

# **Emerging Price Support Systems in Central European Agriculture: Examples from Hungary and Lithuania**

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## **EMERGING PRICE SUPPORT SYSTEMS IN CENTRAL EUROPEAN AGRICULTURE: EXAMPLES FROM HUNGARY AND LITHUANIA**

The conventional wisdom on agricultural trade policy has been that trade barriers are primarily determined by domestic agricultural and food price policies. For example, European Union (EU) import levies and export subsidies were determined by intervention and threshold prices, and U.S. sugar import quotas were driven by the domestic price support level. This is why agricultural trade barriers escaped General Agreement on Tariffs and Trade (GATT) jurisdiction for so long and why even the modest liberalization of the Uruguay Round Agreement with respect to agricultural products was so difficult to achieve. Liberalization of agricultural trade in many countries required changes in the level and/or the mechanism of domestic support programs.

This conventional wisdom does not generally apply to transition economies of Europe. In these countries, the first measures of protection for the food and agricultural sector were border measures. In many cases, quantitative measures, involving quota and licensing for imports and/or exports, were the initial measures that were gradually replaced with tariffs and subsidies. As examples, Lithuania in early 1992 had only quantitative measures that were later abandoned in favor of import tariffs, and Hungary had a system where import tariffs and quotas as well as export subsidies and licensing were simultaneously used until the Uruguay Round Agreement eliminated the quantitative trade restrictions.

Domestic support programs of various kinds have been introduced in most transition economies of Europe, mostly on an ad hoc basis. There is not yet a well established consensus on domestic support mechanisms and levels in any of these countries. Where domestic support programs exist, there is little or no consistency between domestic price supports and border measures. In most cases, border measures are likely to have more influence on internal food and agricultural prices than any domestic price supports.

This paper examines two countries that have domestic price support legislation. Hungary has a more comprehensive law, and its programs have been operating longer than the Lithuanian price support programs. These two cases are described and compared, where possible, with price support measures in Organization for Economic Cooperation and Development (OECD) countries. The potential impacts of these price policies are examined in the context of other policies that affect food and agricultural products. Following the policy discussion, we review price relationships that put these support programs in context.

### Hungarian Price Policies

The law of market regulation in Hungary is the Agro-industrial Regime Act (ARA), enacted in February 1993 and implemented on March 1, 1993. It provides a broad set of measures and policy instruments for market regulation by the government. The law is designed to emulate the regulation methods and instruments of the EU Common Agricultural Policy (CAP) prior to CAP reform and was intended to ease the integration with the EU if and when Hungary is accepted for membership. Since everyone recognized that any membership decision is many years away and Hungary does not have the financial resources to actually implement EU support levels, the policy instruments are being used to implement policies that are less protectionist and less costly than those of the EU.

The ARA established new institutional arrangements for managing the regulation programs. An Office of Agricultural Market Regime was set up directly under the Minister of Agriculture to manage implementation of the regulations. An Interministerial Committee replaces the former Agricultural Market Rules Coordinating Committee (AMRCC) and includes representatives from the same Ministries (Agriculture, Finance, Industry and Commerce, International Economic Relations) but not from the Competition Office. The Interministerial Committee is chaired by the Agriculture Ministry member.

In general, domestic market support policies have followed market-oriented objectives and can be represented to protect against regional price variation (Figure 1), seasonal price variation (Figure 2), and annual price variation (Figure 3).

These figures represent the effect of price supports under different conditions. In high price years, no intervention would be needed or provided, while in low price years some intervention would

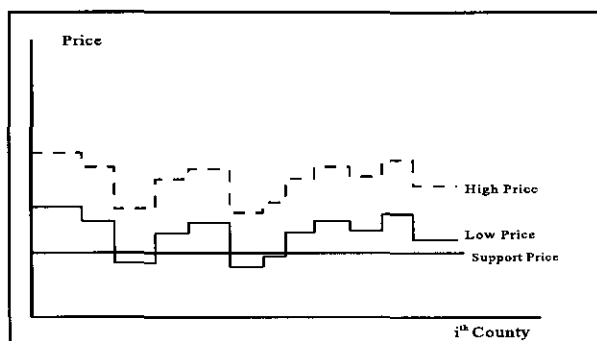


Figure 1. County price variation

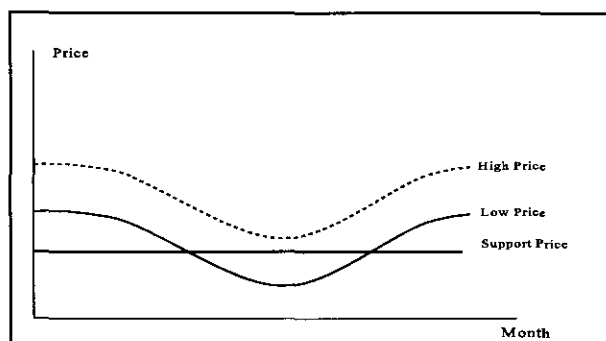


Figure 2. Seasonal price variation

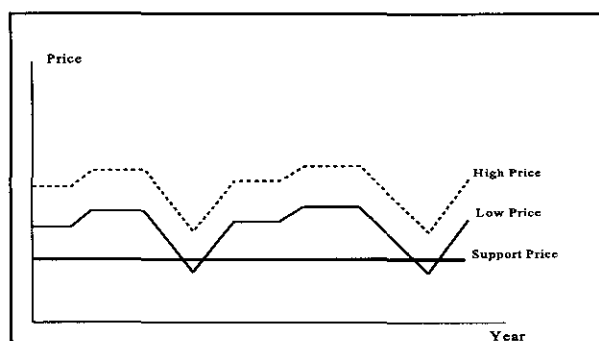


Figure 3. Annual price variation

occur in selected regions or time periods. Between these extremes there may be limited intervention. However, if the support price were set too high in any of these cases, intervention would be continuous rather than sporadic, and market price and income would be supported above the market equilibrium level.

Some intervention began in 1993, but the programs for “directly supported commodities” (food wheat, feed maize, beef, pork, and milk) were not fully operational until 1994. The design and operation of intervention differs across commodities, and some are more market-oriented than others.

Food wheat and feed maize have intervention prices that have been set below the average domestic market prices (Table 1). Intervention quantities are to be no more than 2.4 mt/ha for wheat (out of expected average yield of 4.0) and 3.2 mt/ha for maize (out of average expected yield of 4.2) based on proven seeded area for each farm recorded by the county office. These provisions should be formally announced before planting, and intervention buying could occur from July 1 to May 31 for wheat and November 1 to May 31 for corn. Since no system of intervention buying existed when this program was initiated, it was planned that the government would buy the grain through contracts with elevators and grain processors and then sell it to millers or feed mix enterprises on the domestic market or to traders for export. In reality, it has not been necessary to exercise this intervention.

Table 1. Market and intervention prices in Hungary

Products	1994 Market price	1994 Price guarantee	1995 Market price	1995 Price guarantee
(Forints per metric ton)				
Wheat	9,300	8,200	10,900	8,800
Maize	9,900	8,500	12,300	9,600
Cattle	111,300	90,000-110,000	151,300	100,000-130,000
Pigs	117,200	82,000-98,000	168,200	91,000-113,000
Milk	24,280	23,000-25,000	29,600	28,000-30,000

The guaranteed price for pigs was specified by quality and ranged from Ft 82/kg to Ft 98/kg liveweight in 1994 and from Ft 90/kg to Ft 113/kg in 1995. Compared with market prices, these levels are below the average market price but not necessarily below prices all year in all locations. Intervention buying for pigs is to occur if producers sign contracts offering to sell the government 2 percent or more of pig numbers in a county, which would imply they could not sell them at an equal or better price to the slaughter houses. The government made a contract with three of the farm organizations (Farmers Circle, Peasants Association, and National Federation of Agricultural Cooperatives and Producers–MOSZ) in Hungary to monitor these conditions in each county. This is called the “signal system.” The counties were

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divided among the farm organizations, and they received a one-time payment of Ft 4,400 per village to organize and operate the system with a monitor in each village. If the trigger level for intervention (2 percent) is reached in any county, the responsible organization reports to the Market Regime Office in Budapest, and the Interministerial Committee makes the decision to buy or not.

The cattle market intervention is very similar to that for pigs. The guaranteed prices, specified by quality, ranged from Ft 90/kg to Ft 110/kg in 1994 and Ft 100/kg to Ft 130/kg in 1995. Compared with market prices, these levels were below average market prices but not necessarily below prices all year in all locations. The intervention mechanism is similar to that for pigs, but the trigger level is 500 head of cattle offered for sale in any county. If intervention would occur for either pigs or cattle, the government would contract with meat plants to buy, slaughter, and store the meat for a specified fee. The rules for disposal of this meat were not specified.

The dairy support scheme, which actually started in 1993, is quite different from the others and is one of continuous rather than periodic support. Dairy plants were paid a subsidy if they purchased first class and extra class milk for the specified minimum prices. The subsidy to the processor was Ft 1.0/l for first class and Ft 1.5/l for extra class milk. If all milk passed through this price support system, it would cost about Ft 1.5 billion in a normal year. In this program, the government never would take ownership of the commodity. It is not clear what the comparison to market price reveals in this case, since continuous intervention of this type could have more influence on price than the other schemes. However, the average market price is above the class 1 support price, so one could also wonder if the processors would pay a similar price without the incentive of the subsidy.

The expenditure on market support operations for 1993 was Ft 2.4 million (mostly for milk) and increased to Ft 6.7 million in 1994. This expenditure was 4.2 percent of the total agricultural support budget in 1993 and 9.4 percent in 1994. By far the largest item in the agricultural support budget was export subsidies, which exceeded 50 percent in both years. Total support expenditures were about 28 percent of agricultural GDP and 1.7 to 1.8 percent of total GDP in 1993 and 1994.

Except for milk, the support programs have the appearance of EU-type market intervention programs. However, the government has kept intervention levels low enough that if any intervention occurred, it would be sporadic and localized and would have little or no effect on market prices. Before 1995, the intervention price effect for wheat and corn was further reduced by the fact that government intervention only took effect three months after harvest. This was of less value to farmers that had no storage or financial resources to delay the sale of the crop. Despite the terminology and operational differences, this program actually is philosophically more similar to the U.S. price support loan program, which provides a relatively low safety net at relatively little cost.

Given the low levels of price supports in Hungary and the pervasive use of export subsidies for meat and dairy products (50 percent of total agricultural subsidy expenditures in 1993), it is almost certain that export subsidies have a greater price enhancement effect than do the domestic intervention prices. As already noted, export subsidy levels are not in any way linked to the domestic price support levels. In this respect they are more like the U.S. wheat export subsidies than the EU export restitutions. However, it is possible that the price-enhancing effects of export subsidies have reduced the frequency and cost of domestic intervention. The scheduled and continuous devaluation of the Hungarian forint since 1994 has had and will continue to have similar effects and should create an opportunity for Hungary to reduce export subsidies without losing competitiveness.

Hungary also has a schedule of import tariffs that was revised in compliance with the 1995 Uruguay Round commitments. Since neither import tariffs nor export subsidies have been linked to domestic support prices, they will not automatically be consistent. In fact, inconsistencies are apparent for some key products in 1994 (Table 2), but the new in-quota tariffs for meat have been brought closer to export subsidy rates. The out-of-quota bound rates are so high that they prevent imports above quota levels. In cases where import tariffs are above export subsidy rates (such as butter and cheese), this could have an added influence on domestic prices.

Table 2. Selected Hungarian export subsidies and import tariffs

Product	1994		1995	
	Export subsidy	Import tariff	In-quota tariff	Bound tariff
	(Percent)			
Beef	30	15	25	112
Pork	30	15	25	61
Chicken	30	20	35	61
Butter	10	60	60	159
Cheese	30	25	50	105

### Lithuanian Price Policies

In late 1994 the parliament (Seimas) adopted the Law on Government Regulation of Economic Relations in Agriculture, which included provisions for "minimum marginal purchase prices" and subsidies for producers. Under this law the government issued Resolution #230 on February 10, 1995, to establish subsidies of Lt 700/mt for highest and medium grade cattle and Lt 70/mt for highest, 1st, and 2nd grade milk. Each one of these subsidies applied to a specified quota, but the quotas were usually large

enough to cover all or most of normal eligible production that passed through processing plants. The Agricultural Procurement and Price Coordination Board (with representatives of producers, processors, and the government) at the Ministry of Agriculture suggested minimum farm price levels for the same products that should be “negotiated” between producers and processor associations. Subsequently, on May 3, 1995, Government Resolution #623 partially amended the previous resolution by splitting the milk subsidy between farm and processor levels. It was to be paid at the rate of Lt 30/mt to producers and Lt 40/mt to processors for storage and related expenses that would promote quality and improve marketing of butter, cheese, and canned milk.

Beginning on February 15, the minimum farm price and subsidy for cattle were implemented. On May 1 similar but more complex mechanisms were implemented for milk and dairy products to continue until October 1, when they were revised upward. Financial resources of Lt 110 million were designated for these programs from the already existing National Agricultural Development Program (NADP) fund, which was allocated Lt 332.5 million in the 1995 budget. The NADP fund was 64.9 percent of the total agricultural budget. The total agricultural budget for 1995 was approximately 9.0 percent of the total state budget, 25 percent of agricultural gross domestic product (GDP), and 2.5 percent of national GDP. Actual expenditures on the cattle and dairy subsidies could be less than the designated amount but could not exceed Lt 110 million in this budget year. The total milk and dairy product subsidy was divided in the following manner: the cattle subsidy allocation was Lt 60 million and the dairy subsidy allocation of Lt 50 million was divided between farmers (Lt 21 million) and processors (Lt 29 million).

Under this program, subsidies were paid to farmers through the processors in order to reduce paperwork that would be involved in dealing with individual farmers. Processors could receive and pay subsidies to their farm suppliers provided that they paid farm suppliers at least the minimum price specified by the purchase contracts. With the declining levels of production and substantial excess processing capacity, processors wanted to keep volumes from declining further. This competitive pressure was virtually the only incentive that processors had to pay the minimum prices, since there were no legal penalties that the government could assess if they failed to do so. Moreover, the government had no institutional mechanisms to implement a minimum farm price, so it tried to achieve this through the processors.

In July 1995, another set of minimum price and subsidy levels took effect for pigs and the 1995 harvest of most crops (Table 3). These subsidies were also paid from the NADP fund. Subsidies were paid on production of rye, buckwheat, and rapeseed but not for other crops or pigs. Storage and export subsidies for pork were also introduced in mid-summer for a short period of time.



Table 3. Minimum marginal purchase prices and subsidies for Lithuania

Product	Minimum price	Subsidy	Total <sup>a</sup>	1995 Market price
(Litas per metric ton)				
February 1995				
Cattle				2,386
highest grade	2,200-3,000	700	2,900-3,700	
medium grade	2,100	700	2,800	
May 1995				482
Milk <sup>b</sup>				
highest quality	500/570 <sup>b</sup>	30/50 <sup>b</sup>	530/620 <sup>b</sup>	
1st category	450/550 <sup>b</sup>	30/50 <sup>b</sup>	480/600 <sup>b</sup>	
2nd category	400/520 <sup>b</sup>	30/50 <sup>b</sup>	430/570 <sup>b</sup>	
July 1995				
Pigs	3,900-4,000	0	3,900-4,000	4,406
Food wheat				480
highest quality	500	0	500	
average quality	400	0	400	
Rye	350	50	400	
Barley	350	0	350	
brewing	400	0	400	
Feed beans	600	0	600	
Peas and feed peas	700	0	700	
Buckwheat	1,000	500	1,500	
Rapeseed				885
1st grade	750	200	950	
2nd grade	650	150	800	
Sugar beet	165	0	165	174

<sup>a</sup>Excluding VAT.

<sup>b</sup>Milk price and subsidy raised October 1, 1995.

Since the “minimum marginal purchase price” was intended as a floor price, this program could be compared with the intervention price system in the EU. However, the government had no intervention system and had to rely on processors of the raw materials to implement the minimum prices.

### Cattle Program

The subsidy paid for the higher grades of cattle sold to processors was Lt 700/mt for a quota of 85,000 mt (the estimated level of high- and medium-quality production for 1995 and about 55 percent of estimated total beef production). Under the implementation mechanism, the subsidy would not be paid on

any higher grade production above 85,000 mt. This quantity would cost Lt 59.5 million in subsidies, but the actual outlay in 1995 was Lt 49.6 million.

The minimum prices for all but the lowest categories were above the average market price for 1995, although the market price includes nearly half of production that is below medium grade. With the subsidy of Lt 700/mt added, the producers received substantially higher returns compared with 1995 prices.

The specified price spread between medium grade and highest grade in the program was Lt 900/mt compared with Lt 550/mt prior to this program. The stated purpose of the larger price spread was to encourage farmers to feed cattle to a higher slaughter weight and quality. Due in part to the high cost of production relative to cattle prices, the percentage of cattle slaughtered in the higher grades has declined from 79 percent in 1991 to 60 percent in 1993 and about 55 percent in 1994. Also, the average slaughter weight of cattle declined from 430 kg in 1991 to 387 kg in 1993 and 395 kg in 1994. Since it takes 18 months for a calf to reach the highest weight category, it will be some time before the success of this incentive can be evaluated.

Cattle (farm) and beef (retail) prices increased more rapidly in 1995 than in 1994. Farm and retail prices increased by 11 and 15 percent, respectively, from January 1994 to January 1995, while general price inflation measured by the CPI was 46 percent. However, from the first quarter of 1995 to the first quarter of 1996, cattle and beef price increases were 40 and 45 percent, respectively, while the inflation rate was 31 percent. During the same period, farm hog prices increased by 30 percent and pork prices increased by 53 percent, although they were already substantially higher than cattle and beef, respectively.

It is quite likely that the minimum purchase price policy contributed to the livestock and meat price increases in 1995. However, lower cattle numbers, cattle slaughter, and beef production also were a significant contributing factor independent of the price policy. There do not appear to be any domestic demand or export demand factors that could explain this price strength, so the supply and minimum purchase price effects appear to be significant.

The impact on consumers or consumer prices is not likely to be very large. Even if beef retail prices are higher than they would have been without the program, beef is normally less than 10 percent of total meat expenditures and beef sausages at most another 25 percent; poultry prices were stable or declining in real terms, and beef retail prices were still less than pork and only slightly above poultry prices. The danger was that this consumption effect would exacerbate the market disequilibrium in beef. That is, minimum farm prices were putting upward pressure on farm purchase prices and on supply of beef, while increases in the ratio of beef to poultry prices at the retail level depressed demand. With little opportunity to export, domestic surpluses would be expected to increase.

Exports of beef products declined by about 45 percent from 1993 to 1994, but the average price of exported meat increased by nearly 40 percent according to customs data. The higher prices of cattle and beef in Lithuania in 1995 will make these products less competitive on the export market at the same time that increased production is likely to be stimulated. The live cattle exports in 1994 represented about 9 percent of the cattle herd on January 1, 1994, and contributed significantly to the reduced herd size in 1995. If such live cattle exports continue, it would reduce the potential for domestic beef surpluses. However, live cattle exports in 1994 were strongly influenced by the drought and delayed payments to farmers, which were not as severe in 1995; and improved producer returns from this program are also likely to reduce incentives to export live animals. Since there was significant concern that exported cattle were reducing the quality of the domestic breeding herd, a slowing of these exports could be considered beneficial to improving the quality of beef production.

It would reduce potential distortions of this program if the minimum purchase prices were held constant in nominal terms and the subsidy were applied to a more limited quantity. A constant nominal price floor would soon become a safety net rather than an actual market price determinant. If the subsidy coverage were limited by reducing the quantity it covers, it is more likely that marginal units of production would be produced for market prices rather than for the subsidy.

### **Dairy Program**

The subsidy paid to milk producers was Lt 30/mt for a quota of 700,000 mt, which was an estimate of production for the high production period from May 1 to October 1, 1995. This gave the estimated cost of Lt 21 million for the farm milk subsidy program. However, the subsidy was increased to Lt 50/mt on October 1, and the actual dairy subsidies to farmers were Lt 33.3 million for the year. Unlike for cattle, the subsidy was paid on all production not only on the highest quality.

The schedule of minimum farm prices at the beginning of this program was Lt 500/mt for the highest quality, Lt 450/mt for the 1st category, and Lt 400/mt for the 2nd category. Given the distribution of production among these grades of milk in 1995, the imputed average price of all milk would be Lt 420/mt. After the minimum purchase prices were raised on October 1, 1995, this imputed average became Lt 530/mt. This abrupt increase of about 25 percent in minimum purchase prices had a disrupting effect on the market, since normal winter price increases would tend to occur more gradually. The actual average price for the year was Lt 482/mt.

It is clear that the milk price increases that occurred in the winter of 1994-95 were caused by a decline in milk supply rather than the new price policies, which took effect in May 1995. It is difficult to

tell if the minimum prices had any effect on average prices in 1995, but if it did, it was not very large. Regardless of price, producers did receive a higher return as a result of the subsidy. This subsidy, however, was only 6 to 7 percent of the milk price, which is much smaller in relative magnitude than the cattle subsidy and less likely to have major supply effects.

For 1995, the dairy program also had storage and export subsidies for processors, which were allocated up to Lt 29 million of the program funds. The purpose of this program was to encourage processors to hold butter and canned milk for up to six months and fermented cheese for up to 1.5 months in storage during the high production season in the hope that it could be marketed at a higher price later. If the stored commodity could be exported before the maximum storage period expired, the processor received an additional subsidy. The quotas for both storage and export subsidies were 4,500 mt for cheese, 12,000 mt for butter, and 12 million standard tins for canned milk. If the total quota amount was stored but none was exported, the subsidy cost would be Lt 22.5 million. If all the quota amounts were exported within the allotted time, the subsidy cost would be Lt 29 million.

If butter, for example, were stored for four months (collecting Lt 760/mt) and was then exported, this amount already collected for storage would be deducted from the export subsidy payment of Lt 1,440/mt. Thus, the export subsidy was the maximum amount that could be paid to processors on the quota. Collection of the storage subsidy was based on documents presented to the Ministry of Agriculture showing the beginning and ending stock levels. The Ministry estimated the average stored quantity as the average of the two numbers. Collection of the export subsidy required documents showing the export customs declaration.

Potential market impacts of the minimum farm milk prices and subsidies up to September 1995 were likely to be smaller than for cattle and beef. First, most or all of the price impacts up to that time were the result of reduced supply rather than these programs. Second, the farm subsidy was much smaller as a percentage of farm price than was the case for cattle. However, in the case of dairy markets there was also the effect of the storage and export subsidies to processors. This would have strengthened domestic butter and fermented cheese prices as exports competed with the domestic market for available supplies. The quotas on export subsidies were substantially below export levels of 1994, but lower production in 1995 implied lower export supplies also. The export subsidy provided a significant incentive to export at least the subsidized (quota) amount of butter and fermented cheese. Very little of the canned milk is normally sold domestically, so these export subsidies probably had less of an impact.

The price differentials among classes were about the same for the minimum farm prices as they were before, so there was no added incentive for farmers to supply processors with higher quality milk.

The portion of farm milk supply that was classified as highest or first grade declined from 78 percent in 1990 to 30 percent in 1993 and 20 percent in 1994, which had a direct effect on the average price farmers received. This decline was associated not so much with a decline in quality of milk produced as with the preservation of quality in the handling and collection of fluid milk that deteriorated with the widening dispersion of production in very small farms. This program is not likely to have any effect on this aspect of the dairy production and distribution system.

### **Other Domestic Programs**

The minimum farm prices announced for pigs were below average market prices for 1995. The export subsidies were Lt 1,500/mt carcass weight for processors and Lt 800/mt liveweight for live exports by production enterprises. As with dairy products, the export subsidies could have had more influence on domestic prices than the minimum prices.

The minimum prices for wheat, barley, and sugar beets (Table 3) were all higher than the average market prices for the 1994 crop season, but average prices for the 1995 crops were slightly above minimum price levels. These were implemented through the processors as with cattle and milk. However, only rye, buckwheat, and rapeseed also had producer subsidies, so this “carrot” to get processor cooperation would not operate for most crops. Perhaps the government relied on the “bully pulpit” method to gain compliance. In most cases the minimum prices were still below world prices, so these levels were not likely to drive processors to imported raw materials. Sugar beet was the exception, but here the processors have import tariff protection for refined sugar. Up until late September there was a 70 percent tariff on sugar imports. Under agreement with IMF it was reduced to 35 percent but not less than Lt 0.75/kg (about 60 percent ad valorem equivalent). With the world price of sugar at about \$310/mt, imported sugar with tariff and delivery would be about Lt 2.5/kg in the domestic market. That price gave processors adequate returns with beet prices at Lt 165/mt.

In late 1995 the government introduced a food stocks program under which the government bought specified quantities of butter, pork, and beef at specified prices and paid processors Lt 190/mt in monthly cold storage fees. It was not clear what rules, if any, were established for turnover or sale of these stocks, so it was difficult to know if these were designed as strategic food reserves or as stabilization stocks.

### **Border Measures**

As noted with the dairy program for 1995, there were limited export subsidies for butter, cheese, and canned milk. There also was an export subsidy for pork and ad hoc export restrictions for a few

products. However, export measures were sporadic and less important than import measures. As with Hungary, the import tariffs are not determined by domestic price support levels but are designed nonetheless to protect the domestic market. One could observe that these tariff rates are determined by a combination of domestic and international political pressures. A small basket of goods has been targeted by the International Monetary Fund (IMF) for tariff reductions in negotiations with the Lithuanian government. In October 1995 these were reduced from an average of 35.2 percent to an average of 27.5 percent (Table 4).

Table 4. Lithuanian tariff rates on key products

Product	Tariff prior to October 1995	Tariff after October 1995
	(Percent)	
Sausage	15	14
Meat	30	30
Milk products	30	20
Butter	50	45
Sugar	70	35 <sup>a</sup>
Eggs	35	30
Potatoes	25	20
Poultry	25	25
Average tariff	35.2	27.5

<sup>a</sup>But not less than Lt 0.75/kg.

Lithuania, as many other countries with fledgling customs services, has had difficulty dealing with undervaluation of imported goods. To help control this problem, the government introduced a system of threshold prices in the 1994 law. However, these instruments were never implemented. It is not clear how these would be set, and they would be unlikely to survive negotiations with the World Trade Organization (WTO) on accession in any case. Moreover, the implementation mechanisms would be very costly and would require additional institutional development and personnel training.

### **Market Price Comparisons**

Cross-country price comparisons have many pitfalls, but we believe some insights can be gained if the caveats are recognized. Some important differences are differences in quality of the data, in product quality, in transportation and handling costs to the major markets, and in whether a country is mainly an importer or exporter of the product. We compare producer prices for Hungarian and Lithuanian wheat, barley, cattle, pigs, and chickens to producer prices in the United States. For these products, the U.S.

market is relatively free of price distortions and is closely linked to world market conditions. For milk, we use Australian farm price as the comparison, since U.S. milk prices are enhanced by means of government intervention. For retail meat prices we compare Hungary and Lithuania to the United States. We used annual average prices for simplicity, but recognize that price movements within the year could be quite different in each country.

While Lithuanian wheat and barley prices converged on U.S. prices by 1995 (Table 5), Hungarian domestic currency prices were rising but were offset in 1994 and 1995 by depreciation of the Forint. Grain prices in all three countries rose substantially in 1996 due to reduced supplies in the world market.

Lithuanian pig prices have risen above those in the United States since 1994. Hungarian prices

Table 5. Comparison of farm prices in Lithuania, Hungary, and selected countries

	1992	1993	1994	1995	1996
	(U.S. dollars per metric ton)				
<b>Cattle</b>					
United States	1661.0	1682.0	1517.0	1460.0	1436.0
Lithuania	173.8	382.2	447.7	538.0	695.0
Hungary	883.7	892.0	1058.4	1203.8	1022.0
<b>Pigs</b>					
United States	949.0	1016.0	884.0	933.0	1176.0
Lithuania	302.8	670.1	995.0	1032.6	1311.8
Hungary	1011.5	971.4	1114.5	1338.3	1039.0
<b>Poultry</b>					
United States	1160.0	1217.0	1228.0	1243.0	1351.0
Lithuania	171.1	477.2	1025.0	1115.0	137.0
Hungary	931.8	938.7	1047.0	986.6	226.0
<b>Milk</b>					
Australia	203.1	180.2	204.3	231.9	224.6
Lithuania	46.1	71.2	75.0	120.0	137.0
Hungary	210.6	209.1	230.9	235.5	226.0
<b>Wheat</b>					
United States	110.2	119.0	119.8	126.8	167.2
Lithuania	48.6	71.4	74.3	120.0	174.5
Hungary	86.3	102.2	88.4	86.7	159.2
<b>Barley</b>					
United States	96.4	93.7	93.2	93.2	132.7
Lithuania	42.1	59.7	54.8	90.0	150.0 <sup>a</sup>
Hungary	79.8	88.1	80.8	73.2	151.3

<sup>a</sup>Minimum marginal price at mid-year.

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surpassed U.S. prices in 1994 and 1995, possibly as a result of export subsidies. Lithuanian chicken prices reached U.S. levels by 1996 and exceeded Hungarian prices in 1995 and 1996. For cattle, Hungarian prices are still significantly below the United States and Lithuanian prices are well below Hungarian prices. Here is where quality may play a large role, especially for cattle, since U.S. prices are for fed beef cattle and not for dual purpose cattle. Hungarian milk prices have tracked Australian milk and some years were higher, but Lithuanian prices are far lower despite substantial increases since 1992.

At the retail level, chicken meat prices in Hungary and Lithuania were rather similar to U.S. whole, fresh prices by 1995, but are well below U.S. composite poultry prices, which include higher priced cuts (Table 6). Hungarian pork and beef prices are below but slowly converging on U.S. prices, while Lithuanian pork and beef retail prices still remain far below those in the United States.

Table 6. Comparison of retail prices in Lithuania, Hungary, and the United States

	1992	1993	1994	1995	1996
	(U.S. dollars per kilogram)				
Beef					
United States	6.28	6.46	6.24	6.15	6.18
Lithuania	0.53	1.37	1.61	2.09	2.49
Hungary	4.03	3.84	4.57	5.46	5.84
Pork					
United States	4.37	4.37	4.37	4.39	4.87
Lithuania	0.65	1.46	1.74	2.28	2.98
Hungary	3.47	3.31	3.66	3.81	3.89
Chicken					
United States, composite <sup>a</sup>	3.13	3.18	3.20	3.17	3.46
United States, whole <sup>a</sup>	1.92	1.83	1.99	1.90	2.08
Lithuania	0.54	1.13	1.62	1.87	2.29
Hungary	1.94	2.07	2.32	2.33	2.75

<sup>a</sup>“Composite” is an average of all cuts, while “whole” is whole fresh chicken.

This is only a limited set of comparisons but they indicate that neither Hungary nor Lithuania is well integrated with the world market. Hungary should be and is further along in developing trade institutions and business relationships that link domestic and external markets. But the weak price transmission behavior that is evident in these price comparisons suggests that still more time is needed for these linkages to mature and for the efficiency of marketing channels to improve.



### **Conclusions**

Hungary and Lithuania are at somewhat different stages of market and policy development. Both have borrowed some concepts of price policy from the EU and other OECD countries, but the various policy instruments are not yet linked together in a consistent policy framework. Hungary has been fairly consistent in following a low safety net approach for domestic price supports, but import tariffs and export subsidies have been inconsistent with the relatively low domestic price levels. Lithuania seemed to be setting minimum prices that would raise domestic price levels with the objective of increasing producer incomes. If they would be set too high relative to market clearing levels, it would be difficult to manage without a government intervention purchasing system. Lithuanian import tariffs are also designed to protect domestic producers, but, other than sugar, these have not been linked to domestic minimum price levels.

The basic legislation in both countries allows substantial latitude for the government to set measures and levels of support. This is probably a political necessity at the early stages of policy development. However, this results in a large degree of uncertainty for private decision makers, since there is no assurance that government decisions will be consistent from year to year. Both countries would benefit by developing a more comprehensive agricultural policy law that would set a policy framework for four or five years. If this succeeded and were sufficiently complete, it would provide a more stable decision environment for production and investment decisions that producers, processors, and traders need to make. This is no easy task, but it is the kind of policy development that needs to take place in all the transition economies of Europe.