AN ECONOMIC ANALYSIS OF RICE PRICING IN PAKISTAN

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This paper estimates the extent of price distortions between domestic and world market prices of rice resulting from government pricing policies. Time series data from various secondary sources formed basis of this study. Nominal protection coefficients for rice were used for data analysis and calculated for the period of 1970-71 to 1990-91. The analysis revealed that despite the fact that Basmati rice was one of the major export earning agricultural commodities, rice prices for most of the reference period had been lower than world market prices. It was probably due to devaluation of Pakistani currency, wide fluctuations of rice prices in the world markets and floating exchange rate policy. Since prices are among the major determinants of farm output, therefore, increased rice production would have been achieved, if world prices were fully reflected in domestic markets. The movement of domestic rice prices in accordance with world market prices is expected to improve the efficiency of resource allocation and provide incentives to produce more rice in the country.

INTRODUCTION

Rice occupies a prominent place in the Pakistan's economy. Its importance lies not only in providing food to the people but also as a valuable source of foreign exchange earnings. Almost 30 to 45% of rice production is exported especially the fine rice. Despite significant position of rice in Pakistan's economy, there has been wide divergence between relative domestic price and relative world market price of Basmati rice. The Government of Pakistan has been intervening directly in the rice markets using a number of policy instruments like export taxes, government monopolies on trade and rice support prices. It created a wedge between farm gate price and border price. However, it has been argued that structure of world prices is the ultimate determinant of economic efficiency and that any divergence between domestic and world prices of a commodity affects its efficiency in terms of output value losses to producer as well as to the economy (Eckert, 1990). Abolishing divergence between the relative domestic and relative world prices may lead not only to efficient resource allocation but also to improve the national production of fine quality rice.

The present study was designed to examine the degree of divergence between support and world prices of rice and the resultant consequence especially on rice production.

METHODOLOGY

Keeping in view the study objectives, time series data collected from various secondary sources were used. To measure the degree of divergence between support prices and relative world prices, nominal protection coefficient were used. Nominal protec-

tion coefficient is defined as the ratio of domestic prices to world (border) prices (NPC).

Mathematically the NPC of a commodity can be expressed as follows:

$NPC_i = p_i^s/p_i^b$ (Dorosh & Valdes, 1989).

where

NPC_i = National protection coefficient
P_i^s = Support price of the ith commodity
P_i^b = Border price of the ith commodity

The coefficient relates the price received by the producer to the price which he would have received under the assumption of free trade. Where NPC < 1 means that domestic price is less than world price and is indicative of taxation of the particular agricultural commodity. A value of NPC > 1 means that domestic (support) price is higher than world price which reveals that there is discrimination in favour of domestic price of the commodity. A value of NPC that is equal to 1 indicates that there is no distortion of output prices. To calculate NPC, one needs the support and border prices of the same location. For this purpose Karachi was taken as focal point and the support prices were adjusted for the period of 1970-71 to 1990-91, taking into account transportation and handling charges to Karachi.

RESULTS AND DISCUSSION

The nominal protection coefficients for the period of 1970-71 to 1990-91 (Table 1) reveal that NPC for rice fluctuated between 0.51 and 1.51 However, the value of NPC for most of the reference period (1970-71 to 1983-94) remained lower than 1. This was mainly because of a high border price of rice. The value of NPC during the first five years was very low. It reached its lowest point in 1973-74. This could be attributed to the sharp rise in border prices associated with devaluation of Pakistani rupee by 56% in May 1972 (from Rs. 4.76 to Rs. 11 per US dollar). The value of NPC was the lowest in 1973-74. It was caused by a growing demand for Basmati rice in the world market that resulted in sharp increase in rice prices. However, from 1974-75 to 1976-77, support prices showed a rising and border prices a declining trend. Thus for the year 1975-76, the value of NPC increased over preceding years. As a consequence, there had been a reduction of taxation from 47% in 1973-74 to 19% in 1975-76.

Nominal protection coefficients for the years 1976-77 and 1977-78 showed protection of fine rice in domestic market. The extent of protection ranged between 7 to 11%.

For the period 1978-79 to 1981-82, Basmati rice was taxed again to the extent of 5 to 18% during these years as the value of NPC oscillated between 0.82 to 0.95. Thereafter, the value of NPC fluctuated between 1.0 to 1.51 during 1982-83 to 1989-90, except for the years 1983-84 and 1984-85, which indicates the level of protection given to Basmati rice in the form of support price. Consequently it provided incentives to the farmers for the enhancement in the rice production. The sharp rise in NPC after 1980-81 might be the result of appreciation of the dollar in 1980-81, which resulted in reduced competitiveness of Pakistani Basmati in the world market. The fluctuation in the value on NPC after 1982-83 was certainly the outcome of delinkage of the Pakistani rupee from the U.S. dollar in 1982, when Pakistan government adopted a floating exchange rate policy.

Table 1. Nominal protection coefficient for rice (1970-71 to 1990-91)

Years	Support price Rs. 40 kg^{-1}	Transport and handling cost to Karachi*	Total price at Karachi Rs. 40 kg^{-1}	Border price Rs. 40 kg^{-1}	NPC
1970-71	34.30	3.19	37.49	38.04	0.99
1971-72	40.72	3.34	44.06	55.36	0.80
1972-73	51.30	3.87	55.17	57.60	0.96
1973-74	66.45	5.14	71.59	140.60	0.51
1974-75	96.45	6.90	103.35	126.80	0.81
1976-77	108.80	7.72	116.52	104.88	1.11
1977-78	108.80	8.34	117.14	109.60	1.07
1978-79	117.89	8.36	126.25	133.20	0.95
1979-80	117.89	9.36	127.25	153.84	0.83
1980-81	137.00	10.62	147.62	180.12	0.82
1981-82	150.00	11.44	161.44	173.60	0.93
1982-83	154.00	11.83	165.83	162.80	1.02
1983-84	157.00	13.07	170.07	179.84	0.95
1984-85	160.00	13.56	173.56	185.80	0.93
1985-86	166.00	14.11	180.11	168.00	1.07
1986-87	230.00	14.84	244.84	161.84	1.51
1987-88	250.00	10.27	260.27	211.72	1.23
1988-89	258.00	15.93	273.93	246.16 a	1.11
1989-90	276.00	16.78	292.78	292.47 a	1.00
1990-91	293.00	18.84	311.84	327.62 a	0.95

Source: Economic Survey, 1990-91.

For most of the early years and upto 1984-85 NPC value was lower than 1. It shows that for these years domestic rice market prices were lower than world market prices. This taxed the rice producers. The lower domestic prices of rice have also caused a social price paid by the economy in terms of efficiency losses, regardless of whatever other benefits were received as a result of price deviation. World market prices of rice reflected in domestic price incentives would have increased rice production and farmers incomes. Also increased production should have provided incentives to the farmers for the adoption of modern inputs, thus providing favourable environment for increased export of Basmati rice.

During the last five years of study period (i.e. from 1985-86 to 1988-89), the commodity appeared to be over-protected. This weakened the competitiveness of Pakistani Basmati rice in the world market. It may be argued that degree of protection or taxation of rice would have altered if market intervention on input side was also considered. However, such intervention was not a major factor in determining the structure of incentives primarily because tradeable in-

puts are small portion of total cost of producing agricultural commodities. Given that purchased inputs make up only a small portion of total cost of production, exclusion of "effective protection coefficient" calculations for distorted inputs does not alter the value of NPC (Gotsch & Brown, 1980).

CONCLUSIONS AND SUGGESTION

Despite the fact that Basmati rice was one of the important exchange - earning agricultural commodities, domestic rice prices for most of the early years of the reference period had been lower than the world market prices and thus the rice producers were taxed. It was probably due to the devaluation of the Pakistani currency, wide fluctuations in rice prices in the world market and floating exchange rate policy. Since prices are among the major determinants of farm output, therefore increased rice production could be achieved if world market prices were reflected in the domestic markets. However, the commodity during the last few years of study period was over-protected which weakened the competitiveness of the Pakistani Basmati rice in the world market. Appropriate measures to improve the prevailing situation are suggested below:

1. Pricing of rice is not an entirely domestic issue. The price of rice should be fixed in accordance with the movements in the world market prices. It will help to improve the efficiency of resource allocation and thus provide incentives to produce more rice in the country.
2. Macro reforms in domestic price of rice may be triggered by instability in the world market prices. Therefore an agriculture price stabilization fund should be established. The established fund would receive surpluses that may accrue when domestic prices are below international prices. Likewise, the deficit accruing on account of domestic prices being higher than international prices would be met out of the stabilization fund. The main purpose of creating such a fund should be to make the price support programme financially self liquidating. This policy is expected to increase export earning from rice and lead the country to the road towards progress.

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