

NOTE  
ON  
ECONOMICS OF RESTRICTION.

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**Issued by  
The Federation of Indian Chambers  
of Commerce and Industry.**

**28, Ferozshah Road,  
NEW DELHI.**

**Federation Research Department  
Publication No. 1**

The Committee of the Federation have had under consideration for some time past the desirability of creating a Research and Statistical Department with a view to make available to them latest information on questions relating to the development of trade and industry in this country. A beginning was made by the appointment of Mr. N. G. Abhyankar, B.A. (Hons.), M.Sc. (London), to organise such a Department. It is hoped that within a couple of months, a full-fledged Research Department will start functioning at the Federation office in Delhi.

In recent years, there has been a growing demand for restriction of output in most of the organised industries and some of the staple crops in India. The Committee of the Federation thought it advisable to collect information regarding schemes to restrict output, which were adopted in various other countries and directed the new Department to undertake a study of such restriction schemes. The Committee have pleasure in issuing this brochure on "Economics of restriction" for the public in general and the commercial and industrial community in particular. An attempt has been made in this small brochure to examine the working of restriction schemes which were adopted in the United Kingdom and the U.S.A. in recent years such as, the Agricultural Marketing Boards and the experiments under the New Deal and to discuss the theoretical validity and the practical difficulties of a general attempt at restricting production and output in any industry in a country. The Committee hope that the analysis contained in the brochure would prove useful in the consideration of the proposed schemes of restriction in India.

By Order of the Committee,

New Delhi,  
10th August, 1939.

D. G. MULHERKAR  
Secretary.

*With Compliments of  
N. G. Abhyankar.*

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  - (1) Wheat (2) Coffee (3) Cotton (4) Rubber (5) Sugar.

## APPENDIX 'A'.

### A description of the various restriction scheme.

#### 1. Tin.

The scheme of restriction of Tin organised by the International Tin Committee in 1934 offers a most successful example of restriction schemes adopted in recent years. The International Tin Committee, consisting of representatives of the Governments of Bolivia, Malaya, Nigeria, Siam and the Netherlands Indies, was formed in February, 1931, and at that time controlled 87 per cent. of the world production. World production of Tin-ore, measured in terms of the metal contained, fell from 195,000 metric tons in 1929 to 88,000 in 1933. The greater part of this decrease took place in 1933, when mine production dropped by about 13 per cent. because of agreed restrictions in the countries mentioned above. Other producing countries, China, Burma, Belgium-Congo and the United Kingdom increased their share of the world output from 8 per cent. in 1929 to 20 per cent. in 1933. But, early in 1934, most of the countries which had remained aloof joined the restriction scheme receiving quotas substantially greater than their 1929 production. Meantime, the price of Tin had been raised very substantially in terms of Gold by 66 per cent. between June 1932 and June 1934. This was the result, not only of the restricted production but also of considerable diminution of stocks, which from a peak of 62,000 tons in 1931 declined to 27,000 tons in 1933. The International Pool was formed which gradually realised 21,000 tons of stocks in 1933 and a buffer pool of 8,000 tons was subsequently formed at the end of the year.

#### 2. Copper.

The copper control scheme was on the whole less effective than the tin scheme because of the rapid increase of supplies from areas outside the scope of the agreement, notably Northern Rhodesia.

#### 3. Zinc.

The zinc production is largely controlled by the cartel formed at Brussels in July 1933 including producers in Australia,

Belgium, Canada, Czechoslovakia, France, Germany, Italy, Mexico, Norway, Poland and the United Kingdom, the principal important producing areas remaining outside the agreement being Japan, U. S. A. and the U. S. S. R. In 1933, production was restricted on the basis of quotas amounting to 45 per cent. of the pre-depression quotas, though smelter production greatly increased. There, was, therefore, a large reduction of stocks which fell from 206,000 tons in August in 1931 to 109,000 in May, 1934. The price of the metal in terms of sterling rose some 20 per cent. in 1933. In January 1934, the Cartel agreement was renewed, the quotas being continued at 50 per cent. to which figure, they were raised on August 1st, 1933.

#### 4. Nickel.

Nickel is another metal which is strongly controlled in this case by amalgamation carried through in 1929. Production outside the control of the single unit is not great and demand has been considerable in 1933, so that world production rose in that year above its pre-depression level, the price rising from £172 to £230 per ton, after the depreciation of sterling.

#### 5. Silver.

The agreement on silver reached at the Monetary and Economic Conference is not an agreement among certain Governments to regulate the marketing of the metal. The countries holding large stocks mainly of demonitised silver agreed not to sell more than specified amounts while the United States Government agreed to neutralise her sales by purchasing at least equivalent amounts of American silver. Since the silver buying policy of the United States was put into operation at the beginning of 1934, the price of silver in the world market has been very firm, but the going off the silver standard by the Chinese Government has introduced new complications in the silver situation since 1936.

6. The most significant developments of 1933, however, have been the scheme developed for controlling and restricting the output of agricultural produce—wheat, rubber, cotton, silk, coffee, tea and sugar. Reference is made here to some important International agreements for limiting the supply of agricultural products.

**Sugar :** The plan to control sugar production which was launched in 1931 has been the longest in operation. By this plan, the output of sugar in the controlled area—Belgium, Cuba, Czechoslovakia, Germany, Hungary, Java, Mexico, Peru, Poland and Yugoslavia has been greatly reduced. But production has continued to increase in other areas. Thus, while the area under wheat was reduced in the control countries by a third between 1930-34, it was slightly greater in the rest of the world. The total production including cane as well as beet sugar is summarised in the following table :—

**World production of Raw Sugar.**

(In 000 tons)

AREA.	1929-30	1930-31	1931-32	1932-33	1933-34
Controlled Area.	129	113	88	62	58
Uncontrolled Area.	150	173	180	183	202
World	279	286	268	245	260

The result has been relative maintenance of world sugar stocks which in May, 1934, were equal to about 30 weeks consumption as compared with 33 weeks in 1932, despite considerable reduction of stocks in countries practising restriction, the price of sugar remaining the very low.

**7. Coffee.**

Coffee is another commodity which has been subjected to control for a long period and is still low in price and suffering from large stocks of accumulation. Brazilian production is so large a proportion of the world total that its fluctuations dominate the market. Despite the fact that since the beginning of 1931, the Brazilian Government has destroyed 32 million bags ( of 60 kilogrammes) the visible world stocks remain very large. The world consumption has been very stationary despite low prices and the record Brazilian harvest in 1933-34 was the main cause of a surplus of world production over current consumption in that year amounting to more than 17 million bags.

**8. Tea.**

Tea restriction scheme introduced in April, 1933, has been much more successful, because tea is produced on large scale

plantations and there is, therefore, not the same difficulty, as for example with rubber and coffee, in controlling the production of small farmers and particularly native production. The scheme covers production in Ceylon, India and Netherland Indies and the export quota allotted for 1933-34 was 85 per cent. of the maximum exports in any of the three years 1929-31. The demand for tea is inelastic in the most important markets and the restriction affected was adequate to cause a substantial diminution of stocks and the market rise in prices. Quota was, in consequence, raised to  $87\frac{1}{2}$  per cent. for 1934-35.

### 9. Wheat.

The wheat agreement which was concluded in London shortly after the Monetary and Economic Conference was a limited agreement among the principal exporting countries to restrict their exports in the 1933-34 season and except in the Danubian group, to reduce their acreage by approximately 15 per cent. It was hoped that by thus relieving the world market, higher prices would be secured and the marketing countries might then lower their import restrictions. In fact, the production in the importing countries continued to increase and the prices did not rise to the level at which it was possible to reduce the import restrictions. This price was 63.2 gold cents and was to be maintained for at least 16 weeks. In January, 1934, price of May-futures at Liverpool was 43 gold cents. The average price of all-wheat imported into United Kingdom during the month of August was 55 gold cents per bushel. Among the exporting countries the allocation of the export quotas gave rise to disagreements in the early months of 1934. The Argentine asked for an additional quota of 40 million bushels and continued to export heavily despite the failure to reach agreement on this point. Meanwhile, however, the continued drought in the United States and poor harvest in other important areas caused the diminution of stocks and an upward price tendency, though in the middle of 1934, the wheat problem as a whole was still very far from being solved.

### 10. Cotton.

The cotton production control was largely the concern of one country, the United States. By 1933-34, the production of American Cotton fell from its peak of 17 million bales in 1931-32 to 13 million bales, while a further reduction was planned



for 1934-35. The area harvested in 1933 and 1934 fell to 30 million acres as compared with 36 million in the preceding year. Under the Bank Head Act passed in 1934, the acreage had to be reduced to 25 million in 1934-35. The new crop which is to be marketed free of tax being fixed at 10 million bales. Production elsewhere rose from 11 million bales in 1932-33 to 13 million bales in 1933-34. Despite a substantial reduction in the American crop and some recovery in demand, there still remained substantial accumulated stocks mostly of American cotton. In July 31, 1933, their total stocks were 16 million bales compared with 9 million in 1929 and 17 million in 1932. Of this total, American cotton accounted in 1934 for 11 million bales. Since July 31, 1934, however, there has been a very substantial reduction in the production.

### 11. Rubber.

Despite the unfortunate experience of earlier schemes rubber was subjected to international control in 1933. The annual world production exceeded consumption by large quantities in every year from 1925 to 1933 and world stocks at the end of 1933 were equal to almost one year's production. In May 1934, an agreement was reached among the main producing countries to regulate exports. These countries control over 99 per cent. of world production. In consequence of the agreement and even in anticipation of it, the price of rubber rose sharply. The new scheme is comprehensive in the sense not only of including practically all the important areas of production but also of exercising control over native as well as plantation rubber. Even before the scheme went into operation, the price of smoke sheet rubber in London rose from 2.16 pence per lb. in 1933 to £ 5.15 pence in March 1934 and to 6.5 pence in 1935.

## APPENDIX 'B'.

### An Extract from the League of Nations World Survey on Commodity restriction schemes.

"The operation of regulation schemes was much affected, first by the rapid rate of recovery towards the end of 1936 and during the first half of 1937, and later by the business recession which started towards the end of 1937. In nearly all cases, restrictions were substantially relaxed during the first period of rapidly increasing demand. In the case of rubber, exports were restricted to 60 per cent. of the basic quotas in the first half of 1936, but they were raised to 65% for the second half of 1936, to 75% in March 1937, to 80% in June 1937 and to 90% in September 1937. In the case of tin, export quotas were raised from 100% in the first half of 1937 to 110% for the second half of that year; and in the case of copper, production quotas were raised by degrees from 75% in August 1936 to 105% in November 1936, while in January 1937 all restrictions temporarily suspended.

The recession in the United States and the subsequent slowing-down of recovery in many other countries towards the end of 1937 greatly reduced the demand for raw materials. Prices of raw materials fell rapidly, and stocks, which in many cases had been reduced to low levels, began to rise again. The market for rubber, for example, is very dependent upon the demands of the American motor-car industry, and as much as 54% of the world output of rubber in 1937 was imported into the United States. The recession in the United States led to a reduction in the quotas for rubber from 90% to 70% for the first, to 60% for the second, and to 45% for the third quarter of 1938. In the case of tin, export quotas were reduced from 110% to 70% for the first, to 55% for the second, and to 45% for the third quarter of 1938. Moreover, in July 1938, a buffer pool was instituted, the main object of which is to reduce fluctuations in the price of tin by stocking and holding tin off the market when the price is unduly low and by selling from the pool when the price rises. Of the 45% tin quota permitted for the third quarter of 1938, 10% is to be contributed to the formation of the buffer pool, leaving an effective quota of only 35% for the market. The restriction of copper production, which had been abandoned in January 1937, was re-imposed

at 105% of the basic quotas for December 1937, and this quota was reduced to 95% for the third quarter of 1938. The Conference of the European Timber Export Convention decided to cut export quotas for 1938 by a further 5% in January, 1938, following a previous decision to cut these quotas by 10%. At the Sugar Conference in May 1937, an agreement was formed by which export quotas were fixed for the sugar-exporting countries. The agreement allowed for a maximum cut of 5% in these quotas, and in April 1938 the International Sugar Council imposed this 5% reduction; and in July 1938 the exporting countries agreed to further voluntary reductions of exports, representing in all an additional reduction of 6.2% of the total export quotas for the year 1938-39.

In a time of failing demand, of reduced prices and of increasing stock, it is to be expected that output will be restricted, or else that the scheme of regulation will break down through the defection of individual producers who see the opportunity of increasing their own profits by expanding their production beyond their narrowly restricted quotas. Up to the present, no important international regulation scheme has broken down; and in general, as described above, output has been severely restricted. In the case of tea, however, restrictions have actually been relaxed; for in November 1937 the International Tea Committee raised the export quotas for the year beginning April 1938 from 87  $\frac{1}{2}$ % to 92  $\frac{1}{2}$ % of the standard production of the restricting countries. Production by countries outside the restriction scheme is more important in the case of tea than in the case of most of the other restriction schemes; for example, in 1936, 19% of the world exports of tea came from countries outside the restriction scheme, whereas in the same year less than 3% of the world production of rubber came from outside producers. The action of the International Tea Committee has been ascribed to a desire to bring about a reduction in the price of tea, in order both to stimulate consumption and to deter countries outside the scheme from increasing their production.

On the other hand, Brazil's national scheme for the restriction of her coffee exports to maintain coffee prices was substantially modified in November 1937 after the failure of a Pan-American Coffee Conference to agree to a scheme of general restriction. The tax which was levied on coffee exports

for the purpose of buying up surplus coffee and keeping it off the market was reduced by 75%. As the following figures show, Brazil —

**Exports of Brazilian Coffee as a  
Percentage of Total World Exports of Coffee.**

1929	1935	1936	1937
59.4	56.2	51.1	47.0

by attempting alone to maintain coffee prices, had been losing ground to competing producers, and the reduction in the export duty was intended to reduce the price of Brazilian coffee in order to meet the competition of foreign countries more effectively.”

## APPENDIX 'C'.

Statistical figures relating to the production and stock of the five commodities :

Wheat, Coffee, Cotton, Rubber and Sugar.

## Wheat.

	Average		1932- 33	1933- 34	1934- 35	1935- 36	1936- 37
	1925-29	1930-34					
Current supplies. (million metric tons).	97	101	102	101	92	94	92
Season-end stocks. (million metric tons).	21	28	29	31	25	20	13

## Coffee.

	Average		1932- 33	1933- 34	1934- 35	1935- 36	1936- 37
	Quintals (ooo,ooo's)						
	1925-26- 1929-30	1930-31- 1934-35					
Production :							
Brazil.	12.4	15.8	15.4	17.8	16.5	10.5	13.0
Consumption :							
End-of-season stocks.	9.6	15.8	13.8	15.4	13.8	15.4	—

## Cotton.

	Average		1932- 33	1933- 34	1934- 35	1935- 36	1936- 37
	(ooo's)						
	1925-26 1929-30	1929-30					
Production :							
American cotton.	3,310	3,214	2,819	2,829	2,089	2,307	2,690
Outside growths.	2,460	2,536	2,351	2,931	3,031	3,423	4,160

**Stocks on 1st****August :**American  
cotton.

4,919 13,229 11,814 10,682 9,176 7,077

Cotton mill  
stocks.

4,863 4,462 5,050 5,337 — —

**Cotton mill**

Stocks (excl :

Germany &  
Italy).

4,463 4,063 4,566 4,860 4,329 4,469

Total stocks.

	1929	1932	1933	1934	1935	1936
	9,625	17,046	16,076	15,879	13,591	11,846

**Rubber.**

Metric tons (000's)

	Average							
	1925-29	1925	1929	1932	1933	1934	1935	1936
World shipments.	671	534	882	720	867	1,033	887	869
World stocks.	270	156	385	649	674	757	672	516

**Sugar**

(Quintals (000,000's))

	Average		Average					
	1925-26- 1929-30	1930-31- 1934-35	1932- 33	1933- 34	1934- 35	1935- 36	1936- 37	
World total output.	238	237	218	230	235	253	276	
Stocks	79	99	97	91	82	79	—	

Printed at JOB PRESS (DELHI) LTD.,  
68-64 Queensway, New Delhi.