Journal of Rural Development 21 (Winter 1998) : 115~128

EFFECTIVE PROTECTION RATES OF FOOD AND AGRICULTURAL PRODUCTS IN KOREA

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I. Introduction

As trade liberalization proceeds along with abolishment of quantitative restrictions, tariff policy becomes more important as an economic policy instrument. The effects of tariff are very complicated and diverse. Imposition of tariff affects resource allocation, production, pattern of consumption, government revenue, balance of payment, income redistribution, and competitiveness. Traditionally the policy instrument of tariff has been identified with the target of protection or competitiveness. This paper will be focused on the perspective of protective effects of tariff in the sense of positive economics i.e. whether protection is desirable or not.

Korean tariff policy has moved in the direction of lowering tariffs and uniform rate of tariffs. There have been tariff rate or tariff system changes seventeen times since 1949. The uniform tariff rate system has been implemented since 1984. The Korean government implemented the "five-year tariff rate preannouncement system" in 1983. The government has applied the preannouncement system twice, during the 1984-88 and 1989-93 periods. During the 1984-88 period, tariff rates for most items were converged to the center tariff rate of 15 percent in terms of "general tariffs". The korean government further lowered tariffs and intensified the uniform tariff

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system during the 1989-93 period. Korea maintains the uniform tariff rate system and the center tariff rate of 8 percent.

The trend of lowering tariffs has not allowed significant exceptions. However, there have been minor exceptions in the uniform tariff rate system. Tariffs imposed on agricultural products can be considered as representatives among the exceptions. Agricultural tariff policy was influenced by both economic and non-economic factors. Major factors affecting tariff policy on agricultural products are food security, farm income, and the long term goal of tariff policy. As a result of exceptional treatment of agricultural products in tariff policy, agricultural products, in general, could maintain relatively high tariff rates.

The food processing industry, on the other hand, has been treated as a manufacturing industry and the strict guideline of lowering tariffs and uniform tariff system have been applied therefore. Processed food can be classified into several categories, e.g. from a simple processing like pickling, drying, mixing and chopping to a high level of processing like confectionary, brewing, and canning. Most highly processed agricultural products are subject to the center tariff rate of 8 percent. As a result, there have been arguments on whether Korean processed food industry faces negative or very low effective rates of protection (ERPs). In this case, tariffs imposed on the final good is lower than those on intermediates, i.e. tariff deescalation or reverse tariff escalation. If the food processing industry is exposed to deescalation of tariffs, the industry suffers disadvantages from the tariff system which is designed to protect industries.

Objectives of this study are to estimate effective rates of protection by industry and to identify tariff escalation or deescalation in the agricultural and food sectors. Methodology for measuring ERPs is also reviewed extensively focusing on the treatment of nontradable intermediates and nominal rates of protection.

II. Methodology and Data

1. Concepts of ERP

There exist many difficulties whether some industries or products encounter tariff escalation judging by nominal tariff rates when those industries produce final products utilizing many intermediates which are themselves traded and subject to various tariffs. In order to cope with these difficulties, the concept of effective rates of protection has been developed. Nominal rates of protection for a certain product imply the difference between domestic and international prices. When we assume that there exists tariff barrier only and no non-tariff barriers, nominal rates of protection are equal to tariff rates. However, nominal protection rates are not an exact measure of real protection when intermediates are used and subject to various tariffs to produce a final good. Imposing tariffs on intermediates raises production costs and thus reduce protection effects for final goods using the intermediates.

In a real world, there exist many non-tariff barriers. Therefore, nominal protection rates need to be estimated considering the existence of various non-tariff barriers such as tariff quota, import license, administrative barriers, etc. Alternatives of the nominal protection rate are the difference of internal and external prices, general tariffs, concessional tariffs, and the ratio of tariff revenue to total imports(outcome tariffs hereafter). Outcome tariffs are applied to estimate ERPs because this figure represents average tariff rate of imported agricultural and food items in this study.

Effective rates of protection imply the change of value added due to the imposition of tariffs. Value added at international price can be written as follows.

$$(1)\quad VA_j^* = \frac{1}{Q_j^*}(Q_j^* P_j^* - \sum_i Q_{ij}^* P_i^*)$$
$$= P_j^*[1 - \sum_i \frac{Q_{ij}^* P_i^*}{Q_j^* P_j^*}]$$
$$= P_j^*(1 - \sum_i a_{ij}^*), \qquad i, j = 1, 2, \cdots, K.$$

Where, VA = value added, * = before the imposition of tariffs or evaluated at international price, Q_j^* = output of commodity j, P_i^*, P_j^* = price of commodity i and j respectively, Q_{ij}^* = quantity of input i to produce Q_j^*, a_{ij}^* = cost of input i to produce one unit of output j, and k = number of commodities traded.

Value added for good j at domestic prices represents value added with the imposition of tariff because domestic price includes both tariffs and external prices. When we assume that the input-output system does not change, we can write $Q_{ij} / Q_j = Q^*_{ij} / Q^*_j$ and $P_j = P^*_j(1+t_j)$. Therefore, value added of the output j after tariff imposition, which is VA, can be read as follows.

$$
\begin{aligned}
(2)\quad VA_j &= \frac{1}{Q_j}(Q_jP_j - \sum_i Q_{ij}P_i) \\
&= P_j\,[1-\sum_i \frac{Q_{ij}P_i}{Q_jP_j}] \\
&= P^*_j\,(1+t_j)[1-\sum_i \frac{Q^*_{ij}P^*_i(1+t_i)}{Q^*_jP^*_j(1+t_j)}] \\
&= P^*_j\,(1+t_j - \sum_i a^*_{ij}(1+t_i)), \qquad i, j = 1, 2, \cdots, K.
\end{aligned}
$$

Where, t_i, t_j = ad valorem tariff rate or nominal rate of protection of good i and j respectively.

From the equation (1) and (2), effective rate of protection of good j, Z_j, can be written as equation (3).

$$
\begin{aligned}
(3)\quad z_j &= \frac{P^*_i(1+t_j - \sum_i a^*_{ij}(1+t_i))}{P^*_j(1-\sum_i a^*_{ij})} - 1 \\
&= \frac{t_j - \sum_i a^*_{ij}\,t_i}{1-\sum_i a^*_{ij}}
\end{aligned}
$$

2. Treatment of Nontradable Intermediates[1]

All the intermediates are assumed to be tradables in equation (3). However, there exist many nontradable intermediates in the real world. When we take nontradable intermediates into account, equation (3) becomes much more complicated. Measurement of ERPs considering nontradable intermediates can be divided into two methods, Corden and Balassa method. Major difference between the two methods comes from the definition and calculation of value added.

The Balassa method confines value added of one product to the

[1] This part is depened on Balassa(1965; 1971), Corden(1971), and Yoo et al.(1993).

product itself by removing the value added of nontradable intermediates from the value added of the final good. On the other hand, the Corden method allows to include the value added of nontradable intermediates into the value added of the final good. Therefore, value added in the Balassa method tends to be smaller than that of the Corden method.

In order to derive Corden's effective rate of protection, we need to define value added first. Value added under domestic price implies value added with tariffs.

$$(4)\quad VA_j^c = \frac{1}{Q_j}(Q_jP_j - \sum_i^K Q_{ij}P_i - \sum_{m=K+1}^{K+N}\sum_i \frac{Y_{im}}{Q_m}\cdot Q_{mj}\cdot P_i)$$
$$= P_j - \sum_i \frac{Q_{ij}}{Q_j}P_i - \sum_m\sum_i \frac{Y_{im}}{Q_m}\cdot\frac{Q_{mj}}{Q_j}\cdot P_i$$
$$= P_j\,[1 - \sum_i \frac{Q_{ij}P_i}{Q_jP_j} - \sum_m\sum_i \frac{Y_{im}P_i}{Q_mP_m}\cdot\frac{Q_{mj}P_m}{Q_jP_j}]$$

Where, VA_j^c = value added for good j in Corden method, P_i = domestic price for good i, Y_{im}/Q_m = quantity of tradable good i to produce one unit of nontradable good m, $Y_{im}/Q_m \cdot Q_{mj}$ = quantity of tradable good i to produce tradable good j through nontardable good m

In equation (4), the third term in parenthesis explains how nontradable intermediates are treated and included as a part of value added in the final good. Equation (4) can be expressed as equation (5) utilizing input-output coefficients.

$$(5)\quad VA_j^c = P_j\,(1 - \sum_i a_{ij} - \sum_m\sum_i r_{im}a_{mj})$$

Where, $Q_{ij}\,P_i\,/Q_j\,P_j = a_{ij}$, $\quad Y_{im}\,P_i\,/Q_m\,P_m = r_{im}$, $\quad Q_{mj}\,P_m\,/Q_j\,P_j = a_{mj}$

Input-output coefficients may change in the long run. However, we can assume they do not change whether tariffs are imposed or not in the short run. ERPs are evaluated by comparing value added with tariffs to value added without tariffs. When we express * as a situation without tariffs, and assume fixed input-output coefficients and $P_i = P_i^*(1+t_i)$, we can derive Corden's value added with tariffs as in equation (6).

$$(6) \quad VA_j^{*C} = P_j^*[1-\sum_i \frac{Q_{ij}}{Q_j}\frac{P_i/(1+t_i)}{P_j/(1+t_j)} - \sum_m \sum_i \frac{Y_{im}}{Q_m}\frac{P_i/(1+t_i)Q_{mj}P_m}{P_m Q_j P_j/(1+t_j)}]$$

$$= P_j^*[1-\sum_i a_{ij}\frac{1+t_j}{1+t_i} - \sum_m \sum_i r_{im}a_{mj}\frac{1+t_j}{1+t_i}]$$

From equation (5) and (6), Corden's effective rate of protection, z_j^c, is as follow.

$$(7) \quad 1+z_j^c = \frac{VA_j^c}{VA_j^{*c}}$$

$$= \frac{1-\sum_i a_{ij} - \sum_m \sum_i r_{im}a_{mj}}{\frac{1}{1+t_j} - \sum_i a_{ij}\frac{1}{1+t_i} - \sum_m \sum_i r_{im}a_{mj}\frac{1}{1+t_i}}$$

Balassa method assumes that only traded goods to produce nontraded intermediates of the final product give effects on increasing price of nontraded intermediates. In Balassa's method, protection or tariff imposition on a certain traded final good does not protect nontraded intermediates. Balassa's ERP can be derived through a similar way with Corden's. Balassa's ERP is as follows.[2]

$$(8) \quad 1+z_j^B = \frac{VA_j^B}{VA_j^{*B}}$$

$$= \frac{1-\sum_i a_{ij} - \sum_m a_{mj}}{\frac{1}{1+t_j} - \sum_i a_{ij}\frac{1}{1+t_i} - \sum_m \sum_i r_{im}a_{mj}\frac{1}{1+t_i} - \sum_m r_{vm}a_{mj}}$$

3. Data

In this study, input-output table for the year of 1995 is used to estimate ERPs. This study is confined to the agricultural and processed food sectors. Industry or product is classified through 402 by 402 input-output table which is the most detailed classification in 1995 input-output table. Outcome tariff is applied as nominal rates of protection.

Outcome tariffs, in general, were lower than general tariffs mainly because of tariff quota imports with low tariffs. There were

[2] Derivation of Balass's REP is in appendix.

some industries or products with 0% outcome tariffs such as paddy, beef cattle, and dairy cattle whose imports or tariffs were zero. We need to pay attention to the meaning of zero tariffs. Zero tariffs, in this case, do not mean free trade without tariffs but there exist nontariff barriers i.e. much higher protection. In this case, the evaluated ERPs for those products must be much higher. Therefore, the result of this study may under-evaluate ERPs for those products.

III. Effective Rates of Protection

1. Agricultural Sector

Effective rates of protection(ERPs) were estimated applying equations (3), (7), and (8) for agricultural and food products in order to evaluate the real protective effects of tariffs. We found consistency among the results of the three different methods and there was a tendency of high ERPs being measured by the traditional method and low ERPs by Balassa method. In the case of traditional method, ERPs were distributed from -14.4% to +51.1% in the agricultural sector. The range of ERP distribution is from -91.6% to +64.0% in Balassa method and from -8.1% to +56.1% in Corden method.

Products with low nominal protection rates, outcome tariffs in this study, have shown relatively low ERPs in the agricultural sector. Representative products of low ERPs are rice, barley, wheat, dairy cow and beef cattle. ERPs for final products become low if nominal protection rates for the final products are lower than those of intermediate goods. Outcome tariffs for beef cattle, rice and dairy cow, for example, were zero.

High ERPs have been found in meat, vegetables, fruits, oilseeds and tobacco industries whose outcome tariffs were also high. ERPs for the meat industry is relatively high when we consider the negative ERPs for live animal industries. This is due to the high tariffs for the final products(mainly beef and pork) and low tariffs for intermediates(feed grains). Outcome tariffs for high ERP products are 17.8% for vegetables, 40.0% for fruits, 15.3% for oilseeds, 19.3% for tobacco leaves and 18.3% for meats. On the other hand, outcome tariff for other grains(mostly feed grains) is 1.5%.

From the result of estimated ERPs, we can evaluate that tariff system for the agricultural sector overly tends to be tariff escalation. Some of the industries in agriculture such as grains and live animal encounter deescalation of tariffs in this study. However, this result comes mainly from the application of nominal protection rates to be very low, zero percent in many cases. When we consider high tariffs on out out-quota importation of grains and live animals, ERPs may increase significantly.

TABLE 1 ERPs* for Agricultural Products Measured from I-O Table, 1995

Unit: %

	ERP	ERP_C	ERP_B	Outcome Tariffs	General Tariffs
Paddy(unpolished)	-0.3	-0.4	-3.4	0	5.0
Rice	5.1	-0.01	-71.1	0.3	5.0
Barley(unpolished)	3.8	3.1	-0.5	3.3	5.0
Barley	34.2	19.8	2.6	6.2	5.0
Wheat	3.3	2.1	-5.4	2.8	5.0
Other Grains	1.3	0.9	-2.7	1.5	3.0
Vegetables	21.9	20.6	19.6	17.8	30.0
Fruits	51.1	50.2	64.0	40.0	50.0
Beans	7.7	7.2	5.6	6.6	30.0
Potatoes	10.0	6.6	4.4	8.7	30.0
Oilseeds	16.9	16.3	15.1	15.3	3.0~40.0
Medicine Herbs	6.3	5.9	4.5	5.8	8.0
Other Food Crops	3.4	3.1	0.8	3.1	n.a.
Fiber	3.8	3.6	2.1	3.6	n.a.
Tobacco Leaves	24.5	23.1	21.8	19.3	20.0
Flowers	12.0	10.2	5.1	9.5	8.0~25.0
Seeds and Plants	2.0	1.4	-6.6	1.9	0~8.0
Other non-food Crops	3.8	2.1	-12.8	2.2	n.a.
Meats	174.6	56.1	23.5	18.3	30~50
Dairy Cattle	-6.0	-4.2	-15.4	0	20.0
Beef Cattle	-14.4	-8.1	-91.6	0	20.0
Swine	-4.0	-1.9	-26.7	3.4	20.0
Poultry	7.4	3.2	-21.3	4.6	20.0

* ERP represents traditional method, ERP_C represents Corden method, and ERP_B represents Balassa method.

2. Food Sector

Consistency among the results of the three different methods has also been found in the food sector. There was also a tendency of high ERPs being measured by the traditional method and low ERPs by Balassa method. ERPs range from -22.0% to +231.2% in traditional method. The range of ERP distribution is from -36.2% to +261.9% in Balassa method and from -9.2 to +409.8 in Corden method.

Nominal protection rates were low for ice cream (0.9%), wheat flour (0.7%), sugar (2.3%), baked goods and cookies (2.1%) and sauces (2.1%). High nominal protection rates were found in milk products (47.9%), noodles (62.3%), processed products of vegetables and fruits (37.9%), and beverages (22.1%). ERPs tend to follow the pattern of nominal protection rates. Representative products with low ERPs or negative ERPs are ice cream, wheat flour, sugar, baked goods and cookies, sauces, and vegetable oil whose nominal protection rates are below 3%. High ERPs have been found in milk products, noodles, processed products of vegetables and fruits, ginseng products and beverage industries whose outcome tariffs are also high. Some of highly processed food items such as ice cream, bakery products, sauce, confectionary and vegetable oil have shown negative or very low ERPs.

High ERPs in noodle are due to imposition of high flexible tariffs on final products which are mainly imported from China. Dairy products are also protected highly through high tariffs on final products and low tariffs on intermediates, i.e. feed grains. Even though intermediates for processed products of vegetables have high nominal protection rates, high ERPs are maintained in the final good industries because other intermediates have much lower nominal protection rates than those of the final good.

Tariff system of the food processing industries are divided into two, tariff escalation and deescalation. Highly processed food or the industries where dependence of domestic agricultural products as intermediates is high encounter tariff deescalation. On the other hand, industries where dependence of imported raw agricultural products as intermediates is high encounter tariff escalation. Eleven out of 18 industries have lower ERPs than nominal protection rates in Balassa method.

TABLE 2 ERPs* for Processed Food Measured from I-O Table, 1995

Unit: %

	ERP	ERP_C	ERP_B	Outcome Tariffs	General Tariffs
Processed Meats	24.9	17.3	1.5	13.8	30.0
Milk	36.9	9.6	-36.2	8.3	40.0
Milk Products	164.0	97.7	119.9	47.9	40.0
Ice Creams	-22.0	-9.2	-31.0	0.9	8.0
Wheat Flour	-5.8	-3.7	-24.4	0.7	5.0
Sugar	-0.4	-0.7	-19.2	2.3	3.0
Starch	59.3	42.1	28.2	13.4	8.0
Baked goods and Biscuits	-3.7	-1.9	-20.8	2.1	8.0
Confectionary	5.9	4.4	-9.8	5.5	8.0
Noodles	231.2	409.8	261.9	62.3	8.0
Sauces	-4.9	-3.0	-18.6	2.1	8.0
Vegetable Oils	-1.1	-0.3	-19.0	4.5	8~40
Processed Products of Fruits and Vegetables	94.9	70.9	82.0	37.9	8~50
Coffee and Tea	8.9	6.1	-14.0	5.6	8~40
Ginseng Products	49.5	36.1	23.2	16.7	20.0
Nulook and Malt	46.1	44.1	39.1	13.2	8~30
Bean-Curd	12.8	9.2	-1.9	7.9	8.0
Beverage	47.6	36.4	22.1	24.5	8.0

* ERP represents traditional method, ERP_C represents Corden method, and ERP_B represents Balassa method.

IV. Conclusions

The major effects of tariffs are protective and revenue effects. The major goal of tariff policy is to protect industries and that goal can effectively be achieved by adopting the escalation system of tariffs. Tariff escalation implies that a relatively low tariff is imposed on inputs or factors of production and a relatively high tariff is applied to final goods. We call the opposite situation of tariff escalation reverse tariff escalation or deescalation of tariff. The basic idea of tariff escalation is that a government protects certain industry providing chances for an industry which can utilize factors of production at low costs by importing at low tariffs, and enhances price competitiveness by raising the price of imported competing goods.

It is found that products with higher nominal protection rates tend to maintain higher ERPs in this study. This implies that it may be more effective to raise tariff rates for outputs or final goods rather than to lower tariffs of intermediate goods in order to increase protective effects of tariffs. In practice, we may encounter difficulties in lowering tariffs of many intermediate goods to increase ERPs for an output than in raising tariffs of the output.

Very low or even negative ERPs are found in some of the agricultural and food sectors. In the agricultural sector, grain and live animal industries have negative ERPs. However, this is due to the application of zero outcome tariffs for those products. This does not imply free trade of the final products and low protection. We should consider nontariff barriers for those products. In the case of processed food, negative ERPs are found in ice cream, wheat flour, sugar, baked goods and cookies, sauces and vegetable oils. This can be evaluated that there exist tariff deescalation in some of the highly processed food industries. Some of the processed food industries are not protected by tariff policy but suffer from the policy.

Korean tariff policy needs to be changed to achieve the major goal of tariffs. The system of uniform rate of tariffs should be reexamined under the global trend of liberalization. One of the alternatives to uniform tariff system is tariff escalation system. Tariff rates for some processed food industries whose ERPs are negative or lower than outcome tariffs need to be escalated.

APPENDIX

Domestic price and international price of nontraded good *m* can be written as follows.

$$(1) \quad P_m = \sum_i \frac{Y_{im}}{Q_m} P_i + \frac{V_m}{Q_m} \qquad \text{(domestic price)}$$

$$(2) \quad P_m^* = \sum_i \frac{Y_{im}^*}{Q_m^*} P_i^* + \frac{V_m^*}{Q_m^*} \qquad \text{(international price)}$$

Where, Y_{im} = quantity of traded good *i* to produce nontraded good *m*, V_m = value added of nontraded good *m*, V_m/Q_m = unit value added of good *m*.

When we assume that $V_m/Q_m = V_m^*/Q_m^*$ and input-output coefficients are constant, we draw the equality of $Y_{im}^*/Q_m^* = Y_{im}/Q_m$. When we combine equation (1) and (2), the relationship between P_m^* and P_m is as equation (3).

$$(3) \quad P_m^* = \sum_i \frac{Y_{im}}{Q_m} \frac{P_i}{1+t_i} + \frac{V_m}{Q_m}$$

$$= P_m \left(\sum_i \frac{Y_{im}P_i}{Q_m P_m} \frac{1}{1+t_i} + \frac{V_m}{Q_m P_m}\right)$$

$$= P_m \left(\sum_i r_{im} \frac{1}{1+t_i} + r_{vm}\right)$$

Balassa's value added under domestic prices and international prices can be derived as equations (4) and (5), respectively, applying equations (1) to (3).

$$(4) \quad VA_j^B = \frac{1}{Q_j} \left(Q_j P_j - \sum_i Q_{ij} P_i - \sum_m Q_{mj} P_m\right)$$

$$= P_j - \sum_i \frac{Q_{ij}}{Q_j} P_i - \sum_m \frac{Q_{mj}}{Q_j} P_m$$

$$= P_j \left(1 - \sum_i \frac{Q_{ij} P_i}{Q_j P_j} - \sum_m \frac{Q_{mj} P_m}{Q_j P_j}\right)$$

$$= P_j \left(1 - \sum_i a_{ij} - \sum_m a_{mj}\right)$$

$$(5)\quad VA_j^{*B} = \frac{1}{Q_j^*}(Q_j^* P_j^* - \sum_i Q_{ij}^* P_i^* - \sum_m Q_{mj}^* P_m^*)$$

$$= P_j^*[1 - \sum_i \frac{Q_{ij}^* P_i^*}{Q_j^* P_j^*} - \sum_m \frac{Q_{mj}^* P_m^*}{Q_j^* P_j^*}]$$

$$= P_j^*(1 - \sum_i \frac{Q_{ij}}{Q_j} \frac{P_i/(1+t_i)}{P_j/(1+t_j)}$$

$$- \sum_m \frac{Q_{mj}^*}{Q_j} \frac{P_m}{P_j/(1+t_j)} (\sum_i r_{im} \frac{1}{1+t_j} + r_{vm})]$$

$$= P_j^*[1 - \sum_i a_{ij} + \frac{1+t_j}{1+t_i} - \sum_m \sum_i r_{im} a_{mj} \frac{1+t_j}{1+t_i}$$

$$- \sum_m r_{vm} a_{mj} (1+t_j)]$$

Finally, we can derive Balassa's effective rate of protection, as equation (6).

$$(6)\quad 1+z_j^B = \frac{VA_j^B}{VA_j^{*B}}$$

$$= \frac{1 - \sum_i a_{ij} - \sum_m a_{mj}}{\frac{1}{1+t_j} - \sum_i a_{ij} \frac{1}{1+t_i} - \sum_m \sum_i r_{im} a_{mj} \frac{1}{1+t_i} - \sum_m r_{vm} a_{mj}}$$

REFERENCES

The Bank of Korea. 1998. *Input-Output Table.* 1995.

Balassa, B. 1965. "Tariff Protection in Industrial Countries, an Evaluation." *JPE* : 573-594.

______. 1971. *The Structure of Protection in Developing Countries.* The Johns Hopkins University Press.

Choi, S.K. and Lee J. et al. 1998. *Tariff Structure in the Agricultural and Food Sectors.* Research Report R383. Korea Rural Economic Institute.

Corden, W.M. 1971. *The Theory of Protection.* Oxford: Clarendon Press.

Kim, J.S. and Ahn. J.S. 1994. *Changes in Economic Environments and Tariff Structure*, Research Report 94-03. Korea Tax Institute.

Yoo, J.H. and Hong S.H. et al. 1993. *Industry Protection and Distortion of Incentive Systems.* Research Report 93-02. Korea Development Institute.