

**STABILISATION OF PRICES IN PLANTATION ECONOMIES:
A COMPARATIVE STUDY OF THE TEA INDUSTRY
IN INDIA AND THE COFFEE INDUSTRY
IN BRAZIL**

**Dissertation submitted in partial
fulfilment of the requirement
for the degree of
Master of Philosophy**

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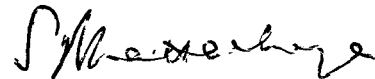
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DECLARATION

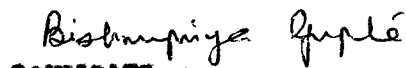
I certify that the dissertation entitled "Stabilisation of Prices in Plantation Economies : A Comparative Study of The Tea Industry in India and the Coffee Industry in Brazil" submitted by Bishnupriya Gupta in partial fulfilment of the requirement for the degree of Master of Philosophy is a bona-fide work to the best of my knowledge and may be placed before the examiners for their consideration.



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TABLE OF CONTENTS

CHAPTER I	Page
Introduction	1-17
 CHAPTER II	
Expert - oriented control system in the tea industry in India (1920-1939) ..	18-68
 CHAPTER III	
Coffee industry in Brazil : The valorization scheme in the interwar period ..	69-85
 CHAPTER IV	
The politics of stabilization programmes in the interwar period - tea and coffee ..	86-114
 CHAPTER V	
A comparative study of the stabilisation schemes	115-141
 CHAPTER VI	
Conclusion	142-153
BIBLIOGRAPHY	154-157

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CHAPTER I

INTRODUCTION

The criticism of commodity price stabilization was traditionally made out of an immense faith in the functioning of a competitive economic system. The competitive system was expected to direct resources into the "most efficient" channels of production through movements of the prices of various commodities. In 1938, J.M. Keynes wrote,

"It is an outstanding fault of the competitive system that there is no sufficient incentive to the individual enterprise to store surplus stocks of materials, so as to maintain continuity of output and to average, as far as possible, periods of high and low demand. The competitive system abhors the existence of stocks, with as strong a reflex as nature abhors vacuum, because stocks yield a negative return in terms of themselves.... No radical remedy for fluctuations is possible except through measures to stabilize the aggregate effective demand."¹

Therefore the defense of price stabilization arose by questioning the reliability of price signals, especially in the short run due to the speculative as well as cyclical nature of many price movements.² It was pointed out that what is not compatible with the free market is a modification of the long run trend of prices. To the extent, short run price signals cause extreme adjustments in production and

1 J. M. Keynes, The Politics of Government Storage of Foodstuff and raw Materials, L. J., 1938.

2 H.C. Wallich, Stabilization of proceeds from raw material exports, in H.C. Ellis and H.C. Wallich (ed.), Economic Development for Latin America, New York, 1961, p. 342-43.

thereby fail to reflect the long run trend in supply and demand, it is entirely legitimate to counteract them even in a free market system.¹

H.C. Wallich in his article, "Stabilization of proceeds from raw material exports", contradicted the very logic of theories which defend price fluctuations in terms of greater capital accumulation with incomes which are periodically higher than when they are more evenly distributed over time. Wallich points out -

"There is a considerable doubt about the implicit analysis of the savings process itself. It may be that the establishment of a higher living standard based on a temporarily high income, would cut into saving when income falls again and so lead to a lower saving over the cycle."²

Wallich argues that with large price fluctuations and the consequent instability, speculation becomes rampant especially in the country's principal commodity. This "raw material mentality" narrows the investment horizon and hinders economic development.³

Wallich therefore advocates a programme of commodity price stabilization for overall economic development in a country which is basically a primary producer.

From the arguments given by Keynes and Wallich in support of commodity price stabilization two basic propositions can be derived:

1 Wallich, H.C., op.cit., p. 348.

2 Cairnes S., "Instability of primary product prices and profits - a proposal", E.J., 1954.

3 Wallich, H.C., op.cit., pp. 347-48.

- (1) Use a programme of stabilization of commodity prices to wipe out short run fluctuations since these do not indicate long run trends in demand and supply.
- (2) Stabilization of prices of primary products will lead to a more balanced type of development whereas in the absence of stabilization, a strategy of export - led growth based on a single commodity makes the economy more vulnerable to external forces.

To me, these generalizations are fallacious since they do not take account of the differences in the structure of the economy of the various primary producing countries. These arguments are fallacious because they fail to analyse the differences in the structure of demand and supply of the various primary products.

It will be interesting to find out the extent to which stabilization programmes do not basically alter the long term trend and merely help to smooth out imbalances in the short run and under what conditions.

Secondly, I would like to delve deeper into the relation between stabilization of commodity prices and economic development. The question that crops up immediately is whether one can establish such straight forward links and to what extent the structure of demand and supply of the commodity in question and the structure of the economy of the primary producing country under review determine the ultimate result.

The two problems are inter-related. If stabilization artificially maintains a high price level, then it would help to perpetuate the "raw material mentality" and dismantle the basis of Wallich's argument. Therefore it is necessary to find out under what conditions stabilization will only smooth out short term fluctuation and in this context, an analysis of the structure of demand and supply of the commodity under consideration and the structure of the economy which produces it assumes particular importance. Any generalization made without reference to these aspects will be open to attack.

I would like to put forward the following hypotheses -

- (a) Stabilization of prices cannot provide a permanent solution for commodities which exhibit low price and income elasticities of demand, especially when demand is concentrated in particular countries. It will merely postpone the crisis.
- (b) A commodity with low price and income elasticities of demand in the export market may still benefit from a stabilization programme if there exists a large potential domestic market.
- (c) Stabilization negates its entire logic for economies dependent essentially on the export of a single commodity. In other words, stabilization of commodity prices hinders the process of development in economies dependent on a single export item, when the commodity in question exhibits low elasticities of demand.

It will investigate the problem with reference to the plantation sector and in particular with the plantation crops tea in India and coffee in Brazil for the following reasons:

Firstly, historically the plantation crops in any economy have proved most vulnerable to price fluctuations. While price movements in such sectors have generated linkage effects in various other sectors of the economy and led to further development; a slump in prices has caused a sharp decline in that particular economic activity to the point of insignificance.

Secondly, tea and coffee enjoy a similar structure of demand with reference to the export market, but have a difference as far as their domestic markets are concerned. Both have a limited export market dependent on social factors for demand, but the Indian tea industry enjoys the support of a domestic market.

Thirdly, the tea industry in India and the coffee industry in Brazil have totally different positions in the economy of the respective countries. Tea is among the main export items in an economy which by the First World War was no longer predominantly a primary producer. Coffee, on the other hand, was by far the largest export item not only in terms of its share in total exports but also as the chief economic activity in an economy trying to develop in terms of export-led growth.

The interwar period has been chosen as the period of study to bring out the effect of continuing depression on the export sector and therefore to show how a sector, which is able to expand and lead

the economy in periods of rising prices, would react when the price trend is reversed. Secondly it is during this period that the various stabilization programmes were undertaken to counteract the effect of depression and recession of incomes.

III

In this section I will build a theoretical framework which will form the point of reference to an analysis of the stabilization programmes.

The main features of the development of the world situation in tea and coffee during the interest period have been, first, an excessive reaction by producers to the stimulus provided by a profitable price level, and second, the failure of the world demand to rise more than at a very moderate rate.¹

I will take up the second aspect as the starting point of the analysis.

The concept of export-led growth, which dominated the writings of economic history of the nineteenth century and the early twentieth century, was seen as a reality in a specific stage of world economic development. Historically one can associate it with the period when Britain was the "workshop of the world" and the process of industrialisation in Britain set off certain forces of demand for foodstuffs and raw materials, which linked the development processes in certain

¹ FAO of the UN, Commodity Bulletin Series (1961).

other countries with the development of the British economy through an international division of labour. The economic development of the primary producers at "the periphery" not due to the international division of labour alone, but more particularly due to the rapid growth at the "centre" which transmitted to the "periphery" through a vigorous increase in the demand for primary products.¹ D. Robertson terms trade in the nineteenth century as the "engine of growth".² The assumption here is that an expansion of exports would automatically develop the rest of the economy through backward and forward linkages.

If one looks at the statistics between 1850 and 1913, the real volume of trade increased tenfold, twice as fast as world production.³ Since 1913 its expansion has fallen short of world production.⁴

What comes out as an essential condition for the export sector to play a dynamic role in economic development is that it must enjoy the support of a continuous expansion of the international market.

To ensure this all or some of the following conditions are necessary -

- (a) Income in the importing country must be increasing; Not only this, the income elasticity for the commodity in question must be large;
- (b) The price elasticity of the export commodity must be large so that the gains of technical progress or any other

1 R. Nurkse, "Trade Theory and Development Policy", in Ellis, ed., Economic Development for Latin America.

2 D.H. Robertson, Essays in Monetary Theory, London, 1940, p. 214.

3 R. Nurkse, op.cit., p. 239.

4 R. Nurkse, op.cit., p. 241.

factor which leads to a decline in price can be enjoyed by the exporting country and is not appropriated by the consuming country;

(c) Population growth;

(d) A change in the pattern of demand in favour of the commodity under consideration.

Now the question arises to what extent are these conditions satisfied for tea and coffee?

Tea and coffee as consumption goods are demanded on account of fixed taste patterns and occupy a small portion in consumer's budget. By fixed taste pattern, what is implied is that it is difficult for tea to build up a market in predominantly coffee drinking areas and vice-versa. Not that such a substitution is impossible, as can be seen from Britain's case. Britain switched her position as a coffee drinking country to the major market for tea in the world. However building up markets for beverages is an extremely difficult process and requires a rigorous advertisement campaign, which is not likely to show results in all cases. Secondly, not only is substitutability low between different types of beverages, but the response of demand to price and income changes within the identified consumers is also sluggish. In other words the price elasticity and the income elasticity are extremely low. Upto a certain level of income, the beverages show positive price and income elasticities but thereafter become insensitive to price and income movements. Superimposed on this there may be a tendency to shift from common tea to better quality tea as

income increases. Therefore in developed countries the market for tea and coffee can be expected to grow only in response to population growth, urbanization and other social factors. On the other hand in the developing countries demand for beverages will be more responsive to growth in per capita income and therefore in these markets, a fall in price or a rise in income can lead to greater demand.

Table 1.1(a) gives an estimate of price and income elasticities for tea and coffee in various markets.

Table 1.1(a)

Price and income elasticities for coffee

Country	Period covered	Price Elasticity	Income Elasticity
USA	1920-41, 1946-48	-0.29	0.52
Germany	1923-37, 1953-58	-0.45	0.52
Canada	1921-35, 1953-58	-0.27	0.56
Italy	1921-38, 1949-58	-0.61	0.72
Argentina	1935-58	-0.26	0.62

Source : FAO Study, Commodity Bulletin Series (1961).

Table 1.1(b)
Price and Income Elasticities for Tea

Country	Period covered	Price Elasticity	Income Elasticity
Britain	1920-38	0.3	0.04
India	1924-39	-	1.11 (urban) 1.047 (rural)

Source : R. Stone, *The Measurement of Consumer Expenditure and Behaviour in the United Kingdom, 1920-38*, Cambridge 1954, p. 146.

G. Sarker, *World Tea Economy*.

The following table shows the behaviour of consumers in the two major markets for tea and coffee. The United States is the main consumer of coffee, absorbing about 50 per cent of the world's exports. Britain, on the other hand is the most important market for tea, consuming a similar proportion of world exports.

Table 1.2
Demand for Tea and Coffee

Country	Tea (in million lbs.)		Coffee (in '000 bags of 60 kg.)	
	1930-34	1935-39	1929-33	1934-38
U.K.	442.3	443.0	301	236
U.S.A.	86.6	87.7	11,834	13039

Source : W.D. Wickizer, *"Coffee, Tea and Cocoa, an Economic and Political Analysis,"* Stanford, 1951.

During the interwar period, total world imports of coffee showed an average rate of increase of just over 20 per cent per year.¹ Consumption increased due to relative fall in coffee (and other food) prices and the growth of population. The growth in demand in the U.S.A. was one of the major factors contributing to the increase in world imports. However inspite of the rise in real income in the 1920s the pattern of the demand for coffee did not change. It merely grew in response to population growth and urbanisation. For an increase of 35 per cent in real incomes annual coffee consumption remained at about 12 lbs/inhabitant, although retail prices were stable.²

Let us take a look into the conditions prevailing in the Indian tea industry. The following table shows the growth of demand for tea in the U.K. the major consumer of Indian tea.

Table 1.3

Growth of Tea Consumption in the U.K.

<u>Year</u>	<u>Consumption in million lbs.</u>
1848	7.7
1885	65.7
1895	122.9
1930-34	442.3
1935-39	443.0

Source : S.K. Basu, Capital and Labour in the Indian Tea Industry; V.O. Wickizer, Coffee, Tea and Cocoa.

1 FAO Study Commodity Bulletin Series (1961).

2 U.N. Economic Commission for Latin America, Report, 1951.

The British market which had exhibited spectacular growth in the late nineteenth and early twentieth century was saturated in the interwar period.

Thus in the case of both tea and coffee conditions for sustained development through dependence on the export market were missing and prices came to be governed completely by supply factors. This leads to the first point I had mentioned: that the period under study was characterized ^{by} the increasing production in response to high prices maintained by support schemes. Therefore low prices resulted from over production and the consequent control schemes in an attempt to keep prices remunerative encouraged further increase in production, which in turn caused a further downward movement in prices. It was a sort of chain reaction which could not be controlled except through restriction of supply.

If prices are kept remunerative through artificial price support schemes, especially at a level which is more profitable than other sectors of production, then the producers are given all the incentive to increase production. In the case of the coffee industry in Brazil, this essentially took the form of expansion of acreage. As Celso Furtado points out, "Since there was no pressure from manpower for higher wages, the entrepreneurs had no interest in replacing such manpower by capital... Since every increase in productivity was transformed into profit, obviously it would always be more interesting to produce the greatest quantity possible per unit of capital and to

pay the least possible quantity of wages per unit of production. The practical consequences of this situation was that the entrepreneur was always interested in investing his new capital in the expansion of his plantations, there being no incentive for any improvement in the method of cultivation."¹

In the case of the Indian tea industry such of the changes in output in response to price signals took place through regulation of plucking so that in the case of individual estates there was hardly any change in acreage under tea. However emergence of new estates and the sharp variations in output through plucking invariably resulted in increased production following a rise in prices which started the chain reaction in the form of pressure on prices and restriction on offerings in the market.

Therefore on the one hand the plantation sector is faced with a large price elasticity of supply and on the other hand it is constrained by low price and income elasticities of demand in the export markets. Given the low elasticities of demand, high price elasticity of supply manifested itself in an acute problem of over production. In the next two chapters, through an analysis of the stabilization programmes adopted in Brazil's coffee industry and in India's tea industry, I shall try to bring out the differences in the effect of the stabilization programmes in the two situations and probe into the conditions which led to such differences.

1 C. Furtado, Economic Growth of Brazil, p. 178.

IV

Table 1.4 makes a comparison of the price cycles in tea and coffee in the interwar years.

Table 1.4
Price Movements in Tea and Coffee
1920-39

Year	Tea Price Rs - A - P/lb*	Coffee Price U.S. Cents/lb.**	Year	Tea Price Rs-A-P/lb*	Coffee Price US Cents/lb**
1910	7 - 1	13.5	1925	13 - 5	22.3
1911	7 - 7	14.6	1926	12 - 3	18.7
1912	7 - 1	11.1	1927	14 - 10	23.2
1913	7 - 9	8.2	1928	12 - 4	22.1
1914	7 - 7	7.5	1929	9 - 11	13.2
1915	8 - 11	9.2	1930	9 - 4	8.7
1916	8 - 8	9.3	1931	6 - 5	10.7
1917	7 - 3	9.4	1932	5 - 2	9.3
1918	8 - 0	17.9	1933	9 - 7	11.2
1919	8 - 0	12.0	1934	8 - 9	8.9
1920	5 - 1	7.2	1935	9 - 5	9.5
1921	10 - 1	10.3	1936	10 - 1	11.1
1922	13 - 3	11.5	1937	11 - 4	7.8
1923	15 - 0	16.8	1938	9 - 7	7.5
1924	15 - 11	24.5	1939	11 - 5	

Source : * Investor's India Yearbooks.

** V.D. Wickizer, "Coffee, Tea and Cacao." An economic and political analysis, Food Research Institute, Stanford, 1951.

Table 1.5 tries to work out the relation of price movements to production and export of the respective commodities.

Table 1.5(a)
Relation of Tea Price Movement to Production and Export

Year	Av. Price R-A-P	Production (million lbs)	Export (mill. lbs)	Variation (1914 = 100)		
				Price	Prodo.	Export
1919	8 - 0	377.1	389.9	102	120	131
1920	5 - 1	345.3	285.5	69	107	96
1921	10 - 1	274.3	350.1	129	86	118
1922	13 - 3	311.6	311.8	161	99	105
1923	15 - 0	375.3	345.8	191	120	116
1924	15 - 11	375.2	352.9	203	120	118
1925	13 - 5	363.5	348.5	171	116	117
1926	12 - 3	392.9	354.4	156	125	119
1927	14 - 10	390.9	380.9	189	124	128
1928	12 - 4	404.7	375.9	157	129	126
1929	9 - 11	432.8	395.4	127	138	133
1930	9 - 4	391.1	371.8	119	125	129
1931	6 - 5	394.1	371.7	82	126	125
1932	5 - 2	433.7	395.8	65	138	132
1933	9 - 7	383.7	352.1	122	122	118
1934	8 - 9	399.3	348.8	112	127	117
1935	9 - 5	394.4	352.7	120	126	118
1936	10 - 1	395.2	366.2	129	126	123
1937	11 - 4	430.2	393.6	147	137	132
1938	9 - 7	451.6	409.3	122	144	138
1939	11 - 5	463.9		148	148	

Source : Investor's India Yearbook.

Table 1.5(b)
Relation of Coffee Price Movement to Production and Export

Year	Av. Price US cents/lb.	Production (mill. bags of 60 kg.)	Export (mill. bags of 60 kg.)	Variation (1914 = 100)		
				Price	Prodc.	Export
1919	12.0	7.5	12.9	172	42	115
1920	7.2	14.5	11.5	96	81	103
1921	10.3	12.9	12.4	137	72	111
1922	11.5	10.2	12.7	153	57	113
1923	16.8	14.9	14.5	224	83	129
1924	24.6	14.6	14.2	326	82	127
1925	22.3	15.5	13.5	297	87	120
1926	18.7	15.8	13.8	249	88	123
1927	23.2	27.1	15.1	309	151	135
1928	22.1	13.6	13.9	295	76	124
1929	13.2	28.2	14.3	176	157	128
1930	8.7	16.6	15.3	116	93	137
1931	10.7	28.3	17.9	143	158	160
1932	9.3	19.8	11.9	124	106	106
1933	11.2	29.6	15.5	149	165	138
1934	8.9	18.2	14.1	119	102	126
1935	9.5	20.9	15.3	127	117	137
1936	11.1	26.4	14.1	148	147	126
1937	7.8	23.4	12.1	104	131	108
1938	7.5	23.1	17.1	100	119	153
1939	7.2	21.9	16.4	96	122	146

Source : FAO of the UN - Commodity Bulletin Series (1961).
 V.D. Wickizer, World Coffee Economy; V.D. Wickizer, Coffee,
 Tea and Cocoa.

Variations in tea prices are much more responsive to the variations in production and export, while the variations in coffee prices are responsive only to variations in export. Variations in production are random and do not exhibit any definite relation either to price variations or to variations in export.

The factor which contributes to this is the way prices are determined under the two control schemes. In the Indian tea industry, prices reflect actual movements in production since demand is more or less stable. Coffee prices on the other hand are determined by the exports offered in the international market. The movements in production are concealed through the control schemes in Brazil which regulates prices through the output released in the export market and not actual production. In the case of the Indian tea industry the stabilization programme does not approach the problem of declining prices through regulating the volume of exports alone, but regulates production as well.

In the next two chapters I shall elaborate on the stabilization schemes practised in the two industries - tea in India and coffee in Brazil and then move on to the analysis of these schemes.

CHAPTER II

EXPORT ORIENTED CONTROL SYSTEM IN THE TEA INDUSTRY IN INDIA

(1920 - 1939)

In this chapter I shall investigate the nature of the control schemes in the Indian tea industry and its effect on plantations in Eastern India. The important aspects of the study will be to bring out the varied impact of the schemes in the different tea growing regions in eastern India, namely, Assam, Darjeeling, Dooars and Terai, Cachar and Sylhet and secondly, to analyse the causes behind the failure of the control system to bring about a long term solution to the frequently recurring price slumps.

Since the system was a product of the cyclical movement in tea prices and the recurring of the slumps every few years, it is of interest to study the determinants of tea prices. On the supply side there is the growing output of the tea plantations in Eastern India. On the demand side we have the British market determining the consumption of Indian tea as the biggest consumer.

Since the beginning of the Indian tea industry price cycles have been very much a part of the industry's development. The first slump came in 1866 due to overproduction as a result of the rapid expansion of the industry. Prices recovered by 1867 and remained steady for the next 10 years. The second slump was in 1879 and the

third was in 1896-1904. Excess supply was the main cause. However during the period 1920-39, there were three slumps, in 1920, in 1925-1927 and then again with the onset of the Great Depression. Not only had the frequency of the slumps increased, but recovery had to be generated by artificial price support schemes. Each of the schemes sought to control the supply of tea in the British market. Prices started to recover as the supply of tea in the United Kingdom was curtailed. Demand played only a secondary role.

In the twentieth century, however, factors on the demand side often played a determining role. This is true of the pre-1920 period and the post-1939 period. The interwar period constitutes an exception. During the First World War tea prices came to be set by the Ministry for Food in Britain, which entered into contracts with the tea producers in India and in Ceylon. Similarly from 1939 onwards, with the onset of the Second World War, Britain adopted the Bulk Purchase Scheme under which the British Government took over all stocks of tea in the U.K. upon which duty had not been paid and requisitioned in advance all teas due to arrive in the U.K. The system that was devised was one in which the Tea Controller for India, on behalf of the Ministry for Food in the U.K., entered into contracts with the producing estates. Each contracting estate had a separate fixed price for it, the price being the average of prices realised by the tea sold in the years 1936, 1937 and 1938 in the U.K. or tea sold with export rights in India. The price was subjected to revision if

the cost of production increased. The determination of tea prices had therefore passed on to the demand side in the post-1939 period. Similarly in the pre-1920 period the demand side had played the determining role. It was only during 1920-39 that the movements in supply regulated the movements in prices.

The sample of the study comprises 27 sterling companies and 135 rupee companies. Though the sterling companies controlled 50 per cent of the area under tea and 54 per cent of the production in 1939,¹ the sample chosen may be considered to be representative of the industry because both rupee and sterling companies were controlled by particular managing agents and it was the role of these agents which was more important than the place of registration of the companies. A.K. Bagchi in Private Investment in India, 1900-39, points out -

"Many plantations in India were privately owned and worked by managing agency houses or private planters in India and were not formed into Joint Stock Companies until later. Secondly, whether a company was registered in the U.K. or in India depended primarily on the convenience of the managing agents and a Sterling registration did not necessarily mean that much of the capital invested in the plantation was earned outside India. Plantations were generally first opened up by a firm doing business in India or by a planter, who would then turn to a managing agency house for working capital and for additional fixed capital. A planter might, also, open up a plantation and then sell it to a joint stock company or a managing agency house for profit. The registration of the company was often a mere formality, since most of the capital was held by the planters of the managing agency firm and their close associates. Most of

¹ Plantation Enquiry Commission Report, 1936.

the large managing agency houses involved in tea plantations were either firms which had grown up with the tea industry in India or which had made money in other fields and then entered into the tea business as one of their ventures."

Bagchi names Duncan Brothers & Co., Williamson Magor and Co., Alex Lawrie and Co., Davenport and Co. as examples of the first type of concern and Andrew Yule and Co., Jardine Skinner and Co., and James Finlay and Co. as examples of the second. Appendix I gives a list of the managing agents associated with the companies which are under study.

I shall present the analysis in four sections.

Section (1) analyses the aspects of the market and production of tea relevant to the export oriented control system.

Section (2) gives a historical account of the control scheme during 1920-39.

Section (3) goes into the analysis of the effect of control schemes on the different regions and tries particularly to look into the income movements.

And lastly Section (4) seeks to locate the causes behind the failure of the control system in solving the "price-cycle" problem of the tea industry.

Section (1)

The tendency of tea prices to be governed entirely by the supply mechanism arises out of the nature of demand and supply of this consumption good. On the demand side, it occupies a fixed

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proportion in the consumers' budget. Upto a certain level of per capita income, the beverage shows positive price and income elasticity, but thereafter becomes insensitive to price and income movements. Superimposed on this, there may be a tendency to shift from common tea to better quality tea as income increases. Therefore in developed countries, the market for tea can be expected to grow only in response to population growth. On the other hand, in developing countries demand for beverages will be responsive to the growth of per capita income and therefore in these markets, a fall in prices or a rise in income can lead to higher demand. An estimate of the price elasticity of demand for tea in high income countries covering the period between 1924 to 1936 by E.J. Broster on the basis of time series data gives an elasticity coefficient of -0.0554^1 for the United Kingdom. R. Stone estimated it to be -0.32 for the period 1920-38. As far as income elasticity is concerned, Broster's estimate shows that every 10 per cent increase in income leads to a $2\frac{1}{2}$ per cent increase in the demand for tea. Stone estimated the income elasticity to be 0.04.² Similar studies for India, though not very accurate reveal higher co-efficients. An elaborate family budget enquiry, covering both urban and rural areas, estimated the income elasticities to be 1.11 and 1.047 respectively.⁴

- 1 E.J. Broster, "Elasticities of demand for tea and price fixing policy," Review of Economic Studies, Vol. VI, 1938-39, p. 169.
- 2 R. Stone, The measurement of Consumer Expenditures and behaviour in the United Kingdom 1920-38, Vol. I, Cambridge, 1954, p. 146.
- 3 Broster, op.cita, p. 169; Stone, loc.cita.
- 4 N.S. Aiyangar, "Some of Engel elasticities based on National Sample Survey Data," Journal of Royal Statistical Studies, Vol. 13, Part I, 1967, p. 93.

On the supply side, two particular trends are visible in the case of the tea industry. Firstly, there is a tendency to long run over production through expansion in acreage and through rise in productivity in response to periods of high prices. ~~in proportionality~~. Since tea crops mature with a lag of 6-7 years, high prices encourage extension of acreage under tea leading to excess capacity in the long run. Himangau Roy in his book "Tea Price Stabilization" writes -

"Long run instability is the result of excess capacity. Prolonged period of high prices lead to rapid expansion in acreage giving rise to excess capacity through the failure of demand to rise under new conditions at a height sufficient to absorb the increase in supply after a long period of gestation".¹

This characteristic, which is exclusive to the tea industry, and which has helped this industry to develop a control system of its own, is that while in the coffee industry short run variations in supply arise essentially from external variables, e.g. the weather, in the tea plantations short run variations can be regulated by the deliberate intervention of an endogenous factor, namely, the decision making unit.

In this context the control system in the tea industry assumes a specific character inapplicable to any other plantation system. The output can be varied seasonally through the process, plucking of tea leaves. When the prices reach rock bottom output can be restricted by resorting to finer plucking, whereas high prices generally encourage coarser plucking. The fineness or coarseness of plucking

1 H. Roy, Tea Price Stabilization - The Indian Case, p. 5.

depends upon the number of leaves taken and the time the plant is allowed to grow between two plucking rounds. Therefore, in spite of the long-run tendency to over-production, the elasticity of supply through regulation of plucking has operated to secure a balance between demand and supply in the short run. It is through this particular instrument that the control system in the tea industry has sought to operate. Since plucking, not only affects the quantity of output, but also its quality, it tends to set off a complex set of reactions. Resorting to coarse plucking implies an increase in the supply of common tea and therefore a faster decline in prices because it is the volume of common teas and not the aggregate supply of all types of tea which matter for a stable price equilibrium for all types of tea. Similarly finer plucking will lead to quicker recovery in prices by decreasing the supply of common tea. However, increase in the supply of finer quality tea through extension of acreage fails to have a pronounced effect on prices. Therefore the plucking operation will be an important determinant of price movements. In an attempt to save the industry from the crisis of relatively less supply by resorting to coarser plucking, a crisis is being planned through increase in the supply of common teas. Conversely finer plucking restricts supply but increases cost of production. The rise in cost, while prices are still low consequent upon the previous increase in supply, may worsen the situation unless the regulated supply can raise the average prices high enough to absorb the increase in cost.¹

¹ Ibid., p. 7.

Section (II)

The basic cause of the slumps was over-production and in every instance the recovery was generated by exercising control over the stock of tea in the market. The initiative came from the producers themselves. The first slump came in 1920. During the First World War the Ministry for Food in Britain had entered into contracts with the producers in India and Ceylon for buying 40 per cent and 27 per cent respectively of tea produced in 1917. Subsequently the figures were raised to 66 per cent and 50 per cent respectively of the crop in 1918. The stocks of tea in the U.K. averaged 90 million pounds in 1918, a quantity considered to be about normal. In 1919 the stocks averaged 154 million pounds and in 1920 rose to 214 million pounds.¹ High prices during the War had stimulated new planting. Acreage increased from 624,000 in 1914 to 692,000 in 1919. Producers were tempted to resort to coarser plucking as well. Output was 64 million pounds greater than in 1914.² The selling of all tea at a standard price during the period of government control encouraged the growers to place emphasis on volume rather than on quality. As a result, a considerable proportion of the tea stocks in 1920 was of inferior quality. When the British Government released the stocks after the decontrol of tea, prices continued to fall steadily through out 1920. And towards the end of the year the prices had fallen to the lowest level since 1908 and current production exceeded consumption by 25 per cent.³

1 V.D. Wickizer, Tea, Under International Regulation, Food Research Institute, Stanford University, 1944, p. 59.

2 P. Griffiths, The History of the Indian Tea Industry, London, 1967, p. 177.

3 V.D. Wickizer, op.cita. p. 60.

At this point came the first control scheme. In September 1920 the Indian Tea Association (London) proposed that the production for the current season should be restricted to 90 per cent of the average production or alternatively, all plucking should be discontinued. The Calcutta Committee adopted the latter alternative, and all members of the Indian Tea Association were directed to stop plucking from 15th November 1920.

The control scheme worked effectively in the sense that prices were remunerative again by the end of 1921. The 1922 crop was higher than the 1921 crop and the Chairman of the Indian Tea Association warned the industry against a return to coarse plucking. However, in the subsequent years production continued to rise. In 1923 it reached a record level, though there had been a decline in quality and common tea was being produced in a larger proportion. In the early months of 1925 prices began to fall in the U.K. According to a report of the Food Council, the downward movement in prices was aggravated by the large proportion of common tea in the exports. An attempt was made to restrict offerings on London auctions, but it was merely a temporary measure. In the middle of 1926 when it seemed that the crop would be very heavy, the Indian Tea Association recommended that plucking should be discontinued from 20th November. However, it did not succeed in influencing the industry and the final outturn reached a record level of 393 million pounds.¹ Prices declined in Calcutta and in London.

¹ P. Griffiths, op.cit., p. 181.

In 1928 output was 45 million pounds higher than in 1927. As a result of the high tea stocks in the U.K. less tea was exported to Britain and the out markets took more than the usual quantity. Prices declined. Although the post 1921 period had generally experienced high prices and prosperity, a slump was inevitable. The area under tea was expanding at a rate of 2 per cent per year. In 1929 particularly there was a tremendous increase in output to about 433 million pounds, nearly 29 million pounds greater than the previous years figure. At the close of 1929, tea stocks in London represented over six months' supply, the highest figure of stock in 30 years.¹

The second control scheme was devised at this point. Qualitatively this scheme was different from the first one. Whereas in 1920 the Indian Tea Association had acted alone, the 1930 reduction scheme was a joint effort of the Tea Producers Associations of India, Ceylon and Indonesia. The scheme was designed to reduce the 1930 output 57.5 million pounds below the 1929 level. Not only was the 1930 plan different from the 1920 restriction scheme in that the decision making unit had changed, but also in its principles. The second scheme had sought to reduce the output of common teas more drastically than that of better quality tea. The following guidelines were laid down :-

- 1) Estates which sold tea below an average of 1s.5d per pound for 1926, 1927 and 1928 were to reduce to 85 per cent of the 1929 crop.

¹ V.D. Wickizer, op.cita, p. 66.

- 2) Estates which sold tea between 1s.5d per pound to 1s.7d per pound were to reduce to 90 per cent of their 1929 crop.
- 3) Estates which sold tea above 1s.7d per pound were to reduce to 95 per cent of their 1929 crop.
- 4) Estates which sold tea at or above 1s.9d per pound to reduce their crop to 97 per cent of the 1929 output.
- 5) Gardens producing less than 400 pounds per acre were not expected to reduce their crop.

The 1930 restriction scheme was a failure in that exports from Indonesia were reduced by only 3 million pounds and though India and Ceylon reduced output by 48 million pounds and 8 million pounds respectively, exports were reduced much less, partly because of a decline in domestic consumption in India induced by a boycott. This left more tea available for overseas market and the combined exports declined by 42 million pounds, when the desired level of reduction had been 57.5 million pounds.

The agreement was not renewed in 1931. Exports increased in 1931 and in 1932, but absorption continued to decline. Prices reached the lowest level in 1932. Particularly disturbing throughout the Depression years was the composition of the tea supplies that were piling up - "Poorer quality teas tended to become an increasing proportion of total stocks. Such teas not only begin to lose flavour within a few months and are most difficult to sell on a declining market, but they tend to pull down the prices of practically

all teas of better quality, except those in limited supply for which there is a special and constant demand."

The third control scheme of the period was the International Tea Agreement of 1933. India, Ceylon and Indonesia, accounting for 80 per cent of world production, entered into an agreement to reduce exports by fixing export quotas on the basis of maximum exports over the period 1929 to 1934. The agreement was for a period of five years and for each year the export quota was set as a percentage of the maximum exports in any of these years. The acreage was not to expand beyond $\frac{1}{2}$ per cent of the existing planted area. The International Tea Committee, comprising of representatives of tea growers from each country was set up as the administrative body. The formal regulation came in response to the initiative taken by the producers themselves so that the principles of control were determined by the industry itself. The government lent a helping hand by setting up the Tea Licensing Committee to exercise control over exports and planting, which originally consisted of representatives of tea producers in India, but in 1939 a provision was made for the government to appoint a Chairman.

The third control scheme therefore sought to remedy the problem of over-production from the export side rather than exercising direct control over production. In January 1933 a referendum showed almost unanimous support for a scheme which attempted to limit production for sale in India to 12 per cent of each estate's best crop. But this was not given legislative effect due to opposition from the

United Planters Association. But, voluntary crop restriction was accepted by over 93 per cent of the Indian Tea Industry for 1934. Production declined from 434 million pounds in 1932 to 383 million pounds in 1933 and rose to only 400 million pounds in 1934. In 1935 voluntary crop restriction was continued with the support of 90 per cent of the industry and was justified by the fact that internal consumption at this point of time was about 83 million pounds, whereas potential supplies after the fulfilment of export requirements was around 160 million pounds. In 1937 an examination of the trend of tea consumption in India led the Indian Tea Association and the United Planters Association to increase the permissible production for consumption in India to 14 per cent. "A new agreement to extend the period of control came into operation in 1938."

Section (III)

To analyse the effects of the control schemes on the different regions in Eastern India it is necessary to have an idea of the type of tea produced in the different regions.

Assam combines heavy production with the excellence of quality.

Cachar and Sylhet produce common tea and the cost of production is generally lower than in other districts.

Darjeeling tea fetches high prices, being some of the finest teas in the world.

Dooars does not produce as good quality tea as Assam, but the cost of production is low.

Teral, which is situated at the foothills of Darjeeling, does not produce the same quality tea. The tea produced in this region is comparable to Dooars tea.

Table 2.1 gives a detailed picture of the price movements of the different varieties of tea, showing that for Darjeeling and Assam prices were always above the overall average where as for Dooars and Teral and Cachar and Sylhet prices were below the average. Of these Darjeeling tea commands the highest price and in a slump the price of tea produced in Cachar and Sylhet is worst affected.

Another interesting feature of the production dynamics is that there is no correspondence between the change in acreage and the change in production, showing that plucking operations played an important role in controlling the output fluctuations and the change in acreage under tea contributed merely to the long run trend in production. This is particularly noticeable if one compares the changes in acreage under tea with the changes in output for the individual companies as shown by Table 2.3. Though there were large changes in output, acreage under tea shows very little change, and points to the importance of plucking as the instrument for regulating production.

Movements in the overall production figures for the different regions (Table 2.4) coincided only in particular years - a general decline in 1922, a general increase in 1922, a general decline in 1930 and in 1933, a general increase in 1934 and a general decline in 1935. Under all the control schemes the proportional decline in

Table 2.1
Average Tea Prices at Calcutta Sales (Rs. = A = P per Pound)

Year	Assam	Cochin	Sylhet	Darjeeling	Doon	Teral	Average
1910-11	7-5	6-4	6-5	9-6	6-11	6-7	7-1
1911-12	7-11	6-11	7-0	9-7	7-4	7-1	7-7
1912-13	7-6	6-1	6-2	9-7	7-0	6-6	7-1
1913-14	8-2	6-11	6-11	10-3	7-7	7-3	7-9
1914-15	7-10	6-10	7-1	9-7	7-3	7-0	7-7
1915-16	9-5	8-2	8-0	10-9	8-7	8-7	8-11
1916-17	9-0	7-10	7-9	10-9	8-4	8-0	8-8
1917-18	8-2	6-3	6-4	7-11	6-5	6-1	7-3
1918-19	9-1	6-8	6-10	9-7	7-0	6-10	8-0
1919-20	8-4	7-4	7-1	9-7	8-0	7-3	8-0
1920-21	6-3	3-6	3-8	7-5	5-0	3-10	5-1
1921-22	11-9	8-0	8-0	11-7	9-11	8-3	10-1
1922-23	14-5	11-9	12-4	1-0-1	12-9	11-11	13-3
1923-24	15-10	13-10	13-11	1-2-2	14-7	14-2	15-0
1924-25	1-0-8	14-10	14-9	1-4-3	15-4	14-8	15-11
1925-26	14-9	11-6	11-10	1-0-0	13-1	12-0	13-5
1926-27	12-9	11-6	11-5	1-0-8	11-9	10-9	12-3
1927-28	15-5	13-7	13-4	1-3-0	14-8	13-5	14-10
1928-29	12-4	10-3	9-10	14-8	10-11	9-11	11-4
1929-30	10-10	8-5	8-2	14-11	9-6	8-6	9-11
1930-31	10-1	7-9	7-7	14-9	9-1	8-0	9-4
1931-32	7-10	4-9	4-9	11-5	5-11	5-2	6-5
1932-33	5-11	4-5	4-3	9-8	4-8	4-4	5-2
1933-34	10-5 4-11	8-7 4-9	8-7 4-7	12-8 6-11	9-2 4-8	8-10 4-6	9-7 4-10
1934-35	8-11 5-3	8-5 5-0	8-2 4-10	11-2 9-6	8-9 5-10	8-3 4-11	8-9 5-2
1935-36	10-0 4-11	8-7 4-10	8-7 4-7	12-2 5-10	9-0 4-10	8-8 4-8	9-5 4-10
1936-37	10-7 4-8	9-4 4-8	9-4 4-6	12-0 5-5	9-9 4-7	9-6 4-6	10-1 4-8
1937-38	11-8 4-9	10-9 4-8	10-8 4-5	13-9 5-9	11-1 4-8	10-7 4-7	11-4 4-9
1938-39	10-0 4-1	8-10 3-11	8-9 3-7	12-9 5-4	9-2 4-0	8-9 3-9	9-7 4-0

Source : Investors' India Yearbooks.

Note : The Second set of figures refer to domestic prices.

Table 2.2

Coffee Prices (cents/lb.)

<u>Year</u>	<u>Prices</u>
1910-11	13.5
1911-12	14.6
1912-13	11.1
1913-14	8.2
1914-15	7.5
1915-16	9.2
1916-17	9.3
1917-18	9.4
1918-19	17.9
1919-20	12.0
1920-21	7.2
1921-22	10.3
1922-23	11.5
1923-24	16.8
1924-25	24.5
1925-26	22.3
1926-27	10.7
1927-28	23.2
1928-29	22.1
1929-30	13.2
1930-31	8.7
1931-32	10.7
1932-33	9.3
1933-34	11.2
1934-35	8.9
1935-36	9.5
1936-37	11.1
1937-38	7.8
1938-39	7.5

Source: U.S.D., Wickizer, "Coffee, Tea and Cacao: An Economic and Political Analysis".

Table 2.3

ASSAM

Name of the Co.	Acreage under tea							Production in maunds						
	1920	1921	1929	1930	1931	1932	1933	1920	1921	1929	1930	1931	1932	1933
Amluckie	854	852	847	847	847	847	847	7205	5041	7397	7122	8238	7214	7126
Bagmari			571	577	577	577	577			3489	3436	4716	4182	3618
Basmatia			322	322	325	336	336			2918	2541	2758	3451	2426
Batoli			500	550	550	545	550			4405	3914	3500	3519	3910
Batjan	432	435	465	502	502	502	556	2918	2526	5107	4217	5333	5523	4552
Bhoota Chang	884	834	884	884	884	884	884	9240	5777	9232	7133	6640	8406	7017
Bihunarth	3463	3595	3533	3478	3408	3408	3379	22568	21198	33320	25919	23052	28461	26890
Bogabagh	393	392						1717	1600					
Borehi			414	443	451	451	451			3071	3062	2517	3493	3094
Bornah Jan			450	450	450	450				3710	3142	2517	2830	
Borpukhuri	647	576	576	576	576	500	500	4699	4223	4036	3620	4028	3842	3139
Coalie Kooale	474	491	477	477	477	477	450	2179	1205	2826	2430	2853	2536	2167
Dejoo Valley	412	275	255	255	263	263	264	2262	1205	1709	1762	1837	1308	1274
Dessai & Parahutia	1310	1410	1413	1413	1423	1423	1423	11302	9773	12006	11390	11892	13230	10883
Ohelakhat		402	418	418	424	424	424		1945	4052	4128	4240	4027	3756
Dhunsari				590	590	590	590				4210	5434	5382	4387
Dimkusi	674	658	625	604	604	604	604	4079	3504	5252	5100	5232	6110	4725
Durrung	570	570	522	521	521	521		2672	2242	2268	2451	2587	1967	
Dufflachur			600	600	600	628	628			6298	6099	5465	5373	4821
East India	1784	1784	1346	1357	1132	1270	1170	11026	9246	9618	8549	8449	8390	7239
Gilla Pukri	380	396	400	400	400	400	410	3242	3500	4407	4432	4227	4312	3722
Gohpur		442	478	505	505	506	506		1716	4067	4235	4823	4372	3832
Grob	1266	1266	1289	1337	1247	1277	1284	6788	5561	8832	7349	7772	9020	7733
Hoograjuli			436	436	436	436	436			3501	3336	3424	3508	2720
Hoolungoozie	1371	1329	1243	1268	1152	1151	1151	8798	7504	8465	7741	8193	8688	7294

ASSAM

Cont'd...

Table 2.3

Name of the Co.	Area under Tea							Production in maunds						
	1920	1921	1922	1930	1931	1932	1933	1920	1921	1922	1930	1931	1932	1933
Hapjan Parbat										1583	1619	1595	1337	1413
Jutilbari	834	834	842	845	846	866	866	349	3102	8905	7208	7690	7700	6800
Killing Valley	1743	1745	586	586	586	586	586	12900	8152	3241	3071	2655	2713	2531
Kingsley Golaghat			1631	1614	1608	1608	1578			14971	13065	12379	12656	11351
Lado	537	960	1030	1031	1014	1031	1031	4141	3831	9461	7582	8191	8256	7388
Mothola	455	455	446	446	446	446	435	4002	2400	4793	4231	4027	4132	3501
Moheema			671	678	688	668	668			5004	4346	4201	4360	3842
Murphulani			292	299	299	302	302			1410	1335	1985	1788	1915
Naga Hillie			528	528	528	528	528			3808	3541	4755	4779	5021
New Cinmetolich	973	973	971	969	940	940	940	6697	5610	6773	5096	5572	5527	5311
Namburnadi	756	756	773	790	790	790	790	4883	4113	7133	6488	5750	5720	4799
Rajabarrie	512	512						2539	1683					
Rajgarh			323	323	323	323	323			2177	1643	2070	1822	1745
Sapoi	864	864	854	864	867	867	877	6852	4805	7160	6370	6380	6888	5683
Seajuli	515	515	640	557	557	527	480	3893	2780	5268	4146	3111	3374	4234
Teen Ali	518	518	507	507	507	507	507	1816	1634	3622	3230	3982	4077	3375
Taliejan			477	477	482	482	482			5192	5255	4649	4590	3869
Tezpara			1075	1150	1150	2054	2054			10040	9917	10447	16018	14969
Titabur	625	625	519	608	579	579		3989	3095	3624	3200	3570	3655	
Tongani			364	358	358	355	355			2634	2458	2190	2300	2081
Tysoon	742	742	693	671	675	691	693	4771	4025	4240	4453	3645	4308	4328
Tengpani							480							3400

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DOOARS

Cont'd., Table 2.3

Name of the Co.	Acreage under tea							Production in mounds						
	1920	1921	1929	1930	1931	1932	1933	1920	1921	1929	1930	1931	1932	1933
Atal	701	701	701	701	701	701	701	3359	2757	3367	2885	3282	4295	
Banarhat	2297½	2300½	2440	2440	2440	2440	2240	12122	12122	18354	14949	11748	14087	15105
Baradighi	1045	1045	1078	1078	1078	1078	1078	7140	7331	11514	10833	12204	12053	9891
Balgachi			448	459	459	413	413			1832	1885	1738	1850	1661
Bhatkawa	1143	1143	1148	1148	1149	1112	1112	7227	7209	11042	10236	10048	11566	9655
Birpara	1315	1350	1325	1325	1325	1325	1326	10418	8719	10417	8748	8234	11314	8633
Carron	604	604	604	604	604	604	604	5081	3687	6285	4098	2245	5306	4668
Choonabhutte	866	866	866	866	866	866	866	7704	4895	7460	6178	5121	6741	5931
Ellenbarrie	552	552	545	545	545	552	512	2921	1882	3751	3236	2390	3716	3000
Engo	263	263	258	258	258	262	266	1620	1717	2098	1821	1643	2141	1674
Ethelbarrie						447	447						3949	3264
Gungaram	1995	1640	1715	1716	1643	1643	1633	8306	4951	10573	9091	9749	12179	10137
Gairakhata							1233					7205	8062	7143
Hanequa							562							3503
Hantapara	2405	2413	2409	2409	2409	2427	2427	15922	19333	23928	22014	19558	23429	18185
Hashimara	3030	3030	3763	3761	3761	3761	3761	32585	20111	43182	35873	30842	48576	39575
Hudlibari	1366	1366	1366	1386	1386	1386	1386	6317	4438	9790	8322	7478	8646	7749
Jaybirpara	609	606	607	607	607	607	607	2731	3005	4919	3966	4144	3604	3822
Kilcott	859	859	923	939	938	938	402	6570	5684	10453	9819	7860	10051	2944
Lohagar	419	491	430	430	416	416		1717	1308	1955	1726	2093	2284	
Longview	1071	979	600	633	641	646	652	3030	2826	4503	3082	4174	4636	3587
Manabarrie	730	730	730	730	730	730	730	3216	1653	3484	3592	2043	3834	3084
Nagalauree	1141	1141	1138	1138	1138	1138	1125	7157	6016	9787	10422	8718	10019	7993
New Chumta	588	588	548	529	485	485	485	3600	3133	3314	2563	2711	2971	2692
New Dooars	991	991	1065	1065	1065	1065	1065	6997	5681	12163	9374	7579	10405	9688
New Terai	872	880	892	932	972	972	972	4061	3662	5689	4037	3476	3674	4840
Odlabari	516	516	531	553	558	560	560	3044	2187	4800	3660	4426	6080	4832
Pahargoomiah	861	862	903	961	961	970	970	4020	2637	5333	4655	4906	6716	5633
Phakawa	397	397	397	397	390	390	369	1792	1570	2581	2290	1735	1936	1961
Putinbaroo			281	281	281	281	238			1561	1087	1292	1475	1263
Rajabhat	1770	770	782	782	782	778	764	4301	4800	8438	7203	7312	8885	7003
Ryda	1364	1414	1608	1710	1736	1736	1735	8966	7312	12879	11482	11886	11863	11250
Sarugaon	560	562	631	631	631	631	631	2260	1950	3831	3499	3239	3606	3677
Ranicheria	1096	1096	982	982	982	1720	1720	5203	3454	5451	5081	5142	10727	8119

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DARJEELING

Cont'd. Table 2.3

Name of the Co.	Acreage under tea							Production in maunds						
	1920	1921	1929	1930	1931	1932	1933	1920	1921	1929	1930	1931	1932	1933
Chamong	358	362	380	380	390	390	390	631	952	1308	1107	1213	1196	950
Darjeeling Himalayan Darjeeling Tea and Cinchona	703	703						1850	1586					
Dileram	481	481	470	470	470	470	456	1039	1065	1162	1128	969	760	1036
Gielle	528	528	528	528	533	533	533	2224	1725	2438	2574	2630	2555	2043
Gulma	436	436						1845	1255					
Hope Town	259	259						821	619					
Kuralong and Darjeeling	380	380	430	430	430	430		788	675	924	885	828	666	
Margaret's Hope Nia	541	541	541	541	541	541	541	1727	1400	2175	1541	2116	2156	2013
Nagri Farm	440	440	445	445	445	445	445	1075	788	1030	1142	1221	1170	1092
Okayti	488	488	619	619	631	640	646	2600	2146	3773	3705	3700	2938	2984
Pashok	505	505	505	505	505	505	505	1733	1850	2105	2233	1757	1909	1638
Pashok	802	802	802	802	802	802	802	2956	2160	3626	2929	3039	3574	2907
Peebong			500	500	500	500	500			2240	1838	2002	1693	1702
Pussimbing	579	579	579	562	562	562	562	1802	1008	19	1733	1457	14	1770
Runglee Hanguot	341	341	341	341	341	341	341	2091	1213	1704	1564	1857	1436	1436
Singall	747	747	747	747	747	747	747	2246	1843	3206	3219	3107	3004	3404
Seeyak			389	389	389	389	389			1055	1013	1221	1651	1251
Sington	606	606	606	606	606	606	606	2468	2031	1455	1959	1621	1994	1620
Soom	478	478	492	492	514	520	532	1764	1762	2410	2080	2394	2070	1917
Sungma	385	385	385	385	385	382	382	1303	1124	1501	1477	1393	1371	1245
Teeats Valley	717	717	717	717	717	718	718	4106	2870	3864	4012	4043	4202	3399
Tizihannah	1433	1433	1307	1328	1334	1230	1230	4018	3739	6209	5919	5500	7062	5266
Tukvor	1250	1250	1254	1669	1641	1641	1641	6038	5401	7795	6450	6370	5516	5920
Tumsong	353	353	353	353	353	353	353	1311	1081	1290	1384	1520	1338	1223

CACHAR & SYLHET

Cont'd... Table 2.3

Name of the Coe	Acreage under tea							Production in maunds						
	1920	1921	1929	1930	1931	1932	1933	1920	1921	1929	1930	1931	1932	1933
Alyne Apthemara	1111	969	841	848	848	848		5004	2566	4588	4401	4380	8770	
Accruttipore	845	839	841	861	861	861	825	4422	2939	4529	4120	3892	3821	7126
Ballacharra	946	936	885	889	825	822		4838	3739	3982	3224	4232	3642	
Central Cachar	1512	1470	1420	1442	1411	1411	1421	8341	5404	7569	7517	8267	9065	7319
Chundypore	770	770	784	794	794	794	794	3907	2804	4510	3797	4445	4669	4114
Chundi Charra	740	688	625	492	932	532	532	2271	2143	2385	2713	2900	3362	2950
Dauracherra	532	572	576	600	559	560	560	1587	1082	3598	3150	4013	4691	3611
Eastern Cachar	1103	1103	1217	1164	1164	1100	1100	7804	4401	5338	5882	5852	6432	4396
Hattikhira	2730	2730	2291	2340	2325	2290	2340	16062	8506	13779	10301	15469	18463	14599
Ingamara			398	426	426	426	426			2537	2247	2241	3313	2553
Kalacherra	469	469	405	427	460	455	485	3333	1033	1808	2263	2518	2727	1957
Kauti	400	400	405	405	405	402	402	2514	1386	2942	2936	3210	3440	2944
Kallinchar & Khorsal	623	618	602	612	612	585	585	3199	2335	2945	2724	3080	2512	2454
Kodala			530	533	486	486	486			3925	2887	3088	2778	2768
Kyang			69	69	72	72	72			656	561	63	52	137
Kucharpore			594	597	597	599	599			2982	3236	3416	3585	2881
Laka Toorah	1317	1178	1200	1200	1200	1200	1166	6197	4892	6029	5269	6032	5759	4691
Loobah			1175	1155	1060	1060	1060			6607	5504	5682	6566	5330
Maulvie	500	500	607	607	607	607		2455	2014	1879	1640	1393	1335	
Newamargach	949	949	964	1000	1000	1000	1000	6310	3968	8972	6260	8730	10438	8044
N.W. Cachar	1552	1556	1940	1951	1888	1835	1825	10061	7211	11739	9532	11036	10979	9201
Odalish	824	824	535	561	561	547	547	3586	2237	2333	2112	2336	2330	2594
Patrakola	4263	4313	5253	5253	5838	5838	5838	40286	26013	53815	47557	50297	63422	49973
Rajnagar	889	889	895	912	733	648	648	4334	3010	3874	4114	3973	4495	3800
Roopcharra	658	658	500	533	592	614	614	6676	3130	2462	3017	3024	2770	2244
Rungmatee	744	744	772	738	738	654	688	5280	3613	5430	4615	4952	6597	5109
Rutema	1318	1318	1222	1222	1227	1227	1228	6387	4232	8670	8098	8623	8554	7250
Sonairiver	800	800	543	592	632	639	639	6389	5144	4351	5993	6225	6263	3845
South Cachar	533	533						3448	1644					
Taliapara	1202	1175	1163	1165	1165	1165	1165	9979	6550	10515	9171	9751	10755	8523
Kornafuli	799	799	896	896	896	896	896	6074	4206	4355	4229	3591	5042	5032
Tilkeh			808	808	760	760	760			4593	3983	4410	4870	4875

Source : Investors' India Yearbook.

Table 2.4
Tea Production in India (lbs.)

Year	A S S A M		Bengal
	Brahmaputra Valley	Cachar & Sylhet	
1918	171,685,750	81,584,343	89,983,861
1919	163,962,010	75,170,863	99,511,408
1920	154,181,566	80,132,495	71,699,667
1921	131,193,736	50,309,038	58,777,876
1922	137,304,660	62,660,658	71,834,933
1923	160,201,815	77,318,636	88,176,654
1924	165,781,842	71,371,268	87,459,477
1925	152,371,909	72,813,010	85,279,396
1926	167,671,433	74,310,240	95,829,929
1927	163,350,276	72,537,535	97,942,054
1928	173,785,864	72,231,814	96,105,654
1929	185,156,297	73,784,417	111,355,903
1930	164,057,327	69,358,756	98,240,313
1931	172,073,059	71,156,279	90,096,271
1932	176,341,711	80,716,222	110,506,859
1933	155,034,132	64,308,994	98,441,711
1934	164,825,090	68,010,368	100,702,500
1935	159,849,472	66,367,870	98,643,796
1936	100,493,455	62,831,801	102,010,142
1937	174,210,161	67,317,115	112,354,505
1938	191,434,638	69,602,528	109,665,759

output was the highest for Bengal, though under the 1930 control scheme output in Assam declined the most in absolute terms.

The third aspect to be studied is the effect of the control schemes on the incomes in the different regions. Dividends have been taken as an indicator of income trends.

Very few companies in Dooars and in Darjeeling paid dividends in 1920, though the number both in absolute and in relative terms was greater than in Assam. Incomes picked up faster in Dooars and in Darjeeling than it had done in Assam and in 1921 the majority of the companies paid dividends ranging between 10 to 65 per cent, though in most cases it was around 15 to 20 per cent. All except one company, which paid dividends in 1920 belonged to the Duncan group. The highest dividends in 1921 were also paid by the Duncan group.

In Cachar and Sylhet no company except one paid dividends in 1920 and only a few did in 1921. Those which paid dividends in 1921 belong to the Duncan and the Octavine Steel Groups.

Assam, as it has been pointed out earlier was also badly affected in terms of incomes. Only one company in the sample paid dividends in 1920. In 1921, though the majority of the companies did not pay dividends, a few paid fairly high dividends - upto 35 per cent.

Therefore in terms of income movements Assam and Cachar and Sylhet were similarly affected though the prices of Assam tea during the slump was considerably above prices of Cachar and Sylhet tea

and showed a greater resistance to decline. A possible explanation is that costs in Cachar and Sylhet were the lowest, whereas in Assam not only are working expenses per acre very high, but also the capital expenditure per acre and therefore even a slight fall in prices of Assam tea tends to have adverse effects on incomes. On the other hand in Cachar and Sylhet, the over production crisis assumed much greater significance because of the type of tea produced and this must account for the slow recovery of incomes.

It is easy to understand the quick recovery of incomes in Darjeeling tea estates. These estates produce a type of tea for which there is a specific demand and therefore prices showed a greater resistance to decline and helped incomes to adjust without much lag.

Prices of Dooars tea declined to a large extent on account of the type of tea produced. However the decline in the price of Dooars tea was much less than the decline in the price of teas produced in Cachar and Sylhet and the low costs of production helped to cushion the effect of price slump so that incomes recovered fast.

Table 2.5 shows the costs of production in the different regions in terms of working expenses per acre and one can find out the advantages enjoyed by the plantations in Dooars and in Cachar and Sylhet in terms of cost per acre when compared to plantations in Assam.

The restriction schemes of 1930 and of 1933 showed similar results. In 1930 and in 1931, most companies in Dooars and almost all companies in Darjeeling paid dividends varying between 5 to 75

Table 2.5

Working Expenses / acre in Rupees (including commission)

<u>ASSAM</u>	<u>1920</u>	<u>1927</u>	<u>1930</u>	<u>1932</u>
Amiuckie	334	383	430	260
Bagnamari		291	341	200
Baematia		416	397	401
Batali		501	448	282
Beijan	342	522	558	383
Bhooter Chang	405	429	386	327
Bishunauth	336	403	395	336
Boga Bagh				
Borami		386	357	235
Borwahjan		397		
Borphkh izi	359	403	371	258
Bokakhat				
Cooliakoorie	104	202	207	145
Dejoo Valley	265	345	379	193
Dessai Parbhutia	331	458	332	304
Delabhat		481	652	383
Dhunsari			366	250
Demeruchi	315	392	456	302
Durzung	247	258	253	78
Dufflaghur		527	552	312
East India	289	370	379	277
Gillapuhri	382	576	642	490
Gompur		492	481	304
Grob	253	384	342	270
Mograjuli		304	319	219
Hoolungurie	184	330	275	256
Hapjan Parbat				
Jutlibari	225	478	406	275
Killing Valley	203	253	232	172

Cont'd., Table 2,5

ASSAM	1920	1927	1930	1935
Kingaley Goleghat	254	444	456	275
Ledo	415	319	318	182
Northala	342	526	413	292
Roheema		268	246	175
Murphulani		254	311	339
Methoni				
Mand Tea and Seed				
Naga Hills		334	285	309
New Cimstolliah	199	249	271	181
New Purupbari		430		
Namburnadi	379	378	504	299
Orang	352	330		
Rajabari		237	328	294
Rajgarh	307		394	308
Sapoã	372		424	329
Seajuli	188	307	348	290
Teenali		376	526	496
Tellajan		355	489	351
Tejpore		355	489	351
Tongani		282	371	258
Tengpani		375	434	396
Titabur	290	361		
Tyroon	260	402	327	304
<u>DODARS & TERAI</u>				
Atai	193	232		
Banashat	209	327	271	200
Baradighi	230	312	376	309
Balgachi		220	193	146
Bhatkawa	234	411	359	281

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Cont'd... Table 2.5

DOOARS & TERAI	1920	1927	1930	1933
Birpara	225	261	337	169
Bullebarrie		267		
Carron	306	306	322	212
Choonabhatti	242	385	308	196
Ellenbarrie	205	232	241	182
Ergo	172	278	286	275
Ethelbari				220
Gungaram	193	225	240	190
Galrakhata				167
Hansqua				133
Hantapara	234	294	328	207
Hashi Mara	302	403	352	270
Hudlibari	166	249	212	150
Jaybirpara	198	271	232	177
Killcott	261	342	300	220
Lohagar	172	279	224	162
Longvale	223	558	302	298
Manabbarrie	191	209	196	117
Nagaisurai	246	267	299	202
New Chunta	260	277	774	158
New Doora	209	384	333	261
New Terai	149	241	183	170
Oedlebari	184	450	353	221
Pahargomiah	190	230	224	206
Phakawa	219	195	203	125
Putinbari		228	229	132
Rajabhat	223	307	393	297
Rydak	230	374	291	210
Ranichezza	179	286	239	152
Sarugaon	214	216	224	180

Cont'd.. Table 2.5

Cachar & Sylhet	1920	1927	1930	1933
Alyne Pathamara	173	312		
Accruttipore	131	188	162	115
Balacherra	184	287		
Central Cachar	187	249	244	160
Chandypore	166	232	218	168
Chundi Cherra	157	238	302	199
Dauracherra	114	212	223	149
Dantamara		208	121	84
Eastern Cachar	205	261	226	134
Hattikhira	228	284	146	152
Ingamara		279	263	162
Kalacherra	219	250	235	134
Kaliti	291	331	293	216
Kalincher & Khoreal	183	224	201	144
Kodala		300	266	100
Kyang			325	63
Kuchonpore			215	117
Lachatoorah	135	188	180	121
Loobah		275	263	156
Maulvie	166	169		
New Samarbagh	218	323	304	203
N.W. Cachar	246	253	239	103
Odaleah	146	283	238	138
Patrakola	289	280	286	173
Rajnagar	203	215	193	177
Roopcherra	252	319	210	160
Rungamates	292	271	235	163
Rutana	209	331	298	195
Sonai River	233	305	338	187
Talia Para	265	290	234	138
Pathamara				194
Kornafuli	232	242	150	166
Tilkeh			211	165
South Cachar	211	283		

Cont'd... Table 2.3

DARJEELING	1920	1927	1930	1933
Chamong	151	253	214	211
Darjeeling Himalayan	147	161	n.a.	n.a.
Darjeeling Tea & Cinchona	172	263	217	220
Dillaran	107	159	142	173
Gielle	221	267	220	174
Gulna	173	197	n.a.	n.a.
Hopetown	154	221	n.a.	n.a.
Kursiong & Darjeeling	159	150	n.a.	n.a.
Margarets Hope	171	282	230	196
Mim	144	188	181	104
Nagri Farm	188	267	232	203
Okeyti	228	261	233	185
Pashok	129	203	159	172
Poobong		220	199	156
Pusimbing	161	214	200	162
Runglee Rungnot	270	292	249	198
Singou	192	288	291	261
Sasyok		195	102	174
Sington	179	196	192	170
Soon	200	284	241	193
Sungna	141	199	227	185
Teestavalley	204	260	214	177
Tisrihannah	149	235	207	157
Tukvor	182	263	217	183
Tumong	197	256	233	210

Sources: Investors' India Yearbook.

n.a.: Not available.

per cent (see Table 2.6). In fact the price of Darjeeling tea increased in 1929-30 and in 1930-31 was higher than its price in 1928-29. This obviously shows that the crisis was in the market for common teas.

Incomes in Assam were more adversely affected than in Bengal as is seen from the number of companies which paid dividends and the magnitude of dividends. Most companies in Cachar and in Sylhet did not pay dividends during 1929-32 and the ones which payed dividends belonged to the Duncan group.

In 1932 very few companies in Doore paid dividends, but the dividends had picked up by 1933 showing that with the operation of the restriction scheme incomes improved immediately. In Darjeeling many companies paid dividends in 1932 and in 1933 almost all did.

In Assam only a few companies paid dividends in 1932 and though incomes had picked up by 1933, the general magnitude of dividends was lower in Assam than in Bengal. In Cachar and Sylhet, few companies paid dividends in 1932, but incomes had picked up by 1933.

Table 2.6 shows the magnitude of dividends paid by different companies.

Taking the period as a whole in which the three control schemes operated, it is possible to arrive at certain generalisations. First, the control system worked most effectively in Doore in the sense that incomes in each case picked up faster than in Assam and Cachar in spite of the large decline in prices.

Table 2.6(a)

ASSAM

Ordinary dividend rate per cent per annum for Rupee Companies

Name of the Co.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Amluckie	-	-	10	25	20	12½	10	20	10	7½									
Baghmeri							5	7½	5										
Basmatic						8	9	22½	25	15	5	-	5	5	-	2½	2½	7½	10
Batali																2½	2½	2½	2½
Batjan				25	40	30	10	35	25	12½	7½	7½	5	10	5	10	7½	20	15
Bhoota Chang			15	35	50	40	35												
Bishunauth			20	35	35	40	30	42½	30	15				15	5	15	12½	20	17½
Bogabagh					10														
Borahi			10	10	10	5	7½	15										4	2½
Bormahjan																			
Borpukhuri			25	35	35	30	17½	22½	5								2½	10	5
Coolie Koozie		4	12½	5	65	42½	37½	22½	37½	20					5	5	5	5	5
Bejoo Valley						5	7½	10	5										
Dessai & Parbhutia B	8	8	25	35	60	30	30	55	40	25	10	5		12½	7	12	10	15	14
Dhalakhat			10	20	25	30	20	30	20	25	15	15	5	20	12½	17½	17½	17½	17½
Dhunerri																			
Dimakuel			30	30	-	-	10	15	-	10	10	10	7½	25	-	17½	12½	20	20
Durrung				3	8	5													
Dufflaghur					5	10	5	10	10	5	-	-	-	5	-	7½	5	7½	10
East India			5	20	25	25	10	15	10							2½	3½	5	5
Gilla Pukri	25	35	55	80	45	25	25	35	35	25	1	7½	12½	17½	-	15	15	15	10
Gohpur																			
Grob			10	30	45	6	15	25	12½										5
Hoograjuli								5	7½	10	5				7½	7½	10	15½	10
Hoolungoorie		35	55	30	50	35	40	30	12½	17	7½			20	5	10	10	12½	10

ASSAM

Cont'd., Table 2.6(a)

Name of the Co.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Hapjan Parbat																			
Jutilbari				10	15	20	15	20	20	7½	2½			5	2½	10	7½	12½	10
Killing Valley	5	30	75	35	20	10	22½	5	5	8½	-	-	2½	-	-	2½	10	5	
Kingsley Golaghat	35	80	100	100	70	65	85	30	30	-	-	-	35	15	20	17½	35	20	
Leda				10	15	10	7½	7½	10	10	-	-	2½	15	10	10	12½	17½	12½
Nothola	10	60	80	100	30	60	75	75	50	20	7½	-	20	15	20	25	35	25	
Noheema					40	30	45	65	40	2½	2½	-	-	5	-	2½	2½	5	2½
Murphulani																			
Moud Tea & Seed																			
Naga Hills				25	30	17½	17½	2½	12½	7½				15	7½	6½	10	12½	5
New Cinnatoliah	30	80	100	125	60	60	75	60	32½	10	5	-	20	20	20	20	25	17½	
Nambhurnadi		5	15	15	5	5	2½											5	2½
Rajabarrie					15														
Rajgarh				5	10	10	10	10	5									5	5
Sepoi			10	15	17½	10	12½	10	7½									5	5
Seajuli				60	60	65	45	45	45	45	10	15	-	7½	-	15	10	15	15
Teen Ali						10	7½	12½	10	10	10	5	-	7½	5	5	5	7½	7½
Taliejan							10	10	20									2½	2½
Tezpara																		2½	2½
Titebur			15	35	50	20	-	25											
Tongani							10	10											
Tyzoan		30	50	100	30	20	15	15											
Tengpeni					7½	12½	10	15	12½	5	2½	-	-	5	2½	10	7½	5	10

DOOARS

Cont'd... Table 2.6(a)

Name of the Co.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Atal				30	20	5	-	15											
Banarhat		10	40	45	50	65	70	80	40	20	10	-	-	5	7½	10	15	30	30
Baradighi			40	65	75	35	50	100	45	25	15	-	-	30	25	20	27½	40	25
Balgachi			50	75	-	-	15	20											5
Bhatkawa		25	50	70	80	50	60	75	40	35	25	10	5	30	25	22½	30	40	25
Birpara	10	30	45	50	40	40	20	30	25	10	-	-	-	10	7½	10	17½	20	17½
Carron	25	35	75	100	80	65	25	50	50	50	10	-	-	50	25	30	45	55	40
Chonabuttas		25	50	100	190	120	85	135	50	22½	6	-	-	10	15	20	25	30	30
Elienbarrie			10	40	25	30	30	30	15	15	5	-	-	20	15	10	20	30	15
Engo		20	30	35	50	30	30	35	15	15	17½	-	-	7½	5	5	5	10	10
Ethelbarrie														2½	2½	2½	5	7½	2½
Gungram			5	15	25	25	20	25	5	-	-	-	-	20	20	20	30	35	20
Gairakhata														10	10	10	7½	20	10
Hansua															2½	2½	5	7½	5
Hantapara	30	65	75	50	60	55	40	45	35	30	10	-	5	30	15	20	20	27½	25
Hashimara		20	75	75	50	25	25	50	30	30	20	-	-	25	25	25	25	32½	27½
Hudlibari		20	50	30	50	35	40	30	12½	17	7½	-	-	12½	12½	10	12½	17½	12½
Jaybirpara			25	35	30	25	22½	35	20	28½	12½	-	-	10	7½	8	18	15	12½
Killaett	20	20	45	50	40	45	50	70	65	60	50	25	10	40	35	30	25	35	30
Lohagar			35	75	37½	-	35	50											
Longvaiv				7½	-	-	-	5										2	8
Manabarrie			5	20	15	12½	5	20	10	10				15	15	7½	10	15	10
Nagaisures	25	30	75	100	100	90	90	120	100	85	85	75	45	80	80	50	50	70	65
New Chunta			15	85	25	35	75	75	10	5					5	10	20	20	20
New Dooars	10	45	55	115	225	175	12.5	285	115	90	75	-	10	60	45	50	50	70	70
New Terai		10	12½	20	15	20	17½	20	-	3½	-	-	-	5	2½	5	7½	10	3½
Oodlabari		5	30	40	40	40	25	20	35	15	15	-	-	20	17½	17½	12½	17½	15
Pahargoomiah			10	35	35	10	16	30	15	15	-	5	5	15	10	10	12½	20	10
Phaskara			10	12	10	10	7½	10	9	5	-	-	-	7½	5	5	7½	10	5
Putinbaras					100	75	40	100								20	40	40	40
Rajaghat			10	25	50	35	40	60	40	30	20	5	5	15	12½	12½	20	30	20
Rydek		10	45	65	75	50	60	100	45	20	5	-	-	30	25	25	40	55	40
Sarugaon				7½	-	-	-	5	4								5	7½	5
Ranicharra		7½	20	60	20	10	17½	25	10	10	-	-	-	5	5	7	5	10	5

DARJEELING

Cont'd... Table 2.6(a)

Name of the Co.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Chemong		7½	10	12½	20	12½	10	12½	10	12½	7½	5				2½	2½	5	5
Darjeeling Himalayan				6	15														
" Tea and Cinchona			15	40	50	20	25	30	10	20	25	10	19	-	5	5	5	5	5
Dilaram		8	10	75	20	20	20	15	15	20	17½	18	8						4
Gielle			20	30	35	15	20	10	10	20	17½	10	5	5	-	2½	5	5	7½
Guina																			
Hope Town		12	20	20	25	9	18												
Kursiong & Darjeeling				4	-	7½	5	5	-	-	5								
Margaret's Hope		10	17½	15	15	10	15	25	12½	12½	5	5	7½	5	-	2½	2½	4	4
Mia			5	15	12½	10	10	15	10	15	15	10	-	0	5	12½	5	10	12½
Nagri Farm	10	15	40	40	35	30	30	30	30	40	40	30	20	20	10	15	10	17½	10
Okayti	28	60	65	45	80	12	22½	22½	25	40	45	45	40	30	15	40	30	30	45
Pashok		8	30	50	50	40	60	40	20	20	10	7½		7½	2½	5	5	10	6½
Peabong				8	10	10	12½	15	15	15	15	7½	5	7½	5	15	10	7½	10
Pussimbing			10	15	20	-	5	5	-	-	10								
Rumlee Runquat		15	40	45	50	50	60	60	60	60	60	45	25	35	25	45	35	45	35
Singail			4½	10	20	5	12	14	7½	12	15	7	3½	6	2	3	-	2	
Seeyok									5	-	-	5	10	10	5	5	5	7½	5
Sington			25	30	45	22½	30	30	12	-	5								7½
Soon		2½	10	15	17½	17½	15	20	7½	10	7½	5	-	10	5	7½	5	10	5
Sungsa		10	37.5	40	55	35	10	15	22½	10	5	-	-	5	-	2½	2½	4	5
Teesta Valley		20	25	45	60	40	40	50	27½	30	30	20	10	20	15	17½	17½	20	17½
Tirihannah				40	35	-	-	25											
Tukvor	10	20	30	40	45	30	25	30	25	25	15	10	-	3½	2½	5	5	7½	5
Tumsong			15	20	30	10	20	25	15	20	25	15	10	7½					

Name of the Co.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Alyne Apathamara				60	60	-	-	10											
Accruttipore	20	20	20	40	50	30	30	40	20	10	10					2½	5	7½	5
Baliacherra			30	65	80	40	35	25											
Central Cachar			7	15	12½	1½	1½	1½	5					5	2½	2½	4	5	2½
Chundypore			20	35	25	8	15	20	10					7½	2½	2½	5	5	2½
Chundi Cherra			5	10	7½	4	4												
Dauracherra						2½	5	7½	2½					5	-	2½	5	7½	5
Eastern Cachar			12	22	17½	7½	10	10	5						2½	5	5	7½	5
Hattikhira	12	20	35	40	22½	25	25	25	5				10	10	7½	12½	15	12½	
Ingamara				10	20	10	10	8	6										
Kalacherra				10	9	-	5	7½											2½
Kauti		5	60	90	50	-	4	10						5	7½	5	7½	10	6½
Kallincher & Khoresal			10	20	25	10	10	10	2½					5	-	-	2½	7½	2½
Kedala				20	20	30	20	45	5					10	10	10	12½	15	10
Kyang									25	40	22½	-	-	2½	5	7½	7½	5	5
Kuchunpore										7½	-	-	2½	10	5	7½	10	12½	8½
Lalke Toorah		7½	25	40	35	17½	15	30	10	5						5	5	12½	1½
Loobeh					15	7½	5	10											
Maulvie																			
New Semarangh			5	75	50	50	45	55	40	15	-	-	-	5	10	12½	17½	20	17½
N.W. Cachar			25	60	40	30	30	30	15	10	-	-	7½	10	17½	10	12½	17½	17½
Godaleah			6	25	22	15	12	8											
Patrakola		30	60	60	100	100	100	100	80	40	10	10	25	80	55	55	65	80	65
Rajnagar				20	20	10	5	10										2½	2½
Roopcherra			15	50	20	20	20	10										2½	2½
Rungstee			30	75	100	80	60	60	20	5	-	-	10	50	30	30	35	40	35
Rutema			10	30	50	20	35	35	5								5	10	7½
Somriver			30	75	50	25	30	30	20						10	10	10	12½	12½
South Cachar					10														
Teliapere		5	40	50	60	60	50	55	30	10	7½	5	15	40	40	25	30	37½	32½
Kornafuli				30	50	20	17½	27½						10	5	5	5	10	10
Tilkah							20	30	5					5	7½	5	5	7½	6½

Source : Investors' India Yearbook.

Table 2.6(b)

Ordinary Dividend per cent per annum paid by the Sterling Companies

Name of the Co.	District	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Allynuggar	E.	50	50	50	12½	35	15	-	5	15	35	25	25	30
Amalgamated	A.C.E.F.G.	35	35	37½	7½	17½	7	5	-	-	6½	2½	4	4
Assam	A.	25	20	14	-	15	7½	2½	-	-	5	-	4	4½
Assam Doozars	A.D.	50	50	45	10	37½	35	10	10	10	30	25	25	30
Assam Frontier	A.	60	12	7½	-	7½	6	-	-	-	1½	-	-	1½
Bagracote	D.	30	30	30	7½	20	20	7½	5	5	10	5	8	12
Bengal United	A.D.C.	30	30	20	10	7½	-	-	-	-	-	-	-	-
Budia Beta	A.	60	55	50	-	50	20	5	6	8	6	4	7	5
Cachar and Doozars	B.D.	40	40	25	10	5	-	-	-	-	5	-	4	5
Chargola	E.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chul a	D.	30	30	30	7½	25	25	15	6	6	15	8	12	14
Consolidated tea	A.C.D.F.	30	30	30	5	22½	5	2½	-	-	15	9	10	10
Dangva Jhar	D.	15	15	5	2½	7½	5	-	-	-	5	5	5	7
Doozars	D.	40½	40	40	10	10	18½	2½	-	-	15	7½	15	12½
Doom Dooma	A.	55	40	30	10	30	30	20	10	2½	12½	5	15	12½
Empire of India	A.D.	35½	27½	18½	7½	18½	10	2½	-	-	5	2½	8	9
Hales	A.	40	22½	17½	10	15	-	-	-	2½	10	5	10	7½
Imperial	A.B.D.E.	30	15	20	10	15	7½	-	-	-	2½	-	-	6
Jhanzie	A.	45	40	40	10	40	15	10	4	3	8	2½	7½	6
Jokai	A.	45	37½	40	10	30	17½	4	2½	4	12½	2½	10	8
Jerhet	A.	50	40	35	-	27½	20	10	5	-	15	5	10	8
Kanan Devan Hills	A.G.	30	37½	37½	7½	35	20	10	12½	7½	15	12½	12½	12½
Luskerpore	E.	10	15	7½	-	5	-	-	5	10	30	20	20	20
Leehriver	D.	35	35	35	10	35	35	10	-	-	5	5	6	7½
Makus	A.	30	30	30	-	22	22	5	-	-	10	4	10	10
Maengles	D.	25	30	30	7½	20	20	10	5	5	20	12½	12½	12½
Needam	D.	40	20	15	10	10	10	-	-	-	2½	5	5	6

Source : Investors' India Yearbook.

Second, an important aspect of the income movements has been that superimposed on the regional tendencies there has been tendency of certain managing agents to pay dividends more or less consistently. Darjeeling is an exceptional case where all managing agents have paid dividends more or less regularly. Duncan Brothers and Andrew Yule, which were the dominant managing agents in Dooars paid dividends regularly in all regions, even in Assam where the dominant agents Williamson and Nagor did not pay dividends during alumps. A possible explanation may be the inter-regional flow of funds through the apex administrative body of the managing agent and payment of dividends depended on how closely the shares in the managing agency were held.

Third, despite the qualitative differences in the control schemes, their impact on the industry showed little difference. The reason was the export orientation of the industry. The prices were determined not so much by the quantity of output in India, but by the export of tea to the U.K. and whichever way the control schemes sought to attack the problem, it was with an eye to the British market. Therefore, although the first two schemes tried to exercise control on the production side, the determination of how much curtailment should be made in output was with respect to the external market alone. Although the first two schemes had qualitatively differed from the International Tea Agreement which attacked the problem from the export side, all three showed similar results regarding changes in acreage, regulation of output and income movements.

Section (IV)

The frequency of slumps in the period under review points to the failure of the control schemes to generate a permanent solution. This is largely attributed to the supply oriented solution sought by the industry. Demand was viewed to be concentrated in the United Kingdom and the entire mechanism was to gear the production system to the demand in the British market. Attempts were made to develop alternative export markets in the U.S.A. and the European Continent, but the internal market which could have provided a viable alternative did not become very important till about the end of the 1930s. In other words, control system was a byproduct of the built-in export bias of the Indian Tea Industry. Comparison of the consumption figures for the U.K., the U.S.A., the U.S.S.R. and India provide an interesting picture. (Table 2.7). V.D. Wickizer writes -

"Until a little over a decade ago, tea producers in India, Ceylon and Netherlands' Indies paid little attention to domestic markets. There was no real problem of surplus producing capacity until the late 1920s. The Western demand for tea was most important and the Western markets were generally more profitable".¹

During the world economic depression the situation changed radically. Not only was the export demand for tropical products drastically reduced, there was a growing substitution in favour of coffee and soft drinks in the U.S.A., Canada and Australia. India and Ceylon began to look to the home market for absorption of the

¹ V.D. Wickizer, op.cit. p. 53.

Table 2.7(a)
Consumption of tea in million lbs.

	1930-34	1935-39
U.K.	442.3	443.0
U.S.A.	86.6	87.7
U.S.S.R.	46.7	37.5
India	51.1	88.0

Source : V.D. Wickizer - "Coffee, Tea and Cacao".

Table 2.7(b)
Consumption of Tea in India in Million lbs.

Year	Consumption
1920	50
1929-30	65
1930-31	49
1931-32	63
1932-33	63
1933-34	66
1934-35	70
1935-36	83
1936-37	81
1937-38	91
1938-39	96
1939-40	82
1940-41	106
1941-42	102
1942-43	129
1943-44	153

Source : Indian Tea Statistics.

tea supplies which had started to accumulate as surplus. Although some attention had been paid to the domestic market during the first World War, serious efforts to develop these markets through consumer propaganda were not undertaken until the 1930s. When the Indian Tea Cess Committee was spending £ 50,000 annually on advertising in America with apparently little to show for it, considerable success was reported as a result of the £ 45,000 appropriation for advertising in India in early 1930s.¹ A brief historical review will help to show the importance of consumer propaganda in building up a strong domestic market in India and the way the potential domestic market had been neglected until it became absolutely necessary for the maintenance of tea incomes.

A sub-committee appointed by the Indian Tea Association in 1901 drew up a scheme which provided for a distributing agency to be known as the Indian Tea Market Expansion Commission. A grant of Rs. 400,000 was made from the American and foreign market expansion fund of the Indian Tea Association. The attention of the commission was directed mainly to India. The Sub-Committee concluded on the basis of enquiries made regarding the potential sources of demand - In the upper provinces the demand is probably the greatest. There is little doubt that large quantities of Tea might be disposed of in the principal northern centres of Delhi, Calcutta, Lucknow, Agra, Meerut, Amritsar, Umbala and elsewhere. It is also asserted by dealers and others that tea could be extensively sold at the chief junctions and terminal stations

¹ Economist, Oct. 31, 1931, p. 801.

in the Punjab, the North-Western Provinces and in Bengal. Other parts of the country to which the attention of the sub-committee has been drawn by a most competent authority are the districts of Eastern Bengal and Western Punjab. In Eastern Bengal there is a population of approximately 25 millions of Mohammedans. They are well-to-do agriculturists and are said to be better able to afford small comforts such as tea than any other rural population in India proper. The Western Punjab is also a promising field. The people there number to 10 to 12 millions. They are practically all Mohammedans and will, it is stated, readily take tea if they can procure it. The markets of Southern India - where the Travancore planters will co-operate with the Agency - are likewise reported to be capable of development.¹

The Indian Tea Market Expansion Commission undertook some vigorous campaign work, the chief method adopted being the distribution of "pice packets"² to bring tea within the reach of the poorer sections of the society. A monthly prize distribution was arranged in connection with the packets which became quite popular. Attempts were made to establish tea service on principal railway lines. However, it was not possible to obtain reliable accounts from the individual vendors although there was no doubt that a considerable quantity of tea was sold and not reported. Demonstration was also arranged at fairs, and the campaign was also extended to the coronation festivities at Delhi and at Calcutta. Daily distribution of brewed tea was arranged to government and mercantile offices and night services were arranged outside theatres.

1 P. Griffiths, *Opia*, p. 592-23.

2 Tea packets containing about one-third ounce which were sold for one pice each.

This came to an end in 1904 when the Indian Tea Cess Committee took over. The Indian Tea Association reported -

"It cannot be expected that the results of the three years of working indicate the existence of a proper tea market in India".

About 739,000 pounds of tea had been sold in three years.

A few years later, the Indian Tea Cess Committee commissioned Messrs. Lyall, Marshall & Co. to work on their behalf in India, so that good tea could be brought within the reach of all classes of the population. Work began in July 1907 and was continued till August 1908. The area covered was 3592 square miles, within which 710 villages were visited and only 4650 pounds of tea was sold. Another attempt in 1909 to promote the sale of compressed tea was similarly abandoned due to limited success. According to Griffiths, the main cause of the failure of the tea propaganda was - "The lack of initiative and originality and it is far from easy to understand why no attempts were made to try once again the vigorous measures of the old Indian Tea Market Expansion Commission",¹

During the War expansion of tea propaganda in the export market became negligible and attention was focussed on India. In 1915 the Indian Tea Association appointed H.W. Newby, the manager of the Calcutta branch of Lipton Ltd. as the Commissioner. Pice packets once again became an essential feature of the campaign. In 1921 Newby reported that 65 tons had reached a stage when no further attempts could push tea sales. Later experience and statistical examination suggests that

1 P. Griffiths, op.cit., p. 601.

this was an exaggeration. However, the sum spent on the Indian campaign increased from Rupees 1/2 lakh in 1915 to Rs. 4½ lakhs in 1920. In 1922 Newby handed over his work to his assistant John Harper. The campaign proceeded as before with increasing attention to the Railways and to stop the growing trade in tea unfit for human consumption. In 1926-27, Harper estimated that by the end of the year tea drinking would have been satisfactorily established in 90 per cent of the small towns in Central India, the United Provinces and in Bihar and Orissa. However, when more rigorous statistical methods were applied in the late thirties, the average annual consumption in the small towns of the provinces ^{the} ~~name~~ was found to be very low. In ~~the~~ report of the Indian Tea Cess Committee for 1927-28, the criterion which justified discontinuance of work in any particular area was thus defined : "It is discontinued only when (a) good stocks are available (b) tea is available in all parts of the town (c) tea is extensively advertised in all parts of the town (d) stockers are familiar with the sources of supply (e) pice packet sellers know the dealers from whom the supplies are available (f) demonstrations are being held in every quarter of the town (g) both stockers and pice packet sellers know how to keep their supplies properly (h) at least 50 per cent of the inhabitants are tea drinkers".¹

Griffiths rightly points out - "If tea drinkers are given a reasonable definition it is doubtful if any towns in the provinces concerned could have satisfied the criterion".²

1 Ibid., p. 607.

2 Ibid., p. 608.

However, Nesby and Harper built up a certain confidence in the campaign and in 1931 the expenditure stood at Rs. 7½ lakhs.

In 1932 Milligan, who was the adviser to the India Tea Association became the brain behind tea propaganda. Attention was particularly directed to factories and mills, establishments of tea shops, railway work and to informative publicity on tea in schools in Bengal. The new policy was to take tea to the prospective drinkers instead of waiting for them to come to the tea case centres. Work was concentrated rather than widely extended. In 1936 this intensification of work, together with the more scientific approach necessitated the establishment of a staff training school. A publicity officer was appointed to organise publicity in the Indian language newspapers. In 1937 distribution of liquid tea reached an impressive figure of 26 million cups as compared with 10 millions in the previous year. 8 million pice packets were sold. The campaign was stepped up to persuade the local grocers to stock pice packets. The results were encouraging and wherever tea case propaganda was conducted new dealers in dry and liquid tea appeared. In 1937 the Tea Market Expansion Board came into being and tea propaganda entered a new phase.

A reference to the table will show the remarkable achievement of tea propaganda in the 1930s. A market which had expanded by only 15 million pounds in the 1920s had an annual increase of 13 million pounds for 1934-35. Wickizer wrote in the 1940s -

"India has already become the second most important outlet for black teas, now consuming annually over 100 million pounds of her own production. On a per capita basis how-

ever this huge quantity is equivalent to not much more than a quarter of a pound for each man, woman and child. The development of the industry was by European interests, who were chiefly concerned with exploiting the Western markets."¹

Given the price and income elasticities, India was a far better potential market even in the twenties. From the market expansion campaign it is obvious that more could have been achieved if a more efficient campaign had been directed to the Indian market. The strength of the campaigning programme, which had been weak in the 1920s, picked up in the 1930s and its importance is spelt out by the results achieved. The failure of the control system to generate stability in prices in the interwar period lies greatly in the export orientation of the industry. It was only during the 1930s that the recession in the international market forced the industry to look for a home market. If the process had started earlier, during the Great Depression industry could have enjoyed the support of a large home market to cushion the effect of over-supply in the export markets. Given the structure of demand in the home market, the increased in the supply of common tea (through coarse plucking) could also be absorbed.

¹ V.D. Wickizer, *SR, Sita*, p. 54.

APPENDIX I(a)

Rupee Companies

Managing Agent	Region	Name of the Company
Andrew Yule & Co.	Assam	Bamatia
		Gillapukri
		Hoograjuli
		Rajgarh
	Dooars	Murphuland
		Banarhat
		Choonabhatti
		Engo
		Jaybirpara
		New Dooar
		Red Bank Dooars
	Darjeeling	Sarupson
		Dilaran
		Min
Begg Dunlop & Co.	Assam	Sington
		Amluckie
		Baghmari
	Dooars	Borohi
		Dejoo Valley
		Titabur
		Tyroon
	Darjeeling	Bullabarrie
		Ranikherra
		Margaret's Hope
Cachar & Sylhet	Sungma	
	Tirrihannah	
Cachar & Sylhet	Roopcherra	
	South Cachar	

Cont'd.. Appendix I(a)

Managing Agent	Region	Name of the Company	
Duncan Brothers & Co.	Assam	Ledo	
		New Cinnatoliah	
		Moheema	
	Dooars	Birpara	
		Carron	
		Ellenbarrie	
		Gungaram	
		Hanta Para	
		Killicott	
		Manabarrie	
		Nagaisuree	
		Phaskawa	
		Darjeeling	Okayti
	Poobong		
	Runglee Rungliot		
	Cachar & Sylhet	Dauracherra	
		N.W. Cachar	
		Patrokole	
		Rungmatee	
		Teliapara	
Daverport & Co.	Dooars	Belgachi	
		Hashimara	
		Hundlibari	
	Darjeeling	New Chumta	
		Gulma	
		Hope Town	
		Pussiabing	
		Teesta Valley	
		Cachar & Sylhet	Sonai River
Gillanders & Arbuthnot & Co.	Assam	Satjan	
		Jutlibari	
		Tengpani	

Cont'd... Appendix I(a)

Managing Agent	Region	Name of the Company
James Finlay & Co.	Assam	Dhunerri
		Killing Valley
		Sepoi
Jardine Skinner & Co.	Dooars	Seradighi
		Rydaik
	Darjeeling	Kurseong and Darjeeling
	Cachar & Sylhet	Ballecherra
		Central Cachar
Kilburr Co.	Dooars	Chundypore
		Kallinghar and Khovesal
	Darjeeling	New Terai
		Pahargomiah
		Peshok
	Cachar & Sylhet	Darjeeling Tea & Cinchona
		Dontomera
		Kornafuli
		Paulvia
		Oodaleah
Melrod & Co.	Assam	Durrung
	Assam	Bornah Jan
	Dooars	Atai
		Bhatkasa
		Rajabhat
	Octavius Steel & Co.	Cachar & Sylhet
Grob		
Assam		Teen Ali
		Bogabagh

Cont'd... Appendix I(a)

Managing Agent	Region	Name of the Company
	Dooars	Lohagar Doolabari
	Cachar & Sylhet	Alyns Pathemara Chandacherra Eastern Cachar Kalocharra Kaliti Hattikhira Loobah
Planters' Stores Agency	Assam	Coolie Kooale Dhalakhat
Shaw Wallace & Co.	Assam	New Purupbari Orang Tezpara Namburnadi Kingsley Golaghat
	Cachar & Sylhet	New Samonbagh Rajnagar
Williamson & Nagrot Co.	Assam	Beteli Borpukhuri Dimakushi Bishunanth East India Gohpur Rajbarrie Soojuli Dufflaghur Tongani

Cont'd... Appendix I(a)

Managing Agent	Region	Name of the Company
	Dooars	Longview
	Darjeeling	Chamong
		Nagri Farm
		Soom
		Tukvor
Barry & Co.	Assam	Bhoolachang
Kettlewell, Bullen & Co.	Assam	Mothola
Calcutta Tea Association	Darjeeling	Darjeeling Himalayan
MacKillican & Co.	Sylhet	Lackatoorah

Source : Investors' India Yearbook.

APPENDIX I(b)

Sterling Companies

Managing Agent/Secretary	Name of the Company	Region
Walter Duncan & Co.	Allyungger	E
James Finley & Co.	Amalgamated	B,C,E,F,G
B. Reeve	Assam	A
Walter Duncan & Co.	Assam Doors	A,D
R.G. Shaw & Co.	Assam Frontier	A
Goodricks & Co.	Bagracote	D
W.H. Dean & Co.	Bengal United	A,B,C,E
R.G. Shaw & Co.	Budla Beta	A
W.H. Dean & Co.	Cachar & Dooars	B,D
P.R. Buchanan & Co.	Chargola	E
Goodricks & Co.	Chules	D
James Finley & Co.	Consolidated Tea & Land	A,C,D,E,F
Goodrickie & Co.	Dangue Jhar	D
H.L. Turner	Dooars	D
G.R. Davey & Co.	Dooa Dooa	A
H.L. Turner	Empire of India	A,D
Molood, Russel & Co.	Halam	A
Molood Russel & Co.	Imperial	A,B,D,E
Alex Laurie & Co.	Jhanzi	A
Alex Laurie & Co.	Jokai	A
Begg Roberts & Co.	Jorhaut	A
James Finley & Co.	Kanan Devan Hills	A,G
Walter Duncan & Co.	Lash River	D
R.G. Shaw & Co.	Luskerpara	E
Walter Duncan & Co.	Meengles	A
Ostavius Steel & Co.	Needam	D
S.M. Jack	Makum	D

- A = Assam
- B = Cachar
- C = Darjeeling
- D = Dooars
- E = Sylhet
- F = Ceylon
- G = South India

Source: Investors' India Yearbook.

CHAPTER III

Coffee Industry in Brazil : The Valorization Scheme in the interwar period

The interwar period saw a crisis in the coffee industry in Brazil brought about by over-production.

Brazil's formula of solving the crisis came to be known as "Valorization of Coffee".¹ Essentially, the policy consisted of following a balance between supply and demand through financing the withdrawal of a part of the coffee stocks from the world market and thereby giving an artificial support to prices. The inventories thus built up were to be pumped back into the market when demand started picking up in the importing countries or to smooth out downward fluctuations in supply in years of poor output. V.D. Wickizer writes -

"The time factor of production is perhaps the characteristic of greatest economic importance in coffee culture. Although within reasonable limits production is a known quantity, it cannot be controlled; yet some substitutes for direct control of production seems necessary if serious maledjustments are to be avoided in supply-demand relationships."²

The "Valorisation" formula consisted of the Government intervening in the market to purchase surplus stocks. This was financed by foreign loans and a new tax was levied on every bag of coffee exported to raise the finance for the servicing of these loans.

1 Valorization is a term derived from the verb "Valorizar", which in Portuguese means fixing of price.

2 V.D. Wickizer, World Coffee Economy, P49

The first attempt at valorization was made by the coffee growing state of Sao Paulo in the first decade of the twentieth century when prices showed a downward trend, coffee stocks were rising and further depreciation of the currency to cushion the fall in prices was not possible. It was again undertaken when the 1917 when blockade of Central American market and the closure of the markets in the allied countries led to excess supply and for the third time in 1920-21 after the collapse of the war boom. But valorization did not become a regular feature of the industry till 1924. The period 1924 to 1939, has been termed as the period of "permanent defense."¹ This had two phases. The first phase was characterized by regulation of the movement of coffee from interior Brazil to the ports. Since 1924 stocks held in interior Brazil have been an important factor in aggregate supplies and that portion of supply termed "visible stocks" has had restricted meaning. Before 1924 stocks were accumulated at Brazilian ports in sufficient volumes to meet the varied demand in terms of grade and quality. When control was instituted over movement of coffee from the interior to the ports, stocks at the ports were reduced by more than half and the buyers became dependent upon the release of interior stocks by Coffee Defense Administration.

Changes in world coffee stocks explain the price trend in coffee. World "visible" coffee stocks, a term which refers to stocks built up by traders in the export market to smooth out a part of the fluctuations in supply, were relatively low in 1923. Between 1918 and

¹ V.D. Wickizer, World Coffee Economy, Food Research Institute, Stanford, 1949, p. 143.

1923, "visible supplies" averaged about 40 per cent of annual consumption requirements. Thereafter the stocks began to increase from about five months' consumption requirements until they reached a peak proportion during the 1930s, when stocks averaged fifteen months' requirements.

A succession of record breaking crops in 1929-30, 1930-31 and 1931-32 created an unparalleled situation. 1931 saw the beginning of the coffee destruction programme, the second phase of "permanent defense". The problem of over production was sought to be handled by destruction of output since at this stage even the stocks built up in the interior could not expect a viable market outlet within the foreseeable time horizon. Destruction of coffee stocks continued till the end of the interwar period.

The success of the valorization scheme (one is overlooking its obvious drawbacks for the time being) has to be measured by the extent to which it helped to support coffee prices. For this there has to be a positive relation between the withdrawal from the market and price movement.

The following section gives a statistical break up of the effect of withdrawal of coffee stocks on coffee prices. For a positive impact, the change in withdrawal of stocks must bear a definite relation to change in prices.

I have quantified the withdrawal of supplies of coffee from the international market as the sum of the stocks held in interior Brazil and the stocks actually destroyed. "Visible" supplies which

also form a part of the world coffee stocks have not been considered because building up of such stocks by traders has been a part of the industry since its inception and fluctuations in such stocks signify an attempt on the part of the traders to smooth out sharp fluctuations in prices which are bound to take place for a crop which shows an inherent irregularity of production. The coffee crop is extremely vulnerable to natural factors, a point which will be discussed in the context of the economics of coffee production later in this chapter. On account of concentration in one country, fluctuations in output arising out of natural factors are enhanced.

Table 3.1 shows that withdrawal of coffee stocks from the market increased gradually upto 1927; it almost doubled between 1927 and 1928 and kept on increasing upto 1932. Thereafter withdrawal of coffee stocks show a decline for a few years to be followed by sudden jumps in 1936 and 1937. One cannot arrive at any definite relation between the change in withdrawal of coffee stocks and the change in coffee prices. Between 1924 and 1937, only in four years have an increased withdrawal from the market brought about a definite rise in price even in these years no definite conclusion can be drawn regarding how much withdrawal is required to result in a certain change in price. In all other years prices have declined irrespective of the direction of change in withdrawal of coffee stocks. Therefore, it is not possible to show a correlation between withdrawal of coffee stocks and price movement.

Table 3.1

Year	World stocks visible supply	Withdrawal of Coffee from the Market (Million bags of 60 Kg.)		Total with- drawal*	Change in withdrawal	Change in price
		Stock piling in Brazil	Destruction in Brazil			
1924	4.9	2.8		2.8	-	-
1925	5.1	2.8		2.8	-	+ 3.3
1926	4.6	4.5		4.5	+ 1.7	- 2.1
1927	4.6	6.8		6.8	+ 2.3	- 3.6
1928	5.2	13.5		13.5	+ 6.7	+ 4.7
1929	5.2	13.4		13.4	- 0.1	- 1.1
1930	5.3	25.0		25.0	+11.6	- 8.9
1931	6.3	26.2	2.8	29.0	+ 4.0	- 4.4
1932	5.5	28.0	9.3	37.9	+ 8.9	+ 1.9
1933	6.3	19.0	13.9	32.9	- 5.0	- 1.5
1934	7.9	18.3	8.2	26.5	- 6.4	+ 2.0
1935	7.4	18.5	1.7	20.2	- 6.3	- 2.3
1936	7.9	21.3	3.7	25.0	+ 4.8	+ 0.4
1937	7.7	24.0	17.2	41.2	+16.2	+ 1.8

Source : V.O. Wickizer, World Coffee Economy, Food Research Institute, Stanford, 1949.

* : Total withdrawal is the sum of the stocks piled up in Brazil and the stocks destroyed.

The conclusion to which this analysis leads to is that this valorization scheme, at least, prevented a sustained and more rapid decline in coffee prices during the interwar period and since withdrawals represent over-production, it is possible to say that without this control scheme, prices would not have shown an increase even in particular years. In other words, the control scheme in Brazil's coffee industry affected the trend in price movement. Therefore, the valorization scheme merely postponed the crisis in the coffee industry by maintaining prices artificially and when the support was withdrawn in 1938, coffee prices crashed in the world market leading to far reaching changes in Brazil's coffee sector as well as in the entire orientation of her economy. "The dynamic centre in Brazil finally shifted away from "King coffee".

II

There are two related questions -

- (a) what made valorization possible?
- (b) why did Brazil choose such a mechanism?

To answer these questions our will have to take account of the economics of coffee production, the position of Brazil in the world coffee industry and the political apparatus which lead to the operation of the scheme. In this chapter, I propose to deal with only the economic factors. The non-economic factors, which are of considerable importance in the formulation of Governmental policies, will be discussed in another chapter.

The first aspect to be taken up will be Brazil's position internationally since it is obvious that unless Brazilian coffee was in a position to determine world prices such a step could not have been undertaken. There are two sides of this problem. Firstly, the monopoly position of Brazil as far as world production and world exports are considered. Secondly, the quality of Brazilian coffee which makes it the marginal determinant of world prices.

Brazil's share in world production was 65 per cent in 1920 and 64 per cent in world exports.

Secondly, Brazilian coffee is one of the three varieties of coffee sold in the world market. Broadly speaking milds, one of the other two varieties, are the coffees of the central and South American producing countries other than Brazil, of Kenya, Tanganyika and of certain other places in Africa and these are superior in quality to the great bulk of brazils.¹ Both milds and brazils are grown from the same variety of coffee tree, which grows in the subtropical regions, the difference arising from differences in climatic conditions, cultivation and preparation. The third category, known as Robustas, comes from a different variety of coffee tree growing in the tropical areas. This was grown throughout the Portuguese and French territories of Africa and mostly in Uganda.

The milds always command a price premium over brazils because of its quality and are bought up in the world market in preference to brazils, which are usually blended with the milds in sufficient propor-

¹ A term used to refer to the variety of coffee produced in Brazil.

tion to give roasted coffees of "acceptable quality at acceptable prices."¹ On the other hand Robustas cater only to a particular taste and finds consumers only in certain European countries. Therefore, in a sense, the world would only demand from Brazil what the mild countries cannot supply.

"The demand for Brazil's is a residuary or marginal demand and thus it is that the supply and demand for Brazil's sets the general price level of all coffees. Since demand does not vary very much in the short period, it is therefore the size of the Brazilian crop or the amount offered for sale, which determines the price level from year to year."² J.H.F. Rowe.

Therefore, what made valorization a viable possibility was price determining position of Brazil in the world coffee market as the monopoly producer of coffee and her capacity as producer of a particular variety of coffee which enjoys a residuary demand.

The second factor which contributed to the adoption of the valorization was the very nature of the coffee product.

The coffee tree has a life cycle during which it grows to maturity, reaches maximum bearing and then gradually declines in productivity until its yield is insufficient. During this cycle it alternately produces a large crop and gets exhausted over a period of two to three years, though this is by no means fixed and may be lengthened by damage due to frost, cold weather or draught which requires a longer recovery period. Though the yield of the coffee

1 J.H.F., Rowe, World's Coffee, London, 1963, p. 24.

2 Ibid., p. 24.

tree is strongly influenced by weather, yet favourable weather alone will not produce a bumper crop unless it happens to coincide with the rested period in the health cycle of the coffee tree.

Given the interval of 4/5 years between planting and harvesting of the crop, the uncertainties of weather, and the particular phase of the life and health cycle of the trees, variables of such magnitude are introduced that no practical possibility exists of adjusting production to short term surpluses or shortages of supplies and in this context regulation of coffee stocks to the market seems a better alternative than control over production. In fact, this was probably the principle applied when valorization was undertaken in 1920-21.

"By coffee defense, Brazilians mean the neutralisation of the influence of crop variation on the short period prices received by producers : There has never been any intention of trying to raise the long period equilibrium price paid by the consumer.... Brazil did, in fact, blunder into a policy which temporarily raised the consumer's price far higher than what it ought to have been, in doing so Brazil stepped into the shoes of monopoly quite unconsciously and was therefore most surprised when retribution swiftly followed".¹

Another factor, though not a determinant of the scheme, but which made valorization a viable control scheme is the character of the coffee product itself. Coffee can be stored in the green or raw state for sufficiently long periods to make the manipulation of stocks possible.

1 J.W.F. Rowe, "Brazilian Coffee", p. 6.

This takes one to the first question - why did the Government adopt the destruction programme?

Brazil was a country which had associated prosperity with a series of export booms in tropical products - sugar, tobacco, cotton, rubber and coffee. Most manufactured durable goods, industrial equipment, metallic raw materials and even fuel had been imported. A plantation system operated by slave labour until 1850, had delayed the development of a domestic market, of a mobile working class and of entrepreneur groups. With population and economic life concentrated upon the sea coast Brazil's economic life in 1939 was still regional rather than national.

"During the depression years Vargas's policy¹ had emphasized increasing exports. The substitution of domestic manufacturers for foreign imports did not have high priority and though the devalued exchanges did give de facto protection to industry, the purpose of Vargas' exchange policy was to keep up delay payments and to cover imports. As the decade wore on, payments problems continued and international politics became increasingly important in trade policy. Thus the trade tangle revealed clearly the problems of dangers of relying heavily on exports. An alternative to the doctrine of comparative advantage was domestic industrial growth".²

1 Vargas assumed political power in Brazil in 1930 by overthrowing the regime dominated by Sao Paulo Coffee Planters.

2 J.D. Wirth, The Politics of Brazilian Development, p. 43.

Therefore even in the 1930s the same old pattern persisted. The protection of coffee market and provision of new exports were seen as the password to economic growth by the revolutionary Government. More than forty commercial agreements were negotiated on an unrestricted, most favoured nation basis. Under pressure from monetary disequilibrium and declining trade Brazil followed the international trend towards exchange controls, import restrictions and protective tariffs.

Though higher tariffs gave defacto protection to her industries, the major aim was to restore balance of payments equilibrium. In mid 1934, following the stabilization of export values and arrangements with creditors to make payments of commercial arrears, the Government moved to unfreeze exchange and simplify tariff. The basic aims of Vargas' Government as put forward by him after his victory, remained - "intensification of production by diversification of agriculture, a policy of international economic cooperation and a general plan for development of railways and high ways for the whole country".¹ Industrialization was not one of the priorities.

However, even if the Government had aimed at import substitution industrialization, the industrial structure in Brazil in the early 1930s could hardly be said to be poised for growth through tariff. The spurt of growth during World War first, when Brazil found it difficult to meet her internal consumption requirements, had led to a 153 per cent increase in industrial production. But it cannot be said that the phase of industrial growth had begun. The majority of the establish-

¹ H. Walker, The Vargas Regime in L.F. Hill (ed.), *Brazil*, p. 109.

ments were medium or small sized with the predominance of those linked directly to agricultural activities. The principal characteristic of this phase was lack of heavy industry and the entire industrial structure depended on imports.

During the 1920s, the availability of cheap industrial goods from the West hindered further development of the industrial structure. Industrial production stagnated between 1923 and 1930. Coffee supported Brazil's economy. Therefore, to embark on a programme of import substitution industrialization would require the development of certain heavy industries and large scale import of machinery. Coffee, as the principal export crop had to play a dominant role in this respect. Therefore, any plans of the Government to build up an industrial base would require maintenance of export earnings from coffee.

In short, the entire mode of operation of economic policy in Brazil in the interwar period showed that the country was still geared to the achievement of economic growth through expansion in exports and the economic structure of Brazil with its excessive dependence on coffee, placed basic restrictions on the Government's freedom to manoeuvre.

It was not as if Brazil did not attempt at achieving something like the International Tea Agreement of 1933 which would have helped her to maintain her share in the world market. In 1931, an international Coffee Congress was called by the Brazilian Government to discuss the world coffee situation with other coffee producing countries of South and Central America and the U.S.A., Britain, Portugal and

Holland were invited to attend. This was the second meeting of its kind since the conference held in New York in 1902 in which the Latin American countries and the U.S.A. had participated. But this failed to produce an International Coffee Agreement of the kind which would have protected Brazilian interests. Business week of 23 rd May 1931, reported -

"The International Coffee Conference which opened in Sao Paulo on May 17, has so far failed to arouse more than a very mild degree of interest in the outside world for the simple reason that no one expects it to accomplish much.... Brazil's apparent purpose in calling the meeting was to stabilize the price of coffee through the establishment of a world cartel, its own measures having failed. The Brazilian programme, outlined at the first business session of the Sao Paulo Conference, provides for limitation of the output of each producing country, fixing of prices, levy of a tax of $\frac{1}{2}$ pound for an International Coffee advertising fund and establishment of a commission with power to revise production quotas. But whatever hopes the Brazilian Government may entertain, over production, as the root cause of the coffee depression is after-all not an international, but a Brazilian problem. Practically the only coffee overproduced is Brazilian coffee. The other countries are not troubled with surplus stocks and judging by the increasing demand for mild coffees, feel that they would be justified in increasing their production."

In a situation, where high prices for Brazilian coffee led to smaller premium for milds than when the price of brazils is low, the price support schemes helped to maintain prices of Brazilian coffee at an artificially high level and thereby destroyed the advantages on which the market for Brazilian coffee was found. This led to Brazil yielding a part of her market to mild producing countries. Therefore, faced with the prospect of an expanding market the mild producing countries could not be expected to limit production. Over production was essentially Brazil's own problem and she had to find her own way of dealing with it.

III

The economic effects of the valorization of coffee can be best summarized as follows:

"The fall of king coffee was a momentous event because it irrevocably shaped the future events in Brazil in at least four major ways. It stimulated agricultural diversification towards other export crops such as cotton and toward products for the domestic market. It reduced export earnings and the capacity to import, encouraging domestic production as a substitution for imports. It diverted investment flows previously going to the highly profitable coffee sector into industry. It unlocked the long time stranglehold that coffee policy had on the time and energy of Government officials and opened the way for industrialization and broad development issues to begin receiving Government attention. In fact, it could be argued that the fall of "King Coffee" was a necessary condition for Brazil to begin an affirmative and broad drive for development."¹

The very condition which gave Brazil a comparative advantage in coffee, spelled trouble.² The abundant supply of land and labour laid the conditions for ever production in the world market. The stabilization of coffee prices gave an artificial support to profits in the coffee sector and prevented diversification of economic activity.

1 S.H. Robock, Brazil: A Study in Development Progress, p. 22.

2 J. Bergeman, Brazil: Industrialization and Trade Policies, p. 21-22.

A way to escape from this was shown during the first World War when a shortage of imported goods created new avenues for profitable investment. But in the first decade of the interwar period valorization of coffee resulted in coffee remaining the most profitable activity and it was only with the collapse of the world coffee market in 1929 that the economy managed to shift its resources away from coffee towards a more diversified economic structure in terms of agricultural as well as industrial activities. Between 1915 and the 1930s, Brazil's production was approximately 30 per cent industrial and 70 per cent agricultural and pastoral.¹ Coffee accounted for 71 per cent of the total value of exports in 1929.²

Whatever the changes which took place with the collapse of the world coffee market?

Consider the agricultural sector first. The following table shows the production dynamics in the cotton belt in Brazil.

Table 3.2

Production of Cotton in Tons

1930	1935	1938
11,418	117,207	300,000

Source : J.D. Wirth, The Politics of Brazilian Development.

1 Ganzert, Industry, Commerce and Finance in L.F. Hill (ed.), Brazil 1947, p. 256.

2 R.E. Carlson, Brazil's Role in International Trade. An Essay in f. Lynnsmith and A. Marchant (ed.), Brazil: Portrait of half a continent, New York, 1951, p. 278.

Cotton is grown in practically every state in Brazil. During the 1930s Sao Paulo became a dominant producer of cotton. Production in Southern Brazil increased from 15 per cent of the total Brazilian production in 1930-31 to 82 per cent in 1944.¹

Though the foundation for expansion of cotton production were laid during the 1920s through the work of the State Agriculture Institute, the spectacular increase in production took place in the 1930s following the decline of coffee prices. Cotton was planted between rows of coffee and in the old coffee zones, it sometimes replaced coffee on fazendas² when production was becoming unprofitable. In the new areas of Western Sao Paulo coffee was planted on the ridges and cotton in the valleys. The main expansion in production was in cotton as an alternative export crop to coffee. There was substitution both by the extent of cultivation and the mobility of the factors of production.³ By 1935 cotton had become the second most important item in exports. Table 3.3 shows the changes in the percentage share of exports of coffee and cotton between 1925 and 1938.

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- 1 Wirth, Wright and Midriff, Brazil, an expanding economy, p. 70.
 - 2 A term used to refer to large agricultural estates in Brazil.
 - 3 Wirth, Wright and Midriff, ibid., p. 72.

Table 3.3
Percentage share in total exports

	1913	1923	1929	1938
Coffee	62.3	64.3	71.0	45.0
Cotton	3.5	3.6	4.0	18.2

Source : D.T. Vieira, Industrialization in Brazil in T.L. Smith and A. Marchant (ed.), Brazil: Portrait of half a Continent.

The industrial sector also showed rapid development in this period. Between 1935 and 1945, the value of industrial output came to surpass that of agricultural production. In 1938 industrial production was valued at more than \$ 1,000,000,000, and agricultural output at \$ 4440,000,000.¹ Brazil had become the most industrialized country in South America.

The interwar period in Brazil, therefore, marks an important phase in her economic development. The crisis in the coffee industry resulted in an attempt to stabilize prices and incomes and through this postponed the restructuring of the Brazilian economy. However valorization of coffee laid the foundation for the change. By taking advantage of her position as a monopolist in the world market, Brazil yielded a share of her market to her competitors and at the same time prevented reallocation of resources to other sectors. This intensified the crisis in the coffee economy and as a result a rapid import-substitution industrialization took place in the 1930s.

¹ U.N. Economic Commission for Latin America, Report, p. 230.

CHAPTER IV

The Politics of Stabilization Programmes in the Inter-war period - Tea and Coffee

The organization of the Indian tea industry and the Brazilian coffee industry in large plantations, contributed to the emergence of the planters as a strong pressure group. In Brazil the planters lobby became particularly dominant owing to the structure of the economy itself which gave tremendous weightage to coffee production. In the case of the Indian tea industry, its organization in joint stock companies which were controlled by a few managing agents¹ paved the way for British interests to act as a strong tea lobby.

In this chapter I shall try to evaluate the role of these non-economic factors in the formation and the functioning of the stabilization programmes. My aim will be to find out the extent to which these pressure groups were able to influence policy decisions towards the respective plantation industries and thereby use the stabilization schemes as a means of furthering their own interests.

I

"Brazil's economic history is a series of sensational accomplishments, characterized by a sequence of amazing fluctuations. It is, in

¹ According to the Plantation Enquiry Committee Report, (1956), seven top managing agency houses controlled 90 per cent of the acreage under tea.

fact the story of appearance and disappearance of entire economic systems on which a nation bases its existence. Its chief characteristic is the consistent change in the nature of the product, which we may term the "king product."¹

The history of Brazil's economy is characterized by six such cycles, each following the same pattern, in which the commodity in question acquired the leading position in world production and declined to insignificance as a result of competition from other producing areas. During the cycle, this particular 'product' determined the course of development of the Brazilian economy.

The first cycle began in 1500 with the dyewood industry and till 1600 this constituted the entire economic basis of the Portuguese colony. Towards the end of the seventeenth century sugar cane started to develop as the "king product" and the eighteenth century may be identified as the sugar cycle. With the development of West Indian sugar plantations Brazil lost her dominant position in this world market and the end of the eighteenth century saw the beginning of a new cycle, that of gold and diamonds. Both ended towards the end of the nineteenth century. There was a simultaneous development of cotton production and Brazil became the leading supplier of cotton in the European market from the middle of the eighteenth century to about 1800. The rubber cycle dated from 1860 to 1910, a period in which Brazil had a virtual monopoly as the supplier of rubber in the world market.

¹ J.F. Normano, Brazil: A Study of Economic Types, (Chapel Hill: University of North Carolina Press, 1939), p. 22.

Perhaps the most famous and important of the economic cycles is the cultivation of coffee which, for more than a century had been the keystone of the economic structure of Brazil.¹ This was the last of the dominant export cycles. It came to an end with the depression in coffee prices in the post-World War First period. It was only in the 1930s that Brazil gave up her dependence on export commodities as means of economic growth and embarked on the path of import substitution industrialization.

The social basis of these economic systems determined the political structure in Brazil. Slavery characterized the production relations in pre-Republic Brazil. Two major social classes existed in the society of colonial Brazil, the landowners on the one hand and the mass of slaves and free labour on the other.² There was a small bourgeoisie, comprising of immigrants from Portugal, who by the end of the colonial period dominated Brazil's commercial life. This section found it extremely difficult to gain acceptance among the landed aristocracy.

Thus the economic system in Brazil evolved around the plantations. The economic cycles centred around various commodities resulted in spurts of development in various parts of the country and this shaped the dismintegrated structure of the economy. There were islands of

1 R.E. Carleton, "The Basis of Brazil's Economy", in Brazil's Portrait of Half a Continent, (ed.) T. Smith and A. Merchant, The Dryden Press, New York, p. 228.

2 N. Cardoso, The Transition 1808-1848 in L.F. Hill (ed.), Brazil, University of California Press, 1947, p. 26.

growth in the economy determined by the geographical position of the king product. Each of these islands prospered and fell into insignificance according to the growth and decline of the king product. The disintegrated economic structure led to a corresponding development of the political system. The plantation was the centre of each isolated region of the economy and the social base of the plantation determined the political dominance. The Emperor might rule in Rio de Janeiro, his government might have large claims and the politicians might loudly complain of his repression, but for the planters and the dependents on his estate, politics remained essentially a local issue, for most of the time untroubled by central intervention.¹ Therefore while monarchy was the political institution of nineteenth century Brazil, the Empire was ruled by his landed aristocracy and it was the rural society which preserved the centralized monarchy.

The main thrust towards change came from the coffee economy. The 'coffee cycle' began in 1830. By the end of the century Brazil contributed 66.8 per cent² of world production of coffee and made up to 50 per cent of the nation's export. The wealth of Brazil was coffee and coffee was Sao Paulo. Slavery became the bone of contention between the coffee interests of Sao Paulo and the landed interests in other parts of Brazil. To the 'Paulista'³ slavery was an outmoded economic and social system. It could not cope up with the needs of

1 Peter Hynn, Brazil: A Political Analysis, 1978, p. 8.

2 Ibid.

3 A term used to refer to the coffee magnates of Sao Paulo.

the growing coffee sector. The termination of slave trade in 1850 had led to a rapid increase in the prices of slaves and Sao Paulo coffee planters hit by the rising costs began to feel the shortage of manpower. To them slavery was a hindrance to growth. Even the centralized imperial system was unacceptable to many of the planters. Sao Paulo, therefore, led the way in encouraging immigrants. Prior to 1850 the number of immigrants in Brazil was about 19,000. Between 1847 and 1857 as a result of Sao Paulo's policies another 60,000 arrived. But in spite of the growing domination of coffee interests in Brazil's economy the conservative landed oligarchy preserved its domination of the political system.

The final blow came with the abolition of slavery in 1888. The monarch's support to the abolition movement alienated the conservative section of the landed aristocracy. Simultaneously the Paulista raised a cry for greater regional autonomy. The collapse of the monarchy in 1889, a major victory for Sao Paulo coffee interests, was the logical conclusion of the withdrawal of support to the monarchy by the conservative landed aristocracy.

The years 1889 to 1930 saw a consolidation of the political dominance of the Sao Paulo coffee planter. The formation of the Republic in 1889 provided for far greater regional autonomy and the whole system came to be geared to give the maximum benefit and control in an ostensibly democratic framework, to a small elite who ran the

country in their own and in their region's interest, which in their eyes coincided with the national interest.¹

The economic policies of this period were determined by the dominant political pressure group - the Sao Paulo coffee planters. The tremendous expansion in coffee growing at the end of the nineteenth century led to a crisis in coffee prices in 1893. The reaction of the coffee magnates came in the form of a demand for a depreciated exchange rate and the effects of the 1893 crisis was cushioned by the external depreciation of the currency - a measure which went totally against the interests of the urban consumers and the wage earners in the coffee sector who depended on imports even for articles of common use.

In 1897, a new depression developed in the world market, but this time further depreciation of the exchange rate was not possible in view of the social and political unrest which had followed the depreciation of the currency in 1893. At the same time coffee stocks were piling up in the economy threatening a loss of income to the producers as well as to the economy as a whole. The idea of withdrawing from the market a part of these inventories soon developed in the minds of the ruling classes of the coffee producing states, whose political and financial power had considerably increased as a result of republican decentralization. The conclusion of the Taubate Agreement² in February, 1906 marked a political victory for the 'Paulista'

1 P. Flynn, op.cita. p. 62.

2 The Taubate Agreement of 1906 provided for valorization of coffee for the first time in Brazil. It was one of the world's first price support plans under pressure from the planters, the major

and laid the foundation of 'valorization' in Brazil's coffee industry.

The crisis of the interwar period saw a consolidation of the valorization scheme and its emergence as a mechanism of "permanent defense" for the coffee sector.

The effects of the world wide depression were even more disastrous for Brazil because of its semi-colonial status and the resulting subservience to the older and more mature economies. The economic dependence of Brazil included such unfortunate characteristics as the specialisation in the production of a few commodities (coffee and sugar), a feudal system of society in which a few patriarchal families owned and operated the large rural holdings (fazendas) and the major urban businesses and in which the masses of people performed labour under the condition of actual servitude and subservience to the capitalist centres of the outside world in financial matters.¹

Under these circumstances, it was natural for pressure groups to demand relief. Most avenues of granting some sort of relief to the dominant pressure group of Sao Paulo coffee planters were no longer open. Government revenue which comprised mainly of export and import duties could not be increased by additional taxation in a situation when channels of trade with the outside world were closing down. At the same time other forms of taxation were not easy to impose

Cont'd..... p. 2

producing states signed an agreement at Taubate, Sao Paulo, to purchase coffee surpluses and a tax was imposed on each bag of coffee exported to finance the servicing of loans contracted by the states to purchase surpluses.

Caio Furtado, Economic Growth of Brazil, p. 195.

upon the powerful industrial groups especially since the penniless workers lacked political clout.¹

The planters' lobby of Sao Paulo embarked on their own programme to support coffee prices and maintain coffee incomes. The first valorization programme in the inter-war period was put into operation under the leadership of Sao Paulo and without the support of the federal government. In view of the unwillingness of the latter, the State Government which under the Republic had constitutional power to levy taxes on exports, appealed directly to international credit sources. The Federal Government was finally compelled to take the major responsibility and on account of the financial success of their plans, the planters succeeded in imposing their economic policy on the federal government until 1930. This was made simpler by the fact that the federal government was dominated by Sao Paulo men.

Coffee policy of the period 1889 to 1930, therefore, was determined by the dominant pressure group and the economic policy of Brazil in this period was determined by the interests of the Sao Paulo coffee magnates.

The political situation changed radically in the 1930s. The revolution led by Getulio Vargas in 1930 challenged the political dominance of the 'Paulista'. The Republic of Brazil had its first president from a non-coffee growing region. The military failure of the Sao Paulo rebellion of 1932, which the planters had supported, struck yet another

¹ L.F. Hill, "Candidiense versus Republicanism", in L.F. Hill (ed.), *Os Candidienses*, p. 103.

blow to their political supremacy. The political change led by Vargas was a manifestation of the growing conflict between the traditional oligarchies and the classes of the budding urban centres such as the middle class, the civil and military bureaucracy, the inefficient groups of industrial entrepreneurs and the rising proletariat.¹ The heated discussions aroused by the boosting policy were a clear indication of the transformation occurring at that time in the political and social structure of the country. Republican decentralization had given greater political and administrative flexibility in the field of economic policy to the agricultural interests at the regional level. The first price support scheme was put into operation without the support of the federal Government. At the same time the groups exerting pressure on the federal Government had become more numerous and complex. The increasingly important urban middle classes - within which civil and military groups were conspicuous - were directly affected by the exchange depreciation. The powerful international financial group centred around the house of Rothschild closely observed the economic and financial policy of the Brazilian Government, particularly after the consolidation loan of 1898. Finally, importers and industrialists, whose interests conflicted for a number of reasons with those of the coffee planter, found in the republican regime an opportunity for increasing their political power.²

1 O. Ianni, Crisis in Brazil, Columbia University Press, 1978, p. 10.

2 C. Furtado, The Economic Growth of Brazil, p. 195.

Coffee policy since the 1930s shows important differences with that of the period 1889-1930, when intervention in the coffee market was done unambiguously in the planters' interest. By contrast, in the post-1930 period when the interests of the Government and the export sector in coffee diverged, the Government made its wishes prevail. In 1931 the Federal Government took charge of Brazilian coffee policy, which had previously been conducted by the state of Sao Paulo. The change in administrative locus came together with an important shift in Brazilian politics. Whereas the coffee planters had exercised considerable influence in Sao Paulo, the federal administration under Vargas was opposed to the prevailing system of Brazilian politics in which the coffee elite played a leading role.

"Under the federal government's coffee retention policy, the planters interests have been served by a stable market, but the government's intervention reflects its own efforts to act as a monopolist in the international coffee market restricting supply in order to increase the economy's foreign exchange earnings. In a certain measure these two goals - stabilising planters' income and maximising the country's export receipts from coffee have coincided. In some respects however the interests of the planters and the government have diverged significantly."¹

The planters had traditionally wanted an undervalued exchange rate to raise their cruzeiro earnings for a given world market price. Thus one of the major provisions of the 1906 valorization programme

¹ N.H. Laff, Economic Policy Making and Development in Brazil, 1947-1964, 1968, p. 23.

was intervention in the foreign exchange market to lower the external value of the currency. This involved a depreciation of approximately 30 per cent in the midst of rapidly growing exports - a move that was considered to be open exploitation of the consumers. Coffee policy in the post-1929 period on the other hand, had an overvalued exchange rate in order to raise international coffee prices and maximize foreign exchange receipts. When international coffee prices had declined by 60 per cent, the exchange rate depreciated by 40 per cent only. The depreciation of the currency, although cushioning the impact of fall in prices to some extent, induced the coffee planters to increase production and maintain pressure on the market. The situation led to a new price decline and renewed depreciation of the currency, contributing to further intensification of the crisis. As the degree of depreciation of the currency was much smaller than the fall in prices - in as much as the former was influenced by other factors - a point would clearly be reached where the loss to the growers would be large enough to induce them to abandon their plantations.¹

Furthermore, the government used its control of the foreign exchange market to transfer to the planters only a part of what was received from coffee exports. Under the so-called "exchange confiscation", the coffee exporters had to convert their dollar earnings at an exchange rate considerably lower than the exchange rates paid by

1 C. Furtado, Economic Growth of Brazil.

the importers. The receipts from the export tax were used to repay the loans raised for financing of coffee stocks. Thus the degree of subsidiation of the coffee sector had declined considerably in the 1930s compared to the previous decade.

Given the change in the political scenario two questions arise - first, why did Vargas government continue the coffee destruction programme? Second, what were the reasons behind the political decline of the coffee planters?

Let me take up the second issue first. The growing conflict of economic interests has already been mentioned. On the one hand, there was a conflict between the various economic interests, which primarily took the form of a conflict between rural and urban sectors. On the other hand, the political struggles were related to the conflict between various projects of modernisation, democratisation and economic development.¹ At the base of these conflicts rested the contradiction between an economic system based on exports and a developing industrial economy. The planters were dealt with an enormous economic and psychological blow by the 1929 coffee crisis, and found it difficult to gain an upperhand in their conflicts. Moreover the economic crisis coincided with the political crisis, viz. the revolutionary change in the Government followed the onset of the Great Depression.

The accelerated industrialization and urbanization increased the number of voters beyond the control of the older rural political machines and added new potential centres of power.²

1 O. Ianni, *op.cita.* p. 10.

2 H.H. Loff, *op.cita.* p. 28.

Another important factor which led to the decline of the political dominance of the planters was that industrialization in Brazil saw the concentration of coffee planting and manufacturing in the same region, in the state of Sao Paulo.

The percentage of coffee trees in the state of Sao Paulo in 1939 was 51.27 while the percentage of the value of industrial production in 1942 in the state of Sao Paulo was 39.8.

Table 4.1

State	Value of Industrial Production (% distribution)		
	1907	1920	1938
Sao Paulo	16.9	31.5	47.2

Source : D.T. Veiera, *Industrialization in Brazil*.

Between the first decade of the century and the middle of the 1940s, the state of Sao Paulo with its enormous weight in Brazilian politics shifted "from the bastion of coffee to the support of industrial interests",¹ in the national arena. Thus the heart of the problem as so often in modern Brazil's politics lay in Sao Paulo. It was the "growing disagreement between those elements in Sao Paulo who demanded continuing government support for this coffee-based export economy and those who vigorously urged the need to push Brazil further and faster towards industrialization, a road which would require firm government intervention in the economy."²

Given the situation, why was the coffee sector in Brazil able to enjoy the benefits of the valorization programs even in the 1930s? Considering that Vargas government had come in opposition to the Sao

1 N.H. Leff, *op.cit.* p. 29.

2 P. Flynn, *op.cit.* p. 95.

Sao Paulo planters' lobby, it is surprising that the 1930s saw the destruction of millions of bags of coffee in an effort to continue the programme of stabilization in prices.

In chapter three I have traced out the economic factors which led to the continuation of the coffee destruction programme in the 1930s. What I would like to emphasize here is that the 'valorization' programme had started on the basis of strong political pressure from the 'Paulista'. No doubt the concept of export-led growth dominated economic policy in Brazil, but it was the planters' lobby which was able to take advantage of the situation and manoeuvre policy decisions in its own interest. As Celso Furtado has pointed out the distinction between the 'Paulista' lobby and the sugar planters was that it was in the former only that the producing and commercial interests had been combined and this gave the coffee magnates adequate leverage to protect its own interests.¹

During the 1889-1930 period the first such manoeuvre came in the form of a depreciating exchange rate which helped to maintain income in terms of the Brazilian currency. Then came the 'Taubate' agreement of 1906 and the first valorization of coffee because of the strong pressure from the planters' lobby since depreciation was no longer a viable policy measure. The 1920s saw the beginning of the "Permanent defense" of coffee prices as well as a depreciating exchange rate. There is no doubt that these policy decisions were manifestations of the dominance of the Sao Paulo planters' lobby.

¹ C. Furtado, op.cit. p. 125.

However the situation had altered to a large extent by 1930. Coffee planters had lost some of their political power and were no longer in a position to dictate the course of development. Vargas came to power by challenging the very domination of Sao Paulo coffee interests. "1930 revolution judged as a class phenomenon was predominantly a bourgeois movement which would in time turn increasingly to defend the interests of the growing urban and industrializing middle class, but despite its early promises, it had still to defend this primary source of the nation's wealth, the coffee economy centred in Sao Paulo. This was made all the more necessary and urgent by the swelling economic crisis internationally and the collapse of coffee prices, so that Vargas in his early years had little chance to introduce substantial changes in the social and economic structure of the country".¹

The defense of the coffee economy by Vargas' Government arose out of the economic situation in Brazil at the beginning of the depression. Political factors no longer played a determining role. The industrial structure, inspite of growth ~~between 1914 and 1917~~ ~~between 1914 and 1917~~ between 1914 and 1917 had virtually stagnated during the 1920s since foreign goods from countries in the process of reconstruction were much cheaper than those produced domestically. Heavy industry was conspicuous by its absence. Even the path of import-substitution development would be constrained if foreign exchange was not available for the development of key industries.

¹ Peter Flynn, op.cit., p. 61.

Foreign debt payment constituted a heavy burden. The depreciation of the currency which gave de facto protection to industry and to the coffee economy was basically designed to maintain the value of exports at a fairly high level. Import substitution was not one of the major aims of Vargas' Government, but "intensification of programmes by diversification of agriculture, a general plan for development of railways and highways for the whole country and a policy of international cooperation",¹ were the basic economic programmes promised to the people in his first address. Thus maintenance of the export earnings was the primary concern of the Government which saw this as the solution to all economic problems. In other words Brazil was forced to depend on the export sector as the instrument for development. If this is accepted as the basic premise, then given the economic situation of Brazil at the end of the 1920s, valorization of coffee, a product which accounted for 71 per cent of the export earnings in 1929, was a logical corollary. Political pressure, which had played the determining role in the adoption of valorization as the stabilization programme in Brazil's coffee industry, had in the 1930s yielded its place to certain economic factors which came to determine policy decisions. It was the immense faith in the concept of export-led growth which continued to dominate the minds of the policy makers.

¹ D.T. Vieira, "The Industrialization in Brazil", in T.L. Smith and A. Marchant (ed.), Brazil: A Portrait of Half a Continent, The Dryden Press, New York, 1951, p. 47.

To understand the importance of non-economic factors in the formulation of the stabilisation schemes in the Indian tea industry, it is necessary to look into the ownership structure of the industry. The following table shows the distribution of acreage under tea among the various types of ownership.

Table 4.3
Percentage Distribution of Acreage under Tea among
the different types of ownership in 1939

<u>Types of ownership</u>	<u>Proportion of acreage under tea %</u>
1. Sterling Cos. controlled by Agents/ Secretaries	62.93
2. Rupee Cos. controlled by Manufacturing Agents	
a) Non-Indian	9.97
b) Partly Indian and partly non-Indian	10.03
c) Indian	0.09
3. Rupee Cos. controlled by Managing Agents	
a) Indian	5.33
b) Partly Indian and partly non-Indian	1.39
4. Controlled by Board of Directors	
a) Rupee Public Ltd. (Indian)	8.09
b) Rupee Pvt. Ltd. (Indian)	1.30
c) Rupee Pvt. Ltd. (non-Indian)	0.03
5. Proprietary and Partnership concerns:	
a) Indian	2.96
b) Non-Indian (Rupee)	0.48
c) Non-Indian (Sterling)	0.50

Source : Plantation Enquiry Commission Report, 1936.

Secondly thirteen leading agency houses in Calcutta controlled over 75 per cent of the tea production in India.¹

The Sterling interests dominated about 65 per cent of the acreage under tea. Secondly a major part of Rupee companies were controlled by managing agents, which were the Indian counterpart of the interests controlling the sterling companies. Therefore, as I have pointed out before, the place of registration of a company made no difference to the dominant interest group in the tea industry. It comprised of certain managing agency houses and the parent organisations in Britain.

The Indian Tea Association was formed at a meeting of Calcutta Agency firms in 1881. The object and duty of the Indian Tea Association was to promote the common interests of all persons concerned in the cultivation of tea in India. However, the Indian owned tea concerns came to have an association of their own known as the Indian Tea Planters' Association, with headquarters at Jalpaiguri, a district in which there were many Indian owned estates. The South Indian tea plantations had their own association, the United Tea Planter's Association.

All the three control schemes in the Indian tea industry during the interwar period were initiated by the Indian Tea Association. In 1920 it was the Indian Tea Association which asked its members to stop plucking. The second attempt at stabilization in 1930, was also undertaken under the direction of the Indian Tea Association. Both were

¹ Plantation Enquiry Commission Report, 1956, p. 23.

voluntary, both ineffective, and soon broke down in the sense that the prices started declining as soon as the effect of the control scheme was felt on prices and incomes and production responded once again to price signals. Secondly these two schemes had failed to touch upon those sections of the industry which were outside the purview of the Indian Tea Association.

The nature of the International Tea Agreement of 1933 was quite different. It encompassed the entire tea industry through a legislative measure. The way in which the Indian Tea Association was able to subjugate the functioning of the Indian Tea industry to its own interests brings out very clearly its importance as a political pressure group.

The Association was interested in seeing that its members were able to maintain their incomes. Given the market conditions the only way to raise prices in the London market was to curtail the amount of tea exported either by restricting production as did the first two schemes or by providing for export quotas. The experience of the first two schemes had shown that once the prices were remunerative all sections of the tea industry would benefit from it and would react by increasing production through coarser plucking in the short run and extend the acreage under tea. The latter represented a further pressure on prices in the long run. Therefore restriction of production under the directive of the Indian Tea Association would ultimately go against the interests of the dominant section of the tea industry. In a period when Indian capital was entering the industrial sector in India and had

made some headway in the tea producing areas of Bengal, voluntary restriction schemes, initiated by the Indian Tea Association, constituted a threat to the domination of foreign capital in the industry since measures taken by the Indian Tea Association failed to include the Indian owned estates, but at the same time benefited the Indian owned estates by initiating a recovery in prices.

If one considers the two main conditions of the International Tea Agreement (a) allocation of export quotas with reference to past export performance and (b) severe restriction on extension of acreage, its impact on the industry is quite obvious. Firstly, it prevented the entry of new capital and secondly, it discriminated against relatively newer plantations which had not attained the peak of production and therefore export. Thirdly, since the Agreement laid down conditions to regulate production through restriction of acreage under tea, the existing plantations could always increase production through increase in productivity.¹

Given the slowing down of sterling investment in the 1920s, the International Tea Agreement was unduly biased against Rupee investment and particularly detrimental to the interests of Indian investors who were trying to enter the industry. The following table shows the changes in the structure of capital invested in the tea industry over the period 1900 to 1938.

1 M.R.P.C., Report on the Supply of Tea, p. 23.

Table 4.4
Capital Invested in the Tea Industry (1900-1938)

Year	Total ('000 Rs.)	Registered in U.K. ('000 Rs.)	Registered in India ('000 Rs.)
1900	160,000	138,075	20,169
1919	340,000	271,086	68,914
1920	350,000	273,873	74,127
1928	460,000	360,000	120,000
1930	530,000	397,851	132,141
1938	498,790	365,960	132,830

Source : S.K. Basu, Capital and Labour in the Indian Tea Industry.

Rupce capital which had increased by 61.9 per cent between 1920 and 1928 shows stagnation in the 1930s.

Thus the International Tea Agreement resulted in a conflict of interests between foreign capital and domestic capital. To what extent the Agreement was a result of the antagonism of foreign capital towards domestic capital in a period when there was a crisis in the tea market and a deliberate policy to kill any competition from the Indian capitalist class can be made clear if one looks into the procedure in which the Agreement was made effective in the Indian context.

Rothermund, in a paper "British Foreign Trade Policy in India during the Great Depression, 1929-39"¹ has arrived at the following conclusions based on his analysis of the correspondence between the Indian Tea Association and various government officials on this issue.

1 The paper was presented at a Seminar in New Delhi.

Rothermund argues that initially the government of India officials were extremely sceptical about the possibility for an agreement being reached among many conflicting interests. Therefore they went along with the plans which seemed objectionable from the viewpoint of liberal doctrine, precisely because these plans were expected to fail. However the tea lobby was soon able to confront the government with a successful referendum among tea producers and it submitted a complete scheme with specimen forms etc. The government was also informed that the other governments concerned were already about to implement the respective measures; Rothermund writes - "The Commerce Secretary to the Government of India, T.A. Stewart, who was otherwise a most articulate defender of the faith in free trade, had obviously been brainwashed by the tea lobby and advocated the measures, consoling his colleagues with the remark that it was anyhow too late to object to it." No time was given to even draft a bill for this purpose, so a notification under the Sea Customs Act was issued in order to stop the export of unlicensed tea, while the licensing was left to the Tea Association which then assumed quasi-governmental authority. This came as a surprise to many since the Sea Customs Act was not meant to cover measures of this kind that were not backed by specific legislation. Rothermund points out - "But in this case everything was done in order to accommodate the mighty British pressure group which demanded this measure. Most of the officers in the various departments of the government of India which were concerned with this measure felt very uncomfortable about it. They knew that their critics could immediately

point out that such measures were only adopted when non-Indian interests were at stake and they thought of the lame excuse of saving the few Indian estates which had recently come up and which would have been the first to go bankrupt if such measures were not adopted." The nature of this protection given by the Tea Control Act was quite obvious when it lost its character as a temporary support scheme. After being passed in 1933 for five years it was extended in 1938 for another five years.

Thus the Tea Control Act of 1933 was passed under strong pressure from the foreign interests in the industry. It was a measure which had been initiated by the planters' lobby. Even the elaborate plans of how to implement the International Tea Agreement had been drawn up by this section. The Government merely acted in response to the demands placed by the tea lobby.

According to Rothermund - "The swiftest action was taken in the case of tea and in fact, the government was quite surprised by the way of in which its hands were forced by the powerful tea lobby which operated very effectively both in India and in London and at the international level as well. Indian interests could have never dreamed of getting something done by the Government of India at this amazing speed. Principles were quickly abandoned in this case."¹

The more serious aspect of the control scheme for Indian capital was the restriction on planting of tea bushes. Indian capital was not

¹ Rothermund, op.cit.

only prevented from competing in the foreign market, but was prevented by the Act from taking advantage of the growing domestic market. An attempt was made in 1933 by the Indian Tea Association to get a referendum in support of a scheme designed to limit production for sale in India to 12 per cent of each estates best crop basis. It won the support of 93 per cent of the industry. There was strong opposition from the South Indian United Planters' Association since the gardens owned by Rupee interests in South India were comparatively young and had not reached the optimum level of either production or acreage under tea.¹ The Indian Tea Association asked for legislative effect on this scheme, but it was turned down, partly due to the strong opposition from the United Tea Planters Association. What emerges as an interesting point in this context is that the dominant tea interests which in the 1920s had not been willing to sell in the domestic market as "it was not profitable," now tried to set prices in the Indian market at an artificially high level by limiting production. The following table shows the differences in prices between the London market and the domestic market.

¹ P. Griffiths, *op.cit.*, p. 198.

Table 4.5

Year	Average price in London market	Average price in Indian market
	Rs. A.P.	Rs. A. P.
1933	9 - 7	4 - 10
1934	8 - 9	5 - 2
1935	9 - 5	4 - 10
1936	10 - 1	4 - 8
1937	11 - 4	4 - 9
1938	9 - 7	4 - 0

Source : Investor's India Yearbooks.

Lastly, even the changes which were made in export quotas in particular years in response to the price movements in London, affected only the existing plantations and helped to maintain the existing balance in the distribution of tea output among the various types of owners. The only way Indian capital could enter the industry was by buying out plantations owned by British interests. This kind of transfers were likely to take place only in the case of estates which were less profitable.

III

A study of the operation of political pressure groups in the tea industries will not be complete unless a reference is made to exchange policy. I shall now examine the extent to which exchange policy was influenced by the planters' lobby.

The exchange variations in Brazil during the coffee cycle exhibit a strong correlation with the price variations in coffee. A study by J.P. Wileman of the latter half of the nineteenth century speaks of the role of the price of coffee as a determinant of the exchange rate. Wileman observed that between 1861-1864 and 1865-1869, the average price of coffee declined and so did the exchange rate; in the 1870-1875 period the average price of coffee increased, generating a recovery in the exchange rate; in the 1876-1885 period the exchange rate dropped again as prices fell; and finally in 1886-1889 the exchange rate recovered following a recovery in coffee prices.¹

In fact the exchange rate in Brazil became the most important instrument of counteracting the effect of falling prices on coffee incomes. With a reduction in prices of exported products - coffee, in this instance came a trend towards a sharp decline in the external buying power of the local currency. The decline occurred even before the disequilibrium had materialized. A mere forecast of an impending disequilibrium was enough to start a race against the external value of the currency. Thus depreciation of the Brazilian currency became the tool for maintaining coffee incomes in terms of the domestic currency as prices of the international market declined.²

The process of depreciation resulted in a transfer of income from the great mass of consumers. Since 50 per cent of the imports at the end of the nineteenth century and the early twentieth century

1 J.P. Wileman, Brazilian Exchange, Buenos Aires, 1896, pp. 234-48.

2 Furtado, op.cita., pp. 181-82.

consisted by foodstuffs and textiles, the burden of the crisis was passed on largely to the consumer.

The coffee planters during the greater part of the interwar period were able to determine the exchange policy to their own advantage, as I have mentioned already. However after 1930, the situation had changed. Although depreciation of the Brazilian currency in the 1930s had brought some sort of relief to the coffee sector, the depreciation lagged behind the fall in international prices.

In the case of the Indian tea industry on the other hand, the movements in the external value of the rupee remained outside the control of the planters' lobby. The 1920s saw an appreciation in the external value of the rupee. This was the period characterised by the debate over the stabilization of the exchange rate at 1s 6d. The Currency Act of 1927 provided for this. All economic indicators including trade reflected an over valued exchange rate. The value of exports showed a decline, whereas imports recorded their peak level of Rs. 263.40 crores in 1928-29, exports fell from their peak record of Rs. 400.24 crores in 1928-29 to Rs. 311.05 crores in 1926-27 and recorded only a slight increase in the succeeding two years.¹

The tea interests in India were similarly affected by an over valued exchange rate, but were in no position to have any impact on the Government's exchange policy.

Thus there was a fundamental difference in the role of the pressure groups in the two industries. While in the coffee industry the 'Paulista' was in position to influence the general economic policies

1 R.S. Kapuria, The Indian Rupee, 1967, p. 9-10.

of the Government and operate it to serve their own interests, the Indian tea lobby failed to determine the broader economic policy measures which affected the entire economy.

IV

The analysis of the preceding sections demands that a comparison be made regarding the role of political factors in the context of the two industries. On one hand there is the mono-crop economy of Brazil dominated by large landowners and on the other there is the colonial economy of India dominated by foreign capital. In the case of the Indian tea industry as well as in the case of the Brazilian coffee industry the dominant interests were able to determine economic policies to a large extent.

However there is a qualitative difference and this arises out of the pattern of economic development of the two countries. While Brazil, even in the early 1930s, was predominately a mono-crop economy centred around coffee, tea was merely one of the major industries in India's export sector which by the beginning of the interwar period had to coexist with the development of modern industries catering to the domestic market. The pressure groups operating within the tea industry assumed importance only with respect to the economic variables in that particular sector. The tea interests were able to maintain tea prices and incomes through stabilization schemes and to keep out competition from domestic capital in their own sphere. However they were unable

to mould the overall economic policy of the government in their own interest.

The situation in Brazil provides a starting contrast. The coffee interests, through the stabilization programmes, were able not only to affect the economic variables like prices and incomes in the coffee sector, but were able to shape the course of Brazil's economic development.

In the pre-1930 period the stabilization of coffee prices was directly the result of the dominance of coffee interests as a political pressure group. However the importance of the decision making role of the 'Paulista' in the economic development of Brazil cannot be merely confined to this pre-revolution period. Through the stabilization of coffee prices the planters were able to maintain the pivotal role of coffee in Brazil's economy. Therefore, in the 1930s when the political balance had shifted against the coffee planters, the industry continued to have an important role as the chief economic sector and this in turn was able to influence the economic policy of Brazil in favour of the coffee industry.

CHAPTER V

A Comparative Study of the Stabilization Schemes

A comparison of the success and failure of the control schemes in the plantation industry in Brazil and in India will either establish my hypotheses or reject them. This chapter will therefore be devoted to a comparative analysis.

The first section of this chapter will relate to the effect of these schemes on prices of tea and coffee and will investigate the causes which led to the differences. This will reflect on the first two hypotheses put forward in chapter one.

The second section will deal with the question of the necessity of control schemes in plantation economies and therefore construct a proof for my third hypothesis.

I

Table f.4, makes a comparison of the price cycles in tea and coffee in the interwar years. Diagram 5.1 shows this graphically. There is a broad similarity in the price movements. However, the fluctuations in coffee prices are much more violent than the fluctuations in tea prices. The coefficient of variation for ^{tea} prices is 0.28 while for coffee prices it is 0.40.¹

¹ The coefficients of variation have been worked out on the basis of data given in chapter I in table 1.4 for prices between 1919 and 1939.

Four observations should be noted in this connection. First, both tea and coffee prices reached rockbottom in 1920.

Second, after 1921 both tea and coffee prices started increasing and in spite of the fluctuations, there was a boom upto 1928.

Third, the late 1920s and the early 1930s saw a sudden and sharp decline in tea and coffee prices.

Fourth, after 1933, while tea prices show a definite recovery, the decline in coffee prices continues. In 1939, a year in which tea prices were approaching the level of the 1920s, coffee prices collapsed.

Let me take up the observations one by one and look for causal explanations.

The slump in 1920 can be attributed to the collapse of the boom during and immediately after the war. During the war the contract with the British Government to export a certain proportion of the output to Britain had provided a guaranteed market for Indian tea producers and this encouraged coarse plucking and extension of acreage under tea. After the war the British Government decontrolled tea and released 69.9 million kg. to 76.8 million kg. of stocks early in 1919. By December that year stocks had further increased to 92.3 million kgs. This led to a tremendous pressure on prices.

In Brazil on the other hand, the loss of Central American markets and the restriction on imports by allied powers during the war had resulted in a problem of excess supply and the government undertook a programme of valorization in 1917. However, the years 1918 and 1919 saw a sharp fall in production, and output was lowest since the turn of

the century. Therefore, when with the end of the war demand shot up, supply failed to cope up with it and the valorized coffee was sold at enormous profits in 1919. By 1920 the situation had changed again. There was a large output and this together with the release of stocks held during valorization led to a slump in prices.

The recovery of tea prices began with the control scheme of 1920. Individual reduction of output must have worked quite well since all-India production declined from 345,000,000 lbs in 1920 to 274,000,000 lbs in 1921.¹ One important feature was the improvement in the quality of tea through finer plucking. The control scheme affected the supply of common tea which formed the bulk of the excess supply and constituted the dominant pressure on prices. Regulation of plucking continued to remain a part of the Indian tea industry for the greater part of the 1920s. This accounted for the boom in tea prices in this period.

The 1922 crop was actually higher than that of 1921. But it was much less than the average annual production of 1915-20 and careful plucking maintained quality. The chairman of the Indian Tea Association warned the industry against any return to coarser plucking, but advised increased production in order to prevent prices from rising too high and thereby reducing consumption.² In 1923, though production increased tremendously, partly as a result of coarser plucking under the stimulus of high prices, there was a sudden spurt of demand from the U.S.A. and some other countries and price increased further. In 1924, both produc-

1 P. Griffiths, The History of the Indian Tea Industry, p. 179.

2 Ibida.

tion and prices were maintained. At the beginning of 1925, stocks in the U.K. were in excess and prices began to fall. According to a report of the Food Council, the downward movement was aggravated by the refusal of large quantities of common grade tea produced by coarser plucking as a result of a temptation to increase consignments when prices were high.¹ In February 1925, the producers decided to restrict offerings on the London auctions. In September the Indian Tea Association sought to introduce regulation of production. These together with adverse climatic conditions helped to support prices. In 1926, though initially there was no plan to restrict production, in the middle of the year it appeared that the crop would be very heavy and the Indian Tea Association recommended that plucking should be discontinued from 20th November. However, the restriction was not very successful and final outturn was an all time record of 393,000,000 lbs. Prices declined. By 1928 stocks in the U.K. were high and less tea was exported to Britain. Out-markets took more than their usual quantities.

Thus the price boom of the 1920s was a result of the control scheme introduced in November 1920, which remained an instrument of control throughout this period.

In Brazil coffee prices remained extremely high upto 1928. The recovery of prices started with the valorization of coffee in 1920-21. The Federal Government bought up 4.5 million bags of coffee. This was successfully marketed in 1924 when prices were very high. The success of 1920-21 valorization can be explained by the relatively smaller crops

1 Ibide, p. 160.

in 1921-22 and 1922-23. One distinct aspect of the valorization of 1920-21 was that unlike the first two valorizations, the third grew out of the post-war depression and deflation of prices rather than the difficulties arising from bumper crops and excessive productive capacity.¹ In 1920-21, Brazil's production had returned to normal and at the same time the post-war price boom collapsed.

In 1923, the government adopted valorization of coffee as a policy measure so that it could become a permanent aspect of the industry. The newly established Sao Paulo Coffee Institute spent its first two years in perfecting the mechanism of control. The first real test of the scheme came with the bumper crop of 1927-28. Other states followed Sao Paulo in valorizing coffee. Thus the support to coffee prices came from the control scheme. Between 1921 and 1927, as in the case of the Indian Tea industry, Brazil was successful in maintaining a boom in coffee prices through the stabilization programs.

As the recession in world economy started certain developments within the plantation industries coincided with the world wide depression and prices declined drastically. The most important indigenous factor for both the Indian tea industry and the Brazilian coffee industry was the stimulus provided by the price boom to extension of area under production. None of the control schemes provided for restriction on planting. In India acreage under tea expanded at the rate of 2 per cent per year.² In Brazil for a 18 per cent rise in

1 U.D. Wickizer, The World Coffee Economy, Food Research Institute, Stanford, p. 142.

2 P. Griffiths, op.cita. p. 181.

prices between 1924 and 1926 production increased by 35 per cent between 1925-26 and 1929-30, the highest increase in response to price change since the 1880s. The following table shows the response of production to prices between 1886 and 1930.

Table 5.1
Relative Amplitude of Increase in Coffee Prices
and Brazilian Production

Initial rise in price (A)		Subsequent rise in production (B)		Ratio (B/A)
Period	% increase	Period	% increase	
1886 to 1893-95	42	1896 to 1900-01	40	0.96
1910 to 1911-12	30	1913 to 1915	19	0.63
1918 to 1919-20	23	1918-19 to 1920-21	19	0.83
1924 to 1925-26	18	1925-26 to 1929-30	35	1.94

Source : F.A.O., Commodity Bulletin Series (1961).

Given the lag between planting and production the effect of the price boom on supply came to be felt towards the end of the decade. This constituted, together with the stocks held in interior Brazil as a part of valorization, a strong pressure on prices.

At the same time there were certain external factors which were of immediate importance. In Brazil the artificial boom in prices had attracted massive foreign loans. Advances were made against the security of the current value of coffee stocks rather than on the growers' actual needs. Foreign loans served as the basis for expansion of money supply.¹

¹ Furtado, The Economic Growth of Brazil, 1963, p. 201.

The planters, faced with an increased money income and lowering of costs of production in a situation of bumper harvest, created an inflationary situation. This given Brazil's economic structure, found an outlet in an increased demand for imports.

The favourable exchange situation had led the government to embark on a policy of convertibility. As soon as the crash occurred in the stock market in the U.S.A. in October 1929, convertibility was used by foreign capital trying to flee Brazil. The prospect of securing new money to finance the stocks and subsidize the planters was extremely poor. Thus the crisis in the coffee economy can be traced to three factors - first, the bumper harvests of 1927-28 and 1929-30, which created an excess supply of 25 million bags.¹ Second, the depression in the international stock market and the disappearance of metallic reserves from Brazil and third the onset of the Great Depression. It is extremely doubtful that only recession in incomes with the onset of the Great Depression determined the decline in prices. It was no doubt one of factors which contributed to the downward trend. However the decline in prices was started by supply factors and the crisis from the demand side was superimposed on this trend. During the depression the prices paid by the consumer declined by 40 per cent without any marked change in consumption. At the same time, prices paid by the American consumer declined much less than the prices paid to the Brazilian producers. It was the middle man who gained out of the weakness in the suppliers' position. While prices paid to the

1 V.D. Wickizer, op.cit., p. 182.

producers declined from about 22 cents/lb in 1929 to 8 cents/lb in 1931, the average price paid by the U.S. consumer declined from 47.9 cents/lb in 1929 to 32.8 cents/lb in 1931.¹ Celso Furtado has pointed out that this argument that the price effect would have annulled the income effect - that is, the increase in consumption caused by the decline in price balanced the drop in consumption brought about by the contraction in income - is fallacious. In the 1934-1937 period of increases in income, prices paid by the consumer maintained their downward trend, with a figure of 24.4 cents/lb being recorded in 1937 as compared with 25.5 cents/lb in 1933. There were thus two positive effects from this point of view of increased consumption - a rise in real income per capita and a fall in prices. However, consumption remained almost unaltered, being 13.1 lbs. per capita per year in 1937 as compared with 13.9 in 1931 and 12.5 in 1933.²

Coffee prices, being fundamentally dependent on the pattern of supply, continued thus through the thirties without showing any results of the recuperation which started in 1934 in the industrialized countries. After dropping to their lowest point in 1933, international coffee prices remained unaltered until 1937, after which they declined still further in the last years of the decade. According to Furtado this great stability of coffee prices, which remained at such a depressed level throughout the 'thirties, is highly significant. The economic

1 ECLA, Capacity of the U.S. to absorb Latin American Products, 1951.

2 Furtado, op.cit. p. 203.

recuperation between 1933 and 1937 brought about a general increase in the prices of primary products. The price of sugar for instance rose 140 per cent between 1933 and 1937 and that of copper rose a little more than 100 per cent in the same period; yet coffee prices in 1937 were the same as in 1934 and lower than in 1932.¹

Therefore one can conclude that the crisis in coffee prices after 1929 was primarily a result of excess supply generated through the valorization programme. The flight of foreign funds which aggravated the crisis was also a consequence of the valorization of coffee. In other words, attempts at stabilization intensified the crisis in terms of prices and incomes.

The slump in tea prices which began in 1929 was a result of increased production through extension of acreage and coarser plucking. The all-India crop in 1924 was 29,000,000 lbs greater than the crop in 1928. The stabilization programme undertaken in 1930 was launched with the cooperation of 75 per cent of North Indian producers and with similar support from South India, Ceylon and Indonesia. However, Indonesia failed to fulfil her commitments to the agreement and the reduction of 41,000,000 lbs. in North Indian crop,² did not reduce stocks to a proper level. Production in 1931 was unrestricted. Exports from Indonesia increased and the potential threat of a further increase had a serious impact. Indian production in 1932 was about 40,000,000 lbs in excess of that in 1931 and reached a level equal to the record

1 Furtado, op.cit., p. 208.

2 Griffiths, P., op.cit., p. 188.

set in 1929. In the face of a worldwide depression it seemed extremely unlikely that consumption could increase to absorb the excess production. Prices slumped almost to the level of 1920.

The upward movement in tea prices began with the International Tea Agreement. Even in these circumstances it had been impossible to obtain support for regulation of production as distinct from export. What contributed to the success of the Tea Agreement in raising prices as in the London market was the development of the home market which provided a pillar of support to the Indian tea industry. The stabilization scheme operated mainly through regulation of exports. The excess of production over exports could be channellized into the domestic market which was growing extremely rapidly. The supply of common tea, which was the dominant influence on prices, had a large outlet at home. Therefore through the development of the domestic market a balance could be maintained between demand and supply in the international market. The Indian tea industry had found a solution at last.

The most obvious question that comes up is what led to the differences in price movements? In other words, what were the causes of the differences in the impact of stabilization on the two industries?

To compare the response of the prices to the control scheme one will have to look into the price determining power of the producing countries under consideration. The following tables show the share of the Indian tea industry and the Brazilian coffee industry in the respective export markets.

Table 5.2

Tea : Percentage share in total exports of the producing countries

Year	India	Ceylon	Indonesia
1927	40.79	25.03	15.90
1928	39.02	28.67	16.70
1929	39.66	25.99	16.50
1930	40.14	26.12	17.72
1931	38.24	26.97	19.19
1932	39.66	27.10	18.60
1933	43.63	25.47	18.69
1934	38.69	25.35	18.40
1935	39.96	25.23	17.20
1936	38.97	25.82	18.12
1937	35.58	24.22	18.89
1938	36.15	25.55	17.19

Source : V.D. Wickizer, Tea Under International Regulation, Food Research Institute, Stanford, 1944.

Table 5.3

Percentage Share of Brazil in Total Exports and Total
Production of Coffee

Year	% share in Exports	% share in Production
1920	63.71	64.70
1921	62.05	62.31
1922	62.06	55.73
1923	65.64	61.57
1924	62.71	60.08
1925	63.11	58.27
1926	60.71	59.84
1927	62.82	68.78
1928	57.86	52.10
1929	59.84	69.11
1930	59.34	56.46
1931	63.90	68.52
1932	52.79	58.23
1933	58.73	68.99
1934	56.11	57.77
1935	56.74	57.26
1936	51.35	61.97
1937	48.01	60.88
1938	57.03	61.10

Sources: V.D. Wickizer, World Coffee Economy, Food Research
Institute, Stanford, 1949.

Table 5.4
Percentage of World Coffee Production by Area

Year	Brazil	Columbia	Other L.A. Countries	Africa
1921-25	61.73	8.37	20.30	2.22
1926-30	64.56	8.77	17.24	2.66
1931-35	62.71	10.25	10.77	6.33
1936-39	58.93	11.25	10.77	6.33

Source : FAO, Commodity Bullentin Series, 1961.

Table 5.5
Percentage of World Coffee Exports by Area

Year	Brazil	Columbia	Other L.A. Countries	Africa
1922-26	63.06	9.58	18.77	2.06
1927-31	60.84	11.21	17.71	3.38
1932-36	55.03	13.42	18.00	6.70
1937-40	53.52	15.45	17.12	8.89

Source : FAO, Commodity Bulletin Series, 1961.

India, though the largest producer and exporter of tea was not the monopolist in the world market. Ceylon and Indonesia along with the Indian industry met more than 80 per cent of the world demand. Given such a structure in the export market, India was not in a position to determine prices by herself. Nor was she the marginal determinant of

prices. It was the supply of common tea which set world prices and no particular country alone was responsible for the production of common tea. Therefore, the crisis in prices affected all black tea producing countries in a similar way.

Brazil on the other hand was the monopoly producer and exporter of coffee and secondly, the demand for Brazilian coffee was residual in nature. The advantage Brazil enjoyed over other "mild" producing countries was the price differential. Brazilian coffee could be bought much cheaper. The maintenance of coffee prices at an artificially higher level reduced the advantage Brazilian coffee enjoyed over the "milds." Therefore the interwar years saw large scale substitution of Brazilian coffee with "milds" as can be seen from table 5.3.

Given such a situation the crisis in tea prices brought the three major tea producing countries together in formulating a comprehensive plan for the maintenance of prices and export earnings. This culminated in the International Tea Agreement of 1933.

The other side of the picture was quite different. Brazil's problems were not shared by her competitors and Brazil's solution to the crisis in the coffee sector had to emerge in isolation from the rest of the world coffee economy as I have pointed out in chapter three. In fact the latter found situations to their advantage and expanded their markets at Brazil's expense. Celso Furtado writes:

Nothing could prevent the policy of defense of prices from encouraging coffee growing in other countries with land and manpower available under conditions similar to those in Brazil but less advantageous. For Brazilian producers to retain their status as holders

of semi-monopoly, it was essential to keep prices at low levels. When producers took advantage of the semi-monopolistic situation to protect prices, they themselves were destroying the very basis upon which their privilege was founded.¹

Tables 5.4 and 5.5 will show that while Brazil was able to maintain to a large extent her share in world production, she lost a large part of the market to her competitors, especially to Columbia, a mild producing country and to Africa.

On the other hand, India's share in the world market declined very little over the interwar period, as can be seen from table 5.2.

Therefore the difference in the share of the world market for tea and coffee by the respective producing countries resulted in the differences in the impact of the stabilization programmes on prices.

However, the most important reason behind the success of the tea industry and the failure of the coffee industry in stabilizing prices was the nature of control. While the tea industry sought to attack this problem from its root, the valorization scheme was only postponing the solution to a future date. The regulation of exports to the tea market was done mainly through regulation of production. Plucking became the main instrument of regulation of output. Secondly, with the International Tea Agreement, restrictions were laid down on extension of acreage.

In the middle of 1931, when overproduction became obvious, the Indian Tea Association Calcutta, suggested that all further manufacturing

1 Furtado, op.cit., p. 200.

should be stopped and the gathered leaves should be destroyed. The London Committee of the Indian Tea Association, turned down the proposal saying that it would only mean a postponement of the ultimate clearing up of the whole situation regarding overproduction.¹

In Brazil economic as well as political factors caused the policy makers to overlook this aspect of valorization. Under Brazil's stabilization programmes, control came to be exercised only over marketing. Production was left to find its own level. Not only was no attempt made to curtail production, planters were not even stopped from expanding area under coffee. The withholding of stocks lent an artificial support to prices and the rate of profit continued to be high enough to attract investment into new plantations. Output in Brazil's coffee plantations continued to expand at an unhindered rate and the pressure on prices in a market which was already glutted became more and more acute. The valorization scheme could merely precipitate an intensified crisis in the coffee economy in the long run.

The success or failure of a stabilization programme should therefore be measured according to the kind of effect it will have on commodity prices. In the case of tea and coffee it will essentially depend on whether stabilization of prices has been able to generate some kind of a permanent solution to price fluctuations; in other words, whether stabilization has been able to solve the problem of excess supply, demand being a variable of secondary importance.

¹ P. Griffiths, op.cit., p. 190.

The Brazilian experience as well as the Indian experience before the International Tea Agreement make it clear that stabilization programmes are not able to provide a permanent solution to the problem of excess supply in international markets, where changes in demand are not particularly responsive to price and income changes. This is particularly true when demand is concentrated in particular countries which are industrialized and enjoy a high standard of living. Stabilization can have two types of impact.

First, in a situation of direct control over production, fluctuations in prices will depend on the control scheme. In a period, when control is exercised, prices will remain profitable, as in the case of the Indian tea industry. However, any relaxation of control will lead back to the problem of overproduction. This was the experience of the control schemes devised for the Indian tea industry prior to 1933.

Second, the control scheme by giving artificial support to prices will aggravate the problem of overproduction and the final effect on the industry will be much more magnified as was the case of Brazil's coffee economy.

Therefore, from the preceding analysis it is possible to make the following generalisation - for a plantation crop which has low price and income elasticities of demand, stabilization schemes cannot generate a permanent solution to violent fluctuations in prices since fluctuations are mainly determined by supply factors. Supply in the case of plantation crops is responsive to short run price changes only when prices are rising, but its responsiveness to short term slumps

in prices is extremely limited. Therefore there exists an over all trend towards increase in production when prices are fluctuating. Responsiveness of demand to price and income changes being weak, attempts at price stabilization will merely postpone the crisis in the sector under consideration. This is my first hypothesis.

Let me come to my second hypothesis now. It is in this context that the division of the interwar period with the International Tea Agreement as the point of reference, becomes important.

The essential difference between the two sub-periods is that the domestic market becomes an important outlet for the Indian tea industry only in the second sub-period. I would like to establish a causal relationship between the development of the home market and the success of the International Tea Agreement. The Tea Agreement distinguishes itself from the previous control schemes in the sense that for the first time the industry was able to depend on the home market and active efforts were being made to develop it. Although the economy was still largely geared to the export market, the domestic market had undoubtedly come to play an important role. It could be utilized to cushion the effect of price slumps. This was one of the major differences of the Indian tea industry with the Brazilian coffee industry. While the Indian market had a large potential for absorbing additional quantities of tea, the Brazilian market offered no such outlet for the excess supply in the export market. Thus one arrives at my second hypothesis - stabilization of commodities prices can work out successfully if there exists a growing home market, even in a

plantation economy geared to the export market which has low price and income elasticities of demand for the commodity concerned.

In this context it may be pointed out that given the structure of demand and supply, stabilization of tea prices was likely to precipitate a greater crisis in the Indian tea industry in the 1930s had the expanding home market not provided the necessary support.

However there would still remain a major difference between the Indian tea industry and the Brazilian coffee industry in terms of the structure of the two economies. In the next section I shall try to link up the necessity of price stabilization in the particular sector and the entire economic structure of that country.

II

The concept of export led growth rests on the theory of comparative advantage. Economic development is visualised as a function of firstly, the demand for the commodity in which the country in question enjoys comparative advantage in the international market and secondly, the forward and backward linkage effects between the export sector and the rest of the economy. The question therefore is whether comparative advantage can be taken as a given situation, which can be accepted as the basis of an unhindered development of the export sector.

In the preceding chapters it has already been pointed out that a growing demand for primary products was related to a specific economic situation which prevailed in the nineteenth century and one has also

seen that this is no longer true for the underdeveloped countries of today. In the words of A.K. Cairncross :

The specialisation between the old world and the new was on a basis that brought low cost farmers overseas into competition with high cost farmers in Europe and gave the development of the newer countries the leverage of a large cost differential. The new countries were in a very real sense the frontiers of an older economy. But the underdeveloped countries of today are selling in a more inelastic market.

This is for two reasons. In the first place such elasticity as there is derives from competition with other products not from substitution for a similar home produced commodity. The Canadian wheat farmer found it easier to sell his wheat in the British market because British farmers were able to switch from grain to grass, but the only kind of substitution that Brazilian coffee producers can benefit from is substitution on the part of consumers. Secondly, exports of tropical products bear a much higher relation to world output than exports of primary produce from temperate latitudes. The principal consumers of coffee, rubber, sugar and so on, lie outside the producing countries so that domestic demand is largely unaffected by changes in output and price. Canadian wheat is a very small fraction of the world crop. A given increase in the Canadian wheat crop or in Canada's export of wheat involves, therefore, a far less disruption in the world market than an equal proportionate increase in the cultivation or export of Brazilian coffee.¹

Thus the growth in world demand for a large number of primary products in the post World War First period has been constrained by the inelasticity faced by the producers in these markets. I have shown already how the low price and income elasticities of demand for tea and coffee have resulted in an extremely slow growth in world demand and how this has been a major factor in the process in which prices have been determined completely from the supply side.

¹ A.K. Cairncross, Contribution of Trade to Development, in A.K. Cairncross, Factors in Economic Development, London, 1962, p. 212-14.

Given the structure of demand and supply of tea and coffee, stabilization of prices will necessarily take the form of regulation of supply either through restriction of production or through control over marketing. This means that the stabilization of commodity price would require a slowing down of the rate of growth in the export sector.

Let me, at this point, refer back to chapter one, to Keynes' argument that stabilization will smooth out short term fluctuations and to Wallich's argument that stabilization will help to diversify the economic structure.

Thus there are two alternative postulates. Firstly, as a logical corollary to the analytical framework of this research work, it follows that if a stabilization programme is to be successful for a plantation commodity having low elasticities of demand, then the rate of growth of the export sector will not be able to provide the dynamic force in the economy.

Secondly, stabilization, through smoothing out short run fluctuations will result in a shift in the dynamic centre away from the plantation industry. According to Wallich high profits arising out of high prices tend to attract the factors of production towards the export industry.

Indeed it is rather interesting to note that both postulates deny the plantation industry the role of the dynamic centre in economic development. The two postulates are, however, fundamentally different.

While postulate one is a condition for the success of price stabilization programmes, postulate two is derived as a logical conclusion from the principle of price stabilization as put forward by Keynes. Let me therefore cite certain historical facts to build up a critique of the latter.

Both in the Indian tea industry as well as in the Brazilian coffee industry the stabilization programme gave an artificial support to prices. If one refers to the graph depicting price movements, it is quite clear that the control schemes did not smooth out fluctuations, but maintained prices at an artificially high level. This price level offered a premium to investment in the plantation industry leading to channelizing of additional resources into the sector under a stabilization programme. In other words artificial support to prices created conditions for expansion of the export sector and ^{not} conditions for economic development as Wallich would say. This was the case both for Brazil's coffee industry and for India's tea industry. Therefore once historical developments go against Keynes' argument, the basis of Wallich's argument is automatically destroyed. Stabilization of commodity prices through control schemes does not refer to a situation in which short term fluctuations are counteracted, but one in which prices are maintained at an artificially high level. The term stabilization is therefore a misuse in the case of tea and coffee. It refers to a situation where prices are maintained at a level higher than that under normal conditions of demand and supply, through regulation of supply.

This brings one to postulate one. As long as control schemes provide an artificial support to commodity prices investment will continue to increase in the sector enjoying price support. Therefore stabilization of the price of the export commodity and slowing down of the rate of growth of the export sector are mutually contradictory, since stabilization does not result in smoothing out short run fluctuations, but provides an artificial support to prices. The choice is, therefore, between stabilization of commodity price and expansion of the export sector and allowing prices to find their own level and diversification of the economic structure.

The coffee industry in Brazil is a case in point. As long as coffee enjoyed artificial price support it continued to attract all investible resources. To avoid the profits from high prices from being channeled into the coffee industry itself alternative investment opportunities at comparable rates of profit had to be open to the coffee planters. Such an opportunity was nonexistent because no other sector of the economy enjoyed a defense mechanism so that profits could be maintained at an artificially high level.¹ Prices paid to the coffee growers therefore had to be maintained at a level capable of discouraging new investments. This itself negates the necessity of a control scheme in the coffee industry of Brazil. A diversification of the economic structure emerged only when coffee prices had become unremunerative.

1 J.D. Wirth, The Politics of Brazilian Development, p. 45.

A question arises - what is the nature of the difference between the Indian situation and the Brazilian situation? It is basically the difference in the economic structure which lead to the differences in conclusions.

In the 1920s Brazil's economy was heavily weighted towards agriculture. It accounted for 70 per cent of the national product, while industry accounted for only 30 per cent. Over 70 per cent of the value of exports was coffee. Given the demand factors for coffee, stabilization of prices would merely postpone the crisis which was becoming more and more intensified through additional investments in the coffee sector. Secondly, given Brazil's economic structure Brazil could not depend on coffee to provide the dynamic force in economic growth. It necessarily had to think in terms of either alternative export crops or import substitution industrialization. Therefore economic growth depended on diversification of the economic structure through the withdrawal of price support schemes in the coffee industry of Brazil. In other words, stabilization of coffee prices was incompatible with the economic structure of Brazil which was centred around a single export commodity. A diversification of the economic structure emerged only when coffee prices had become unremunerative.

To Indian tea industry on the other hand enjoyed a very different position in the economy. At the end of the First World War not only did India have a diversified agriculture, the industrial structure too had developed considerably. Her exports were also much diversified

Tea was one of the major export items but not the main export earner. In 1930 it accounted for about 10 per cent of the total value of Indian exports and ranked as the third important export earner after cotton and jute. The changes in its relative position is shown in the following table.

Table 6

<u>Percentage Share in the Total Value of Exports</u>					
	<u>1930-31</u>	<u>1931-32</u>	<u>1932-33</u>	<u>1933-34</u>	<u>1934-35</u>
Cotton	28.08	10.30	9.80	12.69	15.94
Jute Manuf.	13.62	9.30	10.50	9.69	9.63
Tea	10.19	8.50	8.30	9.13	9.18
	<u>1935-36</u>	<u>1936-37</u>	<u>1937-38</u>	<u>1938-39</u>	
Cotton	16.03	19.08	13.84	12.86	
Jute Manuf.	11.08	11.77	13.55	13.89	
Tea	9.41	8.59	11.60	12.92	

Source : Government of India, Statistical Abstracts, 1942.

In such a diversified economic structure restrictions imposed on production and export of tea would raise prices and help to maintain export earnings. Since the development of the Indian economy was not linked to the growth of this particular sector, maintenance of export earnings from tea was the primary aim. Application of control schemes to the Indian tea industry was therefore justified so far as prices and incomes recovered.

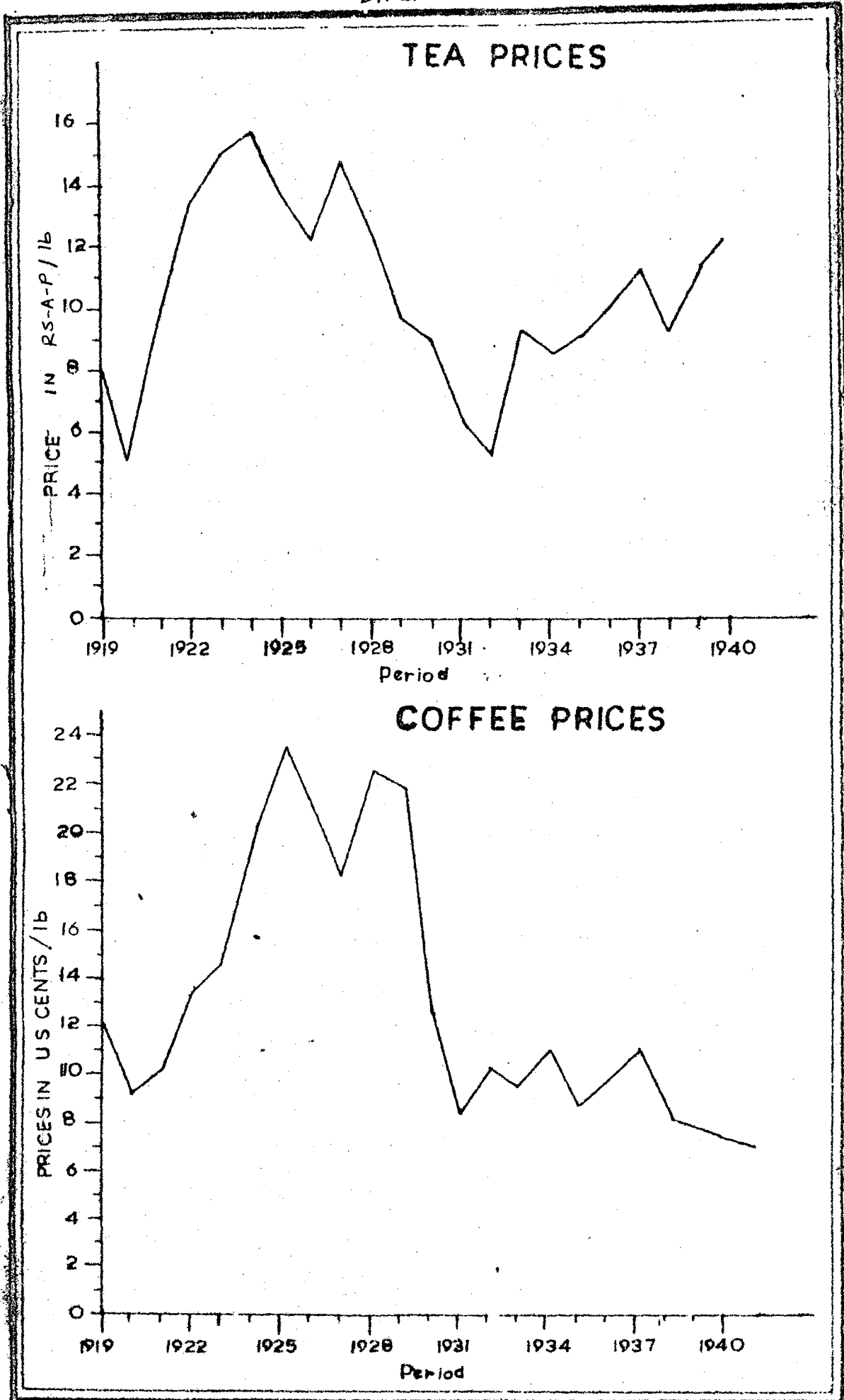
A second major departure of the Indian tea industry from the coffee economy of Brazil was the existence of a potential domestic market which could act as a cushion to the demand-supply conditions in the export market and provide an outlet for further expansion of the tea sector. Stabilization therefore, did not lead to a more intensified crisis as in Brazil.

Brazil in the twentieth century was no longer in a position to maintain her coffee sector at the level enjoyed by the industry during the peak of its prosperity. Given the structure of the market, it was inevitable that the growth of the industry would slow down and coffee would not be able to take the lead in Brazil's export-led growth. The valorization scheme merely postponed the shift of the factors of production from the coffee economy. Therefore, the stabilization of coffee prices was not only not a necessity but resulted in a misallocation of resources and hence acted as a fetter on economic development.

Stabilization of tea prices on the other hand, strengthened the position of the tea industry in the Indian economy. Development of the home market was a corollary to the effects of stabilization.

As one can see, the differences in the two situations arose out of the differences in the economic structure and no generalizations can be made without taking into account the structure of the economy and the structure of demand and supply. If hypothesis one

and two stand valid, hypothesis three follows from it - in an economy based on a single export product whose price is determined by supply factors due to a low elasticity of demand, stabilization of commodity prices negates its entire logic.



CHAPTER VI

Conclusion

In the concluding part I shall try to briefly summarize the arguments put forward in the preceding chapters.

The research problem concerns stabilization of prices of primary products. I have been particularly concerned with the plantation economy because historically plantation crops have been most vulnerable to price fluctuations. This is because of the nature of demand and supply of most plantation crops. On the supply side the factors of production exhibit a certain degree of stickiness due to the initial investment requirements and the gestation lag between setting up a plantation and its maturity. On the demand side also there is a certain degree of stickiness arising out of low price and income elasticities of demand for certain plantation crops like tea and coffee. Given the conditions of production and the nature of demand, prices of tea and coffee in the international market have tended to be determined mainly by supply factors. One important feature of the Indian tea industry as well as the Brazilian coffee industry has been repeated crises following over-production.

The interwar period saw an acute crisis in both industries. Prices declined rapidly in the face of stagnant demand and growing

production. Supply to the international market determined the movements in prices and from the second half of the 1920s excess supply in the export market led to a collapse in prices and incomes.

The reaction to the crisis during the interwar period came in the form of stabilization programmes. Both in India and in Brazil attempts were made to regulate supply in the international market either through regulating production or through controlling exports. The aim of my study has been to evaluate these stabilization schemes and to arrive at certain broad generalizations with regard to stabilization of commodity prices. I have chosen the Indian tea industry and the Brazilian coffee industry as particular cases for the study because of the following reasons. Firstly, tea and coffee conform to the demand and supply patterns I have mentioned. Secondly Brazil and India have been the major producers of coffee and tea respectively and both countries have been dependent on one particular market, for instance Indian tea on the British market and Brazilian coffee on the U.S. market. Thirdly, the position of these export sectors in the respective economies being very different, a comparative study can be made to relate the success or failure of a stabilization programme with the structure of the economy; for example, while coffee, till the onset of the Great Depression, was still the major economic activity in Brazil, the Indian tea industry was only one of the major export sectors in an economy which was already much diversified.

The analysis begins with reference to two postulates. One put

forward by Keynes in 1938 that a stabilization programme does not temper with market mechanism in so far as it helps to smooth out unwanted price fluctuations in the short run and the second, put forward by Wallich to argue that stabilization of prices of primary products, by wiping out high profits, would help an economy to diversify from its position as a primary producer.

The research work involves case studies of stabilization schemes evolved in Brazil and in India during the interwar period to show that such generalizations cannot be made without taking into consideration the structure of demand and supply of the commodity in question and the structure of the economy in which it is produced.

In chapter one I have shown that demand for tea and coffee is extremely inelastic in terms of its responsiveness to price and income changes particularly in the developed countries. Figures are given to show the stickiness of demand for coffee in the U.S. market and that of demand for tea in the British market.

Given the structure of demand, the supply factor determine prices and therefore stabilization of prices through regulation of supply will have to take account of the structure of demand to judge the merits of a stabilization programme. I have put forward the following hypotheses -

- (a) Stabilization of prices cannot provide a permanent solution to price fluctuations for commodities which exhibit low price and income elasticities of demand, especially when demand is concentrated in particular countries. It will merely postpone the crisis.

(b) A commodity with low price and income elasticities of demand in the export market, may still benefit from a stabilization programme if there exists a large potential domestic market.

(c) Stabilization of commodity prices hinder the process of development in economies dependent on a single export item when the commodity in question exhibits low elasticities of demand.

The next two chapters are case studies of the control schemes in Indian tea industry and in Brazilian coffee industry.

In chapter two, titled "export-oriented control system in the tea industry in India (1920-39)" an analysis has been made of the demand and supply factors to show that the tea prices in the interwar period were determined from the supply side.

The Indian tea industry reacted to the price slump during this period by imposing control over supply of tea to the British market. The first control scheme devised in the wake of the price slump in 1920 came in the form of total curtailment of plucking by the members of the Indian Tea Association, from a certain period. The second one was characterised by imposing limits to production for individual estates by the Indian Tea Association, the limit varying with the quality of tea produced so that the supply of common tea which was the most important factor in determining prices was most drastically reduced. The third control scheme was the International Tea Agreement of 1933 which provided for regulation of exports from India, Ceylon and Indonesia, the countries which accounted for 80 per cent of the world's output of tea.

The point which emerges from the analysis of the three control schemes in terms of recovery of prices and incomes is that whether control was exercised at production point or at the point of export, the impact on the industry remained the same. The reason underlying this phenomenon is that be it curtailment of output through finer plucking or be it curtailment of supply to the export market through export quotas, what remained as the focal point was the demand in the British market. While the advertising campaign was concentrated on an already satisfied British market and the unresponsive American market which remained faithful to coffee, very little was done to develop the potential market which existed in India. It was this export orientation of the control scheme which prevented the industry from evolving a dependable system against price slumps. As soon as prices tended to recover in response to a particular control scheme the industry would loosen its control and coarse plucking would lay the foundation for yet another crisis. It was only in the 1930s when the producers were forced to consider the development of a potential home market and started a vigorous sales promotion that there was an extremely rapid growth in the domestic consumption of tea. By the end of 1930s the home market was large enough to provide an outlet for the export surplus and lead to a more successful functioning of the stabilization programme. If the process of development of the domestic market had started earlier, the industry could have enjoyed its support to cushion the effects of excess supply in the export market during the Great Depression.

Chapter three analyses the stabilization programme adopted by Brazil's coffee industry during the interwar period. The control scheme came to be known as the 'valorization' of coffee. The industry had experimented with valorization a few times since the turn of the century, but from 1924 it became a permanent feature of the industry. It consisted of two phases. The first one, which lasted till 1930, saw regulation of movements of coffee stocks to the ports. Inventories were piled up in interior Brazil by raising loans in the international market. The second phase saw the burning of coffee stocks which had been accumulated in the interior.

The impact of valorization on coffee prices was that it prevented a sustained decline and thereby helped to maintain the coffee industry as a profitable outlet for investible resources. However, the economic impact of the valorization of coffee, bore important consequences for the Brazilian economy as a whole. By maintaining coffee prices at an artificially high level factors of production continued to be attracted to this industry and acreage under coffee showed a continuous increase. The profits from coffee trade continued to be ploughed back, especially since no other sector of the economy enjoyed any price support. This not only helped to perpetuate the primary producing status of Brazil vis-a-vis import substitution industrialisation but also prevented diversification of the agricultural sector. Therefore, in the latter half of the 1930s when even export schemes were unable to maintain prices, Brazil saw the emergence of alternative export crops, like cotton and a rapid development of her industrial structure.

Two aspects of the stabilization programme in the Brazilian coffee industry have been discussed in detail. Firstly, the factors which made valorization of coffee a feasible solution. Secondly, the factors which led Brazil to adopt such a mechanism. In the first case, Brazil's position as a monopolist in the world market assumes importance. In the second case, what is emphasized is that Brazilian coffee being the marginal determinant of prices, the problem of over production was essentially confined to her own industry and her competitors saw the price support scheme as a measure which could be exploited to their own advantage. Even after G. Vargas assumed power in 1930, while he opposed the domination of the coffee planters, the excessive dependence of the economy on a single export item gave him very little room for manoeuvre and the burning of coffee stocks to maintain export earnings became a part of his economic policy.

In chapter four the role of the political pressure groups in evolving the stabilization programmes in the two industries have been evaluated. In the case of both industries the planters lobby has played a dominant role in policy formulation. The coffee planters of Sao Paulo particularly have been able to influence the state machinery in exacting various privileges and in taking care of their interests while formulating policies. The political dominance of the coffee planters began with the republican decentralization of Brazil in 1889. Not only were the planters able to dominate the policy formulations in the coffee producing states, but through majority representation

at the Centre, were able to manipulate decisions regarding various general economic and political factors in their favour. For example, though the valorization was started by the state of Sao Paulo, the Federal Government was forced to take over all responsibilities very soon.

The situation however changed with the assumption of power by Getulio Vargas, the first President from a non-coffee growing state. He challenged the political dominance of the coffee planters, but given the structure of Brazil's economy was unable to move out of the bias towards coffee in Brazil. What was more important was that, even to Vargas the strategy of export led growth was the key to Brazil's development. Therefore while the political pressure from the planters lobby had been the major factor behind stabilization of coffee prices through valorization in the pre-1930 period, the burning of coffee stocks in the 1930s followed from the existing economic structure of Brazil and the immense faith in the concept of export led growth.

In the case of the Indian tea industry as well, the Indian Tea Association, as the forum of the planters lobby as well as the forum of the foreign capital in the tea industry, was able to evolve control schemes to protect their own interests. Particularly, the International Tea Agreement by linking export quotas to past performance and by prohibiting extension of acreage acted as a definite hindrance to development of indigenous interests i.e. Indian enterprise in the industry. The role played by the Indian Tea Association in the formulation of the International Tea Agreement speaks of the role of the planters as a political pressure group.

If one makes a comparative study then one major difference comes to notice. This arises out of the differences in the structure of the two economies. Due to the dominance of Brazil's coffee sector, any policy decision with regard to the coffee industry had far reaching influence on the course of development of the entire economy. On the other hand, the impact of any policy measure with regard to the Indian tea industry remained confined to that sector alone.

In this context it is necessary to mention the role played by the coffee interests in Brazil in determining the movements in the exchange rate. The planters used depreciation of the Brazilian currency as an instrument to cushion the impact of falling prices. Thus even at the cost of the consumers, particularly in the urban areas, the coffee interests were able to maintain their incomes through depreciation of the Brazilian currency at least till the onset of the Great Depression. During the 1930s, however, under the impact of Vargas' policy the degree of depreciation lagged behind the degree of fall in prices.

On the other hand, the Indian tea interests were faced with an over valued Rupee almost through the entire interwar period; i.e. other interests prevailed over that section of foreign capital which the tea lobby represented.

In chapter five a comparative analysis is made of the stabilization programmes to see what kind of generalizations can be made.

A comparison of the price movements in tea and coffee during the interwar period will show that there is a broad similarity during the 1920s. However in the 1930s while tea prices show a definite recovery after 1933, coffee prices tend to move more and more towards

an absolute collapse.

The differences arise from the share of the respective countries in the world market which also characterises the nature of the control schemes. Brazil being the monopoly producer in the world market was able to give an artificial support to world prices. However by doing so she destroyed her advantages as a monopolist. Secondly, as a consequence of the type of coffee produced which makes Brazil the marginal determinant of prices, and which made the crisis mainly Brazil's problem, the stabilization scheme encouraged her competitors to grab a part of Brazil's market. Thus the stabilization programme merely postponed the crisis.

For tea, on the other hand, India though the largest producer was not in a position to determine world prices. Besides the problem of over production affected Ceylon and Indonesia as well. The control schemes were able to lead to a recovery in prices, but once the control was withdrawn production would be increased leading to a further pressure on prices. The departure from this general trend came with the International Tea Agreement of 1933. The development of the domestic market in the 1930s, was able to cushion the impact of excess supply in the world market.

From the comparative analysis it is possible to show the hypotheses one and two are correct. Firstly, for commodities exhibiting low elasticities of demand stabilization would merely postpone the crisis. Secondly, only when the industry in question enjoys the

support of a domestic market, can stabilization provide a meaningful solution.

In the second section of chapter five I have dealt with hypothesis three - whether the structure of the economy would determine the success of the stabilization programme.

The previous analysis has already shown that stabilization does not smooth out short run fluctuations as Keynes would say, but rather lend an artificial support to prices.

Next comes Wallich's argument that stabilization through smoothing out fluctuations and thereby wiping out high profits would encourage a diversification of the economic structure. However, once Keynes's argument is proved wrong, the basis of Wallich's argument is destroyed. The situation which emerges is quite opposite. Stabilization of prices of primary products would prevent a shift of the factors of production to alternative activities. Therefore, in an economy like Brazil, where the sector under stabilization constitutes the major economic activity, stabilization of prices would intensify the crisis of over production. Stabilization by encouraging a misallocation of resources would constitute a fetter on the economic development since given the low elasticities of demand stabilization cannot provide the conditions for an export led growth. On the other hand, for a commodity like Indian tea which is merely an important export earner and at the same time enjoys the support of a domestic market, stabilization of prices may help to maintain export earnings.

Therefore, it is the structure of the economy which would determine the necessity of a price stabilization. Any generalizations made without taking account of the economic structure is open to doubt on account of the international experiences studied here.

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