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# Price and Income Policies for Food and Agricultural Products in the Baltics

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# Price and Income Policies for Food and Agricultural Products in the Baltics

## **Abstract**

The Baltic Republics have undertaken extensive price reforms for food and agricultural products. Higher producer and consumer prices, accompanied by wage increases and income subsidies to offset higher prices, are expected to improve market efficiency. The goal is to move toward private enterprise in the agribusiness sector. The role of pricing in market economies is discussed in the context of other steps that need to be taken in developing a market system for food and agricultural products. Specific attention is given to pricing in harmony with international markets and broader research tasks that can support the policy reform process.

## **Keywords**

Agriculture, Policy

## **Disciplines**

Agricultural and Resource Economics | Agriculture | Economic Policy

**Price and Income Policies for Food  
and Agricultural Products in the Baltics**

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and Natalia Kazlauskiene**

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**The Lithuanian Institute of Agrarian Economics, Vilnius, and CARD, Iowa State University, are collaborating on a number of research projects related to all facets of economic reforms in Lithuania. This paper is a result of that joint venture.**

**The contents of this paper may be cited with proper credit to the author, to the Lithuanian Institute of Agrarian Economics, and to the Center for Agricultural and Rural Development, Iowa State University.**

**CONTENTS**

Tables .....	iv
Abstract .....	v
The Role of Prices in Market, Mixed, and Planned Economy Systems .....	1
Options and Steps in the Transition Process .....	3
Price Relationships and Implications for Price Reform .....	4
Prices and Price Reforms in the Baltics .....	5
Pricing in Harmony with International Markets .....	11
Input Markets .....	14
Implications for Future Research .....	15
References .....	17
Data Sources .....	17

**TABLES**

1. Latvian average state, cooperative, and market retail prices for main food commodities . . . . .	6
2. Latvian old and new state retail prices compared with recent private market prices . . . . .	7
3. State procurement prices in Latvia . . . . .	8
4. State retail and procurement prices for main food commodities as of April 1991 . . . . .	9
5. Relative Latvian prices compared with German and Danish market prices and EC intervention prices . . . . .	12
6. Approximate border prices for selected commodities in the Baltic Republics . . . . .	13

**ABSTRACT**

The Baltic Republics have undertaken extensive price reforms for food and agricultural products. Higher producer and consumer prices, accompanied by wage increases and income subsidies to offset higher prices, are expected to improve market efficiency. The goal is to move toward private enterprise in the agribusiness sector. The role of pricing in market economies is discussed in the context of other steps that need to be taken in developing a market system for food and agricultural products. Specific attention is given to pricing in harmony with international markets and broader research tasks that can support the policy reform process.

**Note:** This paper is based on conditions and data as of the end of April 1991. Other price changes have occurred since then, and Estonia removed most price controls in July 1991. At the time of publication the three republics had been recognized as independent states, so a major obstacle to implementing reforms has been removed; but the pricing issues remain essentially the same.

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

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, 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 agribusiness sector.

### **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 because 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 instruments.

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 to determine the profitability of firms and the material well-being 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 products and where consumers and producers can purchase additional quantities of goods outside the state system. Prices in the parallel market are generally higher than state prices because of commodity shortages and high transaction costs. These constraints 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 production, 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.

### **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 new economic systems. These measures are primarily 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 efficiency 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 structure of production is inefficient, then 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 production and processing structure 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 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 of 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 that encourages private business to take over the functions of the government monopolies in input supply, processing, and distribution is one step. Creating the legal and institutional system that will induce 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.

### **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.

### **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 increase, 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

Table 1. Latvian average state, cooperative, and market retail prices for main food commodities

Commodity	1985	1986	1987	1988	1989
	(rubles per kilogram)				
<b>Meat</b>					
State retail price	1.95	2.01	2.03	2.05	2.07
Cooperative price <sup>a</sup>	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
<b>Potatoes</b>					
State retail price	0.12	0.14	0.16	0.19	0.23
Cooperative price <sup>a</sup>	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
<b>Fruits</b>					
State retail price	1.43	1.25	1.38	1.54	1.92
Cooperative price <sup>a</sup>	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

SOURCES: *Statistics Review 1989; Avots 1990.*

<sup>a</sup> Cooperative retail system.

Lithuania 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 increase 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.

Table 2. Latvian old and new state retail prices compared with recent private market prices

Commodity	State Price			Market Price <sup>a</sup>
	Old Price	April 1991	Percentage Increase	
	(rubles per kilogram)			(rubles)
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
Cottage 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 (10 units)	1.00	<sup>b</sup>	<sup>b</sup>	4.00
Potatoes	0.12	<sup>b</sup>	<sup>b</sup>	1.20

SOURCE: State price data are from the Latvian Research Institute of Agricultural Economics; market prices are from the newspaper "Atmoda," Riga, Latvia.

<sup>a</sup> February or March 1991.

<sup>b</sup> Contract prices are negotiated, not fixed.

-- Not reported.

A recent study by Kazlauskiene, Devadoss, and Meyers (1991) on price reforms in Lithuania 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

Table 3. State procurement prices in Latvia

Commodity	Before 1990	October 1990	May 1991
	(rubles per metric ton)		
Soft wheat	130	250	410
Rye	170	300	410/630
Oats, ecologically pure production	130	250/490	410/630
Barley (feed), ecologically pure	130	250/300	410/600
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)			
Highest weight category	1860	4810	5500
Medium weight category	1550	4010	4600
Low weight category	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
<b>Food Prices</b>			
	(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 <sup>a</sup>	8.60	8.02
Sugar	3.75 <sup>a</sup>	0.90 <sup>b</sup>	2.20
Eggs (10 units)	2.40	°	2.95
<b>Procurement Prices</b>			
	(rubles per metric ton)		
Beef (slaughter weight)	5,671	5,260	6,150
Pork (slaughter weight)	5,138	4,985	5,250
Poultry (slaughter weight)	3,535	°	5,050
Mutton (slaughter weight)	°	6,500	°
Milk	567	705	590
Grains	640	550	600
Sugar Beets	250	136	--
Eggs (1000 units)	135	°	°

<sup>a</sup> Average price.

<sup>b</sup> As of March 26, 1991.

<sup>c</sup> Contract prices are negotiated, not fixed.

-- Not available.



clothing, housing, and most other consumption items declined (World Bank 1990). 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 (Madell 1990).

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 reduced 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 (1991) 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.

### **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 guide 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 the European Community. 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 lesser 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

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 price for livestock products, FAPRI 1991. Relative prices were computed from basic data.

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 (World Bank 1990). 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

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

Commodity	Border Prices			Internal Prices <sup>a</sup>
	\$/mt	Rubles/mt (2 Rb/\$)	Rubles/mt (4 Rb/\$)	
<b>Importables (C.I.F.)</b>				
Wheat	146	292	584	+
Rye	110	220	440	+
Sugar	430	860	1720	+
<b>Exportables (F.O.B.)</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.

<sup>a</sup> "+" means that transport and handling costs from the border to the wholesale (farm) market need 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.

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.

### **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.

### **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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