Policy Brief

Distortions in Incentives for Production of Major Crops in Pakistan: Recent Trends and Emerging Challenges

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By Abdul Salam

Domestic production of wheat, rice, cotton and sugarcane has experienced severe implicit taxation, averaging $1.72 billion per year during 2006-08. These distortions to producer incentives, which have resulted in huge resource transfers, must be removed if Pakistan is to address the recurring crises afflicting the crop sector, alleviate poverty, and achieve sustainable development. The institutional capacity to conduct in-depth policy analysis must also be strengthened.

Pakistan has a long history of government interventions in farm output and input markets, including procurement of food commodities, monopolies of exports and imports, establishment of support prices, restrictions on commodity movements, and input subsidies. However, many of these interventions were not based on rigorous economic analysis and introduced distortions into commodities markets. In the mid-1980s, under a Structural Adjustment Program, Pakistan's government embarked on a series of economic reforms aimed at reducing public sector interventions and increasing reliance on markets.

To assess the impacts of government policies on farm incentives and incomes and identify emerging challenges concerning commodity pricing in Pakistan, a study was conducted to estimate the distortions faced by farmers in the production of Pakistan's most important food and cash crops: wheat, rice, cotton, and sugarcane (see Salam 2009; however, calculations have been updated). For each of the commodities, the study compared domestic producer prices between 1991 and 2008 with the corresponding international prices, and calculated the nominal protection coefficients (NPCs). The NPC, which is the ratio of a commodity's domestic price to its international price, provides an empirical estimate of the level of protection or taxation of a commodity and thus also indicates the incentives or disincentives for domestic production.

The results of the analysis indicate that there has been implicit taxation of wheat production, with the average annual tax increasing from $38 per ton between 1991 and 1995 to $128 per ton between 2006 and 2008. In the case of rice, the taxation of basmati (paddy) was quite high from 1998 to 2002, but has since declined. The average tax per ton of basmati for the study period was $21.38 The comparison of domestic and international prices for coarse paddy reveals a pattern of both taxation and protection during the study period, with an average implicit tax of $1.18 per ton. Because Pakistan exported as well as imported large quantities of cotton during the study period, domestic prices of seed cotton were compared with both export and import parity prices. The results indicate a sharp decline in the implicit taxation of cotton when export parity prices are used, but continued taxation of domestic production when import parity prices are used. However, when calculations of taxation are based on the average of export and import parity prices, the taxation of cotton is estimated to have declined from $171 per ton in 1991-95 to $27.22 in 2006-08. Thus, although cotton was heavily taxed in the 1990s, the situation seems to have improved in the recent past.

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The production of sugarcane appears to have benefited from economic liberalization and policy reforms. As in the case of cotton, estimates of international prices for sugarcane were based on export and import parity prices. Although there was both protection and taxation of sugarcane during the study period, when estimated on the basis of the average of export and import parity prices, the implicit taxation of domestic sugarcane production was reduced substantially, from $3.68 per ton in 1992-95 to $1.25 per ton in 2006-08.

As a result of economic reforms and liberalization, the implicit taxation of domestic production (and thus resource transfers from producers) of cotton, rice and sugarcane has declined as producer prices have become more aligned with world prices. This means that incentives for the domestic production of these crops have improved over time. However, the prices paid to wheat farmers have consistently been much lower than international prices, causing a huge transfer of resources and deterioration in incentives for domestic production. The increase in the support price for wheat for 2008-09, affected in the wake of the 2006-08 surge in international prices and domestic shortages, provided much needed relief to domestic wheat farmers.

Experience with economic liberalization in Pakistan has been mixed. Although over time the role of the public sector in commodity markets has declined while that of the private sector has expanded, the study finds that the implicit taxation of wheat, cotton, rice and sugarcane has resulted in large resource transfers from domestic producers. These transfers, which averaged $1.21 billion per year in the 1990s (with cotton and wheat accounting for 57 percent and 38 percent, respectively), increased to $1.72 billion per year between 2006 and 2008 (with wheat and cotton accounting for 81 percent and 10 percent, respectively). Needless to say, these distortions in production incentives and the resulting large resource transfers have had an adverse impact on farm investments, agricultural production and productivity, food security, farmers' incomes, and rural poverty. To achieve sustainable agricultural development and alleviate poverty, it is imperative to arrest the resource transfers by removing these distortions.

The recurring agricultural crises and food shortages in Pakistan reflect the fundamental shortcomings of the country's current farm production, marketing, processing and distribution systems. For example, the recent improvement in producer incentives for wheat resulted in increased domestic production. However, this increased production has required extensive public sector interventions in procurement and storage. Large quantities of wheat were stored in the open through makeshift arrangements because the market infrastructure and institutional capacity had been neglected for so long. Thus, there is a need to both implement additional policy reforms that remove distortions and encourage investments, and strengthen Pakistan's institutional capacity to conduct in-depth policy analysis in order to respond effectively to the issues and challenges confronting the farm sector.

References

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