. Qualitatively the yield was very good. The yields of different crops were also record high. Export requirements are estimated to be nearly million tons.

Animal production grew slightly. Milk production rose 2 %, pork production about 1 %, beef production nearly 4 %, and egg production 2 %. These trends caused an expansion in agricultural exports, especially those of butter and beef.

The new Farm Incomes Act was applied for the first time in the price negotiations in the spring, but had hardly any effect on the final solution. Target prices were raised by 6.8 % in the spring and by 1.5 % in the autumn, a total of 8.3 % for the whole year. Regional and area support was raised by 10.9 %. Incomes development was very good in agriculture in 1983, and can be explained by the two good yields in succession. According to the preliminary estimate the farm income rose by 34 % in 1983. The increase in the quantities of grains marketed had the greatest effect on incomes, but the increase in animal production and the decrease in the use of purchased feed also had a significant impact on the good incomes trend.

The problem of overproduction most affected agricultural policy in 1983. Agricultural marketing fees rose to 441 mill. mk, and since 57 mill. mk were due from 1982 the total amount to be collected was 498 million. The milk and pork marketing fees and the taxes on fertilizers and feed were not enough to cover the total amount, and so some has been carried over to 1984.

Excess production finally forced strong action to ease the situation. The working group, which was set up in the spring, handed in its proposal at the beginning of November, and before the end of the year Parliament had passed some acts which will restrain the establishment of new farms and make voluntary production control programmes more effective. A two-price system for milk production is under preparation and it should be effective from the beginning of September, 1984.

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Appendix 1. Some price indices.

	Wholesale price index	Consumer price index	Producer price index of agriculture
1970	100	100	100.0
1971	105	106	103.7
1972	114	114	115.0
1973	134	127	129.4
1974	167	150	150.2
1975	189	176	188.2
1976	211	201	213.6
1977	233	226	229.4
1978	245	243	242.5
1979	266	261	257.2
1980	309	291	288.2
1981	351	326	324.5
1982	377	357	370.0
1983 ^e	400	387	394.4

Appendix 2. Cost price index in agriculture with subindices.

	Cost price index	Requisites	Machines and tools	Buildings
1970	100.0	100.0	100.0	100.0
1971	107.9	103.6	109.2	109.2
1972	116.9	107.6	120.2	123.6
1973	135.6	122.2	133.4	155.5
1974	167.9	154.6	162.7	201.4
1975	205.9	188.4	208.3	230.2
1976	238.4	255.3	231.2	255.4
1977	273.6	267.3	258.1	281.4
1978	285.4	273.8	282.2	294.9
1979	304.3	282.8	308.7	325.6
1980	341.7	318.0	341.2	372.1
1981	394.0	384.9	374.6	400.8
1982	427.5	423.2	404.0	424.2
1983 ^e	464.0	462.4	445.8	454.6

Appendix 3. Some figures of the agriculture structure.

	Number of ¹⁾ farms, 1000 pcs	Average ¹⁾ size of farms, hectares	Number of milk suppliers 1000 pcs	Employed persons in agriculture 1000 persons	% of total labour force
1970			190	404	19.0
1971			175	374	17.6
1972	274.4	9.31	163	339	16.0
1973	265.9	9.54	151	304	14.0
1974	258.2	9.79	140	303	13.6
1975	248.7	10.05	128	277	12.5
1976	242.7	10.26	119	244	11.3
1977	237.7	10.43	112	223	10.6
1978	232.8	10.60	104	208	10.0
1979	229.3	10.78	98	200	9.4
1980	224.7	10.96	91	200	9.1
1981	218.9	11.16	85	200	8.9
1982			78	206	9.0
1983 ^e			74	249 ²⁾	10.4 ²⁾

1) Over 1 hectare.

2) The method of data collection has been revised in 1983. The data are not comparable with previous data.

Appendix 4. Number of animals in June and the average yield per cow.

	Dairy cows 1000 pcs	Yield per cow, litres	Pigs 1000 pcs	Hens 1000 pcs
1970	889.1	3677	1002.4	4470.9
1971	849.3	3806	1129.3	5249.0
1972	836.5	3889	1045.7	5963.7
1973	823.6	3839	1139.3	5869.0
1974	818.5	3856	1048.9	5803.2
1975	773.2	3997	1036.1	5943.3
1976	763.1	4200	1053.9	6333.2
1977	751.6	4197	1143.3	6245.1
1978	742.0	4260	1244.7	6046.4
1979	730.1	4336	1288.7	6029.4
1980	719.5	4478	1410.2	6040.7
1981	700.8	4450	1467.1	5200.2
1982	689.2	4493	1475.3	5291.5
1983 ^e	663.1	4862	1440.7	5440.4

Appendix 5. Sales of fertilizers (kg/ha).

	N	P	K
1969-70	58.3	27.2	40.0
1970-71	63.7	29.4	43.5
1971-72	68.5	30.5	46.5
1972-73	69.4	30.8	47.4
1973-74	78.2	33.9	52.0
1974-75	85.8	34.2	53.9
1975-76	79.6	29.5	47.6
1976-77	65.4	25.0	41.1
1977-78	69.1	25.8	43.3
1978-79	76.9	27.8	47.4
1979-80	83.3	28.0	50.2
1980-81	82.4	27.8	49.3
1981-82	78.7	26.8	47.5
1982-83	91.4	29.9	53.8

Appendix 6. Agricultural gross return in current prices, mill. mk.

	1977	1978	1979	1980	1981	1982
<u>Crop production</u>						
Rye	97.8	63.3	82.4	148.8	121.3	67.2
Wheat	402.4	178.4	173.0	310.9	345.8	544.3
Barley	536.3	455.2	461.7	572.5	644.1	826.2
Oats	244.5	177.5	200.6	308.1	350.9	488.2
Potatoes	115.4	88.2	122.3	216.5	198.8	362.3
Potatoes for processing	81.9	73.7	88.5	98.6	102.5	110.6
Sugar beets	140.6	206.8	199.2	286.3	253.5	349.6
Oil plants	61.1	86.3	94.1	166.7	182.1	264.3
Peas	15.2	9.9	10.3	10.3	20.1	33.7
Total	1695.2	1339.3	1432.1	2118.7	2219.1	3046.4
<u>Garden production</u>						
Vegetables	171.9	210.2	205.7	261.8	369.7	373.4
Root crops	25.1	40.0	22.6	47.5	36.1	51.3
Fruits	27.2	30.3	42.0	40.3	46.9	30.3
Berries	47.5	60.0	66.9	71.0	142.1	173.6
Total	271.7	340.5	337.2	420.6	594.8	628.6
<u>Animal production</u>						
Milk	4460.2	4773.3	5176.4	5762.5	6119.2	6881.9
Beef	1509.4	1548.1	1676.8	2007.8	2380.2	2588.6
Veal	3.7	4.1	6.6	2.5	4.1	4.2
Pork	1228.2	1400.4	1543.9	1711.0	2057.9	2338.2
Mutton	17.3	15.6	17.1	19.6	23.9	28.4
Horse meat	12.6	11.6	10.0	11.4	12.8	12.5
Poultry	83.1	76.6	93.8	114.3	147.7	156.4
Wool	1.4	1.4	1.5	1.5	1.8	1.8
Eggs	462.0	440.8	486.0	577.7	674.2	764.2
Exports of animals	2.8	7.3	4.4	5.4	7.4	7.6
Total	7780.7	8279.2	9016.5	10213.7	11429.2	12783.8
<u>Subsidies</u>						
Price subsidy determined by farm size	176.5	217.4	246.0	283.2	351.3	426.8
Subsidy determined by number of cows	17.2	16.8	36.8	40.5	42.6	48.4
Compensation for purchased fodder	19.8	22.4	25.4	27.4	34.3	44.6
Total	213.5	256.6	308.2	351.1	428.2	519.8
Compensation for crop damages	5.9	17.5	11.5	7.9	2.3	426.8
Production guiding compensations				6.4	55.7	182.0
Gross return total	9967.0	10233.1	11105.5	13118.4	14729.3	17587.4
Index (1975=100)	123.2	126.5	137.3	162.1	182.0	217.4
Change %	+7.6	+2.7	+8.5	+18.1	+12.3	+19.4

Appendix 6, continued. Costs in current prices, mill. mk.

	1977	1978	1979	1980	1981	1982
Fertilizers	810.6	975.6	1059.8	1232.3	1333.9	1635.8
Lime	32.5	54.0	50.9	69.8	41.7	72.8
Feed concentrates	1220.5	1584.3	1854.4	2416.6	3097.5	3752.4
Feed conserving chemicals	50.8	64.0	76.0	86.5	95.8	93.6
Pesticides	79.0	89.2	116.5	134.4	141.4	140.7
Equipment	54.9	57.8	66.3	77.8	85.2	92.2
Skimmed milk	32.9	27.1	20.6	20.7	20.5	24.4
Fuel and lubricants	331.3	365.8	480.1	609.8	701.9	726.6
Electricity	162.4	174.0	189.1	209.2	243.7	259.7
Purchased seeds	163.5	215.6	229.8	237.3	274.7	378.2
Hired labor	267.7	253.3	265.0	271.7	278.9	304.7
Social expenses	108.5	102.5	107.5	112.1	118.7	135.1
Machinery and equipment expenses	1490.3	1695.4	1956.2	2231.3	2545.4	2800.5
Building expenses	623.2	659.5	721.8	830.2	903.4	967.1
Interest payment	268.8	299.3	346.4	448.9	528.7	548.5
Imports of animals	0.3	0.4	0.4	0.6	0.8	0.8
Overhead costs	533.8	574.0	644.6	724.9	809.4	862.8
Costs total	6231.0	7191.8	8185.4	9714.1	11221.6	12795.9
Index (1975=100)	124.8	144.1	164.0	194.6	224.8	256.3
Change %	+8.1	+15.4	+13.8	+18.7	+15.5	+14.3
Gross return	9967.0	10233.1	11105.5	13118.4	14729.3	17587.4
Costs	6231.0	7191.8	8185.4	9714.1	11221.6	12795.9
Farm income	3736.0	3041.3	2920.1	3404.3	3507.7	4791.5
Index (1975=100)	120.5	98.1	94.2	109.8	113.2	154.6
Change %	6.8	-18.6	-4.0	+16.0	+3.0	+36.6

Appendix 7. Agricultural gross return in fixed prices, mill. mk.¹⁾

	1977	1978	1979	1980	1981	1982
<u>Crop production</u>						
Rye	90.2	56.8	59.1	83.7	62.6	30.9
Wheat	365.7	163.7	130.1	164.6	175.1	237.0
Barley	472.7	402.9	385.5	388.7	346.1	384.6
Oats	222.4	154.1	163.0	205.6	191.1	229.2
Potatoes	134.8	91.5	102.7	125.6	110.6	128.2
Potatoes for processing	70.2	66.2	71.0	68.2	60.4	55.1
Sugar beets	129.4	170.0	160.9	207.9	156.2	182.5
Oil plants	46.7	64.5	66.2	99.7	98.4	119.0
Peas	14.9	9.3	9.3	9.3	12.8	17.8
Total	1547.0	1179.0	1147.8	1353.3	1213.3	1384.3
<u>Garden production</u>						
Vegetables	154.2	217.3	221.0	208.1	213.5	217.7
Root crops	20.5	32.1	20.5	30.3	22.0	22.5
Fruits	23.0	22.6	33.4	28.0	39.2	22.9
Berries	37.8	42.5	43.8	41.4	71.6	84.0
Total	235.5	314.5	318.7	307.8	346.3	347.1
<u>Animal production</u>						
Milk	3541.0	3533.1	3553.9	3590.5	3475.3	3462.6
Beef	1178.6	1177.4	1203.1	1265.5	1354.7	1299.0
Veal	3.3	3.3	5.0	1.7	2.5	2.5
Pork	1065.5	1173.4	1245.6	1283.6	1369.5	1401.4
Mutton	13.0	10.6	10.6	10.6	11.8	13.0
Horse meat	10.4	8.8	7.2	7.2	7.2	6.4
Poultry	68.2	63.0	72.5	79.9	89.9	87.3
Wool	1.2	1.2	1.2	1.2	1.2	1.2
Eggs	448.3	401.1	397.4	413.2	417.4	430.5
Exports of animals	2.4	5.9	3.5	3.9	4.7	4.7
Total	6331.9	6377.8	6500.0	6657.3	6734.2	6708.6
<u>Subsidies</u>						
Price subsidy determined by farm size	143.3	168.1	174.8	173.2	189.1	213.9
Subsidy determined by number of cows	14.0	13.0	26.1	24.8	22.9	24.2
Compensation for purchased fodder	16.1	17.3	18.0	16.8	18.5	22.3
Total	173.4	198.4	218.9	214.8	230.5	260.4
Compensation for crop damages	4.8	13.5	8.2	4.8	1.2	213.8
Production guiding compensations				3.9	30.0	91.2
Cross return total	8292.6	8083.2	8193.6	8541.9	8555.5	9005.4
Index (1975=100)	102.5	99.9	101.3	105.6	105.7	111.3
Change %	0.0	-2.5	+1.4	+4.3	+0.2	+5.3

1) 1975 prices

Appendix 7, continued. Costs in fixed prices, mill. mk.¹⁾

	1977	1978	1979	1980	1981	1982
Fertilizers	530.1	604.9	635.8	690.9	613.2	705.8
Lime	24.7	37.1	37.3	49.3	27.7	42.3
Feed concentrates	858.0	1136.8	1329.8	1564.0	1631.8	1746.4
Feed conserving chemicals	40.8	49.8	54.5	51.8	53.5	52.3
Pesticides	101.5	112.8	142.6	148.5	143.6	137.3
Equipment	42.1	39.5	41.0	43.4	43.1	43.7
Skimmed milk	26.6	21.5	16.5	15.0	12.5	9.9
Fuel and lubricants	246.6	248.2	259.7	212.1	196.3	198.1
Electricity	153.3	157.9	166.5	166.2	165.7	165.2
Purchased seeds	115.9	138.4	132.6	121.8	118.6	140.9
Hired labor	202.1	172.7	160.6	148.5	136.5	132.7
Social expenses	81.9	69.9	65.2	61.3	58.1	58.8
Machinery and equipment expenses	1181.2	1206.1	1270.2	1308.8	1361.9	1396.4
Building expenses	504.1	504.1	498.1	495.6	496.1	503.4
Interest payment	226.8	252.6	273.4	261.1	262.1	311.2
Imports of animals	0.3	0.3	0.3	0.4	0.5	0.5
Overhead costs	433.5	443.7	458.0	443.3	435.7	432.2
Costs total	4769.5	5196.3	5542.1	5782.0	5756.9	6077.1
Index (1975=100)	95.5	104.1	111.0	115.8	115.3	121.7
Change %	-4.9	+8.9	+6.7	+4.3	-0.4	+5.6

1) 1975 prices

