

T. R. NO. 95

etc

Technical Report

WP 1975/95

WP95
WP
1975
(95)



विद्याविनियोगादिकासः
I I M
AHMEDABAD

**INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD**

BEHAVIOUR OF INCOME SHARES IN A
DEVELOPING ECONOMY - THE INDIAN
EXPERIENCE*

by

BAKUL H. DHOLAKIA

T.R.No. 95
Nov. 1975

INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD

No. 5

To
Chairman (Research)
IIMA

Technical Report

Title of the report . BEHAVIOUR OF INCOME SHARES IN A DEVELOPING ECONOMY -
THE INDIAN EXPERIENCE ●

Name of the Author . DR. BAKUL H. DHOLAKIA

Under which area do you like to be classified? . *Economics*

ABSTRACT (within 250 words)

..... This paper makes an attempt to analyse the behaviour
.. of relative factor shares in an underdeveloped country passing
.. through the early stages of rapid economic development. The
.. main purpose of the analysis is to advance some broad hypotheses
.. regarding the pattern of income distribution and the trends in ...
.. factor shares in a developing economy. The empirical basis of the
.. analysis is provided by the data relating to the Indian economy ..
.. for the period 1948-49 to 1968-69. The analysis is conducted
.. by dividing the economy into two broad sectors, viz., the agricultural
.. sector and the non-agricultural sector. The main finding of the ..
.. analysis, which is offered largely in the spirit of a general
.. hypothesis, is that the overall share of labour would be steadily
.. rising in a developing country, though the major factors that
.. account for the rising trend would be essentially different during the
.. different stages of development.

Please indicate restrictions if any that the author wishes to place
upon this note

.....
Date 19/11/75

.....
B. H. Dholakia
Signature of the Author

BEHAVIOUR OF INCOME SHARES IN A DEVELOPING
ECONOMY - THE INDIAN EXPERIENCE*

by

BAKUL H. DHOLAKIA**

I

Ever since David Ricardo advanced his celebrated hypothesis that "in different stages of society the proportions of the whole produce of the earth which will be allotted to each of these (three) classes under the names of rent, profit and wages will be essentially different"¹, economists have all along shown a keen interest in observing and analysing the behaviour of the distributive shares in different economies passing through the various stages of economic development. Thus, a number of theories using a variety of approaches have been propounded and various hypotheses have been advanced, the most striking among them being the famous hypothesis of the so-called "historical constancy" of the share of wages in national income.² However, despite its long history, the thinking on the subject does not seem to be converging to even a broad consensus of opinion about the behaviour of income shares among the majority of scholars in the field, and to that extent one does feel that "the theory of income distribution is (still) in a highly unsatisfactory and controversial stage."³ One of the main reasons behind this lies in the fact that most of the theorising on the functional distribution of national income as well as the empirical analysis of the behaviour of income shares has centered around the advanced countries, and there too, keeping in view only their more recent experience of the last hundred years or so. Thus, we find that in most of the theoretical or empirical studies, the classical system of three factor shares is replaced by the two-fold division between the labour income and the income accruing to all other factors, loosely called the property income. Moreover, the analysis is generally conducted at the highest level of aggregation, viz., the economy as a whole; and whenever a more detailed analysis at a disaggregated level is attempted, it is more in the nature of an inter-industry analysis rather than the one dealing with the broad sectoral pattern or inter-sectoral relationships say between the primary sector on the one hand and the secondary and the tertiary sectors of the economy on the other. While this approach may perhaps be quite appropriate in the case of the advanced

* The author is grateful to his brother, Ravindra H. Dholakia, for providing valuable assistance.

** Faculty Member, Economics Area, Indian Institute of Management, Ahmedabad.

countries, it becomes highly unsatisfactory when we are considering the case of an underdeveloped country where the process of rapid economic development has already started, because in the advanced countries agriculture as a sector and land as a factor of production are both relatively unimportant in terms of the contribution they make to the national income, whereas in the case of the underdeveloped countries both of them are quite important at least in the initial stages of development. Moreover, the obvious difference in the nature and form of economic activities between the two broad sectors, the presence of economic dualism in most of the underdeveloped countries generally lead to a considerable difference in the pattern of income distribution in the agricultural and the non-agricultural sectors. The process of rapid economic development is expected not only to bring about a significant structural transformation of the economy with respect to the nature of economic activities, but also generate through increased capital accumulation and dissemination & spread of modern technology significant changes in the broad pattern of income distribution within each sector. Thus, on a priori grounds, it appears that a changing pattern of income distribution is more likely to be associated with the process of economic development at least in its early stages. It should therefore be rather surprising to find a relatively stable and historically constant income shares in an underdeveloped country passing through the early stages of development. The widely discussed "relative constancy" of income shares may be a characteristic feature of the advanced countries, but it is perhaps not so much relevant so far as the underdeveloped countries are concerned in as much as both the existing pattern as well as the behaviour of income shares in the latter are likely to be quite different from what may be found in the case of the former. Since very few attempts seem to have been made to examine the pattern of income distribution in underdeveloped countries and compare it with the experience of the well-developed countries, it is not possible to test the validity or otherwise of this contention directly. The main purpose of the present study, therefore, is to work-out the details of this basic contention by suggesting some plausible tentative hypotheses regarding the level as well as the trends in relative income shares in the agricultural and the non-agricultural sectors in a developing economy in the light of the experience of the Indian economy during the first two decades of its comparatively rapid economic development.

II

Since the preparation of the estimates of national income by factor shares has not so far been attempted in India on an official basis, for the purpose of our analysis, we have to rely exclusively on the attempts

made by individual research workers in this direction. Though it is possible to compile from the available literature on the subject various sets of estimates made by different authors at different dates, the main difficulty with such a collection is that the sets of estimates which it contains cannot be regarded as even broadly comparable because they make use of diverse data, are based on different methods of estimation and generally relate to different points (and in some cases small periods) of time.⁴

Moreover, most of the estimates relate to a single year only and make use of the Conventional Series rather than the Revised Series of national income estimates for India. And, apart from the obvious shortcomings arising out of a serious dearth of even the minimum necessary data on related aspects of the economy, the major limitation of these estimates, which considerably reduces their direct usability, is that they by and large present a threefold breakdown of national income into wages & salaries, property income and income of the self-employed. Now, it is obvious that this type of classification in effect follows the statistical basis on which the estimates are compiled and hence relates to various types of income distinguished more by their institutional source than by their functional category with the result that such breakdowns do not correspond at all to the theoretical concept of distribution of income among the factors of production. While it is clear that the breakdown of the mixed income accruing to the self-employed persons into the functional categories of pure labour income and pure property income (including profits) would invariably require a good deal of imputation on indirect basis and would, to that extent, become quite sensitive to the assumptions underlying the method of imputation, it is perhaps inevitable from the point of view of any analysis of the functional distribution of income as such. It is therefore quite common to find several attempts made in the advanced Western countries to estimate the purely functional breakdown of their national income on the basis of some plausible assumptions regarding the 'pure labour income component' of the income of 'unincorporated enterprises.'⁵ However, in the case of Indian economy, only one attempt seems to have been made so far to estimate the factor shares corresponding to purely functional categories of labour income, land income and capital income on the basis of a fairly detailed analysis of factor shares in each of the fourteen sectors distinguished in India's official national income accounts.⁵ Fortunately, it also provides a breakdown of income originating in the agricultural and the non-agricultural sectors separately into three different categories of wages and salaries (pure labour share), rent (pure land share) and profits including interest (pure capital and entrepreneurial share) for a fairly long period of two decades (1948-49 to 1968-69). Our present analysis is therefore based exclusively on these estimates, which are presented in Appendix Table 1.

III

Since any given set of time series data on income shares may show either short-term fluctuations or a systematic long-term trend or both, we can distinguish the following four possible alternative situations:

- A. The relative share of a particular factor may be variable (fluctuating) in the short run, but it may be constant in the long run;
- B. The share may be variable in the short run and may be either rising or falling in the long run;
- C. The share may not indicate significant variation in the short run but it may show a fairly steady time-trend (either upward or downward) in the long-run; and
- D. The share may show neither any significant variation in the short run nor any strong time-trend in the long run.

The first thing that we should examine therefore is the behaviour of income shares in the agricultural and the non-agricultural sectors of the Indian economy from the viewpoint of classifying them into one of the four mutually exclusive categories distinguished above. We have applied the wellknown statistical techniques to test the extent of variability and the significance of time-trend in the estimated series of income shares. Thus, Table 1 shows the range and coefficient of variation while Table 2 brings out the time-trends implicit in the series of factor shares in agricultural and non-agricultural sectors. A number of interesting observations regarding the behaviour of income shares in Indian economy can be made from these two tables.

In the first place, it is evident from Table 1 that the coefficient of variation for as many as seven out of the nine series considered here turns out to be more than 5%, and the overall range of variation in relation to the mean value turns out to be more than 10% in eight out of the nine cases. While it may be felt that 10% need not be regarded as a very high proportion for relative range, we must look at the figures in the context of the broad consensus of opinion about the extent of change in, say, labour share that may be regarded as substantial or significant. Thus, for instance, an increase or decrease in the labour share from say 70% to 80% or 60% over a period of three to four decades would be regarded by most economists as a fairly substantial change, i.e., a change of the order of about one-seventh or one-eighth of the

mean value represents a significant change so far as the time series of a particular factor share is concerned. In view of this, a relative range of 10% over a period of two decades, which implies that between two given points of time falling in the period under consideration the factor share varied by more than one-tenth of its average value over the period as a whole, appears to be significant enough for us to conclude that the particular factor share was variable at least in the short run. It is interesting to note in this connection that on the whole the year showing the peak value turns out to be about 12 to 14 years apart from the year indicating the lowest value observed during the period under consideration. On the basis of this criterion, we may therefore observe that barring the solitary case of labour share in the non-agricultural sector, all other series of factor shares showed significant variability in the short run.

In addition to this, it is also quite evident from Table 1 that,

- (a) among the three income shares distinguished here, the share of land has shown the highest degree of relative variability while the share of labour has shown a lower degree of relative variability as compared to both land share and capital share;
- (b) both labour and capital shares have shown a greater relative variability in the agricultural sector than in the non-agricultural sector during the period under consideration, the difference being remarkable particularly in the case of the labour share.

The first of the two obvious tendencies observed here can be explained in terms of the behaviour of income shares during the periods of recession or boom. The available evidence shows that the labour share generally shows a pronounced anti-cyclical movement⁷ largely on account of the so-called "Capacity Effect", and the "Lag Effect."⁸ However, since a given absolute change in the labour share would bring about an opposite change of the same magnitude in the property share, and since the share of labour is generally greater than the share of capital & land, it follows directly that the relative validity (i.e., absolute variation as a proportion of the average value of the specific income share) would be much lower in the case of the labour share than what may be found in the case of capital or land.

The other tendency observed above can be explained in terms of the high degree of irregularity of farm output. In an underdeveloped country like India, the fluctuations in farm output arising out of the irregular and random behaviour of monsoon are generally far more severe than the fluctuations in the output of the non-agricultural sector arising out of the cyclical behaviour of aggregate demand or the crucial raw material supplies.

Having observed that most of the series of income shares show short-term variability of different degrees, we may now examine the underlying time-trend, if any, in each of the nine series. In Table 2(A), the quinquennial averages of income shares have been presented on the assumption that the movement of such averages over a given period of time would bring out more explicitly the underlying long-term patterns of movement of the shares in as much as they would be instrumental in eliminating the essentially short-term cyclical component of the observed variation. On this assumption, it appears from the figures given in Table 2(A) that almost all the series (with the only exception of capital share in the agricultural sector) show a fairly steady and marked time-trend over the period under consideration. The alternative method of regression analysis - the results of which are presented in Table 2(B) - also corroborate this conclusion. The regression coefficients of time have turned out to be statistically significant at 1% level of significance in as many as eight out of the nine cases considered in Table 2(B). The more interesting part of the conclusion, however, lies in its details. Thus, we can readily notice from Tables 2(A) and 2(B) that,

- (a) the share of labour shows a marked upward trend in the agricultural sector and a somewhat less pronounced but fairly steady downward trend in the non-agricultural sector, both being statistically significant at 1% level;
- (b) the share of land has steadily declined in both the sectors, the estimated average rate of change with respect to time being about 0.38 percentage points per annum in the agricultural sector and about 0.12 percentage points per annum in the non-agricultural sector during the period 1948-49 to 1968-69;
- (c) the share of capital shows a marked upward trend in the non-agricultural sector while it does not reflect any systematic time-trend in the agricultural sector, the regression coefficient being negative though statistically insignificant in the case of the latter;

- (d) so far as the economy as a whole is concerned, the labour share and the capital share show a significant upward trend while the land share shows a pronounced and highly significant downward trend over the period under consideration.

On the basis of these observations, we may now classify the various series into the four categories mentioned above. Thus, it appears from the analysis of the behaviour of income shares during the period 1948-49 to 1968-69, that seven of the nine series belong to the category B, while of the remaining two, viz., labour share in the non-agricultural sector and capital share in the agricultural sector, the former belongs to category C while the latter belongs to category A. If we adopt a two-fold division between labour share and non-labour or property share, then the above analysis points to an interesting conclusion that while the broad pattern of income distribution in the economy as a whole is systematically changing in favour of labour, the behaviour of factor shares within the agricultural vis-a-vis the non-agricultural sectors of the economy seems to be divergent showing movement in opposite directions rather than uniform showing the same broad pattern of change.

IV

Four basic hypotheses which emerge from the analysis of the data relating to the Indian economy presented in Table 1 and Table 2, deserve special mention and perhaps a detailed analysis if we are to make any attempt at formulating some broad generalisations regarding the behaviour of income shares in a developing country passing through the "take-off stage." of economic development. These hypotheses are:

1. The share of labour would be considerably lower in the agricultural sector as compared to the non-agricultural sector in an underdeveloped country.
2. The share of labour in the non-agricultural sector of an underdeveloped country would be considerably lower than its counterpart in an advanced country.
3. The share of labour in the agricultural sector would be steadily rising in a developing economy.
4. The share of labour in the non-agricultural sector would show a moderately declining trend during the early stage of development, and a rising trend during the later stage of development.

While the validity or otherwise of each of these hypotheses can always be challenged on either theoretical or empirical grounds, we feel that the above hypotheses are perhaps the most plausible ones to advance even on purely a priori grounds.

Thus, for instance, we may argue that in an underdeveloped country, the share of labour in the agricultural sector is likely to be considerably lower as compared to the one in the non-agricultural sector on account of a number of factors. In the first place, land as a factor of production continues to have a much greater importance in the total factor input in the agricultural sector in an underdeveloped country, while it has practically very little role to play in the non-agricultural sector. Secondly the productivity of labour in a traditional underdeveloped agricultural sector is very low on account of the primitive and backward technology and the widespread underemployment especially among the self-employed persons. Thirdly, the rate of return on capital in relation to the wage rate is likely to be higher in the agricultural sector as compared to the non-agricultural sector in an underdeveloped country on account of (a) the acute scarcity of capital in relation to labour and land frequently making capital a rationed item in the agricultural sector, and (b) a relatively large element of risk associated with investment in agriculture in an underdeveloped country where the proportion of irrigated area is generally very low and where agriculture is therefore subject to all the vagaries of weather. And finally, the existence of technological dualism between the agricultural and the non-agricultural sectors and also the presence of a more organised labour market in the latter accounts for a much wider gap between the productivity in the two sectors on the one hand and a much closer relationship between the wage rate & the productivity in the latter as compared to the former, on the other hand.

A more or less similar line of argument can be adopted for comparing the labour share in the non-agricultural sector of an underdeveloped country with its counterpart in an advanced country. More specifically, however, we can argue that in an underdeveloped country, even within the non-agricultural sector, there exists a considerable part that is unorganised, suffering from underemployment and operating with a very low level of technology. Furthermore, low capital formation proportions in underdeveloped countries account for the considerably lower levels of capital intensity in their non-agricultural sectors as compared to the highly capital intensive manufacturing sectors of the advanced industrialised countries. Another important factor is the difference in the basic structure of the non-agricultural sector existing between an underdeveloped and a developed country.

The non-agricultural sector in the former is dominated more by the commodity producing and the commodity handling sectors while the same is at least equally dominated by the service sector in the latter; and in as much as the share of labour is very high in the service sector as compared to the manufacturing sector, the share of labour would be higher in the latter than in the former even if all other things were more or less similar in the two types of countries. All these factors coupled with the low degree of skill formation and the consequent low proportion of skilled workers account for relatively low levels of the ratio of wages to profits in the underdeveloped countries as compared to the advanced countries.

Once we accept that the absolute levels of labour share are in general lower in both agricultural and the non-agricultural sectors in an underdeveloped country as compared to an advanced country, and that the labour share within the agricultural sector is still lower than that in the non-agricultural sector, it follows in view of the relatively much greater importance of the agricultural sector in the former, that the overall labour share is likely to be considerably lower in the former than in the latter. This also suggests almost simultaneously an obvious corollary that the overall share of labour must be steadily rising during the course of rapid economic development. Alternatively, this implies that the share of labour is most likely to show a significant upward time-trend in a developing economy. This tendency would be due primarily to the corresponding tendency of the labour share to rise in the agricultural sector in the early stages of development; and it would be due primarily to a similar tendency of the labour share to rise steadily in the non-agricultural sector during the later stages of development. And, of course, this primary tendency will be reinforced by the continuous process of structural transformation of the economy in which the relative importance of the agricultural sector goes on diminishing as the economy passes through the various stages of growth.

It is interesting to note in this connection, that the Ricardian Model dealing primarily with the agricultural sector implies that the share of labour will steadily rise as output expands. Although we do not suggest that the Ricardian Model as such is applicable to the development of the agricultural sector in an underdeveloped country, the striking similarity of our conclusion with the one implicit in the Ricardian Model needs to be explained especially because the similarity of the conclusions, as is often the case, does not imply similarity of approach or reasoning. Ricardo based his main argument on the premises of a **given real wage rate** close to the subsistence level and a given technology (both remaining unchanged during the course of development) implying historically diminishing returns, and

arrived at the obvious conclusion that the share of labour goes on rising (and the share of capital goes on falling) during the course of development because as the agricultural sector expands, the average product of labour goes on diminishing while the real wage rate remains constant. However, the available empirical evidence for a country like India,¹⁰ does not lend any support to the basic postulates of the Ricardian Model. Thus, we find on the basis of a detailed analysis of the growth of the Indian agricultural sector during the period 1948-49 to 1968-69, that, the average real wage rate has increased albeit moderately, the technology has changed albeit sluggishly and the capital intensity has also increased albeit slowly. What has happened actually is that the average real product of labour has shown only a small increase while the real wage rate has increased at a relatively faster rate. Thus, it is quite plausible to assume that during the process of development especially of the agricultural sector, the effect of diminishing returns to labour arising out of the given supply of land would be offset by the land saving technical progress and a steadily rising level of capital intensity with the result that the share of land would steadily fall while the share of labour would steadily rise as the agricultural sector expands.

Finally, to complete the analysis, we may now examine the development of the non-agricultural sector. The crucial variable in this sector appears to be the rate of investment, in as much as it is this factor which undergoes a radical change during the period of transition to the take off stage of growth. It is commonly observed that during the initial period of development, the ratio of investment to income especially in the non-agricultural sector increases steadily in the non-agricultural sector increases steadily and more than doubles itself over a period of about two decades or so. This phenomenon coupled with the fact that the non-agricultural sector in a developing country bears at least some broad resemblance to its counterpart in the advanced countries suggests that we may adopt the well known Kaldorian type of model to analyse the behaviour of income shares in the non-agricultural sector in an underdeveloped country passing through the early stages of rapid economic development. The Indian experience during the period 1948-49 to 1968-69, at least lends a support to Kaldor's hypothesis that a relative share of property income would be directly related to the proportion of total income that is invested.¹¹ Kaldor postulates the following relationship between P/y (relative share of property income) and I/y:

$$\frac{P}{Y} = \frac{1}{s_p - s_w} \cdot \frac{I}{Y} - \frac{s_w}{s_p - s_w} \cdot$$

Where S_p and S_w are the given propensities to save of the profit-earners and the wage-earners respectively. On the assumption that S_p is substantially higher than S_w and that both remain constant when I/y changes, Kaldor argues that P/y would be directly related to I/y .

We have estimated the coefficient of correlation between P/y and I/y for the non-agricultural sector by using the data available from the same source from where we have obtained the data on income shares,¹² and it turns out to be + 0.8260 which is highly significant.

Thus, it seems quite plausible to postulate that during the early stages of development, a significant rise in the ratio of investment to income would raise the share of property income and in turn lower the share of labour in the non-agricultural sector. However, once the ratio I/y reaches a fairly high level and more or less stabilizes there, the structural changes within the non-agricultural sector would start dominating; and the rapid expansion of the tertiary sector and the increasing skill-composition of the working force within the non-agricultural sector would lead to an upward trend in the share of labour that would continue during the later stages of development until the economy gets sufficiently diversified and reaches the advanced stage of development. It seems, therefore, that during the initial stage it is the behaviour of P/y as it will more than offset the effect of an internal structural change which at any rate would be slow initially. And, then in the later stage, the growing importance of the tertiary sector with an increasing quality of labour would take over as the ratio I/y stabilizes at a high level.

V

The final conclusion which emerges from all this analysis is obvious. According to our analysis presented above, the overall share of labour would be steadily rising in a developing economy (even if we consider the labour share after excluding the contribution of the government which by definition consists of employee compensation only), though the main factors that account for this steadily rising overall trend would be different during the different stages of development. It is the rising share of labour in the agricultural sector that will establish this tendency in the early stage, and the rising share of labour in the non-agricultural sector would perpetuate this tendency in the later stage with the diminishing importance of the agricultural sector exercising a steady reinforcing influence all along the course of rapid economic development.

Table 1

Variability of Income Shares in Agricultural and
Non-Agricultural Sectors, 1948-49 to 1968-69

<u>Sector/Income Share</u>	<u>Mean value (per cent)</u>	<u>Standard Deviation (Percentage points)</u>	<u>Coefficient of Variation (Per cent)</u>	<u>Range (Percentage points)</u>	<u>Range as a proportion of Mean Value (Per cent)</u>
<u>Agricultural Sector:</u>					
Labour share	55.43	3.82	6.89	14.72 (13)	26.56
Land share	29.31	3.06	10.44	11.47 (13)	39.13
Capital share	15.26	1.05	6.88	4.74 (2)	31.07
<u>Non-Agricultural Sector*:</u>					
Labour share	66.05	1.05	1.59	3.77 (14)	5.71
Land share	2.63	0.73	27.76	2.25 (20)	85.55
Capital share	31.32	1.67	5.33	5.28 (14)	16.86
<u>All Sectors* :</u>					
Labour share	60.10	2.00	3.33	7.79 (13)	12.96
Land share	17.43	2.45	14.06	8.61 (13)	49.40
Capital share	22.47	1.15	5.12	4.01 (14)	17.85

* Excluding Ownership of Dwellings & Real Estate and Public Administration & Defence.

Note: Figures in brackets indicate the distance (in terms of the number of years) between the two points of time showing respectively the highest and the lowest value of the corresponding factor share.

Source: Appendix Table 1.

Table 2(A)

Trends in Income Shares in India - Movement of
Quinquennial Averages, 1948-49 to 1968-69

Sector	1948-49 to 1952-53	1953-54 to 1957-58	1958-59 to 1962-63	1963-64 to 1968-69
<u>Agriculture:</u>				
Labour share	53.55	52.78	55.35	59.28
Land share	31.21	31.86	28.86	25.99
Capital share	15.24	15.36	15.79	14.73
<u>Non-Agriculture</u> *				
Labour share	67.23	66.55	65.47	65.13
Land share	3.55	3.00	2.35	1.77
Capital share	29.22	30.45	32.18	33.10
<u>All Sectors</u> *				
Labour share	59.21	58.90	59.97	61.95
Land share	19.77	18.97	16.71	14.79
Capital share	21.02	22.13	23.32	23.26

* Excluding Ownership of Dwellings and Real Estate, and Public Administration and Defence.

Note: The figures indicate the simple averages of annual percentage distribution of net domestic product during the specified periods.

Source: Appendix Table 1.

Table 2(B)

Trends in Income Shares in India - Results of Regression Analysis

Sector	Dependant Variable	Regression Coefficients		Coefficient of correlation (r)	Coefficient of Determination (r ²)
		Constant Term	Coefficient of time		
<u>Agricultural Sector:</u>	Labour share	50.8990	+0.4121* (0.1022)	+0.6697	0.4486
	Land share	33.4545	-0.3766* (0.0712)	-0.7638	0.5834
	Capital share	15.6467	-0.0356 (0.0370)	-0.2103	0.0442
<u>Non-Agricultural Sector</u> @@	Labour share	57.5236	-0.1341* (0.0229)	-0.7941	0.6306
	Land share	3.9014	-0.1160* (0.0034)	-0.9914	0.9829
	Capital share	28.5749	+0.2500* (0.0225)	+0.9274	0.8601
<u>All Sectors</u> @@:	Labour share	57.8997	+0.2000* (0.0565)	0.6209	0.3855
	Land share	21.1672	-0.3399* (0.0453)	-0.8592	0.7383
	Capital share	20.9339	+0.1399* (0.0269)	+0.7580	0.5746

* Significant at 1% level

@@ Excluding Ownership of Dwellings & Real Estate and Public Administration & Defence.

Note: Figures in brackets indicate the standard errors of the estimated coefficients.

Source: Appendix Table 1.

Estimates of Factor Shares in Net Domestic Product Originating in

Agricultural and Non-Agricultural Sectors in Indian

Economy.

(Figures indicate Percentages)

Year	Agricultural Sector			Non-Agricultural Sector*			All Sectors*		
	Share of Labour	Share of Land	Share of Capital	Share of Labour	Share of Land	Share of Capital	Share of Labour	Share of Land	Share of Capital
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1948-49	52.79	31.87	15.34	66.56	3.79	29.65	50.47	20.29	21.24
1949-50	52.13	32.20	15.67	66.07	3.52	26.41	56.55	20.47	20.08
1950-51	54.69	30.34	14.97	67.43	3.71	26.06	59.02	19.62	20.56
1951-52	54.43	30.21	15.36	66.25	3.62	30.13	59.35	19.15	21.51
1952-53	63.71	31.42	14.07	57.04	3.12	29.04	59.75	19.33	20.92
1953-54	50.57	33.68	15.75	67.51	3.24	29.14	57.52	21.27	21.21
1954-55	51.43	33.04	15.53	67.13	3.11	29.76	56.67	19.25	22.00
1955-56	52.09	32.12	14.99	66.00	2.92	31.00	59.07	18.44	22.50
1956-57	51.29	32.53	16.10	55.60	3.02	31.30	57.57	19.64	22.78
1957-58	57.71	27.35	14.34	56.27	2.72	31.02	61.57	16.27	22.06
1958-59	53.76	30.33	15.91	56.09	2.57	31.34	59.12	10.25	22.63
1959-60	56.50	28.20	15.04	65.39	2.51	32.10	60.64	15.57	22.79
1960-61	53.52	29.99	16.49	65.57	2.36	32.05	59.00	17.44	23.56
1961-62	54.04	28.92	15.24	64.90	2.23	32.79	59.57	15.47	23.96
1962-63	57.95	25.75	15.29	55.31	2.00	32.60	61.51	14.02	23.56
1963-64	50.06	25.47	15.47	54.30	2.01	33.59	61.03	14.31	24.19
1964-65	53.77	20.99	17.24	54.03	1.89	33.27	56.03	15.50	24.57
1965-66	53.34	23.10	13.05	65.19	1.71	33.03	64.49	12.77	22.74
1966-67	65.29	22.21	12.50	65.34	1.71	32.95	55.31	12.66	22.03
1967-68	56.67	20.04	15.29	55.55	1.65	32.60	60.56	15.56	22.05
1968-69	50.05	27.11	14.04	55.45	1.54	33.01	51.47	15.31	23.23

* Excluding Ownership of Dwellings & Real Estate and Public Administration & Defence

Source: Bakul H. Dhulakia: The Sources of Economic Growth in India, Good Companies Publishing House, Baroda, 1974.

REFERENCES

- 1 Cf. P. Sraffa (ed.): Works & Correspondence of David Ricardo Vol.I, "On the Principles of Political Economy and Taxation", (Cambridge, England, 1951); p.5.
- 2 See, for instance, Nicholas Kaldor: "Alternative Theories of Distribution", Review of Economic Studies, Vol.23, 1955-56, p.83.
- 3 Cf. Tibor Scitovsky: "A Survey of Some Theories of Income Distribution", in The Behaviour of Income Shares, Studies in Income and Wealth, Vol.27, NBER (Princeton University Press, Princeton, 1954). p.15.
- 4 For comprehensive and critical review of all the available estimates of distributive shares in India especially for the period before 1951, see M.Mukherjee: National Income of India - Trends and Structure, (Statistical Publishing Society, Calcutta, 1959); pp.227-290.
- 5 See, for instance, E.F. Denison; Why Growth Rates Differ (The Brookings Institution, Washington D.C., 1957), Ch.41
D.H. Johnson: "The Functional Distribution of Income in the United States, 1850-1952", Review of Economics and Statistics, May 1954; C.H. Feinstein: "Changes in the Distribution of the National Income in the United Kingdom since 1850"; and J.LeCaillon: "Changes in the Distribution of Income in the French Economy", both published in the Distribution of National Income, Proceedings of a Conference held by the International Economic Association, edited by J.Marchal & B.Ducros, (MacMillan & Co., New York, 1958).
- 6 Bakul H. Dholakia: The Source of Economic Growth in India, (Gold Companions Publishing House, Baroda, 1974); Ch.II.
- 7 See, for instance, E.F. Denison: "Distribution of National Income Since 1929", Survey of Current Business, June 1952; Jesse Burkhead: "Changes in the Functional Distribution of Income", Journal of the American Statistical Association, June 1953; and James C. Beck: "Labour's Share and the Degree of Utilisation of Capacity", Southern Economic Journal, April 1956.

- 8 "The Capacity Effect" arises from the operation of the simple principle that the greater (lower) the utilisation of the installed capacity, the longer (smaller) the output over which fixed costs are spread and the smaller (larger) therefore are the fixed costs per unit of output actually produced. Similarly, "The Lag Effect" is due to "the alleged lag of wages behind price increases in times of prosperity and inflationary pressures". See, Jesse Burkhear, Op. cit., and Tibor Scitovsky, Op. cit.
- 9 These seven series are: Labour share and land share in the agricultural sector, land share and capital share in the non-agricultural sector and all the three factor shares in all sectors taken together. Category B indicates these series which show short-term fluctuations around a given (upward or downward) long-term time-trend.
- 10 Bakul H. Dhulakia: The Sources of Economic Growth in India, Op. cit., Ch.VI.
- 11 Nicholas Kaldor: "Alternative Theories of Distribution", Op. cit., pp.94-100.
- 12 Cf. Bakul H. Dhulakia, Op. cit., Ch.V.