

A Note on the Consistency of Pakistan's Cotton-Cloth Statistics for Recent Years

by

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This brief note is written in the hope that some further light can be shed on the cotton-textile situation in Pakistan, since available (and widely used)¹ data appear to be internally inconsistent. There seems to be a rather startling inconsistency among the data (for the 1960's) on production, exports, and domestic prices of cotton cloth, given reasonable assumptions about the income and price elasticity of demand. The most likely explanation for the inconsistency is that the cotton-textile production figures are currently being underestimated, and that the growth rate of cotton-textiles is also being underestimated. Since cotton textiles make up about one quarter of value added in large-scale manufacturing industries in Pakistan, the effect of a substantial understatement in the growth of the cotton-textile industry on the growth rate of manufacturing could be quite marked. There has been a very good performance rate in cotton-textile exports in the past several years, both with respect to the rate of increase in exports and the rising share of cotton-textile production that is exported. It is this very promising improvement in export performance that led to the questions raised here.

The basic data relating to the cotton-cloth industry in Pakistan since 1959/60 are given in Table I. Some aggregate data for the economy of Pakistan are given in Table II. Income elasticities of demand for cotton-textiles have been given in several sources², and while there is a substantial variation (0.75 to 1.40) among the estimates, they are all clearly greater than 0.5, and they

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¹See, for example, Q. K. Ahmad's study of the export bonus scheme [1], or Durani's recent paper on export trends and projections [4] and A. R. Khan's earlier excellent study [5] also used the same sources for data up to 1960.

²See, for example, M. I. Khan [7], A. N. M. Azizur Rahman [2], or Tims [12].

average around unity, which is consistent with international comparative data on cloth and clothing consumption³. Population has increased about 20 per cent during the 1960's. Income per capita has increased about 25 per cent (in real terms). On the basis of the income elasticities given above, one would expect consumption of cloth per capita to have risen between 15 and 40 per cent, and total cloth consumption domestically to have risen by between 35 and 60 per cent, if domestic relative prices of cloth had remained constant. Instead, apparent domestic consumption fell by almost 20 per cent, and domestic consumption per capita fell about 25 per cent⁴.

The falling domestic consumption *could* have been consistent with rising relative prices domestically (and with the stated objective of fiscal- and exchange-rate policy with regard to cotton cloth: to raise excise duties on domestic consumption and to raise exchange rates to exporters in order to divert production to exports). Instead, however, the domestic absolute price of cotton cloth was almost constant, and the relative price fell substantially (almost 25 per cent). Any assumption one would make about the price elasticity of demand for cotton textiles would surely be positive and probably close to unity. If such were the case, the observed price behaviour would imply an *additional* increase in consumption of 20 per cent or more above that implied by population and per capita income statistics. In other words, the introduction of the price data tends to make the production and export statistics more, rather than less, inconsistent.

It is possible that there had been substitution of rayon and other artificial silk textiles for some higher grades of cotton cloth, thus making the cotton-cloth statistics alone consistent with observed data. However, the data given in Table III for rayon and artificial-silk fabrics do not help much, since the large percentage increase in rayon-cloth production only replaced a small part of the reduction of apparent cotton-cloth absorption domestically, and there has been a reduction in the price of rayon cloth both relative to all goods and relative to cotton textiles over the 1960's. Also, given a high income-elasticity of demand for rayon textiles, one would expect a high rate of increase in the domestic absorption of rayon textiles as per capita incomes increased, even if relative prices had remained constant.

There are a variety of hypotheses about the behaviour of the Pakistan economy (or the statistics purporting to reflect its behaviour) that would be consistent with the data presented in Tables I, II and III. I suspect the most

³See, data given by Kuznets [8].

⁴The apparent absorption figures omit an adjustment for imports and for inventory changes. Imports of cotton cloth have been minuscule throughout the last decade. There would have to have been a pronounced trend in inventory disinvestment over an eight-year period, and this is not consistent with the data on stocks of (excisable) cotton textiles given by the CSO *Statistical Bulletin* up to 1967.

likely hypothesis is that the production statistics are underestimated with respect to *both level and rate of increase*. In the years before capacity taxation was introduced, there were very real incentives for firms to understate both level and growth statistics, and since corporation profits taxes are still levied on net income, which would vary with output, in some case, the incentive for understatement still exists. There is also a probable understatement of output from firms of a size too small to be included in the definition of a large-scale industry, or too small to be subject to excise or sales taxes ^{5&6}. In any case, there seems to be a substantial inconsistency in the production and price data (since export data are most likely to be accurate) in the most important manufacturing industry and the second most important export industry in Pakistan, and it would be most useful to planners, analysts, and statisticians if this were cleared up in some way.

TABLE I
DATA ON COTTON FABRICS IN PAKISTAN
1959/60—1967/68

Year	Production ('000' Yds.)	Exports ('000' Yds.)	Apparent domestic absorption	Exports (%Production)	Wholesale price index cotton cloth	Yards domestic absorption per capita
1959/60	607,235	35,476	571,759	5.8	100.00	5.78
1960/61	683,074	60,729	623,345	8.9	99.34	6.13
1961/62	706,245	43,633	662,612	6.2	101.04	6.37
1962/63	726,857	112,214	614,643	15.4	98.17	5.76
1963/64	741,443	143,713	597,730	19.4	95.52	5.46
1964/65	763,528	195,035	568,493	25.5	96.10	5.06
1965/66	691,379	196,124	495,255	28.4	98.20	4.29
1966/67	738,635	211,998	625,637	28.7	102.41	4.44
1967/68	782,543	281,201	501,342	35.9	104.06	4.31

Sources: Production: [10].

Exports: [11].

Apparent Domestic Absorption: Production minus Exports.

Wholesale Price Index: [10], weighted 3:1, West Pakistan: East Pakistan as reflected by weighting in each Province's wholesale price index and the total weights for each province.

Population figures: Table II.

⁵Another explanation that would be consistent with the data would be that the production data are correct, but that the increase in real income per capita has all been received by a small group of the very rich who consume fine cottons and artificial silks, but whose income elasticity of demand for cloth is very low. However, in order for this to be consistent with the data, the poorer sections of the population would have had to suffer *declines* in their real income (since per capita consumption of cloth has fallen overall), and this is unlikely to have happened during the 1960's, though it may well have happened in the 1950's [3 ; 6].

⁶Quite possibly, some of the lower *level* of output is captured in GNP estimates through small-scale industry. However, the estimating procedure for value added in small-scale industry assumes growth rates equal to population growth, which would still leave some growth (or apparent growth, to be consistent with rising income per capita and falling relative prices) unaccounted for.

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