

Lectures in Development Economics
No. 5

**Lectures on
Development Strategy.
Growth, Equity and the
Political Process in
Southern Asia**

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Biographical Sketch

DR GUSTAV F. PAPANEK is currently on the faculty of Boston University, USA, where he has been Professor of Economics since 1974 and, concurrently, Director of the Center for Asian Development Studies since 1983. Born on July 12, 1926, Professor Papanek had his higher education at Cornell University (B.Sc. in Agricultural Economics, 1947) and Harvard University (M.A. in Economics in 1949 and Ph.D. in Economics in 1951).

A prolific writer, Professor Papanek has authored, co-authored and edited several books and a very large number of articles, notes, comments, and contributions to others' books. His main interest lies in the areas of income distribution, poverty, development strategy, industrial development, wages, and political economy.

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INTRODUCTION TO THE SERIES

The purpose of this new Series is to create useful knowledge about development economics and to disseminate it widely. It is not possible to prescribe exactly the topics that will be discussed in this Series. Indeed, it would not even be desirable to do so because this subject is still developing. The mystery of the development process is not yet fully understood. The days of chivalry, when economic development was seen as simply a function of physical capital formation, are gone. The importance of such factors as human capital, education and religion as determinants of both the rate and the composition of economic growth is now gradually recognized. And then there are the efforts to understand more clearly the relationship between economic growth and income distribution. In this connection, the vital role of structural reform is also being realized. The practical (social and political) requirement of alleviating the incidence of absolute poverty has brought to the fore the key role of agricultural development. Furthermore, there is now a greater awareness of the importance of endogenizing the demographic variables in order to understand fully the problem of underdevelopment as well as the many ways of solving it.

In direct proportion to the comprehension of these issues, the intellectual fashions have changed among economists. And there are no signs — a healthy sign, of course — that economists will remain far behind ladies in their love for fashion. As such, we have left it to the contributors to this Series to decide on the topics of their lectures. And, yet, it is to be expected that economists, as if guided by an 'invisible hand', will select areas of enquiry that are most relevant not only theoretically but also for practical policy making.

The contributors to this Series are all members of the Advisory Board of the Pakistan Institute of Development Economics (PIDE)

and of the Editorial Board of the *Pakistan Development Review*. The visits of these outstanding economists have been made possible by a generous grant by the Ford Foundation, which is administered by the Institute of International Education (IE), New York. It is to be hoped that the success of this Series, which we can predict with certainty, will lead to greater financial support from the Ford Foundation and other donor agencies. Even more important is the 'fact' that these contributions will serve the cause of knowledge formation in an area where its marginal productivity is most likely to be optimized.

The present lecture by Prof. Gustav F. Papanek is the fifth in the series, but the third lecture funded by the Ford Foundation. Prof. Papanek, a member of the International Editorial Board of the PIDE, is one of the most eminent exponents in the general discipline of Development Economics. It is in this area that his intellectual contribution has been at its best. The three lectures reproduced here, along with the lively discussion that followed, should be of great interest to both economists and demographers and also to policy-makers. It is hoped that this publication will be read with interest by the concerned social scientists throughout the world.

Editor

INTRODUCTORY

REMARKS

by

Professor Syed Nawab Haider Naqvi

INTRODUCTORY REMARKS

by

Professor Syed Nawab Haider Naqvi

Professor Papanek, distinguished guests, ladies and gentlemen:

It is with great pleasure that I welcome Professor Gustav Papanek to the PIDE Lecture series on Development Economics. To the 'senior' Pakistani economists Professor Papanek's is a familiar face and figure as a friend and colleague, while to the relatively 'junior' ones he has been a kind teacher and a guide. A teacher, guide or a friend, Professor Papanek — pronounced in Pakistan as Papa Nek, or the virtuous father! — is once again back in a country that he has known since his youthful days. Indeed, Pakistan was the first country he became associated with in an official capacity, and that too at an impressionable age when the desire to learn is the strongest. And learn he did about Pakistan's economy, at least as well as anyone else did at the time. This probably explains why his view of Pakistan — and Pakistanis — has remained consistently favourable, though not necessarily uncritical, throughout the vicissitudes of time. This also explains why he has returned, as if guided by an Invisible Hand whose benediction he receives so often, to Pakistan many times — not like a troublesome, wistful and boring ghost of Hamlet's father, or as a Prodigal Son, but as a welcome visitor among his many friends and admirers.

Professor Gustav Papanek, who is at present Director of Center for Asian Development Studies and Professor of Economics at Boston

University, has been for the last three decades in the business of teaching and training — especially teaching and training students from developing countries. And in this activity he has been eminently successful. In the fifteen years of teaching at Harvard and eleven years at Boston University he has provided training in economics to a large number of Asians, many of whom have become ministers, secretaries to governments, heads and senior staff members of planning agencies, and directors of research of central banks. To make the training at Harvard University more useful to economists, he introduced an innovative case method for economics training, which has been widely used in business schools and law schools but not applied to the more complex problems of economic decision-making. In 1974 he accepted an appointment as chairman of the Economics Department at Boston University, with a mandate to develop that department. Very quickly it became, in the United States, one of the largest faculties of economists interested in development, with more than twenty faculty members and 150 graduate students working on the economies of Asia, Latin America and Africa. By now, some 200 persons from Asia have participated in the programme and returned to their countries or international organizations.

In addition to teaching and training economists, Professor Papanek has written extensively in the general area of development economics. And it is at this aspect of his many-splendoured activities, which include frequent globe-trotting, that I shall now take a closer look. He started his academic career as an agricultural economist, if only to respect alphabetical ordering. Perhaps finding himself "disguised unemployed" in that sector, he moved quickly to the industrial sector — but *not* at an unchanged wage rate! Professor Papanek came to the development business in the mid-Fifties, when for a development economist "to be young was very heaven". These were the days of great expectations about a new star — namely, Development Economics — which was shining brightly in the Economics firmament. In the excitement of slaying the fire-eating dragon of poverty, economists of all hues and colours and training enlisted to march under the banner of the new-born discipline. Guided by a sense of mission, enlightened self-interest, or sheer herd instinct, young Papanek, having done his Ph.D. at the age of 25, also joined the long march.

And not too long afterwards, he began to make his presence felt in the development cavalcade — and with a difference. Although he was the knight of the Age of Chivalry (of development economics), he took up his professional business empirically. No system builder, he has confined his scholarly activities to testing specific aspects of development theory, which he has described as "the earnest search for a mirage". In the face of poor quality of data in developing countries, such an activity takes considerable ingenuity and patience. Professor Papanek has shown that he has plenty of both. Hard-headed empiricism, supported by an intimate first-hand knowledge of a large number of developing countries, continues to be the hall-mark of his writings. This trait of his scientific explorations also explains why he does not change his opinion too often about what a proper strategy of economic development should be for a developing country like Pakistan. It is not that he is irrationally fussy about being consistent: it is that he changes his opinion only when hard empirical information permits him to make the next move. However, with the other knights of that Age of Chivalry, he shared then, as he does now, a healthy optimism about a poor country's prospects for development. But the young Papanek argued, in a somewhat Marxian vein, that it is economic development, induced by an environment of strong material incentives, that acts as the engine of societal transformation. In this context, very much like Theodore Schultz, he never took seriously the notion that economic agents in developing countries react to economic incentives differently from those in developed countries.¹ Hence, we do not find any awkward backward-bending curves of work-effort figuring in his vision of the development process.

As I understand it, the main themes on which Professor Papanek has written the most are: (i) the efficacy of economic incentives and of the market mechanism; (ii) the trade-off between growth and equity; and (iii) the relationship between foreign aid, savings and economic growth. The underlying message that comes out of his writings appears to be as follows.

¹ This theme of a positive response of economic agents to economic incentives has been developed in the context of agriculture by Professor Walter P. Falcon, a distinguished student of Professor Papanek.

The Smithian belief in the efficacy of the profit motive for maximizing *social* welfare has remained to this day the high point of the economics profession. Professor Papanek has amply, and empirically, demonstrated that he is a worthy follower of Adam Smith — and also of Joseph Schumpeter, who sang songs in praise of that mystical character, the 'entrepreneur'. Much of his earlier work focused on these 'orthodox' concerns. Special mention may be made here of his 1962 paper (1962) and of his first book (1967).[>] Focusing on the emergence in Pakistan of entrepreneurship in response to high profits and high (domestic) prices, he concludes that "economic incentives which are determinable by government" are a sufficient condition to explain the phenomenon. However, he adds that for this phenomenon to occur, monetary returns from industrial investment must be reinvested, and should "contribute primarily to development, not conspicuous consumption". To this general theme Professor Papanek has never ceased to return.*

It may be noted here that while Professor Papanek's great admiration for the Invisible Hand is an open secret, it is by no means unbounded. He speaks more of the desirability and effectiveness of a strategy in which government *uses* market forces to intervene in the economy to correct market failure and to achieve social goals. A difficult strategy this, because it involves both the acceptance of the market forces as a guide to social action and a rejection of these forces in the exalted role when market 'fails'. If market does everything, then it must also diagnose its failure, but we wish the government to do this diagnostic job for the market. Logical complexities apart, and notwithstanding his Platonic protestations, Professor Papanek's love for the Invisible Hand 'shows' even when he denies it. And it shows most clearly in his *Economic Journal* paper^s in which he claims that the application of the "classic private enterprise formula" has done wonders: it helped

*Gustav F. Papanek. "The Development of Entrepreneurship". *American Economic Review*. Vol. LII, No. 2. May 1962.

^sGustav F. Papanek. *Pakistan's Development - Social Goals and Private Incentives*. Cambridge, Mass.: Harvard University Press. 1967.

* For instance, see his "Pakistan's Industrial Entrepreneurs - Education, Occupational Background, and Finance", in Walter P. Falcon and Gustav F. Papanek (eds.), *Development Policy II - The Pakistan Experience*. Cambridge, Massachusetts: Harvard University Press. 1971.

• Steven C. Chow and Gustav F. Papanek. "Laissez-Faire, Growth and Equity - Hong Kong". *Economic Journal*. Vol. 91, No. 362. June 1981.

Hong Kong to achieve high growth rates, which *also* "benefited the lower income group more than the rich". The key element of the formula was a strategy which emphasized investment "in activities and methods that used a great deal of the cheap factor — labour — and conserved scarce capital, in manufacturing for export to the world market." So here we have a statement of the *laissez-faire* game and the rules of the game that must be observed to make an unqualified success of it. For this great service to the Invisible Hand, Professor Papanek will surely be rewarded amply on the 'Day of Judgement', assuming that the apparition will still be in the panel of judges at that inconvenient hour!

This brings me to the second element in Professor Papanek's thinking about the development process, namely the relationship between the *rate* of economic growth and income distribution. He claims that he has exorcised the ghost of the 'Kuznets Curve', which lays down that income distribution first worsens and then remains at the bottom of the U-shaped pit before it starts to improve. He denies the Adelman-Morris thesis, according to which as development proceeds apace, raising average per capita income, there occurs an absolute decline in the income of the poor. And he shows that the widely accepted Lewis and Fei-Ranis models of unlimited supplies of labour at the existing wage receive no support from the data that he has examined. All this nihilistic, but creative, activity has led him to conclude that there is no inherent conflict between growth and equity, and between high growth *rates* and the betterment of the lot of the poor. Indeed, he shows that the absolute income of the poor also rises as average income rises. In the Hong Kong case this result came about because of adherence to the 'classical formula'. However, in general, high growth rates and equity merrily go together, *if* employment grows at a fast rate, raising real wages, especially of the low-wage labour, and (/consumption of the rich and the windfall profits of the industrialists are curtailed.' A pretty *iffy* statement this, but that is how scientific statements should be made. For this *disservice* to its cause, the Invisible Hand may deduct somewhat from the largesse reserved for this loyal, but independent, votary!

*Gustav F. Papanek. "Economic Growth, Income Distribution, and the Political Process in Less Developed Countries." In Z. Griliches, *et al.* (eds.), *Income Distribution and Economic Inequality*. New York: Halsted Press. 1978.

Another key strain in Professor Papanek's thinking is the relationship between foreign aid and economic development. He has debunked many a doomsday prophet who proclaim a necessarily negative relationship between these two economic variables. In two excellent articles published in the *Economic Journal* and the *Journal of Political Economy* he shows that in practically all the writings on the subject the alleged negative relationship is the result of accepting uncritically an accounting convention — namely, saving equals investment *minus* foreign inflows. Furthermore, these writings have committed the sins of confusing between causation and correlation, of failing to spell out clearly what kind of a savings function the agnostics postulate, and of mixing 'aid' with all kinds of resource inflows. His well-documented writings on this subject may not have allayed all the fears voiced by agnostics about the contribution of aid to economic development, but he certainly has made us ask a more relevant question: "What would have happened with less or more foreign aid?" Even though convincing answers do not exist to this central question, the universality of the agnostics' findings does look somewhat suspect. At any rate, we do not read much about the subject in learned journals; and developing countries keep on borrowing to their heart's content — or, shall we say, discontent. Should we, therefore, forget about the subject? Professor Papanek would probably not go so far as to give a strongly affirmative answer to the question, but he will keep *on* posing the 'right' questions.

Out of the cloud of dust raised by Professor Papanek's iconoclastic intellectual activity, there has emerged a reasonably clear view of how he looks at the development process. Throughout his empirical demonstrations, Professor Papanek has revealed his preference for the positive sign. He somehow does not like negative relationship or sign: there is no negative relationship between high rates of growth and equity, between monetary rewards and work effort, and between foreign aid, domestic savings and economic growth. There is nothing wrong with the game of growthmanship or with associating the Invisible Hand as a partner in the game, if the game is played according to the rules and with judicious

¹Gustav F. Papanek. "Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries". *Economic Journal*. Vol. 82, No. 327. September 1972.

²Gustav F. Papanek. "Aid, Foreign Private Investment, Savings, and Growth in Less Developed Countries". *Journal of Political Economy*. Vol. 81. No. 1. January/February 1973.

refereeing. If these safeguards are taken, the real incomes of the poorest, who watch the game somewhat nervously, will also be improved. In short, according to Professor Papanek, the game of growthmanship is *not* a zero-sum game; and foreign aid is definitely helpful in playing the game more effectively than can be possible without it. There may be many among development economists who will not agree with this rosy picture of the development prospects of developing countries, but no one will deny that rose is a beautiful thing to watch, especially if it is not an optical illusion. Professor Papanek asserts that what he says is a rose *is* a rose and *not* an optical illusion. In so far as optimism is a better state of mind than either schizophrenia or downright pessimism, Professor Papanek has a point here even if the rose may be a mere figment of a fertile imagination. However, one is equally entitled to regard sobriety as a better, and a safer, state of mind than euphoria. Thus, as always, it all depends — never mind, on what!

I really can go on; but the general idea of this introduction was not to give a lecture on Professor Papanek. I may have already done some of that, but there is no better way of introducing a scholar than by reference to his scholarly work. At any rate, let me no longer stand between you and the speaker. Wishing us all *bon voyage*, I would now request Professor Papanek to proceed with his lecture full steam.

Lecture 1

**DETERMINANTS OF
INCOME DISTRIBUTION
AND POVERTY**

Lecture I

DETERMINANTS OF INCOME DISTRIBUTION
AND POVERTY

Professor Naqvi, Dr Sarfraz Qureshi, and distinguished guests:

It is particularly appropriate that full results of this study should be presented for the first time at the Pakistan Institute of Development Economics, because the research on which it is based was motivated initially by the traumatic events in Pakistan in the late 1960s and the early 1970s. Rapid growth in the 1960s was accompanied and followed by riots beginning in 1967 and continuing until the breakup of the country and the independence of Bangladesh. The riots were based on economic grievances. Central was the contention that income distribution had become less equal and that much of the benefits of growth accrued to, "22 families", the wealthy elite of the country.

In the analyses of these events it was argued that high rates of growth could be achieved only by policies which inevitably resulted in a worsening of income distribution, which, in turn, inevitably led to social and political tensions. Other analysts saw a similar mechanism at work in the Nigerian civil war, which followed a period of rapid growth, and in the Indonesian riots of 1973-74. There, too, rapid growth beginning in 1967 was allegedly accompanied by worsening income distribution and political tensions. In contrast stood India, where growth had been slow

for nearly 35 years until 1971, when the Congress Party registered its greatest electoral triumph with a pledge to improve income distribution and "eliminate poverty".

The Dismal Trade-off: Growth versus Equity

The general conclusion was that less developed countries (LDCs) faced a dismal choice between (i) a strategy of rapid growth, rising inequality and political instability and (ii) a strategy of slow growth or stagnation, but with an equitable distribution of income and political stability. Three reasons were advanced for the conflict between growth and equity:

- (i) The Kuznets hypothesis was that in the early stages of development, as income per capita increases from, say, \$100 (in 1970 prices) to \$400 over a 50-100-year period, income distribution will become less equal. This is one of the most widely accepted relationships in economics (for instance in analyses by Ahluwalia, Adelman & Morris, and Paukert).
- (ii) A high growth rate requires a set of policies which provide incentives for asset owners, i.e. the wealthy, to save, work hard, take risks and innovate. High incentives mean high incomes for them.
- (iii) A market-oriented system or strategy is good for growth, but bad for equity; government intervention, on the other hand, tends to reduce the rate of growth but improves equity. (Adelman & Morris and Papanek have argued this.)

All three related conclusions can be challenged, and in these three lectures I propose to challenge them, first by providing evidence from a large set of cross-country data, then by describing an alternative theoretical model which provides a rationale why growth and equity can be compatible, and, finally, by drawing, for support, on a study of five countries, which also relates economic strategy to the political process.

The Kuznets Hypothesis

The first of the perceived reasons for conflict between growth and equity, the Kuznets hypothesis, refers to structural change over a long

time period. Unfortunately long time-series data are generally not available for the present-day LDCs. Therefore, empirical tests have used cross-section data, implicitly assuming that the relationship between per capita income and income distribution is quite similar in developed and less-developed countries.

The theoretical bases for Kuznets hypothesis include the following.

- (a) Growth usually starts in a particular sector or region, where income will rise more rapidly than elsewhere in the country.
- (b) In poor countries there are high rewards to scarce human and physical capital once development takes place.
- (c) Countries with very low income must have a relatively equal income distribution, otherwise the absolute income of the poor would be so low that they would starve. As absolute income rises, inequality becomes possible.
- (d) The Lewis and Fei & Ranis theory, widely accepted, postulates that in labour-surplus economies — those that have particularly low incomes — real wages will not increase until all surplus labour is absorbed. That is, there is an unlimited supply of labour at the prevailing wage, all workers are employed, and, with a constant wage, the total wage bill remains constant. Then all increases in per capita income will accrue to asset owners and income must become less equal.

Cross-section data do indeed show a consistent correlation between per capita income and income distribution that is U-shaped. But there is an alternative explanation, namely that several other factors are correlated with both per capita income and income distribution. These factors include socio-political dualism and education.

The alternative hypothesis was tested in a new analysis covering 83 countries. For 39 countries there were multiple observations, resulting in 145 observations in total. Like all income distribution statistics, the data used are poor, but there is no reason to suspect any systematic bias.

The first test (reported in Table 1) is for the intertemporal or time-series Kuznets Curve, using all countries with two or more observations. This assumes identical slopes, but different income distributions at different per capita incomes. Two indexes of income distribution were used. The signs of the coefficients should be positive for the log of income and negative for the log of income squared when the Gini coefficient is the index used, and reversed when the share of the poorest 40 percent is used.

Table 1
The Intertemporal Kuznets Curve

	GINI Coefficient	SHARE of the Poorest 40 Percent
Constant	.02 (.06)	11.5 (.6)
Log (INC)	.16 (1.5)	.47 (.2)
Log (INC) ²	-.01 (-1.7)	-.11 (-.2)
R*	.83	.81
SE	.05	2.6
Degrees of Freedom	54	46

Source: Papanek, Gustav F. and Oldrich Kyn, "Flattening the Kuznets Curve: The Effects on Income Distribution of Development, the Rate of Growth, and Economic Strategy". Discussion Paper No. 76, Department of Economics, Boston University and Discussion Paper No. 15, Center for Asian Development Studies, Boston University. October 1981.

Notes: (i) Not shown are the 35 country dummy variables for the regression with GINI, 32 country dummies for the regression with SHARE, and 6 dummy variables to correct for differing definitions/coverage.
(ii) Figures in parentheses are t-statistics.

For the Ginis the signs are as hypothesized, but the coefficients are significant only at the 20-percent and 10-percent levels, respectively, i.e. at very low levels of significance. For the share of the poorest, the signs of the coefficients are the opposite of the Kuznets hypothesis, but they

are not statistically significant. In short, the time-series analysis provides little support for the Kuznets hypothesis. But admittedly there are few observations.

The standard method to get around the problem is to pool cross-section and time-series data. In that test (Table 2) the Kuznets Curve is definitely present. It is stable and significant even when other explanatory variables are introduced. But the effect is quite weak in the early stages of development. That is, the deterioration of income distribution is quite small as a result of the Kuznets effect (see Table 3). While the share of the poorest 40 percent of the population ranges from 8 percent to 20 percent, the Kuznets Curve explains only 1.3 percent of that variation of 12 percent, for instance. Statistically, the Kuznets Curve is more significant when the Gini coefficient is the dependent variable than when it is the share of the poorest 40 percent (Tables 2—4). The coefficients, that is the effect on income distribution, are also greater for the GINI (Tables 2 and 3). Since GINI measures overall income distribution, while SHARE relates only to the poorest, this suggests that any deterioration in income distribution in the early stages of development takes the form primarily of gains for the rich, at the cost of the middle-income groups, and not at the cost of the poor. Moreover there is some evidence that the Kuznets effect tends to weaken over time. (See Table 4.) This weakening trend is barely significant statistically; so it needs to be retested when data are available for a longer time period.

The *conclusions* on the Kuznets hypothesis which one can draw from these data are that

- it probably exists, at least when the Gini coefficient is the index of inequality; i.e. the rich gain more in the process of development than the middle class, but not necessarily more than the poor;
- it may be weakening over time; and
- it explains little of the variation in income distribution. Other factors are more important, of which two generally are neglected: socio-political dualism and the importance of primary exports.

Table 2

Factors in Income Distribution

Left-hand Variable	GINI Coefficient		SHARE of the Poorest 40 Percent	
	Regression No.			
	5	6	9	10
Kuznets Curve				
Constant	.04 (-.18)	-.07 (-.25)	33.7 (2.9)	36.6 (2.7)
Log Income	.16 (2.0)	.18 (2.1)	-7.0 (1.7)	-8.1 (1.7)
Log Income ²	-.14 (-2.1)	.02 (.2.2)	.6 (1.7)	.7 (1.8)
Social Factors				
East Europe	-.12 (-2.9)	-.11 (-2.5)	6.7 (3.3)	6.8 (3.1)
Socio-political Dualism	.04 (2.2)	.03 (1.8)	-1.4 (-1.6)	-1.6 (-1.7)
Government Intervention	-.001 (1.2)	-.0006 (-1.1)	.004 (-.2)	-.01 (.3)
Education	-.001 (2.2)	-.0004 (.7)	.04 (1.7)	.01 (.5)
Economic Factors				
Growth Rate	.001 (0.3)	-.00001 (.0)	-.05 (-1.3)	-.37 (-1.3)
Primary Exports	.000 (1.7)	.0003 (.5)	-.04 (-1.3)	-.07 (-1.6)
Manufactured Exports	.000 (0.4)	.0002 (.3)	.004 (.2)	.01 (.2)

Continued —

Table 2 — (Continued')

Regional Factors				
South & Central America	.04		.3	
	(1.4)		(.2)	
Africa (Sub-Sahara)	.13		-2.7	
	(3.6)		(-1.4)	
Asia	.003		1.2	
	(0.1)		(.8)	
W. Asia & N. Africa	.07		-1.2	
	(2.0)		(-7)	

Summary Statistics				
R*	.55	.62	.55	.58
SE	.08	.07	3.5	3.4
F	10.6	10.9	9.35	8.2

Source: Same as for Table 1.

Notes: (i) t-statistics are given in parentheses.

(ii) Not shown are the 6 corrective dummy variables for different definitions. The regions not shown are N. America, Europe, Australia and New Zealand.

The Rate of Growth

Consistent with the results of other analysts, the present study showed no significant relationship between the rate of growth and distribution of income. The relationship, as tested in Table 2, was between the rate of growth in the five years preceding the year for which income distribution data were available and income distribution. Incidentally, there is also no reverse relationship: the subsequent rate of growth is not affected by differences in equality.

These results are supported by time-series analysis from the five-country study, which is reported in the third lecture. In another paper, I have shown that Hong Kong, with a very high 9-percent rate of growth, showed a slight increase in equality. In South Korea, with an even higher

Table 3

*Fitted Values of Income Distribution Statistics
at Different Levels of per Capita Income*

Per Capita Income (in 1963 dollars)	GINI Coefficient	SHARE of the Poorest 40 Percent
		%
100	0.4	15.2
400	0.424	13.9
1,000	0.411	14.2
8,000	0.30	18.5
Ranges at Current Actual Incomes (Extremes Omitted)		
	0.2 to 0.55	6 to 23

Source: Same as for Table 1.

Table 4

Significance of Factors in Income Distribution

Factors	GINI Coefficient	SHARE of the Poorest 40 Percent	5-Percent Level of Significance
Kuznets Curve (Both Variables)	13.9	6.2	3.1
Time Shift (Both Variables)	2.8	1.5	2.7
Socio-political Dualism (3 Variables)	17.7	13.7	2.7
Education	5.3	3.7	3.9
Type of Economy (3 Variables)	1.1	0.8	2.7
Regions (5 Regions)	5.9	1.9	2.5

Source: Same as for Table 1.

(12-percent) rate of growth, income distribution became more equal in the 1960s and less equal in the 1970s. On the other hand, in Malaysia, with an 8-percent rate of growth, income distribution became less equal.

The next two lectures deal with the reasons why there is no definite relationship between the rate of growth and the distribution of income.

It is obvious that a high rate of growth generally is favourable for reducing poverty, since it is not necessarily accompanied by any deterioration in income distribution. Equity can be defined not only in terms of income distribution, but also in terms of changes in the absolute income of the poor. By the latter definition, growth and equity are reinforcing, not conflicting, objectives according to these results, because a higher rate of growth raises the absolute income of the poor more rapidly than a lower rate of growth, since it has no effect on income distribution.

The Role of Government

Nor is the extent of government intervention in the economy a significant factor in income distribution (Table 2). In a cross-section analysis, coefficients for intervention are stable and their sign is correct for the Gini coefficient. But the sign is wrong for the SHARE, the effect is weak even for the Gini coefficient and the relationship is never statistically significant. This is a surprising result, contrary to those of earlier studies, including one that I carried out.

The extent of government intervention was measured by the share of public investment in total investment. This is not a very good index, but it may be better than others for which data exist. Government rhetoric is no sure guide. The share of the public-enterprise sector is no greater in self-declared socialist India than in self-declared capitalist Korea, for instance. The share of government expenditure in the national income is also not a good index, since it is dominated in some countries by military expenditure. The share of public investment appears to be quite closely related to other forms of government intervention. Public investment is only 10—20 percent of total investment in such private-enterprise-oriented economies as the Philippines, the USA, Lebanon, Ivory Coast, and Argentina. By contrast, it is 50 percent or more in the more government-dominated economies such as Pakistan, Sweden, India, Gabon and Taiwan.

Again, the reasons for the lack of an expected relationship will be discussed later. The principal reason is that intervention often was not well designed to benefit the poor.

Other Factors Influencing Income Distribution

A number of factors, mostly socio-political, significantly affect income distribution.

(a) Being a *Communist, East European* country is one such factor. Income distribution data are available for only a few East European countries. With middle-level incomes and a highly egalitarian reported income distribution, they do not fit the Kuznets Curve. There are at least two major reasons for this egalitarian income distribution. Property income does not accrue to individuals, but to the State, which could eliminate one of the main sources of inequality. But some of the State revenues go to the elite as income in kind, not recorded in the income distribution statistics: access to special stores, housing, country homes, hospitals, automobiles, travel, etc. The exclusion of income in kind from income distribution statistics clearly results in an understatement of inequality. Some income in kind also accrues to people outside the elite in all countries, and some benefits the elite in mixed economies (e.g. company cars). But income in kind appears to be especially important for the elite in Communist countries. The reported egalitarian income distribution in Eastern Europe is, therefore, in part a statistical artifact and in part real, owing to the absence of data on payments income. Little is known about the relative importance of the two factors.

Since only a few observations are available and it is unclear what these statistics mean, and since these countries are structurally quite different from the mixed economies in the rest of the sample, this analysis follows tradition in separating out and largely ignoring income distribution in Communist countries.

(b) Another significant factor affecting income distributions, *socio-political dualism*, represents something of an innovation in analyses of income distribution. It is conceptually quite distinct from economic dualism. Economic dualism (see Adelman & Morris, for example) is defined as two distinct economic sectors, one advanced (with high labour-productivity), the other traditional (with low labour-productivity). That such economic dualism is then correlated with less egalitarian income distribution is essentially a tautology.

Socio-political dualism, as defined here, characterizes a country where the elite are ethnically different from the majority of the population. This turns out to be a statistically significant variable. However, once the share of primary exports and regional variables are added to the regression, it is somewhat less significant. This suggests that the elite in natural-resource-rich countries successfully captures a large proportion of the rent derived from the exports of these goods and that the dualistic societies are concentrated in Africa and Latin America,

(c) The *spread of primary and secondary education* makes for egalitarian income distribution. This is consistent with the findings of Ahluwalia. Note that the effect is quite small when the Gini coefficient is the dependent variable. Even a massive increase, from an educational coverage of only 10 percent of the relevant population to a high of 90 percent, lowers the Gini only by .03. On the other hand, the same change in educational coverage increases the share of the poorest 40 percent by 3.5 percent. This suggests that it is primarily the poor who benefit from an expansion of education. The middle-income groups (and the wealthy) already have most of their children in school in most of the countries. (See Tables 5 and 6 for measures of the effect of education.)

The variable loses statistical, though probably not causal, significance when regional variables are added. The most plausible implication is that one reason for greater inequality in some regions is that education is less widely spread there. In other words, the spread of education over time is probably the true causal variable and regional location is simply an intervening variable which picks up the effect of education when the education variable is left out of the regression.

(d) The higher the *proportion of primary exports* in national income, the greater the inequality, others things being equal (see Tables 5 and 6). Income and power tend to be concentrated in such primary-goods-exporting activities as mining and plantation agriculture and those who control these industries tend to benefit from this concentration. This appears to be true whether the enterprises are publicly or privately owned. There are good examples in a number of countries of publicly owned oil industries, for instance, whose managers amassed vast power and wealth. This is one reason why government intervention, even in

the extreme form of government ownership, may not benefit the poor but just a different part of the elite, and helps to explain why government intervention and income distribution are not statistically related.

(e) Contrary to widespread expectations, however, the *share of manufactured* exports in national income is not systematically related to income distribution. A number of analysts have argued that exports of manufactures promote both efficiency/growth and equity. These conclusions may have been based on the experience of the "Gang of Four", but they seem to have ignored other instances where increased exports of manufactured goods were accompanied by greater inequality. Even the Korean experience leads to ambiguous conclusions. Manufactured exports grew rapidly in the 1960s with increased equality and continued to expand rapidly in the 1970s but with worsening income distribution.

The point is that manufactured exports are often labour-intensive which is efficient and equitable in a labour-abundant economy. (More on that later.) But in some cases capital-intensive exports, which are neither efficient nor conducive to an equitable distribution of income, are produced and exported because they are subsidized as heavily as capital-intensive goods produced for the domestic market (e.g. Korea in part of the 1970s).

(f) Different *geographic regions* also differ in income distribution. Some of this variation is due to differences in the extent of education and the role of primary exports in different regions. So when these variables are added to the regressions, the significance of regional coefficients declines, but does not disappear. Other respects in which the regions differ, not captured in the current formulation of the regressions, are (i) *the* distribution of wealth or assets, especially land, in *LDCs*, for which no good measure exists but which is clearly important, (ii) the policies pursued by governments and whether they favour the rich or the poor, and (iii) the extent of socio-political dualism. The last factor is included in the analysis, but without measuring the extent or intensity of the dualism. We just calculated the effect of its presence or absence.

The variable for region is not really an indication of the effect of location or geography, but of differences in excluded variables, which vary systematically with regions.

Factors Excluded from the Analysis

Only 55—62 percent of the variation in income distribution appears to be explained by the factors in the analysis. Clearly, a good deal of the variation remains to be explained. Part of the explanation may simply lie in "noise", i.e. data error. For instance, it appears quite unlikely that Guatemala has a highly egalitarian income distribution, with a Gini coefficient of 0.3, while Sierra Leone has a highly unequal distribution with 0.61.

But much of the rest of the explanation surely lies in factors which have been excluded from the analysis but have already been briefly mentioned:

- (i) One such factor is the extent or the degree of dualism. Hong Kong, Peru and Panama are all classified as dualistic, but the gap between their elite and the rest of the population is unlikely to be as great as in South Africa or (former) Rhodesia.
- (ii) The distribution of assets (especially of land), determined by past power and a determinant of the present power, naturally affects income distribution as well as power. Unfortunately, it is difficult to measure asset distribution in any simple or accurate way. But it seems reasonable that an unequal asset distribution would largely explain an income distribution that is less equal than expected on the basis of the regression, in such countries as pre-Revolution Iran, Ecuador, and Kenya. Conversely, the more equal income distribution than is expected in such countries as Korea, Pakistan and Colombia is probably due to a more equal distribution of land in them than in other countries with similar characteristics of per capita income, education and socio-political system.
- (iii) Countries also differ in the policies they pursue. Some policies produce windfall gains for the wealthier groups, others raise the labour income of the unskilled worker, the poorer groups. This factor is the subject of the remaining lectures but is not captured in the cross-country analysis.

CONCLUSIONS

Wide variations in income distribution exist among different countries. The share of the poorest 40 percent in some countries is double that in other countries; in some cases, even more.

A relatively small proportion of this difference is explained by the structural factors underlying the Kuznets hypothesis. It is, therefore, difficult to argue that Government must intervene massively in the economy to counteract the inevitable and major deterioration in income distribution which will otherwise take place as a result of these structural factors.

Other factors which powerfully influence income distribution also are not readily influenced by the normal government policy intervention: the degree of socio-political dualism and the generation of concentrated incomes from the export of primary products. The one variable affecting income distribution rather readily by policy manipulation is the spread of education.

There is no clear, systematic relationship between the rate of growth and the distribution of income. Nor is there much of a relationship between the rate of growth and the degree of government intervention. Finally, there is a large residual in the variation in income distribution which remains to be explained.

The effects of different factors are summarized in Tables 5 and 6. If several factors come together, the effect can be considerable. But education, the only variable readily subject to policy change without a major upheaval, by itself has a limited effect. Moreover, the absolute income of the poor increases as per capita income rises, regardless of the policies or strategy pursued (Table 6).

These results leave a number of interesting questions to be examined. For example:

- (i) When and why is a high growth rate accompanied by a deterioration or an improvement in income distribution?

Table 5

*Predicted Income Distribution for 5 Hypothetical Countries
at \$100 per capita income)*

	GINI Coefficient	f f , ° , the Poorest 40 "Percent
Average Market Economy (60% Education, 15% Primary Export Share)	.430	15.1
2. 10% Education, 70% Primary Export Share	.535	11.0
3. Dualistic Economy	.575	9.65
4 30% Education, 40% Primary Export Share	.512	12.1
5. 70% Education, 5% Primary Export Share	.368	16.1

Source: Same as for Table 1.

Table 6

Predicted Absolute Income of the Poorest 40 Percent

	\$100	\$200	\$400	\$1,000
Average Market Economy	39	73	143	366
Dualistic Economy	36	67	129	331
100% Education, 1% Primary	44	84	164	417
6% Education, 72% Primary	24	43	83	216

Source: Same as for Table 1.

- (ii) Similarly, when and why is changed government intervention accompanied by changed income distribution?
- (iii) Finally, and most importantly, what policies, programmes, and strategy can achieve a high rate of growth with, at least, no deterioration in income distribution and thus a rapid increase in the absolute income of the poor?

DISCUSSION

Mr Tariq Sajjad Jan: Dr Papanek, I wish to draw your attention to two schools of thought in the theory of income distribution. The first school includes economists like Mill, Pigou and Marshall. This school

favours a more equal distribution of income on the grounds that as the marginal utility of income of the poor man is higher than that for a rich man, an income transfer from the latter to the former would increase 'social utility' and, therefore, the transfer should be made. The implication here also is that if disincentives are to affect the motivation of the rich man, consequently leading to a reduction of the national dividend, then the transfer should not be made. Another school of thought, initiated by the publication of *A Theory of Justice* by John Rawls in 1971, argued that even if there is a reduction in the national dividend because of transfer, the transfer should nevertheless be made. He asks us to visualize a hypothetical state of affairs (which he calls the "original position") in which individuals choose the structure of the future society which they agree to enter. In this hypothetical situation no individual is sure of his future position in life. All individuals make choices including the choice about the principles of justice that would apply to this future society. The individual knows, for example, that if he allows slavery to be a part of the future society he himself runs the risk of being a slave. Therefore, he opts for the optimum solution, i.e. maximizing the minimum outcome. He makes sure that the worst possible position that he gets into in the future set-up would be as good as possible. Dr Papanek, I would like to know whether you follow either of the two schools of thought that I have just elaborated or do you have your own theory? Thank you.

Prof. Papanek: These are indeed important issues. I should confess right away that I have not addressed them in the study on which I am reporting. Rather, I have assumed that for a variety of moral, economic and political reasons, a more egalitarian income distribution is desirable. I have then addressed the question: Can a more egalitarian income distribution be achieved only at the cost of a lower rate of growth due to lessened economic efficiency under the circumstances prevailing in most less developed countries?

Dr Ghulam Rasul: You have mentioned that fiscal measures have failed to improve the distribution of income, though, in Pakistan, mobilization of resources has occurred on a large scale through such measures. Would you like to comment on the efficiency of fiscal measures in the redistribution of income between different classes?

Prof. Papanek: In theory the fiscal systems can be an excellent means for income redistribution. In practice, as I will argue again later, it has rarely achieved such redistribution.

The study by Dr Ishrat Hussain, a Ph.D. dissertation at Boston University — and I will be referring to another half a dozen Boston Ph.D. dissertations in the course of the seminars — shows the impact of the fiscal system in Sind Province of Pakistan. It covers both tax and expenditure incidence. The latter is based on a survey of households which actually recorded the government services which particular households used; so it is far more accurate than, at least, 90 percent of all fiscal studies. It shows the fiscal system as a whole to be very slightly progressive. These are preliminary results, but I doubt they will change very much. The subsidy on wheat flour, of a quality which the upper-income groups generally do not eat, is the principal subsidy benefiting the poorer groups. These benefits are nearly balanced by subsidies to the wealthier groups through heavy subsidies to the university system, telephones, power and some forms of transport. It would be excellent if we could rely more on the fiscal system, as now constituted, for greater equality. However, experience makes me doubtful.

5. *M. Mazahir H. Hamadani:* Professor Papanek, you have explained the flattening of the 'Kuznets Curve' with reference to public policies and the growth momentum in an economy. I feel that you rely on theories of functional distribution of income when you explain the changing shape of the Kuznets Curve as economies pass through different phases of economic growth. I feel that determinants of personal-income distribution like ability, individual choices with respect to effort, stochastic variables, etc., need to be explicitly brought into the analysis. Professor Gian Sahota has provided us with an excellent survey of the determinants of personal income in his article on 'Theories of Personal Income Distribution: A Survey' (*Journal of Economic Literature*, March 1978). I feel that if such an analysis was undertaken for Pakistan, one would certainly notice the worsening of income distribution in Pakistan during the high-growth period of the 1960s.

Prof. Papanek: The only income distribution data available so far have been for the size distribution of income, i.e. the distribution by income

classes (the poorest 10 percent, the next 10 percent and so on, the richest 10 percent). All analyses so far, I believe, have been based on exactly these data, derived from various consumer surveys. They show no deterioration in income distribution in the 1960s. We have for the first time, I believe, used wage data to provide some further indication of what happened to income distribution. These confirm that over the whole of the 1960s there was a significant increase in real wages of unskilled workers, and therefore in the income of the poor, if you know of some third source of information, I would be most grateful to learn about it. Thank you for reminding us of the article in *the JEL* on income distribution. Such survey articles can be very useful. However I saw it as my task not to summarize the literature but to present some different ideas in this field, including comments on the work of others.

Dr M. Fahim Khan: The relationship between growth and income distribution cannot be identified as cause and effect. We know that they are both effects of development policies. Theoretically, we know that there are policies that would cause growth as well as an improvement in income distribution and that there are also policies that will cause growth but increase inequalities. In a cross-section analysis, if half of the countries followed policies of the former kind and the other countries followed policies of the latter kind then the relationship between growth and income distribution would come out to be insignificant, as indeed is the case in your analysis. So how can we conclusively say that growth did not adversely affect income distribution?

Secondly, in this lecture and in your other lectures that I attended as your student, you have been making the point that income distribution is positively related with growth. If there is growth in the economy the poor will benefit in some measure, and if there is deterioration in the economy, the poor will suffer more. You, therefore, prescribe that we pursue growth so that the poor may gain something. As I have already said, we cannot establish a causality between the two variables. Your analysis, thus, has been showing only a statistical relationship rather than any causal relationship. From such a statistical relationship an alternative argument can also be made as follows.

Since growth and income distribution are positively related, we should adopt policies to improve income distribution and this will result

in growth in the economy and if we pursue policies that increase income inequalities then growth will also suffer. So, where is your thesis?

Prof. Papanek: You are, of course, quite correct that "correlation is not causality". Indeed it is possible that in half of all the cases, policies which caused growth also produced improved income distribution and in the other half they produced worsened income distribution and that the net result is that no correlation appears in the statistics. But that is all I wanted to show so far: that there is *no* support for the argument, made by a number of analysts in the past, that to achieve a high rate of growth in a mixed economy requires policies which inevitably worsen income distribution. If that argument was correct, then there would be a significant relationship between a higher rate of growth and a less equal income distribution. That argument seems to be disproved by the data, which show *no* significant relationship between the rate of growth and the distribution of income.

I fully agree with you that *some* policies which result in higher growth worsen income distribution, and *some* policies which increase growth improve income distribution. The remaining two lectures will take up the crucial issues of *which* policies are favourable for both growth and equity (and which are favourable for neither).

One can infer something about the direction of causality by analysing the nature of lags. When comparing the rate of growth with the distribution of income, we measured the rate of growth in the five years *preceding* the year for which there was a measure of income distribution. It is unlikely that the direction of causality would run backward: that income distribution now affected the rate of growth in the previous five years. Incidentally, we also tested the opposite relationship, but have not reported it here. Income distribution in one year did not affect the rate of growth in the subsequent five years.

Mr Aqdas Ali Kazmi: I cannot agree with Prof. Papanek's view that "Government intervention does not necessarily affect the income distribution". I would like to know how Professor Papanek conceptualizes the role of government intervention.

Prof. Papanek. How to measure the extent of government intervention in the economy is a tricky and difficult question. Governments intervene in all economies, and in all economies there is some scope for private decision-making. The question then is how to determine their relative importance. As I mentioned, this is a difficult problem with no good solution. We adopted a reasonable definition, which seems to work but without doubt has its flaws.

There may be a more important point implied in your question: Can government intervention improve income distribution? Clearly it can, and sometimes it does. The remaining two lectures will briefly discuss under what circumstances and in what ways government intervention does improve income distribution. There is no question that this is one of the main reasons, if not the main reason, for intervention and that it sometimes works.

All that I have argued so far is that if one analyses the relationship for all countries for which there are data, then there appears to be *no* relationship between the extent of government intervention and income distribution. This is contrary to what I expected and it clearly is an interesting question as to why this should be so.

Dr M. Ghaffar Chaudhry: The conclusion of your earlier study was that capitalism promotes growth and inequality and that government intervention was essential to correct income distribution. Now you have concluded that government intervention did not lead to a more equal distribution of income. One would like to know how strong your evidence is to refute the earlier conclusion. Or is it merely a result of statistical manipulations?

Prof. Papanek: You are quite right that the current study leads to somewhat different conclusions from those of my own earlier work. That is why I find the results surprising and distressing.

You have seen the evidence and you, or one of the other able economists who have read or heard the results we have presented, would surely have pointed out any systematic bias or "manipulation", as you call it. Please note that I have *not* argued that government should not

intervene. All that the results so far presented show is that for all the countries surveyed intervention on average did not promote equality. It could well be that some forms of intervention did promote it (and indeed that is what I have concluded), but others worked against it. That is, *some* forms of intervention do not help the poor but hurt them. The natural conclusion, then, is that if a government genuinely wants to help the poor it should avoid counterproductive or wrong intervention and intervene only in ways that genuinely help the lower-income groups.

Mr Akhtar Hasan Khan: What is the impact of rapid population growth on income distribution?

Prof. Papanek: In my view a rapid population growth does indeed affect income distribution. In the model that I will be discussing tomorrow, the income of the poor is determined by the speed with which productive employment is created as compared to the increase in the labour force that happens at the same time; that is, the increase in the number of people looking for work as compared to the increase in the jobs created. Obviously, the more rapid the population growth, the greater the likelihood that the supply of labour will outrun the growth in jobs. Then the income of unskilled labour will drop and income distribution will become less equal.

That is only one way in which population and income distribution are related. But the other aspects of the relationship have been discussed more often; so I will not repeat them here.

Mr Ashfaq H. Khan: I wish to draw your attention to the following three points:

1. The Congress Party in India did not win the elections in 1971 because of economic policies but because of the political developments in Pakistan that evolved since 1969 and reached a peak in 1970 during the elections in Pakistan, and the way the Congress manoeuvred the events that led to the victory of that government in 1971.

2. Regarding the unexplained differences, in my view you have ignored the most important variable, viz. fiscal measures (the ^Aax system and public expenditure) that affect income distribution.
3. The Alan Blinder (*JPE*, 1975) study found no support for the Kuznets hypothesis for U.S.A. Moreover, Delia Vale and Oguchi (*JRE*, 1976) using data from 37 developed and developing countries found no support for the Kuznets hypothesis. However, when they separated ten OECD countries and re-ran the regression they found some support for the Kuznets hypothesis. My feeling is that if you separate the developed countries from the developing countries you may get different results.

Prof. Papanek: There are really three separate issues you have raised.

- (i) In the third lecture I will address the relationship between political events and economic situation; so it may be best not to discuss this too much now. Let me just mention first that the Indian election took place before the war and the establishment of Bangladesh. Secondly, of course, I would not argue that all political events can be fully explained by economic circumstances. Undoubtedly, many issues combined to produce the results of the 1971 election. Thirdly, we shall see the day after tomorrow that political and economic factors were probably reinforcing in 1971 in India.
- (ii) I agree with you, and I stated in the presentation, that one factor in the unexplained variation in income distribution is the effect of government policies. It is also true that economists have long maintained, quite correctly in my view, that fiscal policy can be a powerful force affecting income distribution. But it is unfortunately true that several studies of fiscal policy in developing countries have shown that its actual effect has been slight. Ishrat Hussain's study of Sind Province, already referred to, strongly supports that conclusion.

In the cross-country analysis we did indeed separate out five regions, one of which included all OECD countries excluding Japan, but including Australia and New Zealand (that is the developed countries as they existed in 1950). The results of that analysis, which is what I have been reporting on here, therefore not only already take account of the differences between developed and developing countries, but also distinguish between several other regions, including Eastern (Communist) Europe.

CONCLUDING OBSERVATIONS

by

Professor Syed Nawab Haider Naqvi

We have just heard a very thought-provoking lecture, carefully conceived and smoothly delivered. The relationship between growth and equity has been described in the literature mostly as a perverse one. The Kuznets Curve has done the most to spoil the reputation of these two innocent-looking variables. That growth, and more than that a higher rate of growth, tends to worsen income distribution and the lot of the poorest has been the most talked about scandal of the three decades of development. Prof. Papanek, having subjected the Kuznets Curve to a detailed empirical examination, has come up with the cheerful news that the scandal is ill-founded in fact: growth is not *necessarily* negatively correlated with income distribution, as measured by the Gini coefficient or by the absolute share of the poorest 40 percent. Indeed, according to him, high growth rates should help to reduce poverty, especially when the incidence of poverty is measured in terms of the absolute share of the bottom 40 percent of the population in GNP.

His analysis gives a message of hope to the policy-maker: if economic growth is high enough, then, *given an appropriate set of policies and institutions*, it will improve the lot of the poorest in the society. Of course, one can also think of a conglomeration of policies and institutions that will lead to a greater concentration of economic (and political) power in the hands of a few, and the lot of the poorest may be (somewhat) improved absolutely but not relatively. But this is *not* the kind of growth that Prof. Papanek is talking about. He is quite clear about the

desirability, indeed the necessity, of bringing about an egalitarian distribution of income over time. He is not, however, convinced that a slower growth rate is the way to achieve an improvement in temporal welfare, especially of the poorest in the society, or that achieving high rates of growth must necessitate an adoption of policies that worsen income distribution.

Prof. Papanek has also made the provocative observation, based on his empirical findings, that government intervention has not significantly helped to promote a better distribution of income. This result must, however, be handled carefully. Although it does establish the obvious point that government intervention is not *always* welfare-improving, it does not necessarily give a handle to the free trader; nor does it clear the decks for the Invisible Hand. All it says is that government intervention in the sample' countries, measured by the share of public investment in total investment, has not been significant in explaining temporal changes in income distribution. A related point he makes is about the role of fiscal (tax-cum-subsidy) policy in promoting an equitable distribution. He maintains that if the initial income distribution is unequal, fiscal policy cannot do much to make it more equal. This is quite right. But fiscal policy is still needed to prevent income distribution from getting even worse than it initially was, thanks to the dynamics of capitalistic development. This is an important point and leads to the general observation that in a developing country, much more than in a developed country, government intervention is mainly required to offset and balance the direction and the relative size of financial and real flows as they emerge from the processes of economic growth. The success of the government in this task will not show up in the sort of the empirical tests reported by Prof. Papanek, but it is successful intervention nevertheless.

It may be useful at this point to make two general points about the 'strength' of the regression results reported by Prof. Papanek in Tables 1 to 4. Firstly, as we know, the coefficients of the type of equations estimated in Prof. Papanek's study tell us only about their *direct* effects on the dependent variable. In a properly specified model, a simulation exercise must also be carried out to estimate the dynamic multipliers

which capture the *total* effects on the dependent variables. It is not unusual to find in applied econometrics that, in some cases, total effects may exceed the direct effects, for the simple reason that the former also take into account all the feedbacks. Secondly, as explicitly noted by Prof. Papanek, the size of the explained variation, determined by values of R^2 , is such that his equations are only marginally acceptable, and the values of the t-statistic of the key coefficients are not sufficiently large. Also, the poor quality of the time-series data of income distribution and the element of 'noise' in them caution us against making strong statements. Hamlet's profound observation—"this effect defective comes by cause" — applies particularly to the income distribution data, which are highly "defective". Despite this, however, the fact remains that, especially when dealing with developing countries, often strong statements are routinely made by economists. Most of the time we have to make do with the data. Nevertheless we should be aware of these limitations, and Prof. Papanek has amply shown that he is aware of these data problems.

These points are made not to deny the validity of Prof. Papanek's results but to clarify some of the 'controversial' observations made by him so that the audience do not run away with 'wrong' impressions. But before you do go away for the day, let me invite you to the tea which is waiting for you in the next room. I wish to thank Prof. Papanek for his lecture. I also must thank the audience for enthusiastically participating in the discussion and for provoking Prof. Papanek to clarify his viewpoint, which he did admirably well.

Lecture II

**WAGES, EMPLOYMENT POLICIES
AND POVERTY: A DIFFERENT
APPROACH**

Lecture 11

WAGES, EMPLOYMENT POLICIES AND POVERTY:
A DIFFERENT APPROACH

Professor Naqvi, Dr Sarfraz Qureshi, and distinguished guests:

You would recall that yesterday we left the heroine tied to the railway tracks and the train bearing down on her. As Dr Fahim Khan pointed out, and as I mentioned in my presentation yesterday, rapid growth can be accompanied and has been accompanied by an improving income distribution, by a worsening income distribution, or by an unchanged income distribution. Slow growth or stagnation can also be accompanied by similar conditions. The question that I want to address today is: Under what circumstances is it possible to have simultaneously rapid growth and improvement or worsening of income distribution? As is usual in economics, when one constructs the abstraction which we call a model, one has to make certain assumptions, and on the realistic or unrealistic nature of those assumptions depends how good your model is. I am sure you are all familiar with the economist who was asked what he would do if he tried to pick an apple from a tree when the apple was just beyond his reach, and he said, "That's no problem; assume a ladder". I hope my assumptions are not of that kind.

TWO BASIC ASSUMPTIONS

The first assumption was stated and questioned by a number of people. I am grateful to those of you who gave me some references to additional material that I can look up when I continue with this work. The statement was that, with the exception of Sri Lanka, no country in Asia, Africa or Latin America has managed to transfer significant resources from the rich to the poor through the fiscal system. Sri Lanka

is unique. Everyone was entitled to free rice and to highly subsidized rice. The country spent between 6 and 11 percent of its national income on these subsidies, which benefited the poor more than it did other groups.

An interesting question is: Why is Sri Lanka different from other countries and how was it able to achieve these transfers? Most countries have not succeeded in transferring anywhere near that amount. The compilation by Jacob Meerman of the World Bank includes other people's studies from Malaysia to Latin America. His conclusion is that some fiscal systems are slightly progressive and some are slightly regressive, but none of them transfer much income in either direction. Another study for Egypt shows that 50 percent of the income of the lower-income groups comes in the form of very large subsidies from government on food and energy. However, it turns out that 48 percent of the income of the wealthier groups also derives from the same subsidies on food and energy. So, while there are very large subsidies, they do not transfer resources from the rich to the poor. Rather they transfer resources from foreigners to Egyptians. Egypt, therefore, does not contradict the basic assumption that very few countries (really only one country) have succeeded in transferring much income from the rich to the poor.

Another study by Ishrat Hussain is for the province of Sind, Pakistan, only. But in that respect I think Sind is not too dissimilar to the rest of Pakistan. The subsidies which apply in Sind — on wheat, fertilizer, education, sugar and so on — also apply elsewhere in Pakistan. The conclusion of that study was that the fiscal system as a whole was mildly progressive, transferring less than one percent of consumption to the lower-income groups.

In short, if one accepts the conclusion of these studies, then one has to assume that income distribution depends essentially on earned income. If earned income is unequally distributed, government is unlikely to redress that situation by taxing the rich and subsidizing the poor.

My second assumption is that the poor derive most of their income by selling unskilled labour, either in wage employment or in self-employment. Almost by definition, the poor (say, the bottom 40

percent of the population) possess very little human or physical capital, very few assets of any kind. This is not completely true. There are, of course, some poor who may own a bit of land or some working capital in the form of stock if they are pedlars. But, I will argue later on that changes in the income from self-employment, which is partly labour income and partly income from minimal asset, are very closely related to changes in labour income. Therefore, if one can find out how labour income has changed, one knows to what extent the income of poor people has changed.

If you accept these two assumptions, then income distribution in the labour-abundant countries of Asia depends on how fast labour income is growing compared to how fast the average per capita income is growing. If labour income, which is the principal income of the poor, grows more rapidly than per capita income, income distribution becomes more equal. If labour income grows more slowly than income per capita, then income distribution probably becomes worse. Therefore, if one is concerned with poverty or income distribution, one must be concerned with the factors which determine labour income.

Curiously enough, in the literature of economic development there is very little work on this subject. If it is the principal determinant of income distribution, then, with all the interest in income distribution during the last ten years, one would have thought that substantial work would have been done on what determines labour income. But, as a matter of fact, little work has been done on what determines labour income and particularly the income of unskilled workers over time. One of the earliest pieces of work was in the Ph.D. thesis of Dr Fahim Khan.

THE WEAKNESSES OF THE MAJOR MODELS OF LABOUR INCOME DETERMINATION

The Lewis-Fei-Ranis theory did explain the determination of the income of unskilled labour. It was originally developed by Arthur Lewis and then jointly elaborated by John Fei and Gustav Ranis. That theory holds that wages are determined by tradition, subsistence need or other non-economic factors. The wage is higher than labour productivity (i.e. the marginal product of labour). Since the wage is above the

marginal product, there is no incentive to increase it, and the wage will remain unchanged until labour productivity has risen sufficiently to equal the wage. Then, as marginal product (or labour productivity) continues rising, the wage will go up. In the Lewis formulation this means unlimited supplies of labour to the modern sector or to industry at the prevailing wage.

Fei and Ranis sometimes seem to recognize that the wage could be determined by the average product rather than by tradition. But if the wage is determined by the average product, their model would break down, because the basic underlying idea of the Lewis-Fei-Ranis model is that wages will not rise until the second inflection point is reached, where surplus labour is absorbed. But if wages are determined by the average product, then they will rise as soon as the average product rises and the real wage will not be constant over time. They have acknowledged that most of their work has been based on the assumption that the wage is set by non-economic variables and that the marginal product is lower than the wage and can even be zero.

If one accepts that model, then income distribution must become less equal in the early stages of development. If the wage does not rise until all of the surplus labour is absorbed and per capita income rises with development, then income distribution must become less equal. The workers' income is not rising, but average per capita income is rising; so somebody else's income must be rising quite rapidly. Remember that in the Lewis-Fei-Ranis model everybody is employed, either in traditional agriculture or in modern industry. As labour is transferred from agriculture to industry, it receives essentially the same wage plus a small bonus to induce it to make the move. So, everyone is employed, everyone receives essentially the same wage and, as development proceeds, the wage does not rise. Therefore, income distribution must become less equal.

It has been a very powerful model. It was first described in the early 1950s and it has been a staple of development theory courses ever since. Nobody can study development theory without encountering the Lewis-Fei-Ranis model. Unfortunately, it does not square with the facts.

Take a look at Table 7. You can immediately see that for the five countries included in the study, real wages have changed substantially. In general the figures are the averages of two years, so as to even out annual fluctuations. For Indonesia, for instance, agricultural wages have gone down from Rs. 18,000 a month to Rs. 11,000 - 10,000 a month, then back up to Rs. 15,000, then back down to Rs. 13,500, and finally back up to Rs. 16,500. Those just are not constant real wages, as they should be in the Lewis-Fei-Ranis model. And these are not annual fluctuations, but longer-term trends. For instance, beginning in 1954—56, when the two-year average is around Rs. 18,000, there is a consistent decline until the mid-'60s. Then there is a rise until the early '70s, followed by stagnation until the late '70s. If one compares single years, then wages declined over one decade to just one half of what they had been and then rose by 80 percent over some 7-8 years. The changes are even more dramatic for Bangladesh. Of course, these wages are all in constant prices, deflated by the best cost-of-living index we could find or construct. Bangladesh's agriculture wages first fell from 19 to 17, then rose to 23, then fell to 10, which is a more than 50-percent decline, and then rose again to almost 15. Surely, these are not constant real wages.

Table 7
Real Wages Over Time in Pakistan, Bangladesh, India and Indonesia
(in their respective currencies at constant prices)

Year	Pakistan			Bangladesh		India	Indonesia
	Agri- culture	Con- struction	Tex- tiles	Agri- culture	Con- struction	Agri- culture	Agri- culture
1949-51	1,240			19.0			
1954-56	1,750		362			5.6	18,000
1957-59			326	17.1	16.9		15,000
1961-63		11.6	435			5.8	10,000
1963-65		12.2		23.4	23.3		
1965-66	2,130		427				
1966-67-68-69	1,710	12.4	363	21.6	20.6	4.8	11,000
1969-71	1,890	14.4	427	21.0	19.5		14,000
1970-72						6.1	15,000
1973-75		19.1	547	10.1	12.9	4.9	13,500
1978-79	2,800	23.5					15,000
1979-81				14.7		5.7	
1980					18.3		16,500

The basic assumption of the Lewis-Fei-Ranis model is simply not borne out by the data. What is very curious about our profession is that here is a theory which was originally propounded in the 1950s, which all of us either taught or learned in the next 30 years, and, until about 2 years ago, nobody had bothered to check whether the underlying empirical evidence supported it or not. It is clear that, contrary to the model, real wages did not remain unchanged. One could argue in defending the Lewis-Fei-Ranis model that these are not labour-surplus countries. But if these five are not labour-surplus, then there are no labour-surplus countries in the world, and the model is useless. If Bangladesh is not labour-surplus, what country is? Incidentally, the Indonesian figures are for Java, which is like Bangladesh in its density of population. When the Lewis-Fei-Ranis model is put to the test it is found lacking in empirical foundation, at least in South and South East Asia.

Another model of wage determination and movement is the neo-classical one. Supply of and demand for labour determine what happens to wages. This is again a very powerful, widely accepted model. It is somewhat inconsistent with four pieces of empirical evidence. One is interview data. We have done some interviewing, principally in Bangladesh and in Indian Bengal because those are particularly labour-surplus areas, and found that in the urban informal sector as well as in the rural areas many workers were willing to work additional hours or days at the prevailing wage. That, of course, is quite inconsistent with the neo-classical model; if people want to work more hours or more days, they should lower their wage until there is again an equilibrium between demand and supply. Instead, the supply exceeds the demand at the prevailing wage, which cannot happen in a neo-classical system.

Secondly, both from interviews and from statistical data we find that wages for unskilled workers are substantially different in different markets. That again means that there is not a single neo-classical labour market. In places like Dhaka, absolutely unskilled labour (e.g. people who dig ditches) demand Takas 15 a day (3-4 years ago) in one labour market while accepting Takas 4-5 a day, also for unskilled work, in another labour market.

Thirdly, there have been a number of calculations made of surplus labour, particularly in agriculture, based generally on a calculation of the number of worker-days required for an acre of rice or wheat. The first estimate was done by Stern, the second one by Naseem, and the most recent one by an ILO/UNDP team. They all have concluded that there was surplus labour in agriculture, which they estimated at anything up to 37 percent. There are always disputes about these figures, on whether this labour is surplus only during the off-season or also during the peak season. One study in Bangladesh reaches the conclusion that even during the peak season in agriculture there is redundant labour amounting to as much as 20—25 percent. Of course, any surplus labour is not consistent with the neo-classical model.

Lastly, there is evidence from a recent Ph.D. dissertation, by Budiono Handoko, on Indonesia in which the marginal product of labour in rice agriculture in Java was calculated. The marginal product of labour on small holdings turned out to be about twelve U.S. cents a day, while the prevailing wage at the time was \$ 1. A wage that substantially exceeds the marginal product leads to one of two conclusions. One is that cultivators are irrational and they are paying some workers more than they produce. But, if cultivators are irrational, they would not demonstrate tremendous responsiveness when relative crop-prices change. The alternative explanation is that the marginal labour is provided by family workers and that family labour is indeed applied until its marginal product is very low and is different from the wage of hired labour. The figure quoted is for the average marginal product for all small operating units. There must be some differences among these small units, so that undoubtedly on some of them the marginal product of labour is zero if the average marginal product for all of them is only \$0.12. A marginal product of zero to 12 cents when the wage is US \$1 is also inconsistent with a neo-classical model. There is then evidence of labour market segmentation and of excess labour from a variety of studies, all of them difficult to reconcile with the neo-classical labour model.

Aii Alternative Model of Factors in Changing Labour Incomes

An alternative model is consistent with the facts so far presented. The alternative model has three sectors, not the usual two, but one of

them we can very quickly ignore, and that is the "protected sector". The protected sector consists of those activities where wages are set by governments or trade unions, and not by market forces. The wage is first determined exogenously and then employment is generally set at a level where the wage equals the marginal product or the labour productivity. Not always, because sometimes you have excess labour as the government sets not only the wage but also the number of workers the enterprise has to hire, and then the wage may exceed the marginal product. In either case, the wage is set by non-market forces and the sector is small in terms of the number of workers it employs: in some countries, one percent of the total labour force, including that in agriculture; in some countries, five percent. In the labour-abundant countries, it never exceeds ten percent of the labour force. The workers in the protected sector are not among the poor. They form a labour elite whose income is substantially higher than that of landless labour or informal-sector workers.

The second sector is perfectly straightforward as well. The "commercial sector" is one in which neo-classical wage determination takes place. The wage is equal to the marginal product. The sector includes most of the small firms, large firms where wages are not determined effectively by government or trade unions, service occupations, and even many agricultural establishments which operate on a commercial basis, i.e. they hire labour until the wage and the marginal product are more or less equal. Even in firms which are basically in the third sector, described below, there will be some workers who are compensated according to these commercial principles.

One small digression: it may appear that the protected sector is quite large and the commercial sector quite small, because minimum-wage legislation, in theory, applies to many units. A unit (a firm) falls in the protected sector only if the wage is actually set by government. That is not the case if, as in Pakistan and India in many years, the legal minimum wage is below the actual wage paid. Then the wage is not set by the minimum-wage legislation, even though the legislation may apply to a particular firm. There are also firms which theoretically fall under minimum-wage legislation, but it is not enforced. These, too, would not be a part of the protected sector. That is why the protected sector is so small.

The third and the most interesting sector is the work-and-income-sharing sector. The characteristics of this sector are two. One, access to a particular activity is limited so that not everybody can enter a particular labour market. Two, labour compensation exceeds labour productivity because the workers in the labour sub-sector share work and income. To put it more formally, the wage is more nearly determined by the average product, and the average product exceeds the marginal product. The consequence is that workers want more work at the prevailing rate than they can get. But they are not willing to lower their price, i.e. their wage rate, to obtain it. Rather, the workers set the wage or the price, and then share whatever demand or income is generated at that price. Think of them as a monopoly, although that is not really a very good description of the work-and-income-sharing sector, which sets the price and then sells whatever it can at that price, having, of course, excess capacity which is shared out among the workers.

Some examples can make this point clearer. The most obvious example is the family farm. All family members work and all share, in some fashion, the output of their land. There may be more family members than needed to do the work, but no one says, "Uncle Ahmad, we are sorry your marginal product is below what you eat. Please go away." The family has less work than it would like and less income than it would like, but it shares the work and it shares the income. The same is true in many small family businesses. In retail shops, there may be five people in the store when four could equally well serve the customers. But, again, no one is sent away. They share the work and share the income, and everyone has more leisure than he wants and less income.

But the work-and-income-sharing sector extends beyond the family business and family farms. Patron — client relations in the rural areas also very often imply work-and-income-sharing. Some service workers are attached to a landlord. At the time of the harvest, they receive a share of the harvest. If output increases, then the amount of wheat or rice they receive also increases: their compensation is related to the average product. Income-sharing also applies in the urban informal sector. Again, participants set a wage in construction, rickshaw-pulling, shoe-shining and so on, and share the work and the income which results.

Some evidence shortly that this model has a grounding in reality. First, how are wages determined in this model? - a question which underlies everything that follows. The labour income in the work-and-income-sharing sector determines the reservation wage. In other words, people will not leave the family farm, the family business, bicycle-rickshaw pedalling or construction labour unless the alternative offered promises them at least an equal income. The commercial sector, which is usually expanding in a developing country, must therefore offer a wage equal to the income in the work-sharing sector if it is to attract labour. It does not need to be exactly equal, except after adjustment for the pleasantness or unpleasantness of being in the work-and-income-sharing sector and being in the commercial sector. The argument is that the commercial sector is attractive because income is regular and assured, working conditions are cleaner and it is generally located in the city. On the other hand, the work-and-income-sharing sector is supposed to be attractive because it is very often in familiar surroundings, with one's family, does not require migration, and does not require a break in customary relationships and bonds.

Ignoring the relative attractiveness of the two alternatives, the commercial sector has to pay the same wage as the income-and-work-sharing sector in order to attract workers. But there is no single average product in different occupations. The income of a family with 5 members owning 5 acres will be different from that of a family with 5 members and owning 2 acres or a family with 5 members and owning 25 acres. The average product will be quite different in various activities, and, since access is limited, the average product in different activities will not become equal over time. The access to work-and-income-sharing in family firm or business is extremely limited. But even in other activities there are barriers to entry. You cannot rent a bicycle-rickshaw in Jakarta unless you come from certain districts and are known to people in this occupation who will vouch for you.

As a result, there is a normal "neo-classical" labour supply curve. But its shape is not determined by leisure preference, which is the normal determinant of a labour supply curve. Rather, each segment is determined by the average product in that particular activity for the particular group of people, and since the average products vary, you have

a curve each of whose points represents a different activity. Therefore, when there is increased demand for labour by the commercial sector and it has to attract workers from the income-sharing sector, wages will rise, because employers are moving up the labour supply curve. But wages can also rise if the output per head in the work-and-income-sharing sector rises, because then the whole labour supply curve shifts upwards. If the average product increases, then the reservation wage increases, and then the wage must increase in the commercial sector as well.

Evidence for the Alternative Model

Since I have asked you not to take the other theories unquestioningly, I cannot ask you to take this one unquestioningly. One bit of evidence already mentioned comes from the interviews in Bengal. We have interviewed by now over a hundred workers in the urban informal sector and in the rural sector. In many labour markets there is excess labour at the prevailing wage. Workers who shape up on some street corner looking for work in construction, in ditch-digging and so on, if asked, "How much are you paid?", reply "Taka 15 a day". "How many days do you work?" "Three days a week." "How many days would you like to work?" "Six or seven days a week." "Why don't you lower your wage, for then you will get more work?" The fellow looks at the interviewer, shakes his head at the foolishness of the question, and then replies, "First of all, if I ask for less pay, everybody else will beat me up. Secondly, if I ask for less, tomorrow everybody else will ask for less and we will all be worse off and I will not have any more work." In other words, he is saying that the elasticity of demand for this kind of labour is low and the group is better off fixing a higher price, with less work, than lowering the price. It can fix a price which is above the equilibrium, above the marginal product, by erecting barriers to entry which generate a rent.

How are the barriers to entry, which create rents, enforced? In the family it is obvious. In informal urban sector occupations, there may be different mechanisms. There appear to be only three or four major owners of bicycle-rickshaws and they can set the price and determine who enters the market. In construction work, foremen of gangs set the price and determine who can join the gangs. Informal sanctions, including physical threats, also can play a role.

It is also possible that the labour income is set in relation to what is considered necessary for survival. If the assumption is that lowering the price will not increase the number of days worked, then the participants can set a price which, given the number of days of work they will have, will produce enough income for living.

The second piece of evidence comes from another thesis, studying the rural labour-market in India. It found that if the wage drops below a certain level because of crop failure, work-and-income-sharing breaks down and the number of hours worked increases, because people must have a certain income to survive. Everybody scrambles, the wage keeps falling, and they work more and more hours — up to 90 hours a week, which is a huge number of hours in hard, physical work.

The third piece of evidence, also already mentioned, is the marginal product below the wage in rice agriculture in Indonesia. This is quite consistent with a wage determined by average product, but inconsistent with a labour income determined by marginal product.

Finally, in regressions for all five countries the average product in agriculture, either during the current year or during the year before, is generally significant in explaining what happens to the wage. (See Tables 8—10 for selected regressions from three countries.) The average product is shown as AP, and APL is the Average Product Lagged in the tables. The regressions for Pakistan are reasonably good, although the rural-wage data are quite poor. In Bangladesh there is a consistent relationship between the average product in agriculture and the wage. Agriculture represents the largest part of the work-and-income-sharing sector; so the correlation between average product and labour income is reasonably persuasive evidence in support of the work-and-income-sharing model.

Factors in Rising Labour Income

Please remember that all of the data presented are for unskilled workers to the extent that data exist. The agricultural workers are almost all unskilled. These are not minimum wages; nor are they affected by trade unions. They are rather the market wage for unskilled, unorganized, and unprotected workers and, therefore, for the poor.

Under what circumstances, will the labour income of the unskilled rise? Firstly, if the average product in the work-and-income-sharing sector rises, then the supply curve of labour will shift upward and wages or labour income throughout the economy must rise. Therefore, if output rises more rapidly than the labour force, particularly in agriculture which is the largest part of the income-sharing sector, then the reservation wage will increase and, with it, wages throughout the economy.

Secondly, wages will rise if the demand for the products of the work-and-income-sharing sector rises more rapidly than its output. The average product is not just the physical average product, it is the average value product. For instance, if remittances increase incomes, then demand for the goods and services produced by the income-sharing sector will rise. As a result, those who provide services, for instance, will either raise their price or work more hours or, most likely, some of both. Their reservation wage will rise and, with it, wages throughout the economy.

Thirdly, wages will rise if the demand for labour in the commercial sector increases rapidly. If the commercial sector then draws more people from the work-and-income-sharing sector than are added by population increase, then the average product will rise with the reservation wage and, with it, wages throughout the economy. The reservation wage is determined by the value of output in real terms in the work-and-income-sharing sector, divided by the number of workers in that sector.

Fourthly, migration outside the country is like workers' moving from work-and-income-sharing sector into the commercial sector. The move reduces the number of workers in the work-sharing sector, increases the average product, increases the reservation wage, and increases wages throughout the economy.

Fifthly, real wages can decline if work-and-income-sharing breaks down. If it shrinks and excess workers are pushed out of some part of the sector, they then have to find work in a smaller sector. The average income in that sector will decline and, with it, the reservation wage.

Given this model, it is easy to see why rapid growth can be consistent with increasing equality or declining equality. If rapid growth is due to an increase in the physical output of agriculture, that can mean that the average product in agriculture is rising and, with it, the reservation wage and wages throughout the economy. If, in addition, there is rapid, labour-intensive growth of the commercial sector, then workers are drawn from the work-and-income-sharing sector into the commercial sector and the average product rises further. Because of the additional income in the commercial sector, there will also be an increasing demand for the output of the work-and-income-sharing sector, and its average product in value terms will rise still, further. Add migration to the Middle East and a rural works programme that employs large numbers of people and increases their income, and you have a very rapid rise in the average product and, therefore, in wages. The rise in wages can exceed that in per capita income, resulting in an improved income distribution.

That is what happened in Indonesia between 1963—65 and 1971-72: a rapid expansion of agricultural production and of labour-intensive construction; the rehabilitation of irrigation works which created jobs and increased output; a revival of the economy and, therefore, increased demand; and an active government rural and urban works programme, which employed significant number of people. Only migration was missing. The consequence was a 50-percent increase in the real wage, and, since per capita income did not rise by 50 percent during this period, income distribution probably became more equal. Then why did wages not rise between 1970—72 and 1978-79 in Indonesia? Firstly, because the population continued to increase rapidly and, with it, the labour force which grew at about 3 percent a year. So each year, everything else remaining equal, the average product in the work-and-income-sharing sector would have fallen 3 percent a year. Growth continued to be rapid but was highly capital-intensive. Such projects as a steel mill, refineries and tankers employed very few workers. An oil tanker can cost \$60 million (U.S.) and employ 60 workers, at \$1 million per job. Even if a country has a lot of money, it cannot create many jobs that way. At the same time, other jobs were being destroyed in well-established, more traditional industries. Large modern factories in the textile industry, for instance, drove out small power looms which

employed even more labour. The Indonesian Government banned bicycle-rickshaws from the downtown area of some big cities. Bicycle-rickshaws at one time probably employed somewhere between 300,000 and 500,000 people in Jakarta alone. When they were banned from downtown, they moved to the suburbs but their average product dropped and many lost their employment altogether. At the same time, there was a breakdown of work-and-income-sharing, which had previously been enforced partly by political means. Those driven out of some parts of the work-and-income-sharing sector could not remain unemployed. There are no poor people unemployed for long in any of the five countries, except Sri Lanka, because if you are poor and unemployed, you can not live long, if you are driven out of one form of work-and-income-sharing and there are not enough new jobs in the commercial sector, you push into some other work-and-income-sharing activities, driving down their average product. In 1970, industry employed 900,000 workers. It grew at a rate of about 10 percent a year over the next decade, and in 1980 it still employed 900,000 workers. Despite extremely rapid industrial growth which more than doubled the industrial output, no additional workers were employed. That is why wages would not have risen.

Policy Implications

One other point to note in the wage experience is the effect of inflation. The most consistent wage series are for Bangladesh. In different wage series, the price variable in the first year has a coefficient that ranges from 0.11 to 0.58 (Table 8). This is a double-log regression. It means that when prices rise by, say, 100 percent in a year, nominal wages in the same year will rise by 11—58 percent, and therefore real wages will fall. In the next year the nominal wage will rise further, and generally within two years it will have caught up with the price increase. But, during these two years, real wages will have declined. The nominal wages, the wage in Rupees or Takas or Rupias, will have risen by less than the increase in prices. Therefore, real wages, their purchasing power, will have declined. That relationship is quite consistent, except for Pakistan (Table 9). For Indonesia, there is a similar phenomenon (Table 10), although the price increase did not have such a devastating effect, for a very simple reason: Indonesians have been more accustomed to inflation at a high rate, in fact since the mid-1950s, and it reached 1,000

Table 8

**Relationship of Wages to Prices, Demand and Average Product
I Reduced Form Regression Equation Results for Bangladesh)**

	Const.	Price	Price Lagged	Fert. Price	Aver. Prod.	Urban Wage Lagged 1 yr.	Lagged 2 yr.	R ²	DW	F
Agric. W1	8.2+ (3.9)	.55+ (5.6)	.40+ (4.0)	.29+ (2.2)	.39+ (1.7)	.34+ (1.6)	.05 (3.0)	.99	2.4	192
Agric. W2	-5.3 + (-5.1)	.55+ (6.2)	.35+ (4.4)	.22+ (1.7)	.34+ (1.5)	.31 + (1.7)	.10 (3.5)	.99	2.5	222
Agric. W3	-6.8 + (-4.2)	.58+ (6.5)	.36+ (4.3)	.22+ (1.8)	.37+ (1.8)	Lagged unsk. 1 yr. .19+ (1.0)	const. .29 (.6)	.99	2.5	283
Urb. Lab.	3.3 + (4.8)	.11+ (0.9)	.48+ (2.9)	.39+ (2.9)	Const, wage	Rural wage lagged 1 yr. .27+ (2.6)	2 yr. .15 (2.6)	.99	2.0	217

Continued —

Table 8 — (Continued)

	Const.	Price	Price Lagged	Fert. Price	Aver. Prod.	Urban Wage Lagged 1 yr.	Lagged 2 yr.	R ²	DW	F
Const. Lab.	-5.6 + (-3.5)	.36+ (2.0)	.82 (4.8)	V.A. in non-ag. econo. lagged .24 (1.3)	.65 + (-2.3)	Urban pop. lagged .49+ (3.1)	.13 (3.4)	.98	2.6	129

Notes: (See also Table 9).

Agric. W1 = rural wage, with urban unskilled workers real wage as explanatory variables.

Agric. W2 = rural wage, with urban construction helpers real wages as explanatory variables.

Agric. W3 = rural wage, with unskilled and construction real wage as explanatory variables.

Urban Lab. = unskilled labour; construction wage not lagged because no migration needed.

Const. Lab. = unskilled construction helpers.

V.A. in non-ag. econo. lagged = value added in non-agricultural sectors, lagged by one year; a proxy for labour demand.

Urban pop. lagged = urban population lagged by one year; a proxy for labour supply.

Figures in parentheses are t-statistics.

Table 9
*Regression Results for Wages (Nominal) in Pakistan
 (1960-61 to 1979-80)*

Wages	Price	Plag	Fertil- izer	A P L	Urban W-L2	Time
Rural Sector R- = 0.99	1.8 (5.6)	-1.2 (-4.3)	-0.5 (-3.9)	2.7 (3.2)	0.2 (1.9)	0.3 (.21)
				V A , , Rural Wage Lagged j Lagged,		
Textiles Sector R- = .96	0.2 (0.9)	0.08 (2.4)	1.3 (3.9)	.06 (1.7)	.08 (2.5)	

Notes: Price = Consumer price index
 Fertilizer = relative fertilizer price; a proxy for labour demand.
 AP = average product; APL = AP lagged by one year.
 Urban W-L2 = urban wage lagged by 2 years; showing effect of urban wages on rural wages.
 V A " , = value added in non-agricultural sectors.
 Rural Wage Lagged 1(2) = lagged by one or two years, showing indirect effect of average agricultural product, through rural wages, on urban wages.
 Figures in parentheses are t-statistics.

percent by the mid-1960s. So the adjustment mechanism worked out better.

The main point is one that politicians know very well, although some economists, myself included at one time, tended to ignore it somewhat: when food prices rise, labour income drops, and you have trouble. The first policy implication from the regression analysis is that it is important to stabilize the prices of wage goods, above all of food, if you want to avoid a decline in the real income of the poor who derive their income from unskilled labour.

The flag under which neo-classical economists have entered the debate for the last thirty years has written on it "Get Prices Right". You must all have heard that more than once. Get prices right, and you will have an efficient system. The model which I have presented is not a neo-classical model, but the conclusion from the model is the same — "get prices right" not only for the sake of efficiency, but also for the

Table 10

*Relationship of Wages to Prices, Average Product and Output:
Indonesian Plantation Wage Regressions (Permanent Workers)*

	Constant		Price		Average Product		Output	Time	R ²	DW	F
	Current	Lagged	Current	Lagged	Current	Lagged					
Java – all crops	-63.0 (-4.5)	.76 (10.3)	.33 (3.8)	6.7 (4.5)	.16 (2.1)	1.2 (2.9)	-2.6 (-2.8)	.99	2.2	140	
Sumatra – all crops	2.9 (2.6)	1.0 (20.1)			.17 (2.0)	-0.8 (-0.2)	.38 (1.2)	.998	1.6	1,724	
Indonesia – all crops	.4 (0.2)	1.0 (28.6)			.36 (1.7)	1.8 (0.7)	-0.0 (-0.0)	.999	1.6	4,283	
Indonesia – tea	-9.3 (-2.2)	.91 (15.5)			1.3 (2.9)	-0.26 (-0.8)	0.68 (2.0)	.998	1.7	2,846	
Indonesia – rubber	-3.9 (-1.6)	1.1 (35.7)			.11 (1.9)	1.6 (3.8)	-0.7 (3.4)	.999	2.1	11,667	

sake of equity or income distribution. If the price of labour is increased artificially in the protected sector or elsewhere, this reduces employment, and more workers crowd into the work-and-income-sharing sector, reducing its average product and reducing wages throughout the economy, except in the protected sector. So, raising minimum wages in the protected sector benefits a labour elite at the cost of the great mass of poor workers outside the protected sector. It can be justified, according to this analysis, only if the protected sector covers the majority of workers. Lowering the price of capital encourages capital-intensive development, reduces the demand for labour in the commercial sector, forces more of the additional labour force into the work-and-income-sharing sector, lowers the average product, lowers the real wage, and again harms all unskilled workers outside the protected sector and therefore the great majority of the poor. Therefore, it is important to get prices of labour and capital right in order to encourage labour-intensive development in the commercial sector.

Having thus offended the interventionists among you, I will now offend those of you who believe strongly in the market. The market cannot get prices right. That requires government intervention for several reasons, firstly because of what Wells called the conflict between "Engineering man" and "Economic man". Many decisions on the technology to be used are made by engineers. Engineers like machinery more than they do people — otherwise they probably would not have become engineers; they might have become sociologists. They not only like machinery, they like the most modern machinery. We all know that it is much more attractive. Left to their own devices, they will tend to use more capital-intensive methods of production and invest in more capital-intensive industries than is desirable, unless they are forced by the pressure of competition to use the lowest-cost alternative. So, there is a bias for capital intensity. Secondly, most technology is imported from countries which are capital-intensive because labour is expensive. Therefore, the technology which is readily available is capital-intensive, and that reinforces the capital-intensive bias.

Most importantly, left to the market and with the model earlier presented, the wage will be equal to the average product in the work-and-income-sharing sector. But for the sake of efficiency as well as equity,

labour should be hired until the wage equals the marginal product, as we are taught in introductory economics. Leaving allocation to the market will not produce that result. Rather, the wage will be far higher than the marginal product. Even if the marginal product, or labour productivity, is zero, the wage will be very much higher. Therefore, there is justification for subsidizing labour not just on equity grounds, but also on efficiency grounds. To some at the IMF, such a suggestion may seem like heresy. But, on purely efficiency grounds, employers should hire labour until the leisure preference or the opportunity cost of labour and the marginal product in the firm are equal. But if the employer has to pay the average product in the work-and-income-sharing sector, then the only means to obtain a labour-intensive pattern of development is by subsidizing labour.

There are a variety of means for doing so. Government can do it directly and it has done so in labour-intensive public works programmes. Government can also take over the social security contributions, the health, housing and transport costs of the workers. The argument also provides a justification for subsidizing transport costs in the urban areas, an idea that may cause some World Bank staff great agony. Above all, it is possible to subsidize food. In all of these cases it is important to find a form of subsidy where there is very little leakage. That is, the subsidy should benefit primarily the unskilled workers in the commercial sector. One cannot, as Egypt did, subsidize everything, including imported meat and imported canned milk, which the upper-income groups consume. One needs to subsidize inferior goods, which are consumed only by the poor: cassava, sweet potatoes, the kind of a low quality *aata* which is sold in the ration shops, which generally the middle class or rich do not want to buy. This is one of the reasons why the wheat subsidy in Pakistan has benefited primarily the poor. It is even more difficult to limit the subsidy to commercial-sector workers. Government needs to find some food, some form of transport, some housing which is specifically targeted and which will be consumed largely by unskilled workers, preferably those in the commercial sector. To subsidize the cost of unskilled labour in the commercial sector improves both equity and efficiency, because it increases the use of labour. When labour is drawn out of the work-and-income-sharing sector, this raises the reservation wage and, therefore, the average real wage throughout the economy. At

the same time, it makes for an efficient structure of development. How to finance the subsidies and whether such a programme is feasible, I want to discuss tomorrow. I think there have been enough controversial points raised for one day.

DISCUSSION

Prof. Syed Nawab Haider Naqvi: We all agree that Prof. Papanek's performance today is a continuation of his performance yesterday, which was very lucid and very concise. He has broken down many barriers from conventional ways of thinking and has tried to create some new avenues of thought. I am sure there must be lots of questions. We have about 35 minutes for questioning. So, let us start with the questions.

Dr A. R. Kemal: Thank you Mr Chairman. I have two questions which are related: the first one is on the basic assumption of the model, and that is about wage and income trends in relation to income distribution. My second question relates to the reservation wage.

While it may be true that if growth in wage income falls below growth in per capita income, there may be a deterioration in income distribution, it is not, however, necessarily true that income distribution worsens when wage income growth falls short of per capita income growth. This is so because of the existence of differential in wages across sectors and across skills. These differentials are implicit in Professor Papanek's model as wages do differ across the three sectors of the model even for the same skilled people. Because returns to human capital differ significantly across different income groups, and there is very skewed distribution of these human skills, it can easily be seen that an extenuation of income inequalities occurs even when wages are increased. As far as the reservation wage concept is concerned, it seems that it is an *ex post* concept, because initially we have the output and then we divide it by hours worked which gives us labour productivity. But if the concept of reservation wage has to have any meaning, we have to build in expectations. What sort of expectations we have on reservation wage depends on labour productivity. You have provided us with some empirical evidence and you have also told us that these data may not be entirely correct. But if you are analysing other theories on the basis of these data and rejecting them, let us analyse your theory on the

same basis. Now, for example, we know that productivity in agriculture in Pakistan increased tremendously during the second half of the Sixties as a result of the adoption of Green Revolution technologies. Now, according to your hypothesis, reservation wages should have gone up. What we discover is that they have gone down significantly. . . . So, if these data are correct, then your hypothesis is not validated by them. Similarly, I wonder why only data for textiles have been given and not data for the manufacturing sector, because the trends, if I remember correctly, for wages in the manufacturing sector are entirely different from what has been found in the textiles sector.

Prof. Papanek: These are all very relevant questions and it is eminently fair to subject my model to the same tests as all the other models. I would plead one extenuating circumstance: the model in its present form has been developed only in the last eight months and the process of empirical Verification is still in process; it was not developed 30 years ago and there has not been all that much time to analyse the data. For instance, the Pakistan wage data I saw for the first time about a week ago because I only collected them a few months ago, and they have only been processed recently. So I may come up with a better answer three months from now than I can come up with now.

To your first question there is a reasonably good answer. Please remember that I am equating only the wages of completely unskilled workers with the income of the poor. So I am not talking of skill differentials or of human capital differences. The initial assumption I stated, and I do not know if you agree with that, is that the bottom 40 percent possess very little human capital, just as they possess very little physical capital. This may have changed in Pakistan in the last few years as a result of migration and so on. But that was the basic assumption; so I am not concerned about skill differences across the sector.

I should have said something else about the model, but there was lack of time, and you have given me the opportunity to add it now. The model assumes a series of segmented labour markets for unskilled labour to which access is limited and where the wages can, therefore, differ. However, many of these markets can differ only to a limited degree

before the barriers break down. Let me give you an example: in a study of Jakarta, Indonesia, we found that almost 85 percent of the bicycle-rickshaw drivers, an essentially unskilled occupation, come from three districts in North Java. Why? Because trust is involved. What happens, in the language of Vijay Jagannathan, the author of another thesis, is the acquisition of "social assets". The poor may have no human capital, they may have no physical capital, but they can accumulate social assets. Social assets are essentially access to somewhat higher-paid job through connections. When you come into Jakarta and you want to pedal a bicycle-rickshaw, you have to rent it from somebody. The person who rents it to you, who owns it, and who is a wealthy man (perhaps owning hundreds) will not rent it to you unless you are introduced to him. If you are somebody he does not know, what is to stop you from keeping pedalling until you reach the next town and you have acquired something valuable, a bicycle-rickshaw. So he will only rent it to you if you are introduced to him. The way you get introduced is by becoming an apprentice bicycle-rickshaw driver who does it at hours when nobody else wants to do it. Yet get somebody from the same area to let you use the bicycle-rickshaw from 12 to 2 in the morning and then he introduces you to the owner and he rents you a bicycle-rickshaw. The same mechanism even works with shoe shining where the territories are allocated. You cannot just set up in shoe shining — you will get beaten up! You have to be given a corner in which you are allowed to work and you do that by being introduced, by being brought in.

Therefore, there is a limited access to all these occupations. We found one market in Dhaka where there was no limit on access, where anybody could come, and that was carrying packages in the bazaar. That earns between Takas 3 and 4 a day, while in other unskilled occupations the pay is Takas 15 a day. Because in bazaar portering there is no limit on access, anybody can go there and do it.

Suppose the earnings from bicycle-rickshaws rise from Takas 15 to Takas 20 while in the bazaar market they still remain at Takas 3 and 4. The owners will begin to look around for additional people to keep the gap more or less steady and more distant friends and relations will try to come in. If the gap is too big, the owners will look for people

from neighbouring districts, somebody who can be introduced but is not from the same village, and so on.

As a consequence, and that is very clearly brought out in the regressions, wages throughout the economy for unskilled workers move up together, or move down together. The correlation coefficients are extremely high and one can also see it by visual inspection. There is usually a lag. If wages in construction move up, then a year or two later they move up in agriculture because people move into the city to get construction jobs, and there are a fewer people in agriculture and wages move up there. If wages move up too much in some other activities, people will move into that, with a lag, with difficulty, across barriers. The gap can be quite large over a period of time but wages all move together.

We have compiled some 25 different wage series on these five countries, collected by different agencies for the same country. They all move together, over any 5-year or 10-year period. All Indonesian wages change together: rice agriculture, plantation agriculture, industry and construction. Similarly, for Bangladesh. In fact the wage is almost identical in construction and in agriculture.

While wages may differ by a great deal, across sectors, even for unskilled workers, they move together, and that is what I am concerned with. If wages in agriculture move up by 20 percent, they probably move up by 15 percent or 25 percent in construction also. That is why one can draw conclusions from wages for unskilled workers for income distribution. Because of the big distances in India, wages do not always move together in Bihar and the Punjab. But they do not move together in the Punjab. They do, however, migrate from Bihar to the Punjab; so wages move together in Bihar and the Punjab. But they do not move together in Orissa and the Punjab, because people speak a different language.

Why did we use the textile wages for Pakistan and not industrial wages? Very simple: one should not use industrial wages because of changes in composition of sectors over time. For instance, during the initial period, 50 percent of the industry may be textiles and 10 percent metal-working, where the wages are much higher. At the end of the

period, 30 percent may be metal-working and 30 percent textiles, where the wages are much lower. The result is an apparent rise in wages. But, of course, it is not a true rise. For industry, wages are not available by skills, but only for all production workers. So, as skill-intensive industry grows, there will be an upward bias in wages which I wanted to avoid. So, we used the textile industry which does not change much in skill composition.

Why did wages in Pakistani agriculture decline in the Sixties? I don't know. However, in the regression for Pakistan for the entire 20-year period, the average production in agriculture and the rural wage are very closely correlated; the t-statistic is 3.2 — that is very high. But what happened in the mid-Sixties? I am not sure. Notice that the decline came in 1966—68. Those were two years of bad harvest and that may be the reason. Despite the Green Revolution, output dropped — because of drought, if I remember correctly. Wages then went up in 1969—71 and even more in the subsequent period, when agriculture recovered from drought. That is one possible explanation. The other possible explanation is that these agricultural wages are drawn from a sample of, I think, 25 farms. Among all the agricultural wage data, only the ones for Sri Lanka are worse. It is a tiny sample. We are not sure whether it is always the same farms or one particular region. We may just be getting "noise". But what I find encouraging is that when you correlate wages with the average product in agriculture lagged by one year, there is very good correlation.

Prof. Syed Nawab Haider Naqvi: I am sure that with this long answer, Prof. Papanek must have answered a lot of potential questions; but let us persist with the activity of questioning. Next question, please.

Dr Faiz Mohammad: I have two comments and probably one of them relates to your response to Dr Kemal's questions and that is about your theory for the income-and-work-sharing sector. The reason you have a problem in explaining Pakistani data is that you have not distinguished between the changes in productivity due to land and those due to labour. I am sure that there will be different implications, both for demand for labour and for demand for land if productivity changes either because of land or because of labour on account of the nature of the equilibrium

between the two inputs. If productivity has changed because of land, then holding other things constant, it is possible that there will be more demand for land and some labour will be shunted out and as a result the wages could decline. So, one of the problems that I find with your model is that there is no distinction between changes in productivity due to different factors. Secondly, a comment on your policy implication on subsidy to the industrial sector. You said there should be a subsidy to the industrial sector because they cannot hire labour at a wage equal to their marginal product; rather they have to pay an amount equal to the average product. Then, you are assuming that the average product in both sectors is the same. In fact, the average product of labour in the work-sharing sector is less; and even if he has to pay an amount equal to the average product of the work-sharing sector, that may still be less than the marginal product of the industrial sector. So, I am not clear about what you are assuming in that context.

Prof. Papanek: Thank you for both of these comments. Obviously, again, I was not as clear as I thought I was (Professor Naqvi kindly said I was). Firstly, it is inherent in the model that there is no need to distinguish between land productivity and labour productivity in agriculture if, and only if, labour in agriculture is compensated in relation to the average product. Again, think of the family farm. If land productivity rises and the same number of people remain there, then their income rises and under the assumptions of the model (or my assumptions — perhaps I should not blame this poor helpless model) the reservation wage rises. It makes no difference what causes the increase in productivity — it could be an extension of land, it could be irrigation, it could be high-yielding varieties — if labour is compensated according to its average product.

One other addendum. Despite the fact that we have discussed the model for an hour and a half, I obviously presented it in highly abbreviated form. The wage in the commercial sector is set at the level where the demand curve of the commercial sector intersects the labour-supply curve. The labour-supply curve has at its bottom tail a number of people who do not participate in work-and-income-sharing, who have no social assets, who have no access to any rents. They do not belong to a family that owns any land, they do not belong to a family that owns

a small retail shop, they do not come from a district that allows them to pedal a bicycle-rickshaw — they are left out. But their reservation wage does not affect the wage in the economy as a whole. It is like any other supply curve; the people who fall below the point where the demand curve intersects the supply curve do not count for wage-setting in the commercial sector. So there can be lots of agricultural workers who do not participate in work-and-income-sharing, who are purely workers, who get a money wage, who do not benefit directly if output goes up. But they do not influence the wage as long as the demand curve intersects the labour-supply curve at a point where they are not represented.

Therefore, you do not have to have universal work-and-income-sharing. You can have lots of people who do not benefit at all from rising agricultural productivity directly as long as it shifts the whole supply curve upwards and a new wage is established in the commercial sector which then has to prevail throughout the economy.

Note that I did not suggest a subsidy to the industrial sector; I suggested a subsidy to the commercial sector, and the two are not necessarily the same; some part of industry is in the work-and-income-sharing sector. The average product in the commercial sector is completely irrelevant to this model. The commercial sector hires people up to the point where their wage equals their marginal product in the commercial sector. It is perfectly straightforward neo-classical sector. But then wage is set by the point where the demand curve of the commercial sector intersects the labour-supply curve determined by the work-and-income-sharing sector. So the commercial sector has to pay a wage equal to the average product in the work-and-income-sharing sector at the point where these two curves intersect. The average product in the work-and-income-sharing sector is bound to be higher than the marginal product in the work-and-income-sharing sector, and the opportunity cost for the economy is the marginal product in the work-and-income-sharing sector.

Again, let me give an example. (I am sorry I am taking so long, but this is obviously a complex proposition which I have not explained very well.) A family farm in which there are five people working and which could get the same output with four people, has a marginal

product of labour which is zero. But the people will not leave the family farm unless they are paid an income which allows them to live at the same level of consumption at which they lived when they stayed on the family farm, which is related to the average product. Then the economy will be better off if a subsidy is provided to the commercial sector to hire that extra person who leaves the family farm. Output on the farm does not drop. He goes into industry or he goes into services or he goes into commercial agriculture where his (or her) marginal product will be positive. Total output will increase. The poor will be better off because the real wage will rise if enough of this is done.

Prof. Syed Nawab Haider Naqvi: How many more questions are there? We had fixed 11.15 a.m. as the time for tea. But it appears that we will not be able to keep that time. All right, we can have more time. Let us start with Dr Fahim who came late, and then I will come to Prof. Hussein Mullick.

Dr Fahim Khan: I will be making a comment on the last part of Prof. Papanek's speech, because unfortunately I missed the earlier part. I would comment on two things. Firstly, Prof. Papanek suggests that there should be no minimum wage because it will adversely affect the labour in the unprotected sector, and secondly, he suggests that we should not have cheaper capital because it again will adversely affect the labour class. On the first point on minimum wage, I would like to say that if Prof. Papanek is accepting the hypothesis of a reservation wage, which is determined (or supposed to be) by average product, in my thesis, the same thing will also apply to the minimum wage. Reservation wage in my model, which he has made use of, is determined by some exogenous factors. Now, the minimum-wage legislation, which is an exogenous factor, is as effective as average product in raising reservation wage in agriculture. And, when I was writing my thesis we had seen in our analysis that during this period of minimum-wage legislation wages did increase. However, we had a problem that minimum-wage and average product increased in the same period and it was very difficult to isolate the effect of the two, obviously because of multicollinearity. So we will not be able to say in the case of Pakistan that the minimum wage will not permanently raise the wage level in Pakistan. The second comment is about cheaper capital. Now providing cheaper

capital by increasing its supply will increase the average product of labour and it will increase the marginal product of labour. The more capital we give to a labourer, the greater will be his marginal productivity. If we give an unskilled labourer some tool to work with, his marginal productivity will increase, and the average product will increase. The problem is not with the price of the capital; the problem is with the distribution of the capital. If the government can intervene to keep the price of the capital low, then it should also intervene to distribute the capital equitably. At the end I would like to comment on the point raised about the declining agricultural wages in the late '60s. The data that are being presented are from the Farm Accounts. When I was doing my thesis, we noted that Farm Accounts Data were not reliable for indicating trends, and that is why we ignored agricultural wages. Now some data are available. The PIDE has generated data on agricultural wages for their Econometric Model, and I can recollect that there was no declining trend in the late '60s in the agricultural wages.

Prof. Papanek: It is indeed true, to the extent that we can tell from the poor data and given the problem of multicollinearity, as you have pointed out, that raising the minimum wage in the late '60s and the early '70s had an impact throughout the economy. It seems to have had an impact as well on firms that were not subject to minimum-wage legislation, that were too small. I think wages were raised in firms that were not subject to minimum-wage legislation, because they were afraid of their workers; they wanted to buy industrial peace and political peace and they raised the wages. That certainly provided benefits, not only to the workers covered by the minimum wage, but to some other workers as well. However, I think there is no free lunch in economics, as anywhere else, except when you are a guest of the Pakistan Institute of Development Economics. When you raise the cost of labour to the employer, unless you at the same time dictate the number of workers the employer has to hire, you are going to reduce the number of workers employed. That is one of the fundamentals of economics which has not been changed by anything we have learned in the last 30 years. When you reduce the number of workers in the commercial sector, those that do not get a job there have to find a job somewhere else. They cannot live without income. They will then crowd into the remaining occupations and will lower the average product there. That

will lower the wage of those workers who are not in the sector covered by minimum-wage legislation or frightened of its labour. If the minimum-wage legislation or the fright of the employers continues for long enough and wages remain high there will be a substitution of machinery for labour, which we have also seen in Pakistan. It has not had disastrous consequences because of migration of two million people (I was told yesterday) to the Middle East. When there is a drop of two million in the labour force, that changes the situation completely and fundamentally, and undoubtedly explains why real wages have continued to rise. The average product then rises in the work-sharing sector and as wages increase, so will labour productivity in the commercial sector. This will also lead to a substitution for labour. There is no doubt about that. But since it comes from a declining labour supply and follows, rather than precedes, the rise in labour productivity in the commercial sector and follows the rise in average product in the income-sharing sector, it does not harm workers who are outside the protected sector, as raising the minimum wage in the protected sector can harm them.

if government lowers the cost of capital, it accelerates the substitution of capital for labour. The workers who are employed on the cheap machinery can benefit. Their marginal product will rise and their wage may rise, if the employers do this in order to have labour peace. But the workers left out will lose. Lowering the price of capital is not going to increase the rate of savings, if the rate of savings is going to be determined by something else, there will be the same amount of saving, if government lowers the price of capital to some groups in the population, to some employers, they will use more capital than they should and less labour. Only their labour will benefit. The labour left out in the rest of the economy will not benefit. The labour left out in the rest of the economy will suffer because they will have less machinery to work with.

Your answer may be that government can allocate capital and make sure that nobody uses it in excess. That is a perfectly correct answer, if you believe that the government has the capacity to do so. I will address this question tomorrow but the overwhelming evidence is that government has neither the capacity nor really the inclination to do so. There is (I will come back to that tomorrow, but I cannot restrain myself at

the present time, I do get carried away) ample evidence that government is not some benevolent agency above class-conflict and class-interest, looking out only for the greatest good for the greatest number. Civil servants, managers of public enterprises, and allocators of resources pursue their own interests as well. As a result, the evidence is overwhelming from these five countries that with government allocation of capital, it is not allocated to maximize output, it is allocated to maximize a series of other objectives which imply a very capital-intensive method of production. That is not true of just one country; it is true of every country analysed. In Korea it even resulted in a reversal of the 1960s pattern of rapid growth with improving income distribution. In the "1970s Korea made a fundamental shift in policy, by subsidizing capital. Who gets the subsidized capital? It is never the small person; it is always the large and well-connected firms. They receive subsidized capital and they shift over to extremely capital-intensive methods of production. The result is a deterioration in income distribution. In theory, government allocation may be fine; in practice it generally does not work.

Prof. Syed Nawab Haider Naqvi: Let the last question be asked — I do not necessarily mean the marginal question!

Prof. Hussein Mullick: Thank you very much. I think this seminar is taking me back to August 1979. That was the time when Dr Papanek and his friends came out quite aggressively in favour of the basic-needs approach. I have been listening to his lectures of yesterday and today and my feeling is that he is still sticking to his earlier stand on basic needs which is reflected in his two remarks. One has already been partly discussed and that is the subsidy that he wants to give to labour in terms of labour intensification and the second is that he feels rather worried that employment will be reduced or, at least, incremental employment will not be enough if a country starts investing in heavy industry. I think this analysis to me looks terribly short-sighted, short-termed and is not directed to the realization of the main goal called development. I think our job is to avoid any trade-off between development and welfare, but development has to be preferred to the extent it is possible. I would suggest that perhaps the time has come to look at things in a longer perspective. Take for example the case of the steel mill whose killing

your friend Mahbub ul Haq at one time advocated. He has now come out for the establishment of downstream industries. Things have changed in Pakistan.

Prof. Papanek: You know, there is a famous phrase which is often quoted as "consistency is the hobgoblin of little minds". However, that is not the correct quotation; the correct quotation is "a false consistency is the hobgoblin of little minds". Yes, Prof. Mullick, I am relatively consistent. So the question is, is it a false consistency or true consistency? I have not mentioned the word basic needs. I have made an argument that to price labour and capital according to opportunity cost will, over the long run, provide both the most rapid rate of growth and the most equitable distribution of income. I think there is no conflict between these two objectives.

But you have raised some very fundamental issues which I will not respond to today. I am not sure you will agree with me tomorrow, but I do want to discuss, in a more systematic fashion tomorrow, what has happened in the five countries over the last 30 years to the rate of growth and the distribution of income. I fear that you will find me again consistent.

If one is going to address, as a professional economist, the question of what investment pattern is useful for growth and for equity, one has an obligation to present an explanation. Do not call it a model, but call it a conceptual framework, in which the argument is not a political argument that steel is good, or steel-using industries are good, or agriculture or fertilizer is good. It seems to me that it does not get us very far. That is the kind of debates we had in 1951 and we should have advanced a little bit beyond that. One has to have some kind of conceptual framework in which one argues that the opportunity cost of labour in Pakistan is high and, therefore, we should price labour high, or the opportunity cost of capital is low and, therefore, we should price capital low. Or if one does not make that argument then one should make the argument that regardless of this short-term opportunity cost, one should be concerned with long-term dynamic comparative advantage

and that having a steel mill enables you to learn by doing. I have tried to present a framework which argues that the market overprices labour, and government underprices capital and that in a labour-abundant economy, that is both inefficient and inequitable. Of course, you need not agree. I would love to hear, however, a counter-argument which says that in fact the market underprices labour and overprices capital and, therefore, government needs to intervene to redress this.

Let me just make one other comment, because I do not want to be misunderstood. I have not argued that wages should be depressed. I have argued, on the contrary, that government should subsidize the employment of labour and that is the way to raise labour income throughout the economy. Minimum-wage legislation affects only a small proportion of the total labour force. Even under the best of circumstances, it never affects the self-employed. If government subsidizes labour, it will increase the demand for labour, and labour income will go up, even the income of the self-employed under this model. So, I have not argued for greater exploitation. On the contrary, I have argued for a subsidy to labour, which to my mind is the only efficient way, and the only permanent way, to increase labour use and, therefore, the efficiency of the economy and the income of labour. Now that is quite different from simply saying, "Abolish minimum wage legislation and try to squeeze down labour"; and I just do not want to be misunderstood.

CONCLUDING OBSERVATIONS

by

Professor Syed Nawab Haider Naqvi

In today's lecture Prof. Papanek has speculated, loudly of course, about the nature of economic reasoning that *could* explain the statistical tendency that Kuznets observed. In the vision of the development process conjured up by Lewis, Fei and Ranis, unlimited supplies of labour at an unchanged wage rate finance capitalistic development until the 'second inflection point' is reached and surplus labour is fully absorbed. After that point is passed, the marginal product and real wage (of unskilled labour) in the agricultural sector will rise. The heyday will then end of early capitalistic development, which is denoted by sharply rising profits and constant real wage. (It is interesting to note that this "early" period of development is supposed to last 50 to 100 years — a literal Keynesian long run in which we shall long be dead!) In such a scenario, the Kuznets phenomenon, *if* it exists, is an entirely reasonable one — indeed, a desirable one, if we accept the capitalistic ethic that whatever is profitable is good. Let the present generation of wage-earners suffer so that posterity, at least three generations later, may hope for better days. This, according to Prof. Papanek, is a pretty dismal picture of the processes of development which, if allowed to hang in the development economist's gallery, will turn the spectators and 'buyers' away from the gallery — a stiff price to pay just to save one theory, even though as hallowed as the present one. Prof. Papanek would be the last person to show compassion on such occasions.

As if guided by the Invisible Hand of (enlightened) self-interest — or shall we say, self-preservation — Prof. Papanek first knocked out in yesterday's lecture the empirical crutches provided by Kuznets to the Lewis-Fei-Ranis type of theoretical analysis, and then trained his guns in today's lecture on the three apostles of the 'dismal' development economics. An heretical act this, but everything is justified in love, war and economics — especially in development economics. He asserts, with ample data thrown in the balance, that there is no empirical basis for the Lewis-Fei-Ranis type of analysis according to which rural wage is determined by customs, tradition, or other non-economic factors while the urban wage is determined by marginal productivity. Prof. Papanek takes great pains to show that the wage of unskilled labour in agriculture is, instead, determined by average value product, which typically exceeds marginal product there, if that is so, and Prof. Papanek plumps for the claim that indeed this is so, then the Lewis-Fei-Ranis model breaks down and along with it goes the vision of capitalistic development where rapid rates of growth, in the initial stages (lasting about 100 years), must of necessity worsen distribution of income as real resources flow from rural labour to urban capitalists.

He attempts to explain with his theory the behaviour of real wage in Pakistan, Bangladesh, India and Indonesia. These are the countries where, if anywhere, the surplus-labour theory should have prohibited the temporal rise of the rural real wage. But, according to Prof. Papanek, the army of surplus labour under the joint command of Lewis, Fei and Ranis has failed to stem the tide of a rising real wage. The three wise men should have learned the fable of King Canute by heart in their kindergarten days! The real wage in a typical developing country may rise or fall but seldom remains unchanged. Take Pakistan's case. The real wage of unskilled labour in the rural and urban sectors rose from 1960 to 1970, followed by a decline, then by a stagnation in the first half of the Seventies, then by a rise from 1975 to 1980, and then by a decline from 1980 to 1983. Prof. Papanek maintains that the surplus-labour theory is out of place in the face of such facts. The wage data may show that it has been "all the running to stay at the same place", but this is not the constant real wage of the Lewis-Fei-Ranis model.

Now comes the interesting part of Prof. Papanek's formulation. The rural wage, determined within a work-and-income-sharing arrangement according to the average value product rule, sets the reservation wage for the urban sector. The rural wage will, therefore, rise each time there is an excess demand from the urban sector or from Mars for farm labour, and/or each time average value product rises in agriculture. The latter 'event' can occur either because agricultural production has risen or because labour supply within the agriculture sector declines for whatever reason. Thus growth forces, operating both within and outside agriculture, will raise the market real wage of (unskilled) rural labour. Here we have a fairly reliable trickle-down mechanism which will ensure that at least some of the growth impulses are transmitted down to the poorest; and it is this mechanism which will ensure, more often than not, that high growth rates are not immiserizing for the poorest segment of the population. However, the condition that must be satisfied for this happy confluence between growth and equity to hold is that the real wage of the unskilled labour must be rising faster than the average per capita income. Growth will be immiserizing, denoting a sort of catabolic condition in the economic structure, if this condition is not satisfied.

This is an interesting formulation, but note the caveat, if the average value product and the reservation wage rise because (unskilled) labour has migrated abroad, or due to some exogenous factors — e.g. a rise in the minimum wage — then employment and labour income may decline. It follows that unless we have more information about employment of (unskilled) labour, just the excess of increase in real wage over the increase in per capita income may not by itself guarantee an improvement in the share of wages of the poorest (40 percent) of the population. It is for this reason that Prof. Papanek lays so much emphasis on adopting pricing policies that encourage a greater use of labour each time the economy expands. He also advocates, quite rightly in my opinion, subsidization of labour-use in the economy if owing to the pre-existing distortions the market fails to generate optimal employment.

Here, as elsewhere, Prof. Papanek acts the typical 'two-handed' economist, arguing on the one hand for a non-interventionist policy and asking on the other hand for an active interventionist policy. This 'double-standard' stance is good both for Prof. Papanek's soul and for

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the policy-maker whom he deprives of the comforts of a mechanical rule to follow and the services of the Invisible Hand.

With these words I adjourn to-day's session until tomorrow for tea, sympathy and reflection.

Lecture III

**GOVERNMENT POLICIES ON POVERTY:
POPULIST VERSUS GROWTH-ORIENTED
GOVERNMENTS IN SOUTH EAST ASIA**

Lecture III

**GOVERNMENT POLICIES ON POVERTY:
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Professor Naqvi, Dr Sarfraz Qureshi, and distinguished guests:

I am aware of the fact that the whole issue of populist versus growth-oriented governments is an issue on which people hold extremely strong views; indeed, much stronger than those on the issues we discussed in the last two lectures. Anything I say will be objected to by someone. It is a subject on which there are strong ideological commitments. That my own approach is not universally shared was brought home to me some years ago when I met a Russian colleague at a seminar at Columbia University. He is a Russian specialist on the Pakistani economy. When we met, he said, "Ah, Prof. Papanek! I know your name very, very well. I have read everything you have ever written. I tell all my students of your books on Pakistan. It is required reading. No student can take my courses without reading your book." I was very flattered by this, as any author would be, and I thanked him profusely. When I walked away, the Russian turned to another person who had been standing with us and said, "Yes, every student must read his book. I tell them it is a perfect example of wrong thinking." Probably there will be some people at the end of today who will feel the same way as that Russian expert on Pakistan.

The principal objective of the development process, in terms of which strategy has to be framed, is simply the alleviation of poverty, the reduction of poverty, with two side conditions, or constraints, to use economics jargon: to the extent possible, without harming others; and to the extent possible, while improving income distribution. But the

principal objective is to reduce, and as soon as possible to eliminate, the abysmal poverty in which a large part of the population of Southern Asia lives.

GROWTH WITH DIFFERENT STRATEGIES

It follows that a development strategy should achieve a high rate of growth and no worsening of income distribution and, if possible, an improvement in income distribution. It is in the light of these objectives that I would like to look at five countries in Southern Asia. In these five countries, one can distinguish governments with two different approaches to development strategy — those that were essentially growth-oriented, emphasizing speeding up the rate of increase in per capita income, and those that were more populist, intervening extensively in the economy with the justification that this was needed to improve income distribution and the income of the poor. In Table 11, the growth rate, when growth-oriented regimes were in power — they are starred — had an unweighted average of six percent. When populist or interventionist regimes were in power, the average rate of growth was only three

Table 11
*Growth Rates for Five Countries
(1950 - 1980)*

Country	'50s	'60s	Early '70s	Late '70s	
India	4.2	3.4	3.5	3.8	
Pakistan		6.7*	3.9	5.2*	
Bangladesh	2.5	3.7*	-0.2	4.7*	
		'60—'67	'68—'71	'72—'80	
Indonesia		0.5	9.5*	7.9*	
	'50—'60	'61—'65	'66—'70	'71—'77	'78—'81
Sri Lanka	3.1	3.8	5.7*	3.1	7.8*

Source: Papanek.

Note: Annual compounded percentage rate of growth in GDP.

* = market/growth-oriented regimes in power.

percent, even if one excludes the early 1970s in Bangladesh on the assumption that what dominated the economy were the after-effects of the war. (It is not fair to charge the period to the policies of the government. It is difficult to distinguish the extent to which the negative growth rate during that period was due to the strategy which the government pursued, and the extent to which it was due to the destruction and disruption of the 1971-72 period.) So, even excluding that period and even excluding the 1950s in Indonesia, one finds that the growth-oriented regimes achieved a rate of growth twice that of the populist regimes.

In fact, the significant difference is even greater. The rate of population growth in these countries is between 2*i* and 3 percent per annum. So, a growth rate of three percent means stagnation in per capita income, while a six-percent growth rate means a three-percent growth rate in per capita income. Obviously, it makes a tremendous difference whether you are growing at three percent or at zero percent per capita.

Alone among the five countries, India has had a relatively unchanged strategy during the entire period of its existence. As one might expect, the growth rate therefore has been relatively steady. With a largely populist/interventionist approach, it achieved a rate of growth of four percent per annum, that is about one percent per capita. At a rate of one percent growth in per capita income, it takes 72 years to double per capita income, which is an awfully long time to wait to go from \$ 100 to \$ 200 per capita.

Income Distribution with Different Strategies

It is a widely accepted conventional wisdom, enshrined in the comments about the "22 families", that the periods of rapid growth were also periods when income distribution became less equal, at least in Pakistan during the 1960s. But overall income distribution data provide no support for this conventional wisdom.

Professor Naqvi may rightly object that these data give no indication of what happened to wealth. If the wealthy accumulated assets more rapidly than the poor, it means that their future income will be substantially improved. That would be a major change that is not

captured in these data. But we really do not know what happened to assets. We do know that some people became absolutely very rich and that their accumulation of assets in the 1960s was also extremely rapid. My best guess for the period ending 1959 was that the rate of profit in industry was somewhere between 25 and 50 percent. At that rate of return, one accumulates assets rather quickly. In fact, at 50 percent one doubles assets in less than two years. But I have no basis for saying what happened to the rate of accumulation of assets of the rich in the 1960s, as compared to the 1950s or the 1970s. It probably was quite rapid in all these periods. Whether it was affected by the rate of growth, I cannot say. It would certainly be useful, although difficult, to estimate the accumulation of assets by different income groups during the 1950s and the 1960s. It might even be possible to do it, because by now people might be willing to tell about the past.

With respect to income distribution in Pakistan, in fact the share of the poorest 20 percent increased by 24 percent over the 1960s (see Table 12). The share of the poorest 40 percent increased by 10 percent and the Gini coefficient improved by 9 percent. These are all massive changes in the direction of improved income distribution. Note that this improvement is steady. It is not that 1970-71 is an odd year, or 1963-64 is an odd year. The Gini coefficient keeps going down, which, of course,

Table 12
Measures of Income Distribution for Pakistan based on Household Income

Fiscal Year	Gini Coefficient		Income Shares (Rural & Urban)	
	Total	Rural	Lower 20%	Lower 40%
1963-64	.347	.339	7.1	19.2
1966-67	.342	.313	8.1	19.3
1968-69	.326	.261	8.5	20.1
1969-70	.323	.292	8.7	20.6
1970-71	.315	.284	8.8	21.1
1971-72	.332	.293	8.2	20.4

Source: Nasim M. Sadiq, "Statistics of Income Distribution in Pakistan". Paper given before CENTO Symposium on Recent Developments of the System of Social Accounts, Karachi, 2-7 March, 1974.

indicates an improvement. Every year is better than the previous year until it worsens in 1971-72, which one cannot charge to the high growth rate of the 1970s.

These data on income distribution, like those for other countries, are poor and the margin of error is large. The question remains whether there is a systematic bias in these figures or whether they all are equally wrong. Certainly the rich are under-enumerated, and so are the very poor. But the real issue is: has under-enumeration of the rich increased over time and that of the poor improved? In the absence of any evidence that this has happened one must conclude that overall income distribution data do not support the notion that income distribution in Pakistan became less equal in the 1960s. The data in various studies, all based on the same consumer budget studies for households, show improvement in equality. At worst, they lend no support to the idea that income distribution became less equal.

In Bangladesh the improvement was even more dramatic (Table 13). In the 1960s the Gini coefficient declined by 29 percent in the rural areas in eight years, and by 10 percent in the urban areas in only five years. In contrast, there was a dramatic worsening in the period up to 1974. These data were calculated by Dr Muhiuddin Alamgir, previously of PIDE and BIDS and no great admirer of the Ayub Khan regime. So, if there is any bias in the calculation, it is in the opposite direction. Yet he shows one of the most dramatic improvements in rural income distribution anywhere in the world in the 1960s.

By contrast, in India during roughly the same period, there was a slight improvement in income distribution in the rural areas and no change in the urban areas, during a period of very slow growth. The Indian data also can be used to show that income distribution figures are not terribly useful. To make the argument that Indian income distribution has become much worse over time, I would compare 1955 and 1976 (Table 14). There was a very dramatic worsening in income distribution over that period of twenty years, if I am a Congress-wallah and want to demonstrate that we have done a good job, I would say that 1955 must be discarded because a survey made at such an early period undoubtedly suffered from many statistical deficiencies. Therefore, the comparison should be between 1960 and

Table 13
Trends in Income Distribution — India, Pakistan, Bangladesh
(Gini Coefficients)

Years	India		Pakistan		Bangladesh	
	Rural	Urban	Rural	Total	Rural	Urban
1958-59	.340	.348			.38	
1959-60	.314	.357			.38	
1960-61	.321	.350			.38	
1961-62	.312	.357				
1963-64	.297	.360	.339	.347	.33	.41
1964-65	.294	.349			.33	.39
1966-67			.313	.342	.31	.38
1967-68	.293	.345				
1968-69	.310	.350	.261	.326	.27	.37
1969-70			.292	.323		
1970-71			.284	.315		
1971-72			.293	.332		
1973-74					.44	

Sources: (1) National Sample Survey data cited by P.K. Bardhan in T.V. Srinivasan and P.K. Bardhan, *Poverty and Income Distribution in India*.
 (2) Nasim H. Sadiq, "Statistics of Income Distribution in Pakistan" cited by S. Guisinger and N. Hicks (unpublished).

Table 14
Indian Income Distribution

Years	Gini Coefficient	Share of the Poorest 40 Percent
1955	.34	20.2
1960	.47	13.6
1965	.42	17.2
1968	.38	13.1
1976	.48	17.0

1976 when there is essentially no change. Or, one would argue that 1976 was a bad year, and the worsening in income distribution then simply reflects the bad year. Therefore, one should compare 1960 and 1968, the period when growth was somewhat more rapid. In that period there was a tremendous improvement in income distribution. To complicate the picture further, look at the share of the poorest 40 percent and compare 1960 with 1976. This shows a tremendous success of the Indian Government in reducing poverty, with the share of the poorest 40 percent rising from 13.6 to 17 percent. That is quite a dramatic improvement in a period of 16 years. Depending on which measure and which years are selected, one can prove almost anything with those income distribution data.

It may be well to ignore these tables for two reasons; (i) income distribution statistics are notoriously unreliable, and (ii) they are available only occasionally. There is no doubt, and the Indian statistics show very dramatically, that conclusions depend on the years selected. If it is a year of a good harvest, of substantial economic activity, there is an improvement in income distribution; if it is a bad year, there is deterioration. And if there are data for only a few years, one cannot draw any firm conclusions. Therefore, I want to turn to a better index of what happened to the poor, and that is the wage data for unskilled workers.

Unskilled Workers' Wages — Reasons for Change

Yesterday's lecture covered the arguments on why the wages of unskilled, unprotected labour are a good index of what happened to the absolute income of the poor. Table 15, which represents such wages, mostly of agricultural workers, is quite consistent with the income distribution data.

India, which had stagnation in per capita income, shows upward and downward fluctuations. Improvement took place in the 1960s, the period of the Green Revolution when agricultural output rose rapidly, followed by a decline in the early 1970s, which were years of bad harvest. Over 30 years, there was no change in real wages. In other words, after 30 years of development, if the wages of unskilled workers are a good index, the poor are back where they started from in 1950, only three years after Independence.

Table 15
Changes in Real Wages of Unskilled Labour (Percent change)

	'50s	'60s	Early '70 s	Late '70s	1950s—1980s
India	- 3	+ 4	-27	+15	0
Pakistan		+39*	+26	+27*	+123
Bangladesh	-12	+22*	-63	+40*	- 33
	'50—'63	'63-71	'71-78	'78—'80	
Indonesia	-54	82*	08	-22*	9
	E—'60s	L—'60s	E—'70s	L—'70s	
Sri Lanka	-2 to -4	1 to 17*	+ 6 to +24	14 to 38**	70 to 128

*Growth/market-oriented governments.

On the whole, the periods of rapid growth were also periods of increase in real wages: the 1960s in Indonesia and the late 1970s in Sri Lanka. This confirms that growth is important and favourable for the absolute income of the poor in these five countries in most cases. It is not yet clear from the wage data whether it is favourable for income distribution. We have yet to compare what happened to the wages of the poor with what happened to average per capita income. That is the next step in the analysis.

There are, however, some exceptions to the general conclusion that rapid growth is favourable for the absolute income of the poor, especially Indonesia in the 1970s. The figures for 1971 to 1978 show a zero increase in real wages for unskilled workers, while at the same time the growth rate was 8 percent. How does one explain that it is possible to have either rapid growth and stagnant income for the lower-income groups or rapid growth and improvement in their absolute income, as indicated by real wages?

In the model of labour-income determination presented yesterday, a rapid increase in the real wages of unskilled workers occurs with a rapid increase in the value of output per person in the work-and-income-sharing sector. This can be the result of an increase in physical quantity

produced, or a rise in the real price, or a decline in the number of workers. Agriculture is the most important activity in the work-and-income-sharing sector, and Pakistan in the 1960s had a relatively rapid rate of growth in agricultural output. The rate of growth in agricultural output was also higher in the 1960s than either before or subsequently in India and Bangladesh. The same thing was true of Indonesia in the late 1960s and the early 1970s. One factor in rising wages then was the rapid rate of growth in the value of output in the work-and-income-sharing sector, especially agriculture, which increased the reservation wage. The same relationship was shown yesterday by a more formal regression analysis: when the average product in agriculture rises, real wages rise as well.

The second factor in rising real wages in Pakistan/Bangladesh in the 1960s was a relatively rapid growth of labour-intensive industry. In fact, the rate of growth of industry in Pakistan was among the two or three highest in the world. Recall that the industries that expanded most rapidly during that period were the cotton textiles, jute goods and a variety of miscellaneous industries such as plastics, garments, household goods and agricultural processing, all of which are labour-intensive. So there was rapid, relatively labour-intensive industrial development.

The third factor in rising real wages in the 1960s in Bangladesh was the employment created by the rural works programme. In the early 1970s, by contrast, in Bangladesh there was a sharp decline in average product in agriculture and a sharp decline in labour demand by industry. The government, which was a very populist government, raised the minimum wage continuously. The result was negative, if output is declining, somebody is going to have to pay for that decline. And if the average product in the work-and-income-sharing sector declines, then wages are going to decline. If government keeps raising the minimum wage, the only effect could be to speed up the rate of inflation. Or, if the minimum wage applies to a very small sector, it may succeed, as the Bangladesh government did, in protecting perhaps one percent of the labour force against the ravages of inflation. But this will be combined with a decline in output, which will be at the cost of the rest of the workers, particularly of agricultural labour. The majority of workers who lose are, of course, never protected by minimum-wage legislation.

Pakistan in the early 1970s was an exception. Real wages of unskilled workers continued to rise, although at somewhat slower rate than in the 1960s. This was a period when the average product in agriculture fell, and industrial output stagnated. Therefore, in terms of my model, it is difficult to explain. I offer you three preliminary alternative explanations. One is that there was some 'creative' adjustment in some of the figures, and that the data do not accurately reflect what actually happened. It is possible that the rate of inflation was understated, which would bias upward the real wage. A more likely possibility is that employment in government rose rapidly, including employment in the nationalized enterprises, financed by a rapid increase in foreign resources. If that is the case, then there is a very good explanation, even in terms of my model. If a substantial part of the labour force is employed by the government and semi-governmental sector, then this could withdraw enough people from work-and-income-sharing sector to raise wages, even though agricultural output per capita is falling and industrial output is not rising very rapidly. Thirdly, minimum-wage legislation was surprisingly effective in a large number of enterprises, because of the political environment. Even enterprises that did not fall under the minimum-wage law raised wages because they were afraid of the consequences if they did not.

The most interesting case is Indonesia, because wages there had such sharp changes over time. Between 1951, the earliest year for which there are reasonably good data, and 1963 wages dropped by half. This was the period during which President Sukarno was in power, if a leader deserves the name of populist, it was he. He was much concerned with the well-being of the lower-income groups. Trade unions were strong and active, both politically and economically. Indonesia had, I believe, one of the largest Communist parties in the world. It was a period of great concern with income distribution; yet real wages dropped by somewhere around half. I do not believe these figures. They exaggerate the decline, for a variety of reasons. Even if wages did not decline by the full 54 percent which the data show, they declined very substantially. The explanation is simple in terms of my model: the economy stagnated; agricultural output per head declined and, with it, the reservation wage; there was no demand for labour from the commercial sector because that was in a shambles; there was little investment and, so, little employment

in construction. With a steady decline in per capita income, there was nothing that government could do and nothing that unions could do to protect the great majority of workers against the consequences of this deteriorating economy. Of course, there were some who were protected; but the great majority could not be. As usual, when an economy deteriorates, the elite made sure that it was the last to suffer.

The contrast with the early Suharto period is instructive. (The reason that 1963 data are used as a base, rather than 1966 when Suharto actually came into power, is that there were no wage statistics collected in 1965-66.) Between the mid-1960s and the early 1970s there was a near doubling of wages. It was a period when trade unions and Communist party had been smashed and the government paid no special attention to income distribution. Yet, wages rose substantially and income distribution almost certainly improved because per capita income did not rise by the 82-percent increase in real wages. Again, the explanation appears simple in terms of my model: there was an increase in labour demand as a result of a tremendous construction boom, as the irrigation system, the roads and buildings were rehabilitated. This work required unskilled labour, particularly since there was little machinery available. Agriculture revived, which raised per capita agricultural production quite rapidly. With no government intervention, wages rose.

Why did wages stagnate in the 1970s? It was the same government, pursuing the same policies and achieving the same rate of growth. This was a period of private enterprise and of rapid growth, accompanied by stagnation in real wages. Income distribution must have become much worse. One reason for stagnant real wages was that development was capital-intensive, with little increase in the demand for labour. As I mentioned yesterday, the number of workers in industry at the end of the 1970s was the same as in the beginning, although industrial output had doubled. There was an increase in average product in agriculture, which, under my model, should lead to an increase in wages. But it was counteracted by the decline of work-and-income-sharing in agriculture. Some of the poor were pushed out of some activities in agriculture; they were no longer permitted to share in its increased output. With an increasing commercialization and declining political pressure for work-and-income-sharing, some workers no longer shared in the harvest. They crowded into the remaining work-and-income-sharing activities.

This kept per capita product from rising in work-and-income-sharing, although agricultural output increased. With an increase in the labour force, there was no increase in the reservation wage and little rise in demand for labour from the capital-intensive commercial sector; so, real wages stagnated.

After 1978, apparently wages increased again. One should not draw conclusions from the three years of data, but it appears that real wages are rising again because Indonesia invested the second oil-price increase wisely. It was used to finance a massive public works programme, particularly devoted to building primary schools. Indonesia has always had a higher literacy rate and a higher proportion of children in school in rural areas, which is very labour-intensive. They employed tens of thousands on school buildings, on rural roads, and on local irrigation works, financed from the second oil-price increase. So, there was increased demand for labour and that may explain the renewed rise in wages after 1978.

The Income of the Poor under a Populist Strategy

Except for Indonesia in the 1970s, the growth-oriented regimes have done quite well for the poor, as far as one can judge from these data. That runs counter to the conventional wisdom. I will be interested in hearing any opposing evidence in the discussion period.

Except for Pakistan in the early 1970s, and Sri Lanka during the same period, the populist governments, those that have intervened heavily in the economy in the name of helping the poor, have not done well as far as the poor are concerned. Why is that? That is perhaps the most interesting question. I would have expected, as I said the first day, that populist governments would have done better on income distribution and worse on growth. But with the exception of Pakistan and Sri Lanka in the early 1970s, they have done worse on income distribution and worse on growth and therefore less well in alleviating poverty. I hope you will excuse my implied criticism of various governments. It is inevitable because it is a part of the search for understanding.

Firstly, the populist governments engaged in widespread nationalization. The evidence is reasonably clear that nationalization did not effectively transfer resources or income from the elite to the poor. It

largely transferred resources from one part of the elite to another part of the elite: from an industrial and business elite to a political, bureaucratic, military, managerial and labour elite.

Nationalization also did not reduce production costs and it did not increase savings. One of the arguments for nationalization was that with large-scale industry, banking and so on in private hands, a lot of its income will go for the consumption of the owners. If they are nationalized, the surplus will be saved, it was argued. In fact, whether the new industries, banks and other firms were in private or public hands, prices tended to be high behind high protective barriers. This means that the consumer was exploited. In the case of private firms he was exploited on behalf of the business/industrial community. When these firms were nationalized, the consumer was exploited on behalf of the political, military, and managerial communities and of the labour elite in the nationalized enterprises. (Since I seem to imply that every group represented in the audience was among those who benefited from exploitation, I hope I get out of here alive.) Prices and costs were both high in the publicly owned firms. As a result they did not, in fact, generate very much savings.

There is no inherent reason, of course, why public enterprises should be high-cost enterprises. One can make an excellent argument on logical grounds that public enterprises can function efficiently and that they can lower costs, increase savings and transfer resources from the rich to the poor. That it has not happened is no reason that it cannot happen. Pakistan is now making pioneering attempts to improve the efficiency of the public enterprises. It is probably further ahead on this than any other country. Let us hope the situation will therefore change and the next time I complete a study, I can report something different. I am just looking at history and what in fact has happened.

A second reason why the populist governments did not help the poor as they intended is that they worsened the capital-intensive bias of the economy, for a variety of reasons. As far as public-enterprise managers are concerned, very often they can logically see capital as free. They get it from the budget. There is no expectation of repayment and there is no necessary expectation of producing a profit, as long as the manager does not produce a loss. So, capital can be regarded by a rational, intelligent manager as essentially free. Labour, on the other

hand, is extremely expensive, because wages are high and fringe benefits are good. Labour is also expensive because the clearest sign for the Minister that a manager is incompetent is to have labour trouble. The fewer the labourers and the better their pay, the less likely the labour trouble. A rational manager will then maximize the amount of free machinery, and minimize the amount of potentially costly labour.

Private firms under populist regimes, as under some market-oriented ones, are able to borrow for fixed investment at very low rates of interest. So, capital for them can also be quite cheap. Traditionally, government has subsidized interest rates on fixed investments. In private firms, too, labour has been often quite expensive under populist governments. Minimum wages are often high and labour troubles are frequent. Also, when there is a decline in demand, it is often difficult, sometimes impossible, to dismiss labour or even to send it on unpaid leave.

These characteristics turn economic theory on its head. What economists normally assume is that machinery is a fixed cost and labour is a variable cost. But, in fact, for the manager, labour may be a fixed cost, and machinery a variable cost. Labour he cannot dismiss; he has to continue paying it. If machinery has been bought on a loan or the money is obtained through the budget, the manager just says that he cannot repay the loan, and he may take out a new loan to cover interest. If it is a public enterprise, he just tells the Minister for Finance that he has no surplus this year, or he has a very small surplus. So, capital becomes a variable cost and labour a fixed cost. This is another reason for maximizing the use of machinery, and minimizing the use of labour.

Another reason for capital intensity, and perhaps the most important one, is an overvalued exchange rate, especially under populist regimes. To compensate, government raises the cost of intermediate and consumer goods by tariffs, but machinery is usually exempt from the tariff. So, imported machinery becomes extremely cheap because it is bought at an overvalued exchange rate and is exempt from tariff. Tax holidays on the cost of machinery, but not on that of labour, add to the attractiveness of capital intensity.

So, there are good economic reasons why capital is seen as cheap, labour is seen as expensive and there is a capital-intensive bias. Nationalism is another reason for a capital-intensive bias. A steel mill, a petrochemical complex, a petroleum refinery are a "must", even if they are

capital-intensive. It is required for independence. In addition, populist governments often have great suspicion of the world market. If you do not want to be tied to the world market, then it is better to produce for the domestic market. That often means capital-intensive goods, because the country is already producing all the labour-intensive goods which the domestic market can absorb. There tends to be also a neglect of agriculture in populist regimes, a fascination with heavy machinery, which means capital-intensive industry. Finally, there is the ascendancy of "engineering man" who likes machinery and dislikes labour. Under a populist strategy, he can give full reins to this preference, because he is not subject to competitive pressure, because the economy is isolated from competition from the world market.

The result is a more capital-intensive pattern of development with a populist strategy. Under the labour-income model presented yesterday, that means stagnant wages.

Government could deal with the resulting stagnation in the income of the poor by transferring resources from the rich to the poor through the fiscal system. As mentioned yesterday, as far as I know, no government has succeeded in a substantial transfer of resources, except for Sri Lanka.

The picture under populist governments is not all bleak. There are some good things they have done. One is to expand the social services and particularly education. Another is that they have indeed provided substantial benefits to one group of the workers, the labour elite in the public enterprises. The third and perhaps the most important one is that they have given hope to people who otherwise had very little hope.

Usually they, therefore, have a margin of popular support when they first come into office. They tend to use up that margin very quickly, just as they tend to use up foreign-exchange reserves that may have accumulated, often to finance the expansion of social services. Eventually, their neglect of the economy, their capital-intensive strategy in a labour-abundant country, catches up with them, and they have economic problems. Not a very favourable picture of one who is concerned with alleviating poverty.

Poverty under a Modified Private-Enterprise System

There is one system which is worse, and that is a private-enterprise or a capitalist system, which is modified to have many of the same defects as the populist one. Usually for the same reasons, such a private-enterprise regime distorts prices to favour a capital-intensive pattern of development. Of course, industrialists like cheap machinery whether they are in the private or the public sector. If they can get society to subsidize their investment, they are extremely happy. So, under a private-enterprise government, where private business may be politically influential, the same distortions may take place, lowering the cost of capital to the private sector. Labour can be seen as very expensive, both because government may have set a high minimum wage for political reasons and because wages are related to the average product in the work-and-income-sharing sector, which is higher than the marginal product for society as a whole. Again, there would be a very capital-intensive pattern of development.

Capitalists also like protection from competition. They are in favour of competition only for someone else. There are very few industrialists who say, "Please increase the competition in my field, because that will make my enterprise strong, vigorous, innovative, and hardworking." When addressing the chamber of commerce, they may all be in favour of competition, but when it comes to their industry, they prefer protection from competition. The result can be the same kind of capital-intensive system as under a populist strategy minus, however, the concern with social justice.

Development Strategy and Political Developments

Another controversial subject is the effect of the pattern of development on political events in these five countries. If the argument so far has any validity, and indeed in Pakistan in the 1960s there was rapid growth and at worst no change in income distribution, why were there riots in 1967 to 1969 which had economic grievances as their base? Similarly, in Indonesia why, with rapid growth in 1966—72, which especially benefited the income of unskilled workers, were there riots in 1973-75?

I would like to suggest that political events in these five countries have been influenced by the "Index of Perceived Poverty" (IPP). The

index has three elements in it, for the moment all weighted equally, because I cannot think of any better weighting scheme and that may turn out to be my undoing. They are:

- (i) What change has taken place in the absolute income of the poor majority? Has their income gone up or down in the recent past? I would suggest that people react politically not to what has happened over the last 10 years, but to what has happened in the last two years. Certainly that is how Americans react in elections, and I think it is true for people more generally. Table 16 shows that in Indonesia in 1973-74 riots took place in Bandung and Jakarta. Just prior to those riots, real wages had dropped quite consistently in most sectors of the economy, and in some cases had dropped very dramatically. For construction labour in Sumatra they had gone down from ISVi to 8.6. Real wages rose between 1963 and 1971 (see the same table) which is when the government won its first elections. There had been a dramatic improvement in the situation of people for the period as a whole (e.g. 1963—76). But there was a sharp setback in 1973-74 and what people reacted to was the decline in their absolute income in 1973-74. Table 17 gives the same data for Pakistan/Bangladesh. In 1967-68, when the riots began, there again was a decline in real wages. For all of the 1960s, there is a very substantial increase in real wages. What people reacted to was not the improvement over 10 years, but the deterioration in 1967-68 when there was a bad harvest and interruption of American aid at the same time. Contrast that with India (Table 18). In 1971, when Congress swept the polls, there was an increase in real wages in agriculture of seven percent just preceding the election, and an even greater increase compared to 1967. So, the first element in the Index of Perceived Poverty (IPP) is simply what happened to the absolute income of the majority of the population in the immediately preceding period.
- (ii) The second element in IPP is: what has happened to peoples' hopes and expectations? If income has been rising for a period of time, it raises hope and expectations. If income then falls, workers are particularly angry, because they had begun to

Table 16
Political Events and Wage Changes:
Indonesia

Political Events		Wages in Thousand Rupiahs (1978 prices)						
		Plantations		Textile	Agri. Lab.		Construction	
		Indo.	Sumatra	Indo.	Java		Indo.	Sumatra
					I	II		
1954		18.9	22.4					
1955	Inconclusive election: Nationalist govt, replaced by Muslim/ Socialist party govt.	16.6	18.4	15.3				
1957	Nationalization of Plantations	17.4	19.8	n.a.				
1958	Rebellion on Outer Islands	14.6	15.2					
1959	"Guided Democracy" introduced	14.1	15.5	11.0				
1961	Claim on West Irian intensified	11.6	14.4	10.9				
1963	Confrontation with Malaysia intensified	8.4	10.0	6.5				
1965-67	Sukarno gradually removed, Suharto govt, comes to power	11.8	16.1					21.3
1971	Govt, wins election	15.2	20.7	17.7*	(40.1)		0.78	15.5

Continued —

Table 16 - (Continued)

Political Events		Wages in Thousand Rupiahs (1978 prices)						
		Plantations		Textile	Agri. Lab.		Construction	
		Indo.	Sumatra	Indo.	Java		Indo.	Sumatra
					I	II		
1973-74	Bandung/Jakarta riots	13.3	18.0	17.0*	45.3		0.66	8.6
1976		13.6	25.0	17.2*	41.3	233	0.56	
1977	Govt, wins election less decisively	14.1	20.0	17.7*	41.8	222	0.55	
1977-78	Student demonstrations, little other support	14.6	20.0	18.5*	44.4	223	0.58	
1982	Govt, wins election more decisively	(15.1)**	(19.2)**	(20.4)**		(233)**	(0.69)**	

Sources: For political events: T.K. Khan (ed.) *Sukarno's Guided Democracy*. Jacaranda Press, 1967; B. Glassburner (ed.) *The Economy of Indonesia*. Cornell, 1971, "The Times of Jakarta", and interviews.

Notes: Plantation wages are annual total earnings of permanent workers, textile industry is wages, both monthly.

Agricultural labour I is real wages bill per hectare and crop for rice agriculture calculated from the Agricultural Surveys. Definition for 1971 somewhat different. Agricultural labour II is an unweighted average of hoeing, planting and weeding, for West, Central and East Java collected by BPS. Construction is for unskilled workers.

Both Agriculture II and construction are daily wages. Prices used are urban food prices.

*Textile series is incomplete and some interpolation needed. 1971-82 series not strictly comparable with earlier one.

**Data for 1982 not yet available. Wages are for 1979 for plantations and construction, 1980 for textiles and 1981 for agriculture.

Table 17
Political Events and Wage Changes:
Pakistan and Bangladesh (East Pakistan until 1971)

Political Events		Wages			
		Bangladesh		Pakistan	
		Agri- culture	Con- struction	Agri- culture	Con- struction
1949-50		16.4		437	
Feb. 1952	Language riots (East Pakistan)	14.5			
1953	Ahmediya riots; NWFP unrest (n)			612	
Feb.-Mar. '54	Government wins provincial elections (West). Government loses provincial elections; riots (East).	13.5		593	
1955-57	No major disturbances	14.4			
March '58	Martial law imposed (o)	14.1	10.7		
1960-61					3.6
1962	Martial law withdrawn; Government wins national elections	16.6	13.3		4.0
1964	Government wins election	19.4	15.5		4.2
1965-66				729	4.4
1967-68	Riots and disturbances	17.4	13.7	551	4.3

Continued

Table 17 - (Continued)

October '70	Government loses elections badly; (n)	18.6	12.8	641	4.8
1971	Riots; civil war; independence of Bangladesh	12.7	9.9	686	5.1
March '77	Government wins election; riots			3.8	7.4
Sept. '78	Martial law and continuing riots (n)			3.9	8.2
1979-82	No major disturbances			4.3	8.1
1973-74	Former opposition party wins election (o)	9.8	9.1		
1974-75	Widespread riots and President assassinated, Government overthrown	6.9	8.4		
1977	Government Party wins election	11.0	9.9		
1977-81	No widespread disturbances	12.0	11.3		
1981	Government Party wins election	11.4	12.7		

Notes: These are from a different source and are daily wages.

Bangladesh/East Pakistan: agricultural wages are daily, at 1978-79 prices for (unskilled and skilled) workers; at 1976-77 prices for (unskilled) construction workers. The series are continuous and consistent.

Pakistan/West Pakistan: Agriculture - to 1971 are annual wages, while for 1977-82 they are daily wages; Construction daily wages continuous. All at 1969-70 prices.

(n) - event contrary to hypothesis.

(o) - event neither confirms nor contradicts hypothesis.

Table 18
Political Events and Wage Changes:
India

Political Events	Wages	
	Agriculture	Industry (Textiles)
1955-56	5.5	
1956-57		4,690
1957 Elections won overwhelmingly by party in power (Congress) (o)	5.4	4,841
1960-61	5.6	4,601
1962 Elections <i>won overwhelmingly</i> by Congress	5.8	4,868
1965-66	5.1	4,633
1967 Congress does poorly	4.8	4,448
1969-70	5.8	4,856
1971 Congress sweeps polls	6.2	4,820
June '75 Emergency declared after rioting	4.6	3,288
March '77 Opposition party wins elections	6.6	NA
Jan.1980 Congress defeats party in power	5.9	NA

Note: Agricultural wages are continuous series, unweighted average of daily wages for twelve states at 1979-80 prices.

expect an improvement, had made commitments on the basis of that expectation and are now cruelly disappointed. Conversely, if people have lived through a period of stagnant or declining income, and it rises a little, they are likely to be much more satisfied with that rise than if they had come to expect it. So, the second element in the Index of Perceived Poverty is the relationship between changes in real labour income and expectations.

- (iii) The third element in the IPP is: what has happened to conspicuous consumption of the rich? No one, except a few economists, knows what has happened to income distribution. How many people do you suppose in Pakistan know whether the Gini coefficient has gone up or down? In fact, how many

people know whether the wealthy have become wealthier more rapidly than the poor? There is no way of knowing that, unless the income is expressed in some visible means, in some way that people can see. In southern Asia there are probably three ways in which the rising incomes of the rich are demonstrated to the poor: cars, houses and celebrations. Among houses I include refrigerators, airconditioners, all the things that go into a house. If the rich are getting very rich, but they take the money out of the country or invest it in another factory, and live very austere, probably income disparities do not have much of an effect on the social or political system.

This argument I cannot prove; I just suspect it to be the case. But if the rich use their income to throw lavish parties, to buy big houses, to drive all over town in expensive cars, then at least the urban population will be aware of their wealth and, in contrast, their own poverty. We could not find any index for parties, we could not find an index for houses, but we could find an index for automobiles, and I think the three generally go together. Table 19 shows what happened to the number of cars per 10,000 population. Pakistan in the 1960s had the export bonus vouchers scheme. It was a splendid scheme for raising exports, but at the same time it permitted the import of luxury goods for the first time¹ since Independence. The effect is clear — from 11.9 cars per 10,000 population in 1958, when Pakistan was a relatively austere society, to 25 cars in West Pakistan in 1970, a 110-percent increase. In absolute numbers, the increase was even greater. In East Pakistan or Bangladesh a 230-percent increase from 1.3 per 10,000 to 3.6. Contrast this with India. During the same period, the number of cars less than doubled. Or contrast it with Sri Lanka, which is a very egalitarian society. It is the only country, I believe, where actually the number of cars declined per 10,000 population.

¹ A second time when imports of luxury goods, especially big cars, were made was during the 1952 Korean Boom under the so-called Open General Licence (O.G.L.) Scheme. (*Editor*)

In short, what happened in Pakistan in the late 1960s was a sharp setback to the income of the poor, at a time when their hopes and expectations had been aroused and when the conspicuous consumption of the rich continued at an accelerated pace. Under those circumstances it is very understandable that the poor were angry.

Table 19
Cars and Buses for every 10,000 Population

Year	India		Pakistan		Bangladesh*		Indonesia		Sri Lanka	
	Cars	Buses	Cars	Buses	Cars	Buses	Cars	Buses	Cars	Buses
1958	6.2	1.3	5.2 (10.9)	0.9 (1.7)	(1.3)	(0.4)	9.5	1.4	80.1	6.2
1965	8.8	1.4	10.6 (19.8)	1.5 (2.6)	2.3	0.5	15.9	1.7	74.1	7.4
1970	11.4	1.7	25.4	3.5	3.6	0.8	19.9	2.0	79.0	9.0
1976	12.5	1.6	31.3	5.5	3.9	1.0	31.2	3.1	67.1	9.4
77-81	13.0	NA	40.2	6.2	4.4	1.1	40.3	4.9	85.8	14.1

Sources: Former Pakistan 1949-54, 55-60, CSO, *25 Years of Pakistan in Statistics*. For 1955-56 Calendar year figures converted to fiscal year figures by taking average of the adjacent year. 1954-55 interpolated.

Bangladesh: 1965-77 BBS, *1979 Statistical Yearbook*, 1959-65, by applying the growth rate of series on E. Pakistan from Pakistan, CSO, *25 Years of Pakistan in Statistics*.

India: 1951, 56, 61, 65-69, CSO, *Statistical Abstract of India*, 1974, 1970-77 from CSO, *Statistical Abstract*, 1978, Last year by 2 year trend. Remaining years interpolated. Note CSO lists two kinds of "public service" vehicles. 1st is taxis and cabs which are included in series on cars. The series on Bus given here is series on other "public" service vehicles.

Indonesia: Cars 1970-79 and Bus 1975-79 from Biro Pusat Statistik, *Statistical Yearbook of Indonesia*, various issues. But 1951-1974 and Car 1951-69, Biro Pusat Statistik, *Statistical Pocket Book of Indonesia*, various issues. Note: the series up to 1960 is not comparable with series for later years, so that figures for 1951-59 were worked out by applying growth rates from the available series to 1960 figure from the other series.

Pakistan: 1954-79, Min. of Fin., Advisor Wing, *Pakistan Basic Facts 1980-81*, 1979-81. Extrapolated by last five year linear trend.

Sri Lanka: 1956-71 Papanek - loose paper.

1972-73 Department of Census and Statistics, Ministry of Plan Implementation, *Statistical Abstract of Democratic Socialist Republic of Sri Lanka*, 1976?

1974-80 National Planning Division, Min. of Fin. & Plan, *Transportation Statistics of Sri Lanka 1974-80*, June 1980.

M. Alamgir, "Bangladesh: A Case of Below Poverty Level Equilibrium Trap. Some Analysis of Distribution of Income, Consumption, Saving and Poverty in Bangladesh", *Bangladesh Development Studies*, Volume 2, No. 4, October, 1974 (Bangladesh Institute of Development Economics).

*1958 and 1965 data for Pakistan include Bangladesh. Figures in parentheses exclude Bangladesh. In 1958 for Bangladesh the figures in parentheses are for 1960.

The same things happened in Indonesia. From 1965, which was the end of the Sukarno era, to 1976 the number of automobiles doubled. In that period the number of cars in India increased only 50 percent.

There is a profound implication of this analysis, as important perhaps for political scientists and politicians as for economists: in these countries politics is not simply elite politics. The assumption is wrong that a government is safe as long as it keeps the bureaucracy, the army, the business and industrial community, and the professional groups happy. That has been a widespread assumption among political scientists and among politicians as well. As long as government provides enough goodies to the 10 percent of the population that matters, what happens to the rest is not terribly important. The above analysis suggests that this assumption is not true. It even matters in political terms what happens to the income of the rural poor. It always matters in moral terms. But usually the political leadership does not respond only to moral imperatives; they respond to political factors. If you accept the argument, what happens to the rural poor determines the reservation wage; their reservation wage determines the wage in the city; if the real wage in the city declines, there are going to be riots; then political leaders had better pay attention not only to the elite, but also to what happens to the bulk of the population. That, of course, would be true populism.

Policy Implications

What are the policy implications? One is to get price of labour and capital right, not only for the sake of efficiency, but for the sake of equity. It is crucial not to subsidize capital and penalize the use of labour.

Two, the price of labour will not be right if left to the market. The assumption until now of neo-classical economists and aid donors has been that if the government just stops interfering in the economy, all will be well. The market will be a perfect allocation mechanism. I am arguing that this is not correct, if left to the market, the price of labour will be too high, because it is determined by the average product in the work-sharing sector. It is therefore necessary to subsidize labour, as discussed yesterday. That is the way to increase labour income, rather than by trying to raise the minimum wage for a small labour elite. To

really help all workers, the really poor, one needs to subsidize labour in order to encourage labour use.

Three, the prices of non-traditional exports will usually not be right, if left to the market. Normally there is protection for the producer for the domestic market. That provides an incentive to produce for the domestic market and not for export. Therefore, it is necessary to subsidize exports to the extent to which domestic production is subsidized through tariffs and other forms of protection. Subsidies to non-traditional exports are needed for a labour-intensive pattern of production, since it is not possible to consume all labour-intensive goods domestically. The only way to export the surplus is to give exports the same subsidy as to infant industry producing for the domestic market. Such subsidies for labour and non-traditional exports are unfortunately anathema to most international organizations.

Four, it is dangerous to subsidize labour or to subsidize exports unless one knows which industry should receive the subsidy, which industry can produce efficiently in the long term and what amount of subsidy is required. When the economy is distorted, a uniform subsidy does not give uniform effect. It is well known in the theory of the second best that with widespread distortions there will be a differential impact for a uniform subsidy unless all distortions are removed, which is unrealistic. Therefore, government must know what industries, what activities to subsidize. That requires an analysis of the kind recently carried out by Naqvi *et al.* of the PIDE on the *Structure of Protection in Pakistan: 1980-81* measuring the subsidies, and analysis of Domestic Resources Costs to establish comparative advantage. It is also important to provide subsidies in ways that do not lead to further distortions and problems. This has happened with the generalized subsidies in the form of devaluation which the IMF has prescribed for Peru and Chile.

Five, the investment strategy needs to emphasize increased production of wage goods, and particularly of food and other agricultural products. That raises the average product in agriculture, and thereby the reservation wage, and thereby the wage throughout the economy. It can also stabilize the price of wage goods and thereby stabilize real wages.

Six, it is not effective to provide price incentives if a large part of the economy is in the public sector and does not respond to price incentives. There are therefore two choices. One, which I think is unrealistic, is to sell off all the public enterprises to the private sector. The other and the more realistic one is to make the public enterprises responsive to price incentives, which is something that Pakistan is now trying to do.

Seven, a labour-intensive public works programme can be one of the most effective ways of building infrastructure and at the same time subsidizing labour.

Finally, government needs to curb the conspicuous consumption of the rich. Whatever is done, the great majority of people are going to remain poor for the next decades. Under these circumstances, a country cannot afford the social and political tensions which are caused by conspicuous consumption of the rich. If it is curbed by very high taxes, that will also raise the resources needed for the various subsidies that I have suggested.

To summarize, of the alternative development strategies, the worst development strategy is a private-enterprise strategy, a capitalist strategy, in a society where the prices of labour and capital and of products are heavily distorted, and which neglects social expenditures. The next worst is a populist regime, which distorts prices but which at least has substantial social expenditures to ease the burden of the poor. A better strategy is a completely unadulterated private-enterprise strategy, which only Hong Kong has followed, which at least will produce rapid, labour-intensive growth and therefore rising wages. At least in the Hong Kong case, it also did not result in a deterioration in income distribution. The best strategy is one which takes from "capitalism" its efficiency in production, its efficiency in the allocation of resources, which gets the prices right to the maximum extent, and which takes from "socialism" intervention in the economy to subsidize labour, to curb the consumption of the rich and to rapidly expand and subsidize social expenditures, particularly education, if now I have not aroused enough controversy, I shall be surprised.

DISCUSSION

Prof. Syed Nawab Haider Naqvi: We may not agree with a lot of ideas that have been put forward today, but we will agree that it has been a very wide-ranging lecture, starting from economics to politics, also bringing into the room things like elections and riots. Prof. Papanek cannot be blamed for that because ever since Prof. Paul Samuelson termed economics the queen of the social sciences, this 'she' has become very imperialistic and has been commandeering all kinds of sciences, politics, sociology and psychology and granting rights of admission to all kinds of characters, for example, smugglers. A lot of persons are writing on the economics of smuggling, politics, elections and so forth. But since it is Prof. Papanek who has brought so many undesirable elements into the room (the riots and so forth), if there is a kind of mini-riot in the discussion I am not to be blamed for that. I would now invite questions.

Prof. M. Rashid: I am not in the labour market! So, my problem of protecting my real income is more severe than you think in times of inflation. I have listened to the presentation which has left very little room for controversy in my mind, because starting with Kuznets and others, you have ended up beautifully by trying to reconcile the claims of growth with social justice. I am sure Prof. Papanek is maintaining a hot line with 'P' Block in Islamabad, because I find, at the end of his third lecture, policy prescriptions which almost echo the statement of our Minister for Planning not long ago. Two weeks ago, in this very room, he came and inaugurated a seminar on Employment Promotion. And, it is very curious that his eight elements of a new strategy for employment promotion almost coincide with the eight policy prescriptions presented to us this morning. There is, I think, no other conclusion than this that great minds think alike, because Dr Haq and Prof. Papanek seem to have arrived at a stage of intellectual development where they don't seem to have tried in their minds to reconcile the contradiction of growth in countries like Pakistan, Bangladesh, Indonesia, India and others. The only exception, we are told, is Sri Lanka and that has not been elaborated for our benefit. There is, however, an avoidance of his reference to China, except in passing. I am a little amazed that one billion people, composing one-fourth of the world's population, should not receive the attention of economists which it deserves. It appears, however, from

the latest four modernizations being announced there that they are veering round to Prof. Papanek's view. But one does not know enough about that great country. One likes to talk about China, because it is labour-abundant. So I do not have much to add to what you have said except to suggest that in your entire presentation, I was waiting for you to step out of the field of income distribution and get into the field of wealth and asset distribution. I don't know why economists are wary of this kind of approach, because if you consider India, and also Pakistan, these are two countries with varying degrees of economic performance. Pakistan seems to have done quite well in growth rate terms of GNP per capita in real terms in the last six years. Our economy, to use your conventional analysis, is probably a success story again. What I am suggesting to you is that this income distribution approach ignores, conventionally speaking, other indicators of growth and the World Bank's *World Development Report* (I have not seen its last issue) has at its end some tables, called "social indicators", like Literacy Rates, Life Expectancy at Birth, Health Cover, etc. Judged by those standards, Pakistan is a poor country. So one does not really know why economists fail to enlarge the scope of their enquiry. You have spent three days analysing growth rates and relating them to income distribution. At the end you have also talked of politics and poverty, but I would have thought that the discussion would become more meaningful for future strategies of planning if social indicators were referred to because Pakistan is a classic example of a country which is doing well in economic growth, but has failed to lick social problems. As revealed in the social indicators table, we are the 25th country from the bottom in the list of World Bank studies in terms of income (\$300 per capita). We are very low in terms of literacy, we are very poor in terms of energy consumption per capita: out of 45,000 villages, only about 15,000 to 16,000 are electrified, the rest is the area of darkness; and our employment situation in the villages is no better. Ninety-five percent of our women are illiterate and 55 percent of the people do not get safe drinking water. I said all this in the last seminar, and I am just trying to refer to you the field of enquiry which would make your model a little more comprehensive. Your index of "perceived poverty" (this new term, I rather like), should also be enlarged to include reality rather than what goes on in the mind of a person whose income has gone down in the last two years. The other point I would like to make is that institutional

analysis should also receive attention. To say that education should receive priority, is to state the obvious. There is no case of a society having forged ahead in history with an illiterate population; but what priorities in the education sector are to be observed, how resources are to be utilized and for which groups, is another field which should receive the attention of economists of your calibre. The thing that you have not done, and I am a little amazed, is that when talking about rural areas and problems of increasing the income distribution of the vast majority, who are marginalized in the rural areas, you somehow eschew a description of the land system. Is it not relevant to the issue under discussion? And, for three days, I was waiting for a reference to this, because in India, as far as I know, there is this problem of bonded labour in parts of Orissa, Bihar and other places. Now, talking about rural areas and rural transformation under most oppressive conditions, on the one hand we have landlords who have turned money-lenders and keep entire families in bondage despite the legislation in the Lok Sabha, and on the other hand there are millions of peasants who get only one meal a day and yet work 14 hours. Here is a situation which belongs to and deserves institutional analysis. After all, you cannot divorce politics in India from the conditions of institutions like the land system. I could go on multiplying examples to suggest that your model, if it is to win you a Nobel Prize, will have to be enlarged by data on these subjects. And I would end by saying that as a senior teacher who is fading out, I would propose the name of a new book by you not "Private Incentives and Social Growth", but "Public Incentives and Social Growth". Thank you.

Prof. Syed Nawab Haider Naqvi: We had agreed to maximize questions today; so I request that the questions and answers be rather brief.

Prof. Papanek: You have put in the most flattering terms of "great minds run in the same channel" that the ideas I have presented seem to you similar to those of the Minister of Planning. You could also have suggested that we conspired or that we have persuaded each other. I think there is one major difference between us. I am in the fortunate position of not being a minister and can therefore speak somewhat more harshly. I do not have to argue for the wisdom of capital-intensive investments that have taken place in the past. I can make some other remarks which are not perhaps open to someone who is in the political field.

III

Prof. Rashid, you are by implication also very flattering when you suggest I should have tackled other issues. The research project which I discussed is already incredibly ambitious. There are not many economists who have the insanity to tackle five countries, all aspects of economics, and some aspects of politics, and yet you wish I should also analyse the experience of China. I would add to that the experience of South Korea and of Japan, which are also relevant. Then I should also analyse wealth and asset distribution. I can only plead that it is beyond what I am competent to deal with. Maybe one of these days, in another five years, when I finally finish this project (which has already taken 12 years), I will turn to further analysis. One of my colleagues has suggested that it would be very fruitful to contrast South Korea and Sri Lanka, Sri Lanka having adopted Prof. Mullick's favourite strategy which has done better for its poor. Maybe that is what I will do on the next round. But as far as this round is concerned, I am not going to touch China. I do not know the language and I have never been there. It would not be sane to tackle a complicated, important country of that sort, which other people have spent a lifetime studying, without adequate tools.

The countries I picked are not purely accidental. I have worked in Pakistan, which at that time included Bangladesh, for six years and actually started working on Pakistan thirty years ago. In Indonesia I worked also, but for a briefer period. India I know less intensively, but also over a 30-year period. I still think I am dismally ignorant of these countries. To analyse a country that I know nothing about would be overly ambitious.

The other points you have mentioned, I will deal with in the book to result from this study: social indicators, literacy rates, the length of life and so on. Pakistan has done poorly with respect to primary education. As you pointed out, this is largely the result of the very low rate of female education. In the book social indicators as well as the land tenure system will be discussed.

One of the elements of the study is an analysis comparing the two Punjabs and the two Bengals with respect to agricultural growth. A factor explaining the higher rate of growth in both Punjabs compared to

both Bengals is likely to be the land tenure system. Over the whole 30-year period an element in the higher rate of growth in the Indian Punjab than in the Pakistani Punjab has to do with institutions and infrastructure.

(Mrs) Khalida Parveen: I have a comment for the policy-makers to which the speaker has alluded. He suggests that housing, food, transport, etc., should be subsidized for labour to lessen inequality. I fear that this is rather shielding inequality in the long run because still the wealth, assets and capital will be possessed by the elite.

Prof. Papanek: In response to you and to Prof. Rashid, I should confess some failures. In drawing lessons for the future, I was looking for policies which had two characteristics: one, that any changes in the economic environment be relatively readily achievable, and, two, they do not require a fundamental change in the socio-political system. Some of us economists have provided prescriptions which are unrealistic, given the socio-political system. It is all very well and good to suggest radical land reform. But economists do not have much to say about whether, in fact, land reforms are going to take place. That will be decided on non-economic grounds, by a fundamental shift in the political system.

Some analysts cite the South Korean land reforms and the Japanese land reforms as examples of policies that improved equity. But those reforms occurred at the end of a long war. In the Korean case much of the land was owned by foreigners. It is always easier to expropriate foreigners than it is to expropriate your own people. In the Japanese case the land reform was imposed by the military which otherwise could not be implemented without a complete change in the political system. So I have been concentrating on policies which seem to have some realistic possibility of being accepted, and which would make some difference to poverty.

In fact, a subsidy for labour would make a tremendous difference for poverty. It would not take wealth away from the rich but could have a tremendous impact in improving the absolute situation of the poor.

These are not designed to be subsidies to consumption directly, but are meant to increase the demand for labour and thereby, over the medium term, say, 3 to 4 years, the real wage received by all unskilled workers.

In the 1960s Pakistan achieved a rate of growth of around 7 percent per year. There is no reason why it cannot achieve that rate again. Given the current rate of population growth, that would mean a four percent per capita rate of growth. If there is no worsening in income distribution within seventeen years, that would double the absolute income of the poor. Suppose you could have just a small improvement in income distribution; then per capita income of the poor could quite realistically double in 12 to 14 years, without a revolution occurring. It seems to me that this is a realistic objective.

My policy prescriptions were aiming at such realistic objectives. One could suggest radical land reforms and heavy enforced income taxation, but these have been advocated for 30 years without making a difference. I was looking for policies that a government could actually implement. At the same time I was trying to persuade governments that they should pay attention to policies which will improve the lot of the poor if they want to stay in office.

Dr Mohammad Irfan: There are a number of questions that I have, and I am going to ask all of them. To begin with, the comparison between the era of the popular regime and the so-called "growthmanship's reign" is not valid unless you allow for international factors and the changes in the international aid and trade climate. Firstly, I would like to know, if the policies of the government which was in power during the 1960s, were it still in power during the early 1970s would have been very different from those followed by the popular regime? Secondly, I object to the use of statistics, which I am afraid were quite selective, and which were responsible for a number of conclusions and quite a few sweeping generalizations. To begin with, I do not understand what definition of poverty will really satisfy the criterion that all those who are below the 40 percent income group are poor. The use of the term "poverty" has something to do with the basic needs of the people. To be more specific, if you define poverty in terms of the income available to a person to satisfy his caloric requirements, then the whole

conclusion changes. Let me suggest, Sir, that the percentage of people who fail to satisfy their caloric requirements in the total population was the lowest in Pakistan's history in 1977. This is borne out by the Micro Nutrient Survey of 1977. You must be familiar with the study by Mujahid. If you use his definition of poverty, then the poverty level actually rose during the 1960s.

Prof. Papanek: Are you referring to 1977 or to the 1960s?

Dr Mohammad Irfan: To both. In the 1960s poverty increased. In the 1970s, it was the lowest (in 1977). Also as you have been using statistics, let me throw two more numbers in the scale. Cotton growers in 1968 were getting 30 percent less prices than the world market while the consumers in Pakistan were paying 80 percent more than the prices prevailing in the world market for manufactured goods. I don't know who gained in this process. Now, thirdly, what I would like to discuss with you is your first contention that there is a positive association between neglect of agriculture and the popular regime. I tend to disagree. The terms of trade between agriculture and industry improved during the early 1970s. Perhaps you are familiar with the study done by the PIDE, by Prof. Syed Nawab Haider Naqvi and Khwaja Sarnad, where it is shown that the rate of return in the nationalized sectors is higher than in the private sector. I don't understand how one can criticize these nationalized industries on the basis of efficiency alone? Fourthly, you suggested that the popular regime failed to transfer resources from the rich to the poor (of course I am all the time referring to Pakistan, I am not familiar with other countries). The lowest-to-highest salary ratio in the wage structure was 1:26 during the 1960s. It was 1:14 in 1973. Lastly, I want to mention the political events and your explanation for them, which, I think, is really ad hoc. I don't understand your statement that real wages of Sikhs and Assamese compared to other groups in India have gone down. Have their minimum wages gone down? You have been referring to minimum-wage legislation having adverse effects and that it did not change real wages. In the context of Pakistan, this is not true. Minimum wages did have an effect in the late 1960s. They affected all the sections of the country. There are data available to us that substantiate this. Let me ask you if you can really point out some brilliant

records of performance over the last 5 years from private initiatives in the absence of minimum-wage legislation?

Prof. Papanek: Let me explicitly say that I have, for the last 30 years, been concerned with how one could in fact alleviate poverty, regardless of what the ideological preconceptions might be. If anything, my ideological preconceptions are the same as yours. But that I think is irrelevant. I was trying to look at what the data suggest.

To comment specifically on your points, I think that the need to allow for the international environment is very true and it is a very important point. In fact one of my colleagues has done a study of growth in Africa, in which he is able to show very clearly and conclusively, contrary to the Berg report of the World Bank, that you can explain economic growth in Africa almost entirely by changes in the terms of trade and changes in the degree of insecurity in the country. The growth model that we have developed, which I did not present for lack of time, has the terms of trade as one of the explicit elements. It also has the inflow of foreign resources from aid or other sources as another explicit element. Surely both are major factors in the rate of growth. It is not clear what the conclusions from the study will be. The growth model was built as I was just leaving. It will help us to judge to what extent the rate of growth can be explained, entirely or only partially, by the terms of trade and the amount of aid received. I cannot give you an answer now because I do not have the results as yet.

How to define poverty? My own definition, I thought, was reasonably clear: it is absolute income in constant prices. Is there some additional survey which shows the consumption of the poor throughout the 1960s, except the household income and expenditure surveys?

Dr Mohammad Irfan: Sir, the study was first done by Naseem, and then by Talat Alauddin.

Prof. Papanek: Well, that is exactly what I was quoting.

Dr Mohammad. Irfan: No you were not quoting the same thing. You were defining as poor the people who are in the lowest income group of 40 percent.

Prof. Papanek: No. Just look at Table 12. The lowest 20 percent are there also. If you don't like the lowest 40 percent, look at the lowest 20 percent. According to the same household income and expenditure surveys, in 1963-64 they had 7.1 percent of total income and in 1970-71 they had 8.8 percent of a higher income. Now it is arithmetically inevitable that if you have a higher share of a higher income, you must have a higher income.

Dr Mohammad Irfan: Well, unless you allow for household size

Prof. Syed Nawab Haider Naqvi: There are other persons who want to ask questions. I suggest that you may fight out the rest of the controversy during the tea break — that is, if you wish to miss tea and, who knows, even lunch and dinner. For the moment, I will let Prof. Papanek have the last laugh.

Prof. Papanek: I shall be brief, I promise. If the cotton growers receive a low price and the consumers pay a high price, then manufacturers probably have a high profit. That is exactly what I said when I stated that the rate of profit was 25 to 60 percent. So I am not exactly sure what the question was.

The rate of return on nationalized versus private enterprise is utterly irrelevant: you can raise the returns of any enterprise by giving enough protection, and you can lower the returns of any enterprise by forcing enterprises to keep excess numbers of workers or by lowering the rate of protection. That is true for both private and public enterprises. So I have never believed the argument that if the public enterprises have a lower rate of return at market prices, it indicates anything adverse about their performance. It is completely irrelevant. Profits depend on the government decision to raise tariffs, or to change other requirements. In a country like Pakistan, where the government is extremely powerful, it can impose requirements on either public or private enterprises which make them money-losing or money-gaining. It is not an economic issue; it is a decision up to the government.

I did leave out one table entirely, and thank you for calling my attention to it. Tables 17—19 relate political and economic events.

They show clearly that in some cases when wages were rising there were riots and disturbances. There were other cases in which when wages were falling, everything was very calm. I should have said, and I appreciate that you called it to my attention, that one cannot explain all political events only in terms of economic occurrences and income. Doing that would be patently absurd. I believe that economic events do affect political events, that when people's income is declining, they are unhappy and when people's income is rising they are happy; and that they will express that happiness and unhappiness with the government in a variety of ways — through elections if there are elections and through riots if there are no elections. But there are other reasons for being unhappy: language, caste, class, ideology. That I would never deny. But what strikes me as interesting is that in about 80 percent of the cases, the correlation between economic and political events was quite good — and that does not surprise me at all, because that is what happens in all countries.

Mr Saeed Qureshi: I would like to ask two micro-level questions. If you measure the effects of policy through agricultural income, and you cannot disaggregate the climatic factors, I think the conclusions get distorted. Secondly, if you measure distribution of incomes in terms of a household survey and you leave out the corporate sector, which on the ground is not separate from those who own it, I think you cause another distortion and these should be taken into account.

Prof. Papanek: Firstly, let me take up climate: that is precisely why we are doing a study comparing the two Punjabs and the two Bengals. Some people have said that they are not alike, so we are comparing districts on the opposite sides of the borders. The fact that the border was drawn through the middle of Dinajpur district does not change the climate on one side more than on the other. We have made these comparisons, and on a province-wise basis there is the same effect of climate. The rate of growth in agricultural output is 50 percent higher in the Indian Punjab than in the Pakistani Punjab, if one takes the 30-year period, and is more or less the same in the two Bengals. There are two periods when the rate of growth on the non-Indian side was higher — the early 1960s and the late 1970s. These results hold climate almost completely constant and

hold other natural circumstances almost completely constant, which did not change over time. The only thing that changed in the early 1960s and in the late 1970s was policies.

Yes, we have left out corporate income. But, to the extent it is translated into consumption by the rich, it should be picked up in household income and expenditure surveys. I think these surveys are very poor; that is why we are using wage data to get some indication of what happened to the income of the poor.

Dr A . R . Kemal: Today's discussion is related to growth rates and income distribution. Before I make any comments I would like to discuss two aspects of the problem. Mr Saeed Qureshi has already raised the question of corporate income. The highest income group in the survey earns only Rs. 4000 and thus all industrialists are excluded from the sample. When we talk of income inequalities we are thinking really of the income transferred to those 22 (or whatever the number may be) families. If we include corporate income, and Naveed has made some rough calculations, we see that income inequality increases. Data from the stock exchange and the Lawrence White study also substantiate this finding. The second is a problem common to all household and income expenditure surveys: it is the under-estimation of income, particularly of the higher-income groups. We may go back to poverty studies and see whether poverty has declined or not. Dr Irfan also referred to them. Unfortunately, there is some controversy about the extent of poverty. Now the studies that Naseem and Talat Alauddin did, of course, showed that poverty did decline. But then using the same data, Mujahid came up with the conclusion that poverty increased. Both Naseem and Talat Alauddin were using the income bands which were given by the household and income expenditure surveys. However, if you interpolate the data within the groups, you come to very different conclusions. Similarly, if you allow for the size of the household, you would come to very different conclusions. And when we make both adjustments, we find that poverty increases. So, whether we under-estimate or we do not under-estimate the income of the rich persons, these indicators do show that there has been some worsening of income distribution. Coming to your model where you are relating growth rates and the changes in real

wages, my feeling is that your model does not work well. You tried to show us where it works and then you tried to explain why it does not work. I think that in more than half of the cases, it did not work. For example, take the Indian case, Table 11 and Table 14. Now, in the 1960s, growth rate is 3.4 percent, in the early 1970s, 3.5 percent and in late 1970, 3.8 percent. There is nothing to choose between these growth rates; all were very similar. Compare the growth rate of wages: 4 percent in the 1960s, a decline of 27 percent in the 1970s, and 15 percent in the late 1970s. Now if there is any relationship, it is not observable at all. Take the case of Pakistan. You have already explained that no relationships are observable. In the case of Indonesia, at least there was one significant period where your model does not work at all; and in the case of Sri Lanka, you have again said that there is something wrong with the data. Now if you cannot translate your growth rates into changes in real wages, then what is your hypothesis? You are also talking about capital intensity and the inefficiency of the public sector. Now, of course, the rates of return calculated on the basis of higher prices in the domestic market compared to the international market would not mean much, but that is exactly the same case for the private industries as well. So we cannot say anything for sure, whether the private or the public sector is inefficient. A more detailed study has to be undertaken. But, my own feeling is that as far as capital intensity is concerned, by which you meant higher capital intensity in the public sector, all those industries which have to be in the public sector have to be capital-intensive. The reason is the familiar argument that all those industries which have significant economies of scale should be in the public sector, and in Pakistan, too, those industries, except for one or two, are in the public sector where the economies of scale are very significant — then the minimum efficient size becomes very large and hence capital intensity becomes very high. So, we just cannot say that capital intensity will be necessarily higher in the public sector because cheap capital is available. One can argue on the other hand that in the public sector you can have efficiency prices and you don't have to take into consideration how to deflect these scarcity prices to the private sector. Therefore, it is not necessary that capital intensity should be high.

Prof. Papanek: I think these are all very good points and I want to comment very briefly on each of them. When this book is finally written, there will be an appeal to both the populist governments and the growth-oriented governments. The growth-oriented governments need to pay more attention to equity, to social expenditures, to a variety of other issues. The populist governments need to realize that there is nothing inherent in a populist government that requires it to have a capital-intensive strategy of growth. That is really not connected with populism in any significant way. If I can demonstrate that a capital-intensive strategy is undesirable in a labour-abundant country on both efficiency and equity grounds, then the appeal to populist governments will be: "Do not do things that are going to be disastrous for all of your objectives, for no particular reason except that that is the way some superficial slogans suggest you should do things." So, my appeal to both kinds of government will be to eschew naivety in the conduct of economic policies.

Including the corporate income and calculating the Gini coefficient would introduce a very serious bias in the data for a very simple reason: a large share of profits does not accrue to corporations, but accrues to privately held firms for which there is no information on the Stock Exchange. The share which has accrued to privately held firms has consistently declined over the years as the role of corporations has increased. If you go back to the mid-Fifties, you will probably find almost no corporate profits, except for the corporations owned by the PIDC. Almost all private firms at that time which did not involve the PIDC were family firms which did not report their profits. There certainly was no stock exchange at that time, so there are no stock exchange data from which to obtain profits. The share of corporations in business income has increased over time. So, it does not surprise me that your Gini coefficient gets worse over time once you include corporate profits, because of this bias.

Therefore, the basic unit of analysis has been what has happened to the real wages of unskilled workers; have they grown more or less rapidly than per capita income? Presumably, all profits, all property income and all returns to human capital are in the national accounts (some may be left out but it is probably a better measure than any

other). If per capita income is rising more rapidly than the income of unskilled workers, I would say income distribution has deteriorated. But I want to take a look at what you have done and how that has worked.

I am not familiar with Mujahid's study, which shows that poverty increased during the 1960s. Clearly, it is desirable to make an adjustment for price changes, for household income size changes and the rest. If thereafter poverty has indeed increased over the 1960s, I think that would be a very persuasive argument.

I do not think that it is correct that the model does not work well. It works quite well when you do a more sophisticated analysis, which is exactly what I did yesterday, than by simply comparing one period with another period. I showed you the regressions that we have run in which wages are the dependent variable with the average product in agriculture and the change in price levels as the explanatory variable. Then on a year-to-year basis the R^2 is 0.99, which is as good as you get in economics.

I agree with you that one cannot say much about the efficiency of the public sector. The only argument I was making is that there is no evidence that nationalization succeeded in transferring substantial resources from the rich to the poor. If there is any such evidence, I would very much like to know about it. It would be very encouraging if we could find it. It has been very discouraging to me to see that governments that have come into power with a genuine desire to improve the lot of the lower-income groups have failed. I do not find that a cause for rejoicing. It is a cause for great concern and unhappiness. I am trying to explain why this happened so that the next time there is a populist government in one of these countries, it can do a better job.

Dr Akhtar Hasan Khan: I do not think I am qualified to comment on the model that Prof. Papanek has built up, because he has built up a very elaborate model on the basis of a very selective use of data, and since I do not have the same knowledge of the total data and the subject as some of my colleagues at the PIDE have, I will not comment on that. I will only comment on a policy prescription he has made. He says that

he does not want to make impractical policy prescriptions like radical reforms and other things because after all they cannot be implemented by the policy-makers. But what can be implemented is to subsidize labour and to subsidize non-traditional export. And it is obvious that if you subsidize labour, which he has said should be done selectively, and also non-traditional exports, which should also obviously be done selectively, then you require vast resources. Now these resources can be raised by taxation, which in our country means indirect taxation. Does he imply that there should be an indirect taxation of the poor people in order to subsidize labour or non-traditional export, or the non-traditional exports should be subsidized at the cost of traditional exports as we did in the case of Pakistan through the "Export Bonus Scheme"? And he has also indirectly criticized the export bonus scheme saying that it led to conspicuous consumption. But the beauty of this scheme was that it was a costless way of subsidizing non-traditional exports. It taxed conspicuous consumption without the public exchequer coming into it at all and tried to subsidize non-traditional exports by taxing conspicuous consumption. The export bonus scheme also does not find favour with Prof. Papanek because he feels that this would lead to more conspicuous consumption. So I would like to know from where to get the resources to subsidize labour and also to subsidize non-traditional exports and to launch a massive labour-intensive public works programme for which public participation may not be so voluntarily forthcoming.

Prof. Papanek: Again I feel unhappy that there was not time to go into any of the details. You have pointed out flaws in the argument, which are the result partly of shortness of time. Where would the resources come from? Obviously, I am not advocating taxing the poor. If I have said anything in these three days that suggests that, then I really have been very obscure; I thought that was plain. First, if export of manufactured goods is stimulated, that automatically increases tax revenue. We have done studies for Bangladesh, Colombia, Peru, and Egypt. In all these cases, you can finance subsidies to exports of the magnitude that we specifically recommended entirely with existing tax rates. Tax collection rises as the result of a more rapid rate of growth, more rapid imports, an increase in income, and an increase in consumption. It is one of the few self-financing policies. If a country

produces manufactured exports, for which it has comparative advantage but which are not now being exported because of an over-valued exchange rate, this gives the illusion of inefficiency and inability to compete. If it stimulates that kind of export through a subsidy, the fiscal revenues as a result turn out to be greater than the cost of the subsidy.

The second source of revenue would be additional taxes on the consumption of the wealthier group of the population. As I said, the Export Bonus Scheme was an excellent device to expand non-traditional exports but the taxes which it implied on the consumption of the rich were too low. The premium on the export bonus scheme tended to range (if I remember correctly) between 35 and 50 percent. I would like to see taxes on both domestically produced and imported luxury goods that are a multiple of that amount.

Thirdly, one could gain resources by not spending money on "white elephants", that is capital-intensive industries that will require a subsidy either from the consumer or from the government exchequer. The two are really identical because whether you tax the consumer by a consumption tax, or you tax the consumer by raising his prices by making him pay directly to a particular enterprise, private or public, the tax is the same. In all of these countries there have been billions of rupees spent on enterprises which will never be efficient, nor contribute to equity. If that could be reduced slightly — I am not suggesting a radical change, just slightly — the country would gain a good deal of resources without taxing the poor. The whole purpose of this exercise is to convince governments that these white elephants impose costs which they cannot afford, either politically or economically; that, for the sake of a short-term political gain, they are incurring very severe long-term economic, and therefore long-term political, costs. For instance, our estimate is that the steel mill which another country has set up costs \$ 2 billion and will require a subsidy of the order of 10 percent a year in perpetuity. Whether that subsidy comes by charging higher prices than the world market price, or comes directly from the exchequer, or comes by never paying back the loans which the government has extended, does not make any difference in economic terms. A sum of \$ 2 billion of

investment plus 10 percent a year on output, which is going to be probably hundreds of millions of dollars, would go awfully far in subsidizing labour-intensive exports.

Dr Ijaz Nabi: I will keep my questions very brief. If we accept the hypothesis that the reservation wage is determined by the average product and not by the marginal product, then I wonder what the long-term implications for an employment strategy, which involves wage subsidy, would be; because if it increases total output, presumably the average product will go up. So, over time, you will have to increase the wage subsidy to sustain that strategy. I wonder what Prof. Papanek has to say about that.

Prof. Papanek: It is inherent in the model that as long as you increase the demand for labour more rapidly than the supply of labour, that is the increase in the labour force, wages will rise. Output is also rising; so the subsidy can be more readily financed from the rising output. Eventually, of course, when the country no longer has surplus labour — i.e. when the marginal product has risen sufficiently so that it is equal to the then prevailing wage — then it no longer needs a wage subsidy. By that time it is a developed country. So, it is undoubtedly true that the absolute amount of the subsidy would increase; we have not yet done the arithmetic to calculate whether the relative share of the subsidy would also increase, and it is probably difficult, if not impossible, to do. So, I cannot give you an answer now; in fact, I may never be able to give you an answer.

I will again plead just one point. The subsidies that are now being given in all five of these countries are huge. They range from subsidies to university education, which does not help the poor, to subsidies on all sorts of consumer goods, only some of which help the poor, and above all, subsidies to inefficient producers in both the public and private sectors. I am advocating a subsidy that will improve efficiency. It is bound to be more useful than a subsidy which worsens efficiency. So, all of the questions about how you finance it are essentially questions which address the issue: Can you divert subsidies which are counter-productive and use them for purposes which are productive? I don't know whether you can. The whole purpose is to try to make the case that it is desirable on both political and economic grounds that it should be done. Whether it will persuade anybody, I have no idea.

**CONCLUDING
REMARKS**

by

Professor Syed Nawab Haider Naqvi

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You will agree with me that we have been treated to a very stimulating lecture and a reasonably heated, even hot, discussion. I will refrain from making a detailed comment, partly because as Chairman my watchword should be restraint and brevity. So, if only to prove the Shakespearean dictum that "brevity is the soul of wit", I shall be brief.

In a way the most striking feature of today's wide-ranging lecture is Prof. Papanek's bold leap into the relatively less travelled political territory, if only to show that he is a loyal subject of that 'imperialistic' queen of social sciences called Economics. But he means to prove to us more than his loyalty to the queen. He has endeavoured to offer, in a Marxian vein, the 'materialistic'-deterministic explanation of the chain of events that goes from growth to income distribution to political stability in five 'sample' countries — viz. Pakistan, India, Sri Lanka, Bangladesh and Indonesia. That such an analysis was needed should be obvious by considering that, in Pakistan, one of the 'standard' arguments against growthmanship of the Sixties has been that it led to political instability by worsening income distribution and impoverishing the poorest (40 percent) of the population. If this argument against growthmanship is taken lying down, it may lead to the acceptance of a somewhat dubious proposition that a slower growth rate is superior to a higher growth rate since the former promotes political stability while the latter tends to upset it. However, the argument is more likely to be taken lying down if we accept the Kuznets hypothesis, which, together

with the Lewis-Fei-Ranis formulation, yields the bizarre scenario in which higher growth rate must worsen income distribution and contribute, *a la* Adleman and Morris, to the absolute impoverishment of the least privileged in the society.

Prof. Papanek has never maintained that such an immiserizing growth scenario is impossible: given the highly inequitable distribution of assets and a capital-intensive technology, promoted primarily by a 'wrong' pricing policy, the avenues for a trickle-down may be clogged. And capitalists and landlords may monopolize the gains from growth in the form of higher profits and rents. What he questions is the *inevitability* of such a scenario; for such a belief amounts to saying that the task of development is hopeless. A dangerous assertion this; for its acceptance could lead to a sort of 'growth fatalism', which can only harm the poor countries, while leaving the potential helpers (e.g. the aid-giving agencies) cold for the simple reason that the task of alleviating poverty is hopeless anyway. Among other things, such thinking about the dim development prospects of developing countries has contributed to a gradual drying up of external resources for developing countries and to the building up of a climate of opinion against development economics itself. Prof. Papanek can take some legitimate pride in being able to hold on to his growth optimism in a pretty rough weather.

Having examined, and rejected, the evidence in the literature in favour of growth fatalism in the previous two lectures and again in today's lecture, Prof. Papanek takes the natural next step to examine, and reject, the assertion that there may be a positive relationship between growth and political instability, 'measured' by the frequency and timing of riots. I am sure that the audience must have anticipated that Prof. Papanek, being an apostle of a creed that has condemned growthmanship *and* egalitarianism to living happily ever after, would pronounce as heretical any suggestion that economic growth by impoverishing the least privileged must of necessity lead to political instability. This is what he has done: expropriate the skeptics and cynics from the serene temple of development economics. When it comes to scientific **Catholicism**, the 'virtuous father' — Papa Nek — can be very tough.

But in his proselyting zeal to come up with an outcome with the 'expected sign', Prof. Papanek has done much more. He has contraposed the 'growth-oriented' dictatorial regimes and the democratic 'populist' regimes, and has, once again, come out with an answer with the expected sign — growth-oriented regimes have contributed more to growth *and* to the welfare of the poor than the populist (and anti-growth) regimes did. Put this way, the proposition sounds like a tautology, but Prof. Papanek presents it as a refutable hypothesis. By drawing upon — the cynic may say, by conjuring up — a vast amount of apparently unrelated data, arranged nicely in Tables 16 to 19, he claims to have proved that his proposition is empirically sound. One reason, consistent with his theory, for this somewhat (morally) 'shocking' result is that the populist regimes, by promoting public enterprise, even at the expense of private enterprise, may have unwittingly promoted a more capital-intensive *and* capitalistic pattern of development, which in turn would worsen income distribution. And, with domestic saving and foreign-capital inflows not rising fast enough, such policies may also have led to a deceleration of economic growth. Mix slow growth with a deteriorating income distribution and you get a sure-fire recipe for the decline and fall of the populist regime. Here is a history lesson that populist regimes had better learn by heart, even if they do not like Prof. Papanek's crystal ball.

But one may look askance at Prof. Papanek's evidence and ask the question: Why did the growth-oriented regimes invariably end up in 'riots' — in the case of Pakistan from 1967 to 1969 and in Indonesia in 1973—75? Are these riots not a convincing proof of the economic, political and social 'wrongs' done by such regimes? Prof. Papanek points to his own ingenious Index of Perceived Poverty, duly abbreviated as IPP, for providing an alternative reasonable economic explanation of the 'activity' of rioting, which typically blooms in the winter of economic discontent. According to IPP, political instability is caused, not by high growth rates but by the frustrated expectations of the poor caused by accidental adverse happenings in a year or two preceding the political explosion; and also by the conspicuous consumption of the rich, which is registered adversely by the IPP. This is a very interesting analysis, which,

among other things leads to the important recommendation that, especially in times of adversity, the conspicuous consumption of the rich should be curbed — preferably by fiscal policy, which also has the merit of shoring up government's resource-mobilization efforts.

However, one may equally legitimately posit the conjecture that the populist regimes have to reap the whirlwind in the form of sluggish economic growth *and* adverse income distribution because the growth-oriented regimes invariably sow the wind in the form of myopic policies that are politically unsound and economically counterproductive in the long run. In Pakistan's case there is a strong temptation to maintain that such, in fact, may have been the case. I will not go into details but will simply point out that it will be far-fetched to assert that the policies of the populist regime, installed in 1971, contributed to a slowing down of economic growth and a worsening of income distribution. As we have shown in our book, *Pakistan's Economy through the Seventies*, a more plausible explanation of the dismal growth-and-distribution showing in the first half of the Seventies is that, in that fateful period in Pakistan's history, the economy had to bear and adjust itself to a series of exogenous 'shocks' — e.g. the separation of East Pakistan, highly adverse weather conditions, the outmigration of workers that started in 1972, a sharp rise in the price of oil, and the termination in 1973 of the unprecedented world economic boom that started in 1945. The ensuing stagflation — economic stagnation coupled with a two-digit inflation — ensured that real wages would fall, as they actually did, but only to rise again under the pressure of external migration. The poorest suffered the most because, as Prof. Papanek clearly points out, the rich can always shift the adverse economic impact to the poor.

Indeed, there are instances where the record of the populist regime in Pakistan, by Prof. Papanek's criterion, was *better* than that of the preceding growth-oriented regime: apart from doing many good things that Prof. Papanek has duly noted, the populist regime did a much better job of "getting the prices right", as rightly advocated by Prof. Papanek. The interest rates, which were kept artificially low throughout the Sixties, were allowed to rise for the first time in the first half of the Seventies — a policy that has consistently been followed ever since.

Similarly, the populist' regime, for the first time in more than a decade, devalued the Rupee massively by 137 percent in terms of the domestic currency. Contrast this policy with the timid tinkering, by the growth-oriented regime in the Sixties, with mitigating the adverse effects of a highly overvalued exchange rate by export subsidization schemes, like the Export Bonus Scheme.

Thus, here we have a populist regime that could muster sufficient courage, unlike the earlier growth-oriented regime, to get the prices right of both capital and foreign exchange. The price of labour was, of course, raised through Minimum Wage legislation, but real wages would ultimately have risen anyway because of severe labour shortages in agriculture, construction and textile industry caused by outmigration, which began in 1972 and which by 1975 had assumed vast proportions. However, what frustrated these 'right' policies were successive crop failures, floods and earthquakes and other shocks mentioned above — adverse factors that could not be ascribed in any way to the populist regime's policies. Also, there is no evidence that the incremental capital-output ratio was much raised in the early Seventies. While fluctuating widely from year to year, the ratio remained, on the average, at 3:1 for most of the Sixties and the Seventies, even after the fall of the populist regime in 1976. The nationalization of industries may not have benefited the poor but it could not have raised the capital-output ratio over its pre-existing level. In fact it did not. In large-scale manufacturing the capital-output ratio declined steadily over time. It was much lower in the Seventies than in the Sixties and even lower in the late Seventies and the early Eighties than in the early Seventies or the Sixties.

At the fundamental level the problem is that by mixing economics with politics we are poaching in an unchartered territory. The weight of 'unexplained variation' grows fast as we try to explain economic phenomenon in terms of its effects on the type of governments. The difficulty of this enterprise — of poaching in an unchartered territory — also showed up in the kind of empirical analysis presented by Prof. Papanek in today's lecture: we have a series of *correlations* instead of a set of regression equations. As we all know, with correlation coefficients you can prove, or disprove, anything — literally anything.

What should one conclude from Prof. Papanek's analysis of the relationship of growth and income distribution with political stability? That undemocratic growth-oriented regimes are better, on welfare grounds, than the democratic populist regimes? To draw such a conclusion from Prof. Papanek's analysis would be even logically fallacious: it amounts to deducing "should's" from "is's" — prescribing the norms of the society from an explanation of how the society works. These norms — e.g. the country should be run on democratic principles — are determined independently, exogenously. A proper lesson to draw from Prof. Papanek's analysis would be that populist democratic governments, if they wish to remain popular and alive, should remember that they should not commit the cardinal error of trying to improve the welfare of the people by slowing down the engine of growth; nor should they do anything artificial to raise too much the level of capital intensity in the economy which will only hurt labour's income. This much sounds eminently reasonable; but that is all. There is nothing inherently wrong with the populist governments or anything inherently right with the dictatorial regimes to make the former opt for higher growth rates and the latter for lower growth rates — for the former to choose capital-intensive techniques to improve income distribution.

There is another lesson that economists should learn from Prof. Papanek's analysis. It is that they should not commit the mistake of condemning high economic growth rate *because* it promotes political instability. It is best for the economist not to relate economic happenings to political events because such a claim is hard to substantiate empirically. But this is not to minimize the importance of the information painstakingly presented today. All I wish to point out is the difficulty of managing such a volatile, even violent, information about riots and other manifestations of political instability, and of relating it to specific economic policies of a certain type of government. However, the daring soul that Prof. Papanek is, it is most unlikely that he will give up on growth, income distribution and riots in the face of the many analytical and empirical difficulties inherent in such an enterprise. I wish him Godspeed in his search for horizons where no one has gone before.

I would stop here to thank both Prof. Papanek and the audience for indulging in profitable intellectual exchange, with each side specializing, in deference to David Ricardo, in areas of their respective comparative advantage — Prof. Papanek giving the lecture and the audience throwing at him comments and questions, happily not stones. The outcome has been a maximum production and consumption of knowledge — of course, subject to the time constraint.

That time literally flies was demonstrated convincingly during these three exciting, even festive, days. If each of his three lectures raised the expectations of his audience, who may have been inclined to be riotous, especially on the third day, then his own Index of Perceived Poverty (IPP) is to blame. But I was not one of those so ominously inclined, nor was the majority of the audience so inclined. This is a tribute to his analytical and empirical faculties, which have always been his forte and which again carried the day(s) for him. He conquered our hearts and minds by his civility, wit and eloquence. With these few words, I once again thank Prof. Papanek for accepting our invitation to reveal his heart and mind to us and to educate us about his views. That job he did splendidly well.

BIOGRAPHICAL SKETCH

of

Prof. Gustav F. Papanek

Appendix

BIOGRAPHICAL SKETCH

OF

CUSTAV F. PAPANЕК

Date of Birth:	July 12, 1926
Education:	Cornell University, B.S. (Agricultural Economics) 1947
	Harvard University, A.M. (Economics) 1949
	Harvard University, Ph.D. (Economics) 1951
Experience:	1983— Director, Center for Asian Development Studies and Professor of Economics, Boston University
	1974—82 Professor and Chairman, Department of Economics, Boston University
	1977—80 Interim Director, Center for Asian Development Studies, Boston University
	1971—73 Director, Harvard Advisory Group to the Planning Commission and Ministry of Finance, Government of Indonesia
	1965—70 Director (1965-66 Acting) and Development Advisor, Development Advisory Service and Lecturer, Department of Economics, Harvard University
	1958—65 Deputy Director, Development Advisory Service and Lecturer, Department of Economics, Harvard University
	1957-58 Project Field Director (Acting), Harvard Advisory Group to the Commission of Pakistan

- 1954—57 Economic Advisor, Harvard Advisory Group to the Planning Commission of Pakistan
- 1953-54 Consultant, Taxation and Development, Harvard University Law School
- 1951 Deputy Chief, Programme Planning for South and Southeast Asia, Technical Cooperation Administration, U.S. Department of State
- 1951-53 Agricultural Economist, Bureau of Agricultural Economics, U.S. Department of Agriculture
- 1949-51 Research Associate and Teaching Fellow, Department of Economics, Harvard University
- 1944-46 United States Army

Consultant: U.N. Special Fund, Agency for International Development, Ford Foundation, World Bank (IBRD)

Professional Organizations: President (1981-82), Vice President (1980-81), Executive Committee (1972), Member, Association for Comparative Economic Studies
 President (1979), Vice President (1978), Member, New England Conference of the Association of Asian Studies
 Executive Committee (1960s), Member, Society for International Development
 Member: American Economic Association
 American Agricultural Economics Association
 Association for Asian Studies

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