
FORECASTING TREND OF WHEAT PRICES IN PAKISTAN

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Abstract

This research investigates the forecasting producer's Harvest prices of Wheat in Pakistan. Data were collected from 2004-2009 from various secondary sources. It was revealed that producers price expectation range from Rs.300 to Rs. 400 per season. Producers price distributions were skewed towards higher prices, and they consistently underestimated the profitability of large variation in the prices of wheat harvest. It was revealed that farmers forecast about wheat prices always negative correlated and prices are uncertain in Pakistan. It was further revealed that farmers perception regarding wheat prices always not successes because of the political and other factors.

Key Words: Forecasting, Producers, Prices, Wheat

Agriculture is the largest sector of Pakistan's economy. The agriculture sector contributes around 21.9 percent in GDP, and engaged half of the total employed labor force. It is largest source of foreign exchange earnings and meets raw material needs of country's major industries such as textile and sugar production. (Economic Survey of Pakistan (2007-08)). The growth in the agriculture sector increased from 4.6 percent to 7.8 percent in the current year. This increase attributes to 9 percent expansion in major crops, 4.9 in minor crops, 5.6 percent in livestock, and 8.3 in fisheries sector. A feature of improved growth in the agriculture sector is record production of wheat and wheat and recovery in cotton (Economic Survey of Pakistan 2007-08). Improved growth in a agriculture sector is attributed to the government's agricultural policy reforms such as waiving of interest on loans, introduction of Khushali bank, support wheat policy and introduction of micro credit

facility. The growth is also attributed to timely measures to get cotton out of deep-seated crisis (*et al S.M.Nasir*) Wheat is the second principal food and commercial crop and occupies about 10% of the total cropped area. The total cropped under the wheat during the year 2007-08 171 thousand hectares, and production was 1966(Economic survey of Pakistan).

The actual prices and their lag prices may be expressed either in enumerative currency (*Rao and Shrama et al, 1999*) Thailand, India, Chad are the main competitors of Pakistan (*Shaikh et al*) The government of Pakistan is taking effective measures to increase the yield, production and quality of export wheat. Research efforts are continuing on developing high yielding varieties of wheat. Emphases are also being laid on agronomic research as well as on improved extension services, fertilizer use, direct seedling etc. The flow of input and credits is also being substantially increased. The research was investigated with the objectives to determine the factors that affect the supply of wheat in Pakistan, and to estimate the short run wheat elasticities of wheat in Pakistan.

Elicitation dates, Number producers, average producers price forecast, actual harvest price and forecast error

Elicitation date	Number of Producers	Average Price Expectation /Mounds	Actual Harvest price/ per Mon	Average Expectation Error
25 th March,2009	25	900	850	-0.050
26 th March2009	25	910	850	-0.0610
27 March,2009	30	915	850	-0.065
28 th March,2009	35	920	850	-0.070
5 th April,2009	30	930	850	-0.080
6 th April,2009	27	940	850	-0.090
10 th April,2009	30	945	850	-0.095
12 th April,2009	27	930	850	-0.080
20 th April,2009	30	925	850	-0.075
25 th April,2009	20	920	850	-0.070
30 th April,2009	15	918	850	-0.068
5 th May,2009	14	915	850	-0.065
Average	25.666	922.333	850	-0.869
Variance				
RMSE ^c				

Average under, production under wheat, producers and price

Years	Acreage under Wheat(000)	Production under Wheat(000)	Producers Forecast price	Price of Wheat Rs/Mons.
1961	6639	3814	17.00	15.62
1962	4923	4027	18	14.49
1963	5022	4170	15	13.78
1964	5019	4162	15	15.25
1965	5317	4591	17	16.65
1966	5155	3916	16	15.18
1967	5344	4335	25	22.90
1968	5983	6418	26	20.26
1969	6160	6618	20	17.37
1970	6229	7294	20	17.53
1971	5977	6476	22	18.27
1972	5797	6890	23	20.77
1973	5971	7442	25	21.36
1974	6113	7629	26	27.54
1975	5812	7673	60	40.71
1976	6111	8691	65	39.65
1977	6390	9144	55	42.37
1978	6360	8367	56	46.31
1979	6687	9950	58	51.45
1980	6924	10587	60	51.88
1981	6984	11475	63	58.00
1982	7223	11304	73	68.05
1983	7398	12414	78	71.08
1984	7343	10882	80	74.66
1985	7259	11703	85	81.80
1986	7403	13923	90	86.76
1987	7706	12016	99	85.89
1988	7308	12675	98	86.10
1989	7730	14419	105	94.43
1990	7845	14316	115	104.52
1991	7911	14565	130	119.03
1992	7878	15684	150	139.99
1993	8300	16157	160	147.53
1994	8034	15213	178	160.00
1995	8152	16699	199	188.71
1996	8194	16374	210	190
1997	8219	16853	260	200
1998	8280	17417	270	225
1999	8231	17734	290	250
2000	8349	19210	300	270
2001	8291	19320	310	280
2002	8234	19443	320	300
2003	8243	1955	350	310
2004	8543	1988	420	390
2005	8767	1966	490	415
2006	8786	1888	500	514
2007	8876	1988	600	523
2008	8976	1999	700	651
2009	8908	2100	1000	900

Elasticities

The estimated short-run and long run elasticities for production and acreage response under wheat are summarized in Table.3

Own Wheat Elasticities for Production and Acreage under wheat in Pakistan. (1961-2007-08)

	Production Response	Acreage Response
Short Run	0.184	0.080
Long Run	0.44	0.110

The own wheat elasticity for production shows that with the increase in the wheat of Wheat by 1 percent during the period of analysis, the quantity of wheat production increased by 0.184 percent in the short run and 0.44percent in the long run. In case of acreage response, with the increase in the wheat of wheat by 1 percent during the period of analysis, the acreage under wheat increased by 0.080 percent in the short run and 0.110 percent in the long run.

Conclusion

The “best” model was a long linear form, many variables were not including in the model due to non-availability of data, and important variables are included. The results of the analysis indicate that wheat growers are response to changes in the wheat of wheat in the case of production and acreage under wheat response. The lagged wheat of cotton has no significant impact on the production of wheat and acreage under wheat. This may attributed to the reason that cotton is grown on marginal lands and usually in the western areas of Pakistan. The cultivation of cotton is also risky due to the attack of pests. The dummy variable for the war period had a negative impact both on production and acreage under wheat in the years 1961-2005. The co-efficient of lagged acreage was non significant, which indicated that horizontal expansion in area is limited in Pakistan, any increase in production will come through vertical expansion in future. This is a policy implication for government policy makers and researchers with regards to elasticities. The own wheat elasticity of wheat is 0.192 and 0.553 for short-run and long run production response and were acceptable on economic and statistical criteria.

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