

# THE DISTRIBUTION OF INCOME IN TRINIDAD AND TOBAGO, 1957-76\*

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This article describes what happens to income distribution during intensive changes in gross domestic product due to external market conditions. It deals specifically with an open market petroleum-based economy, Trinidad and Tobago, and reviews changes in national product and income levels and the income distribution pattern over the twenty year period 1957-76.

The paper argues that during the period characterized by subperiods of steady growth and rapid growth in GDP (the latter associated with the petroleum price rise), income inequality increased between 1957 and 1972 and then decreased in the post petroleum-price-rise period of rapid growth 1973-76. While the effect of intensive changes in national product did trickle down to the lower income groups, income inequality in 1975-76 was greater than that existing in 1957-58. An examination of the spatial, occupational and temporal aspect of the distribution pattern points towards the elimination of structural dualism in the economy as the surest path towards greater income equality in Trinidad and Tobago.

The size distribution of income is a vexing aspect of the economic condition and performance of developing countries. Reasonable growth rates in these countries over the last two decades have not been associated with a reduction in income inequality. Indeed many Third World countries have experienced a widening of income differentials within their borders and in many instances there have been increasing levels of absolute poverty. A recent World Bank Study summed up the situation as follows:

“It is now clear that after a decade of rapid growth in underdeveloped countries, there has been little or no benefit to perhaps a third of their population.”<sup>1</sup>

Uneven income distribution patterns within developing countries are not unrelated to the world distribution of income which is highly skewed. Recent estimates of Kravis<sup>2</sup> indicate that the developing market economies of Africa, Asia and America with 69.4 percent of world population account for 14.8 of world GDP in nominal prices.

In response to these empirical realities, development economists and other social scientists are again focussing their attention on the mechanisms within differing economic systems that generate particular patterns of income distribution. The renewed interest in questions of distribution will hopefully open new insights in the body of economic theory, as economic theorists strive to integrate income distribution theories into the general methodology of economics. An important task for development theorists is to endogenize the

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<sup>1</sup>Chenery *et al.* (3), p. XIII, Introduction.

<sup>2</sup>Kravis (8), Table 6.

distribution factor into the workings of the economic system and the economy and so provide a deeper understanding of distributional relations and their policy implications.

There has been in Trinidad and Tobago a relatively high growth rate of Gross Domestic Product (GDP) over the last two decades. Increases in GDP are largely the result of events in the international economy. This small country with an open petroleum based economy found its economic prospects and fortunes enhanced by the cumulative decisions of the Organization of Petroleum Exporting Countries.

In this paper, we shall examine changes in the national product and the distribution of income in Trinidad and Tobago. To do so, we will estimate changes in GDP over the twenty year period 1957-76, and comparatively assess the behaviour of the size distribution of household incomes. In the appraisal we will draw reference to some factors that may explain the changes in growth and distribution in the economy of Trinidad and Tobago.

#### GROWTH RATE OF THE GROSS DOMESTIC PRODUCT

Over the period 1957-76, Trinidad and Tobago achieved an average annual growth rate of 13.3 percent measured in current prices. Using the price index as a deflator, at constant 1970 prices the average annual growth rate for the period was 6.4 percent. For the 1973-76 period, the annual growth rates were 33.4 percent in current prices and 14.6 percent in constant 1970 prices. These figures emphasize the impact that the post 1973 petroleum prices have had on the economy.

There has been some variance in the estimates given in the different reports. In Table 1, the figures in the most recent reports were generally accepted. This table gives a detailed breakdown of these growth rates. Over the period, GDP increased tenfold in current prices. In real terms GDP quadrupled between 1957 and 1976.

After a relative real increase in GDP in the fifties, the economy moved into a decline setting in motion a secular trend from which there has been a minor and major respite. The minor respite took place around 1967-68 but was short lived as the growth path moved back into the set pattern of the early sixties. The major respite occurred in 1973-74 and jolted the economy into a much higher level of economic activity.

Increased export earnings of the post-1973 period had the effect of reversing the balance of payments situation, multiplying government revenues and introducing an excess liquidity condition in the financial sector of the economy. Cumulatively, these changes resulted in a rapid increase in both the level and rate of growth of GDP. Although the level of the growth rate increased, the secular trend of a downward sloping growth path remained unaltered. At least for the short run, it appears that the post-1973 boom has not affected the direction of the GDP growth path, which may be a reflection of the unchanging structure, and structural relations, in the economy.

The minor and major respites are both related to events in the international economy. High commodity prices and low inflation rates in the external markets partially explain the 1967-68 situation. Within the local economy, increased

TABLE 1  
GROSS DOMESTIC PRODUCT (1957-76)

Year	Gross Domestic Product (mTT\$)				Rate of Growth over Previous year of Gross Domestic Product (Percent)			
	Current Prices		Constant 1970 Prices		Current Prices		Constant 1970 Prices	
	Value	Index	Value	Index	Annual Average	3-year Moving Average	Annual Average	3-year Moving Average
1957	654.7	40.3	968.5	59.7	—	—	—	—
1958	714.2	44.0	1,008.7	62.2	9.1	—	4.2	—
1959	793.1	48.9	1,074.6	66.2	11.0	—	6.5	—
1960	856.6	52.8	1,148.2	70.8	8.0	9.0	6.9	6.1
1961	946.3	58.3	1,255.0	77.3	10.5	9.8	9.3	7.7
1962	1,005.7	62.0	1,296.0	79.9	6.3	8.0	3.3	5.5
1963	1,094.2	67.4	1,357.6	83.7	8.8	8.4	4.8	5.2
1964	1,148.6	70.8	1,412.8	87.1	5.0	6.7	4.1	4.6
1965	1,188.0	73.2	1,448.8	89.2	3.4	5.1	2.6	3.6
1966	1,245.8	76.8	1,446.9	89.2	4.8	4.9	-0.1	1.9
1967	1,337.1	82.4	1,521.2	93.7	7.3	7.1	5.1	3.5
1968	1,521.5	93.8	1,598.2	98.4	13.8	10.5	5.1	4.3
1969	1,560.5	96.2	1,600.5	98.6	2.5	6.5	0.1	2.2
1970	1,622.8	100.0	1,622.8	100.0	3.9	5.2	1.4	1.8
1971	1,798.6	110.8	1,737.7	107.1	10.8	8.0	7.1	4.5
1972	2,034.4	125.4	1,798.7	110.8	13.1	10.5	3.5	4.0
1973	2,467.5	152.1	1,901.0	117.1	21.3	15.9	5.7	4.8
1974	4,003.0	246.1	2,524.5	155.6	62.2	39.1	32.9	18.9
1975	5,382.2	331.8	2,903.0	178.9	34.5	36.8	14.9	16.9
1976	6,220.8	383.3	3,040.5	187.4	15.6	26.2	4.7	10.8
Average 1957-76;					13.3		6.4	
Average 1973-76:					34.4		14.6	

Sources: Rampersad (11), Table 1, 2, Appendix. McIntyre [9], Table III, 1. C.S.O., The Gross Domestic Product of the Republic of Trinidad and Tobago 1966-1976. World Bank, Report on Trinidad and Tobago 1978.

output in the petroleum and export commodity sectors complemented these external developments. As for the 1973-74 respite, the major contributory factors are the well known changes in the world petroleum industry and petroleum prices. The possible advantage of high petroleum prices to an open petroleum-based economy was quickly reduced by a rising world inflation rate. Locally, the relative constancy of the population growth rate militated against a fall in real per capita GDP. During this period, net factor payments abroad were increasing at a faster rate than GDP.

Given the structural openness of the economy, the scope for excessive leakages from the system and the overall dependence on the international economy, it is unlikely that market forces alone would generate responses that could push the economy towards structural changes. On the contrary, market forces may reinforce existing structural relations and hence sustain the net

transfer of resources out of the local economy. Even within the domestic economy, resources are likely to accumulate at growth points. These processes may adversely influence the income distribution pattern as there is no automatic mechanism to distribute increased value of output either on a spatial or target group basis. The dependent market economy relies almost exclusively on deliberate public policy measures to achieve distributional objectives.

Economic strategy may deliberately seek to link the growth process with distribution targets. Otherwise, public policy may tend to strengthen the structural relations in the economy that create greater income inequality. For instance, the manner in which "excess" liquidity is injected into the system may distort price relations in the economy and create a boom in the speculator's market. Such a situation would influence the existing income distribution pattern as speculation transfers wealth and has little impact on the net creation of wealth. Such a transfer process is more likely to increase the concentration of wealth. The condition is strengthened when the excess liquidity does little to increase the domestic productive capacity while at the same time it reinforces the foreign enclaved productive economy.

According to Table 2, average household income increased at an annual average of 27.9 percent in current prices over the period 1957-76. At constant 1975-76 prices, the rate of increase was 9.8 percent. The annual increase in GDP for the period was 6.4 percent in real terms. These figures may imply that the share of income in total gross output was increasing over the period. Although income grew at a faster rate than output, it would be hazardous to infer that labour's share of total income increased over the period. Data on the disaggregation of income by factors is not accessible, and in this regard the publication of the National Income Statistics would be welcomed.

### MOVEMENT OF INCOMES<sup>3</sup>

TABLE 2  
MOVEMENT OF HOUSEHOLD INCOMES (1957-76)

	Average Monthly Household Income at Current Prices			Average Monthly Household Income at Constant 1975-76 Prices	
	Value TT\$	% Increase over previous period	Price Index	Value TT\$	% Increase over previous period
1957-58	82	—	35	234	—
1971-72	220	268	55	400	170
1975-76	458	108	100	458	11.5

Source: Extrapolated from Table 4, James [12], and Table 2 of Household Budgetary Survey (HBS), 1975-76.

<sup>3</sup>Note: We ignore in this paper problems of measurement and bias created by the use of different statistics. We also assume comparability of data over the time series. We have used the household as the unit of measurement, although changes in this unit could affect specific inferences. We accept income estimates (unmodified for tax or other purposes) as given in the HBS survey. It is felt that the level of generality will not be reduced by the qualifications.

We note that although average income increased by 108 percent between 1971-72 and 1975-76 in current prices, this amounted to only 11.5 percent in real terms. This is due to the higher rates of inflation during this period, but could conceivably be the result of changes in the pattern of income distribution. For in comparing the average, we need not be comparing the same points in the distribution. Nonetheless, in the light of this small increase in real income, there is need to explain the basis for increased spending in the economy since 1973. Increases in income alone would not provide the full explanation. Average expenditure was 142.3 percent of average income in 1975-76. It may be that rising monetary income and excess financial liquidity in the system together accounted for the increased spending in the economy. We shall return to this point later in the paper.

During the post-1973 period, expenditure increased at a faster rate than real income which itself was increasing at a higher rate than gross output. The equilibrating factor must be inter-temporal trade-offs among these variables. Current expenditure will have to be met by future income. It is not clear whether this expenditure is biased towards capital or consumption goods. A bias towards capital goods (provided that they are productively "employed") will increase gross output and "ceteris paribus" real income in the future. Otherwise, there may be a widening difference among the values of these variables. As such, measures of income inequality may not be a faithful proxy for the level of economic well being.

#### PATTERNS OF INCOME DISTRIBUTION

Table 3 below compares the changes in income shares by deciles at three points over the period, in 1957-58, 1971-72 and 1975-76.

TABLE 3  
INCOME SHARES BY DECILES

Deciles of Households	Percentage Income Shares					
	1957-58		1971-72		1975-76	
1st-2nd	3.4	(3.4)	2.2	(2.2)	2.7	(22.7)
3rd	3.8	(7.2)	2.9	(5.1)	3.5	(6.2)
4th	5.3	(12.5)	4.5	(9.6)	5.4	(11.6)
5th	6.7	(19.2)	5.9	(15.5)	7.4	(19.0)
6th	7.9	(27.1)	7.4	(22.9)	8.4	(27.4)
7th	11.1	(38.2)	9.4	(32.3)	10.4	(37.8)
8th	13.2	(51.4)	12.5	(44.8)	12.8	(50.6)
9th	15.3	(66.7)	17.4	(62.2)	18.0	(68.6)
10th-first 5%	10.8	(77.5)	13.3	(75.5)	11.9	(80.5)
10th-second 5%	22.5	(100.0)	24.5	(100.0)	19.5	(100.0)

Note: Figures in brackets represent cumulative percentages.

Source: 1957-58—Ahiram [1], 1971-72—Henry [6], 1975-76—calculated from table 2—Household Budgetary Survey 1975-76.

The calculations reveal that income inequality increased between 1957-58 and 1971-72. Between 1971-72 and 1975-76, there has been a decrease in

inequality. For instance, 40 percent of households with the lowest income received 12.5 percent of total income in 1957–58, which decreased to 9.6 percent in 1971–72 and increased again to 11.6 percent in 1975–76. At the other extreme, 10 percent of households with the highest income received 33.3 percent of all incomes in 1957–58, 37.8 percent in 1971–72 and 31.4 percent in 1975–76.<sup>4</sup>

Harewood [7] calculated the Gini coefficients for the three distributions at different levels of aggregation and concluded that in Trinidad and Tobago, “after increasing by about six percentage points between 1957–58 and 1971–72, by 1975–76 the ratios had returned to very nearly the same as in 1957–58”. Using the most disaggregated data, the Gini concentration ratio was estimated by Harewood to be 0.4313 in 1957–58, 0.5142 in 1971–72 and 0.4530 in 1975–76. Harewood’s construction of the 1975–76 distribution varied slightly from that of the author.

The Gini coefficient is a summary statistic and does not take into account the location of inequality in a distribution. Equal differences between two incomes (at any point in the distribution) affect the size of the Gini ratio in exactly the same way.

It is conceivable therefore that internal changes in the distribution pattern may not influence the size of this ratio.<sup>5</sup> The decile ratio test<sup>6</sup> may better detect the location of inequality in a particular distribution. Identifying the sixth decile as the median decile, we compare the ratios of each decile to the median decile. With respect to deciles below the median, lower numerical values indicate greater inequality; while for deciles above the median, higher numerical values indicate greater inequality. Table 4 gives these ratios.

From this table we see that the 1971–72 distribution reflects more inequality than the 1957–58 distribution for all deciles except the 7th decile. The decile ratio test shows more inequality in 1971–72 than in 1975–76 for all deciles. The hypothesis that the distribution of income worsened and then improved over the period is corroborated by this analysis. What is not clear is whether the 1975–76 distribution is “very nearly the same as in 1957–58” as inferred by Harewood.

Comparing 1975–76 to 1957–58, we see that for all deciles below the median except the 5th decile, the situation in 1975–76 depicts a greater inequality than that existing in 1957–58. The difference in the 5th decile over the two time points

<sup>4</sup>There may be biases in the construction of these data, and hence it is possible that the distribution may not actually depict the real situation. Apart from purely statistical problems of sample size and sampling methods there are a number of other measurement problems that must be considered. The definition of income and the treatment of non-declared income poses an immediate problem. The 1975–76 HBS survey excludes from income the following: capital gains, windfall gains, inheritances, tax refunds, “income in kind”, value for “owner occupied and rent free dwellings”. Usually, business expense accounts are excluded from the definition of income. These factors along with the valuation and benefits of state services (library, museum, parks, etc.) and the “pro rich” bias of the retail price system are likely to generate a statistical bias towards greater equality. Hence it is possible that the real distribution has a wider income disparity than that shown in the constructed data.

<sup>5</sup>This point has been reviewed in the literature. See for instance Allingham [2], Michal [10]. Technically the situation arises because the Gini coefficient assumes a constant marginal utility of income and a straight line social welfare function.

<sup>6</sup>The decile ratio test is a variant of the centile ratio test which has been extensively used in the literature. See Michal [10].

TABLE 4  
DECILE RATIOS

Decile	1957-58	1971-72	1975-76
<u>1st and 2nd</u>			
6th	0.43 (3)	0.29 (1)	0.32 (2)
3rd/6th	0.48 (3)	0.39 (1)	0.42 (2)
4th/6th	0.67 (3)	0.61 (1)	0.64 (2)
5th/6th	0.85 (2)	0.80 (1)	0.88 (3)
6th/6th	1.00 —	1.00 —	1.00 —
7th/6th	1.41 (1)	1.27 (2)	1.24 (3)
8th/6th	1.67 (2)	1.70 (1)	1.52 (3)
9th/6th	1.94 (3)	2.35 (1)	2.14 (2)
10th/6th	4.22 (2)	5.11 (1)	3.74 (3)

*Note:* Figures in brackets rank inequality across the three time periods. (1) represents more inequality than (2), and (2) more inequality than (3). The relation is transitive.

is three percentage points. For deciles above the median, there has been less inequality in 1975-76 compared to 1957-58 except for the 9th decile. The change is most pronounced in the 7th decile where the difference is in the vicinity of 16 percentage points. The worsening of the equality in the 9th decile for the 1975-76 distribution was also by 16 percentage points.

These comparisons may be interpreted as follows:

- (i) Comparing the distribution of 1957-58 to that of 1971-72, the distribution of income worsened over the period for all income earners (i.e. inequality of income increased during the period).
- (ii) Comparing the distribution of 1957-58 to that of 1975-76 the distribution of income has worsened over the period for the 50 percent of income earners below the median.
- (iii) The distribution in the middle income level has broadened in 1975-76 suggesting an expansion of the middle income earners in absolute terms. The disparity of income in the 6th, 7th and 8th deciles has been reduced.
- (iv) The expansion of the middle income grouping took place at the expense of both extremes. The incidence of cost in this change fell on the first, second, third and the upper half of the tenth decile.
- (v) Overall, 1975-76 showed greater inequality than 1957-58. This point becomes clear only when the location of inequality is considered; otherwise the inference is hidden in the biases of statistical methods.

Real incomes of all households increased at an annual average of 7.4 percent over the period 1957-58 and 1971-72. For the later period 1971-72 to 1975-76, the annual average increase was 4.5 percent. The fact that the rate of increase for the lower income deciles was below the overall average in the first period and above the overall average in the latter period corroborates the conclusion on income equality changes. However, the rising absolute increase for the lower income group was not sufficient to overcome the degree of inequality that took place in the 1957-58 to 1971-72 period.

In absolute terms, 40 percent of the households in the lowest income group received a real income of 5 million dollars monthly in 1957–58. By 1971–72, this had increased in real terms to 8.1 million dollars. In 1975–76, this group received an absolute real income of 12 million dollars. In relative terms, these increases were lower than the overall average for all deciles. While real income for all deciles increased by an annual average of 7.9 percent over the 1957–76 period, the increase for the 40 percent of lowest income households was 7.0 percent. This situation was reversed in the 1971–72 to 1975–76 period as the overall increase of 4.5 percent was less than the increase in the 40 percent lowest income group which was 9.6 percent.

This information suggests that in the period of steady growth (1957–58—1971–72) the lower income groups benefitted little in absolute terms and their relative position worsened. In the later period of rapid growth, the trickle down effect did arrest the situation and generated a movement towards greater equality. It could be that the 1971–72 income distribution represented a chance variation from the “relative stability of income shares”, a situation which was being restored by 1975–76. In that case the trickle down effect would be a restoration process rather than a systematic improvement in the distribution pattern. The pattern of income distribution in the post-1976 period would provide an insight into the sustaining nature of the trickle down effect.

#### CHANGES IN REAL INCOME BY DECILES

TABLE 5  
TOTAL MONTHLY REAL INCOME FOR ALL HOUSEHOLDS BY DECILES

Deciles of households	Total real income for all households (mnTT\$)				
	1957–58		1971–72		1975–76
	TT\$mn	TT\$mn	Average annual % change 1957–58—1971–72		Average annual % change 1971–72—1975–76
1st–2nd	1.4	1.9	(2.4)		2.8 (9.4)
3rd	1.5	2.4	(4.0)		3.6 (10.0)
4th	2.1	3.8	(5.4)		5.6 (9.4)
5th	2.7	5.0	(5.7)		7.6 (10.4)
6th	3.1	6.2	(6.7)		8.7 (8.0)
7th	4.4	7.9	(5.3)		10.7 (7.1)
8th	5.3	10.5	(6.5)		13.2 (5.1)
9th	6.1	14.6	(9.3)		18.6 (5.5)
10th—first 5%	4.3	11.2	(10.7)		12.3 (2.0)
10th—second 5%	9.0	20.6	(8.7)		20.1 (–0.5)
Total	39.9	84.1	(7.4)		103.2 (4.5)

Notes: Figures used for number of households based on HBS survey information were:

1957–58—170,000  
1971–72—210,000  
1975–76—225,000

Source: Calculated from the above data, and Tables 2 and 3.



## THE SPATIAL ASPECT OF INCOME INEQUALITY

From Table 6 we see that incomes in the rural area are lower than in the urban area. In addition, there is a greater disparity of income in rural areas compared to urban areas. Overall urban income is 1.24 times above the median rural income which was approximately \$310 monthly in 1975-76. The urban/rural income ratio is lower in 1975-76 than in previous years. Ahiram [1] estimated an urban/rural ratio of 1.7 for Trinidad in 1957-58. Notwithstanding the fact that Ahiram compared means rather than medians, the data may suggest that rural incomes are catching up with urban income.

TABLE 6  
PERCENTAGE OF HOUSEHOLDS BY INCOME

Monthly Household Income	Urban	Rural	Trinidad and Tobago
Under \$299	39.9	48.6	43.2
\$300-\$699	36.3	36.6	36.4
\$700-\$1,099	14.8	10.7	12.9
\$1,100-\$1,499	5.0	3.1	4.3
\$1,500 or more	4.0	1.0	3.2

*Source: Derived from Chart 4 HBS 1975-76.*

This conclusion is inconsistent with findings regarding occupational groupings and place of residence. A close look reveals, however, that there has been a reclassification of areas in the data which may tend to lower the urban/rural income ratio. In the 1975-76 survey the urban area has been expanded to include areas classified as rural in previous surveys.

There has been little statistical change in the spatial distribution of income over the years. This is probably to be expected in light of the reliance of economic growth strategy on "growth pole" accumulation and development. In general, the flow of resources continue to move from the periphery to centre reinforcing in the process the existing distribution of asset formation, capital levels and income flows. The distributional component of the development strategy and policies do not have a clear spatial dimension as balanced regional growth has had little recognition in public policy. In addition, the distribution factor is given a low weight in project selection analysis [Dookeran 5]. This is so for both private and public sector projects in Trinidad and Tobago.

Tables 7 and 8 are self explanatory and corroborate the general findings in this paper. From an income distribution point of view, Column 4 of Table 8 is of special interest. Because the "not classified" section amounts to 25 per cent of the sample, we must be cautious in drawing any firm conclusions from these data. Clearly, agricultural and production workers receive a share of the wage bill that is smaller than their respective share of the working population. It is of interest to note that income shares by occupational groupings may coincide with the sectorial contribution to the Gross Domestic Product.

## INCOME INEQUALITY BY OCCUPATIONAL GROUPINGS

TABLE 7  
PERCENTAGE DISTRIBUTION OF OCCUPATIONAL GROUPINGS BY INCOME 1975-76

	Under \$300	\$300-699	\$700-1099	\$1100-1499	\$1500 and over	
Average Monthly Income	\$142	\$454	\$858	\$1274	\$2017	
	Percentages					
All occupations	100	43.2	36.4	12.9	4.3	3.2
Professional	100	4.3	19.9	26.2	22.2	27.4
Manipulative	100	32.6	40.8	17.0	5.7	3.9
Agricultural	100	54.1	35.4	8.6	1.5	0.4
Production	100	32.5	49.8	13.8	2.9	1.0
Not classified	100	51.5	43.1	3.7	1.0	0.7

*Source:* Extrapolated from Tables 2, 23, 25 of HBS 1975-76.

*Note:* Professional includes professional, technical, administrative, managerial and related workers. Manipulative includes clerical, sales, service and related workers. Other classifications are consistent with HBS tables.

To the extent the above hypothesis is true (it is generally true for many developing countries), this may point to one of the major sources of large income disparity in Trinidad and Tobago. Structural dualism has been a feature of this economy as very little attempt has been made and less success has been achieved in integrating the agricultural sector into the national economy. In addition the informal sector remains a domestic enclave of the economy. One of the implications of this structural dualism is its impact on income distribution where workers in peripheral industries receive proportionately smaller shares of the national wage bill. This emphasizes the need for fundamental restructuring of the economic base as the surest path towards greater economic equality.

TABLE 8  
AVERAGE INCOME AND INCOME SHARES BY OCCUPATIONAL GROUPINGS 1975-76

	Distribution %	Average Monthly Income	Share Wage Bill %	Column 3/ Column 1
Professional	08	\$1,157	20	2.50
Manipulative	22	529	25	1.14
Agricultural	11	339	08	0.72
Production	34	428	31	0.91
Not classified	25	328	16	0.64

*Source:* Calculated from Table 6, above.

## EXPENDITURE—INCOME PATTERN

According to HBS 1975–76, average expenditure per household exceeds average income for all income levels. Overall monthly expenditure was 1.42 times monthly income, while at the lower income levels the expenditure/income ratio exceeded 3.5. Regressing expenditure ( $E$ ) against income ( $Y$ ) and using cross-sectional area data, we found the least squares regression line to be:

$$E = 26 + 1.45 Y \quad (r^2 = 0.72)$$

This is consistent with general economic hypotheses on this matter, for at zero incomes expenditure is positive. Also, the high expenditure/income ratio may be partly the result of increasing urbanization, as the propensity to consume is likely to be higher in the urban setting than the rural one. The “ $b$ ” coefficient of 1.45 is statistically similar to the overall expenditure/income ratio of 1.42.

Table 9 reveals that the growth of commercial bank credit has been rapid, and this is particularly so during the 1974–76 period. Increases in bank credit were possible because of a substantial rise in bank liquidity in the post-1973 period. These data support the contention made earlier in the paper that credit availability may have influenced the increased spending in the economy to a large extent, as indeed did rising monetary income. There may have been some degree of “money illusion” in the economy, a money illusion that may have been formed by the rapid rise in monetary income and the expectation of escalating inflation.

TABLE 9  
INDEX OF COMMERCIAL BANK CREDIT

Year	1968	1969	1970	1971	1972	1973	1974	1975	1976
Index	109.3	143.4	181.4	219.8	314.5	318.5	383.5	574.7	854.7

There is sufficient evidence to support the view that excess demand and spending in the local economy in 1975–76 was not based primarily on rising real incomes. What is not clear is whether the increased spending was investment for the future or was merely increasing economic well-being for the present or was necessitated by the need to maintain existing levels of living in an inflationary condition. Whatever the reason, the excess demand has generated production bottlenecks, commodity shortages and a rising import bill. These effects may unleash further inflationary pressure and consequently militate against an improving income equality pattern.

## INCOME DISTRIBUTION BY ETHNIC GROUPINGS

This aspect has been documented in two previous articles, one by the author [4] and the other by Henry [7]. There is no evidence to suggest that this situation has changed substantially over the last few years. We shall not deal with this aspect of the problem. To do so would require more comprehensive data especially since income data is no longer classified by ethnic groupings in Trinidad and Tobago.

There is however an ethnic factor in the formation of distribution policy in Trinidad and Tobago. This is especially so with respect to Government's social expenditure and public good entitlement. Scholars concerned about the development of an "equal" society may find research in this area of political economy interesting, if not rewarding.

#### REFERENCES

1. Ahiram, E., "Distribution of Income in Trinidad and Tobago and Comparison with Distribution of Income in Jamaica", *Social and Economic Studies*, Vol. 15, No. 2, 1966.
2. Allingham, M. G., "The Measurement of Inequality", *Journal of Economic Theory*, Vol. 5, 1972.
3. Chenery, H. et al., *Redistribution with Growth*, Oxford Univ. Press, 1974.
4. Dookeran, W., "East Indians and the Economy of Trinidad and Tobago", in La Guerre (ed.), *Calcutta to Caroni*, Longmans, 1974.
5. ———, "The Changing Nature of our Economic/Social Environment and its Relations to Engineers", *Journal of the Association of Professional Engineers*, July 1979.
6. Henry, R. M., "A Note on Income Distribution and Poverty in Trinidad and Tobago", *Central Statistical Office. Research Papers*, 1975.
7. Harewood, J., "Poverty and Basic Needs", *Caribbean Issues*, 1979-80, 1978.
8. Kravis, I. B., Heston, A. W., and Summers, R., "Real GDP per Capita for more than One Hundred Countries", *Economic Journal*, 88, June 1978.
9. McIntyre, A. and Waston, B., *Studies in Foreign Investment in the Commonwealth Caribbean*, No. 1: Trinidad and Tobago Institute of Social and Economic Research, 1970.
10. Michal, Jan M., "An Alternative Approach to Measuring Income Inequality in Eastern Europe", in Fallenbuch (ed.), *Economic Development in the Soviet Union and Eastern Europe*, 1975.
11. Rampersad, F., *Growth and Structural Change in the Economy of Trinidad and Tobago, 1951-61*, Institute of Social and Economic Research, Trinidad and Tobago, 1965.
12. James, Brian, "Household Consumption Pattern for the 1971-72 Household Budgetary Survey Data", Mimeo, Central Statistical Office, Trinidad and Tobago, 1973.

#### REPORTS

1. *The Gross Domestic Product of the Republic of Trinidad and Tobago, 1966-76*, Central Statistical Office.
2. *Household Budgetary Survey, 1975-76*, Central Statistical Office.
3. *Report on Trinidad and Tobago, 1978*, World Bank.
4. *Report on Inflation in Trinidad and Tobago, 1970-78*. The Trinidad and Tobago Chamber of Industry and Commerce, 1978.