

# A Measure of Inflation in Pakistan\*

A Summary by

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Although a number of series on wholesale and retail prices are being published by the Central Statistical Office and other organizations, there is no general price index to measure annual price changes in the country. The price indices (composed of more than one commodity) presently available in Pakistan are cost of living indices of limited coverage. This monograph presents an annual wholesale price index for the purpose of measuring the extent of inflationary pressure in Pakistan.

The index is computed for the East and West wings separately and for the whole of Pakistan. It dates from 1951-52 through 1959-60 (July-June), with 1951-52 as the base year. Owing to lack of data, it was not possible to carry the index back to Partition, while the need for accuracy precluded the construction of the index on a quarterly or monthly basis. The choice of 1951-52 as the base year is inevitable if the special conditions of the Korean Boom, its aftermath and the Plan period are to be avoided. Moreover, 1951-52 was a year of fewer controls, and prices in that year did not differ much from the preceding two years.

The West Pakistan index contains 35 commodities and the East Pakistan index 25. Thus the coverage is not "ideal" (that is, does not extend to all goods sold into final use within the country); it is restricted to the available data. The coverage of agricultural goods is estimated to be much greater (perhaps 85-95 per cent of "ideal") than that of non-agricultural goods. Insofar as the prices of agricultural goods are more volatile, the index may overstate the extent of general price changes. However, some tests suggest that the smaller coverage of non-agricultural commodities is not the primary cause of volatility of the price index. In order to avoid double counting, only end products were taken into account, although this was not possible in the case of some commodities which by their nature are sometimes final and sometimes intermediate goods.

The weights for each wing were derived from the net quantity absorbed by final users in each year, which was computed as follows:

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\*A recently published study of the Institute of Development Economics: *A Measure of Inflation in Pakistan, 1951-60*, Monograph No. 4 (March 1961).

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Production+Changes in Stocks+Imports (from abroad as well as from the other wing)—Exports (abroad as well as to the other wing). In the case of agricultural commodities, production of crops harvested in March-June was assumed to become available in the subsequent July-June period, while production of crops harvested in July-February was assumed to be available during the same trade year. Where information on stocks was not available, it was assumed that stocks remained unchanged (in the case of manufactured goods) or became negligible at some time of the year. Although this assumption may introduce bias, it is made necessary by the absence of data.

The all-Pakistan index is the simple arithmetic average of the Wing indices. The prices used in the index are "typical" wholesale prices at "important" centres in each wing. Free market prices are used for all except four commodities.

### Wholesale Price Indices

YEAR		East Pakistan	West Pakistan	All Pakistan
1951-52	...	100.0	100.0	100.0
1952-53	...	96.4	114.2	105.3
1953-54	...	76.1	98.8	87.5
1954-55	...	58.7	81.7	70.2
1955-56	...	83.4	93.2	88.3
1956-57	...	118.2	112.0	115.1
1957-58	...	113.4	109.4	111.4
1958-59	...	117.6	113.2	115.4
1959-60	...	123.7	119.9	121.8

It should be noted that the index is not a cost of living index because of differences in both coverage and methodology. For the same reasons, it can not be considered as a price index suitable for deflating national income.

An analysis of the index indicates more violent fluctuations in East Pakistan than West Pakistan. This is attributable largely to the greater variation in the price of rice than in the price of wheat and the greater weight of rice in the East wing (.80) than of wheat in the West wing (.24). Prices of agricultural commodities recorded violent fluctuations and showed a high degree of correlation with the current year's index. Commodities whose prices are foreign-oriented (commodities either primarily exported or primarily

imported) varied less than agricultural commodities. The fluctuations in the prices of goods manufactured and consumed domestically were of the same magnitude as the prices of foreign-oriented goods. In West Pakistan the price changes of these commodities are not well correlated with the changes in the current year's index, but they are highly correlated with the changes in previous year's index. In the case of East Pakistan, however, this relationship is tenuous (the number of such items is not large). The commodities entering inter-wing trade generally showed small price fluctuations and there was no definite relationship with the index.

The year-to-year changes in the index for the two wings can always be explained by changes in the price of one heavily weighted food item. The East Pakistan index always moved in the same direction, and usually by about the same percentage, as the price of rice. In the case of West Pakistan, although a change in the price of wheat led, almost always, to a change in the index in the same direction, the amount was usually smaller.

The Institute's general price index is compared with price indices published by C.S.O. in order to assess its accuracy and bias, although no two price indicators measure the same thing. Comparison with C.S.O.'s cost of living indices for industrial workers indicates that the latter indices have moved much less and thus moderate the extent of fluctuations in the general price level. The cost of living index at Narayanganj showed a decline of 16 per cent during the pre-Plan period and a rise of 39 per cent during the Plan period, as compared with a fall of 41 per cent and a rise of 111 per cent in the general price index during the same periods. Prices in West Pakistan, as indicated by the cost of living index, rose by 4 per cent during 1951-55 and 18 per cent during 1955-60, while there was a decline of 18 per cent and a rise of 47 per cent in the general price index. This difference in sensitivity is probably the result of differences in weights, prices used and goods covered. The inverse movements of the two indices in some years are primarily due to contrasts between free and controlled prices.

For the most part, national income figures are presently available only in constant prices. A current-price national income series and a national income price index (deflator) are derived from the data used in the price index. Consumption of goods (including government) and investment in fixed capital is computed on the assumption that the price index covers, on average, 77 per cent of the value of goods that it would ideally comprise. Consumption of services (including government) is arrived at by deducting income originating from agriculture, industry and mining from the total national income at constant prices. Inventory investment is assumed to be 1 per cent of national income; balance of trade figures are obtained from C.S.O. The resulting estimates of current price national income and the national income deflator are as follows:

(In Million Rupees)

Year	Current-Price National Income		National Income Deflator
1951-52	...	18566*	100
1952-53	...	18418	97
1953-54	...	18377	92
1954-55	...	15981	79
1955-56	...	18110	91
1956-57	...	23605	111
1957-58	...	23371	109
1958-59	...	23395	109
1959-60	...	26453	118

With the exception of two years, the national income deflator always moved in the direction of the general price index. The divergent movement in 1952-53 probably reflected the tremendous fall in export prices. In 1958-59, the national income deflator remained constant while the general price index rose. The relatively greater stability indicated generally by the national income deflator can be explained by its inclusion of services, whose prices do not fluctuate heavily from year to year.

It should be emphasised that the computation of the above series involved many assumptions and approximations, and that the errors in results may therefore be quite large. But this is inherent in the existing scarcity of reliable data. The Institute hopes that its estimates will help to accelerate the work of alleviating this shortage.

\*Slightly adjusted values of the C.S.O. estimates are used for the first three years. See *Pakistan Statistical Yearbook*, 1955, p. 40.