

## APPENDIX I.

The violence of individual price fluctuations and the inability of an unregulated competitive system to avoid them.

Wide fluctuations in the prices of raw materials between general boom and depression and between years of exceptional abundance and scarcity for particular commodities are well understood. But superimposed on those broad swings there are disturbing short-term fluctuations on a surprising scale, which are apt to be concealed from those who only watch the movements of index numbers and do not study individual commodities; since index numbers, partly by averaging and partly by including many commodities which are not marketed in fully competitive conditions, mask the short-period price fluctuations of the sensitive commodities.

The results of an enquiry made in 1938 into the price fluctuations of rubber, wheat, lead and cotton will provide an illustration. This enquiry examined by what percentage the highest price in each of the last ten years exceeded the lowest price in that year:-

Rubber. There was only one year in the decade before 1938 in which the high price of the year exceeded the low by less than 70 per cent. The average excess of the year's high over the year's low was 96 per cent. In other words, there was on the average some date in every year in which the price of rubber was approximately double its price at some other date in that year.

Cotton. Since rubber may be regarded as a notoriously fluctuating commodity, in spite of its having been subject to an organised restriction scheme, let us consider cotton. Only twice in those ten years did the high price of the year exceed the low by less than 33 per cent., and the average excess of the year's high over the year's low was 42 per cent.

Wheat, however, was nearly as fluctuating in price as rubber, which may be a surprise. If we take the Liverpool contract as our

standard, there was only one year in the decade when the highest price of the year exceeded the lowest by less than 47 per cent.; and the average excess of the year's high over the year's low was no less than 70 per cent.

Lead is mainly marketed by a small number of powerful producers acting with some measure of consultation. Yet, even so, the annual range of price fluctuations was on much the same scale as with the commodities already examined. Only twice in the ten years was the price range from lowest to highest less than 35 per cent., and the annual average was 61 per cent.

Thus for these four commodities - rubber, cotton, wheat and lead - which are fairly representative of raw materials marketed in competitive conditions, the average annual price range over the decade before 1938 was 67 per cent. An orderly programme of output, either of the raw materials themselves or of their manufactured products, is scarcely possible in such conditions.

There is a good theoretical explanation of this unfortunate state of affairs. 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 beyond the normal reserves required to maintain continuity of output. The competitive system abhors the existence of buffer stocks which might average periods of high and low demand, with as strong a reflex as nature abhors a vacuum, because such stocks yield a negative return in terms of themselves. It is ready without remorse to tear the structure of output to pieces rather than admit them, and in the effort to rid itself of them; which should be no matter for surprise because the competitive system is in its ideal form the perfect mechanism for ensuring the quickest, but at the same time the most ruthless, adjustment of supply or demand to any change in conditions, however transitory. It is inherently opposed to security and stability, though, for the same reason, it has the great virtue of being also opposed to stability in the sense of stagnation. If demand fluctuates, a divergence immediately ensues between the

reduced and consumption would expand. Unless the reduction of subsidies was considerable this would not directly help the economic producers, as they would still be unable to compete with the subsidised home industry, but indirectly it would do so as the additional outlet on the home market would tend to decrease subsidised exports and thus increase outlets for economic production on the world market. Without some such increase of home consumption in the beet sugar countries or some reduction of their subsidised production, the outlet on the world market for economic producers shrinks continually and the dumping of subsidised sugar depresses world prices to levels which are unprofitable, even to economic producers. None of the subsidising countries is likely to accept the simple abandonment of their subsidised production. The best that can be hoped for is that they will limit it to some agreed production quota on condition that total supplies are kept in reasonable relation to effective demand. The situation would be still further improved if general agreement could be reached that any subsidies given to domestic producers should be financed by the budget and not passed on to consumers by means of import tariffs or controls, as in that case the consumer would get the benefit of world prices and consumption would expand.

## APPENDIX II

In the case of many agricultural commodities uneconomic production has been stimulated by Government action, supported by subsidies and protection; the result of this is

- (i) to develop a chronic surplus capacity in the world as a whole;
- (ii) to maintain high prices in many of the consuming markets and consequently to restrict consumption;
- (iii) to restrict the volume of international trade and to depress the open market prices.

For example, as regards wheat, in 1934 the world market price c.i.f. Liverpool was about 5/- per cwt.; the import duties in force were, in France 10/1d. per cwt.; in Italy 12/4d.; in Germany 18/11d.; even in countries like Czechoslovakia and Austria, the duty was over 5/- per cwt.; and the internal price in France was 15/6d. per cwt., and in Italy and Germany about 14/- or about three times the world market price. The maintenance of this high internal price tended to restrict consumption but stimulated production until these countries were self-supporting and, in the case of France, developed an export trade in wheat. The world market was correspondingly contracted and the open market price fell to levels unremunerative to any producer.

The case of sugar is even more striking. The open market price c.i.f. United Kingdom, ex duty, averaged 4/8d. per cwt. during the three years 1934/36. Java, Peru and other economic producers, dependent largely on the world market, could just afford to maintain production at this price but their production had to be severely restricted and the markets open to them were constantly declining till they supplied less than 20 per cent of the world consumption. Sugar was grown in other countries under every variety of protection and preference at all sorts of higher prices. The United States grew a quota of beet sugar at home

home and gave a protected market to the Philippines and a preferential market for a quota of Cuban sugar. The United Kingdom grew a quota of beet sugar at home and gave a preferential market to Empire sugar at much above the world price.\* Australia sold her cane sugar production at home at 23 to 24 shillings a cwt. and exported a substantial quantity to the United Kingdom at the Empire price. But it was the subsidised production of beet sugar, above all, which disorganised the market. Out of a total world production of about 28 million tons, over 10 million tons represented the amount of beet sugar, produced in almost every case on the basis of a subsidised price much above the open market price. Moreover, the European beet sugar industries produced not only sufficient for home requirements, but also considerable quantities for export. The retail price in most European countries was determined, not by the open market price, but by the cost of subsidised production, on top of which was often added heavy taxation for revenue purposes; and total consumption in the different countries varied inversely with the retail price, e.g.,

	Consumption per head per annum (in kilos)	Retail price
Denmark	55.9	4.6d.
Sweden	48.8	4.5d.
Great Britain	47.8	5d.
Finland	29.7	6.9d.
Norway	31.9	7.0d.
France	25.1	7.6d.
Germany	23.4	15.0d.
Hungary	10.55	11.4d.
Italy	7.9	15.9d.

If subsidies and taxes were limited retail prices could be reduced

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\*In 1937/8, the United Kingdom sugar supplies were obtained as follows:

	<u>tons</u>	<u>Price per cwt.</u>
Foreign	509,000	5/5
Other Empire	824,000	9/2
Colonial certified	357,000	10/2
Home-grown beet	418,000	18/10 (excluding assistance given to beet sugar factories which represented in 1936/37 5/3d. a cwt.)

general interest in the holding of stocks and the course of action which is most advantageous for each competitive producer acting independently.

There are several reasons for this. The cost of storage and interest is fairly high, especially in the case of surplus stocks which strain the capacity of the normal accommodation. Reckoned ad valorem there is a wide range of storage costs between different types of commodities, from (say) 5 to 25 per cent. per annum. In the case of many commodities, however, the charges are probably in the neighbourhood of 10 per cent. per annum;<sup>(1)</sup> whilst the length of time for which holding will be necessary and the ultimate normal price are both matters of great uncertainty. The costs of centralised storage schemes, especially if interest charges can be kept at a minimum, should be very much lower.

There are, however, two other still more dominating factors. Experience teaches those who are able and willing to run the speculative risk that, when the market starts to move downward, it is safer and more profitable to await a further decline. The primary producer is, as a rule, unable or unwilling to hold, so that, if the speculative purchaser holds back, he will get the commodity still cheaper. Thus, even if it would pay him to buy at the existing price on long-period considerations, it will often pay him better to wait for a still lower price. The other factor arises out of the lack of incentive to the retailer or the manufacturing consumer to purchase in advance. By purchasing in excess of his immediate needs he may make a speculative profit or loss just like any outside

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(1) Mr. Benjamin Graham in his book on Storage and Stability (p.108) estimates the average commercial cost to dealers in the commodity exchanges of storing 23 standard raw materials at  $13\frac{1}{2}$  per cent. of their value per annum, exclusive of interest, whilst he considers that organised government storage could be provided at a quarter of this cost. His estimate of the commercial cost is considerably higher than the above, which is intended to include interest, but his average is considerably affected by the exceptionally high ad valorem cost of storing maize, oats and petroleum.

speculator, but as a trader or a manufacturer his position will be competitively satisfactory when the time comes to use the materials, provided he is paying the current price. Thus a cautious user would rather pay the current price for his raw materials on which his own selling prices are based than run a speculative risk; and this attitude is reinforced by the fact that his interests are already bound up with activity in the demand for the commodity in question, so that he is multiplying unnecessarily the same kind of risk if he buys his material in advance of his needs. On the other hand, the long-term holding power of the outside speculator is limited - most participants in the market being more interested in a rapid turnover - and can only be called into action on a sufficient scale by a drastic fall in prices which will curtail current output substantially and appears to be a long way below any probable normal cost of future production. This adjustment of prices has to be all the more violent because, for a variety of technical and social reasons, both the consumption and the production of primary products have become increasingly insensitive to changes in their prices; and it is all the more disastrous because the tendency of international trade is to make many countries increasingly dependent on individual crops, for which they are specially suited, so that the social consequences of large movements in the prices of these specialised products are severe and the dangers of instability are enhanced.

# APPENDIX III.

## World Trade Valued.

Commodity	1935	1936	1937	1938	Aver. 1935/38	Price* per long ton in 1942	Value of 1935/38 Aver. at 1942 Price	Price per long ton in August 1939	Value of 1935/38 Aver. at 1939 Price
	World Net Exports <sup>1</sup> / <sub>1000</sub> metric tons . . .					f.o.b.	£mn	f.o.b.	£ mn.
Wheat	14750	14500	15300	15000	14900	£8.2	120	£7.1	104
Maize	9000	10000	13000	9000	10250	£3.2	32	£4.8	48
Sugar	9650	10000	10500	10500	10200	£12.4	124	£9.5	95
Coffee	1610	1630	1550	1800	1650	£70.3	114	£28.5	46
Cotton	2650	2900	3000	2540	2770	( $\frac{3}{4}$ at £100 ( $\frac{1}{4}$ at £70)	252	£54	147
Wool	950	940	880	940	930	( $\frac{1}{2}$ at £168 ( $\frac{1}{2}$ at £130)	136	( $\frac{1}{2}$ at £168 ( $\frac{1}{2}$ at £130)	136
	World Absorption <sup>1</sup> / <sub>1000</sub> long tons . . .					o.i.f.	778		576
Rubber	936	1038	1095	934	1000	£112	115	£79.3	79
	World Consumption <sup>1</sup> / <sub>1000</sub> long tons . . .					o.i.f.	46	£225	38
Tin	150	160	199	160	167	£275	939		693
	Totals of above values								

\* Ministry of Food and Ministry of Supply f.o.b. programme prices except rubber and tin for which approximate U.K. c.i.f. prices.  
<sup>1</sup> Average of total net exports and total net imports as shown in Yearbook of International Institute of Agriculture.