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DM/84/67

## INTERNATIONAL MONETARY FUND

### Research Department

#### Recent Developments and Outlook for Primary Commodity Markets

Prepared by the Commodities Division

Approved by Nihad M. Kaibni

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This paper focuses on market developments in 1984 and the short-term outlook for the major non-oil primary commodities. <sup>1/</sup> The paper consists of six sections and a statistical annex. Section I provides an overview of commodity price movements in 1984 and the outlook for 1985, analyzing the major factors underlying these price movements. Sections II through V examine recent market developments and the outlook for the four major commodity groups (food, beverages, agricultural raw materials, and metals) included in the IMF price index, and the 30 individual commodities that constitute the index. <sup>2/</sup> Section VI contains as a special feature a description of the recent developments concerning existing international commodity agreements. The annex contains three tables showing historical data on commodity price movements from 1981-84.

## I. An Overview

### 1. Price movements

The recovery in non-oil primary commodity prices, which began in early 1983, continued through the first quarter of 1984 but has faltered subsequently. After increasing by 16 percent from the trough reached in the fourth quarter of 1982 to the fourth quarter of 1983, commodity prices (in nominal U.S. dollar terms) rose by a further 2.2 percent in the first quarter of 1984 before leveling off in the second quarter and declining by 7 percent in the third quarter (Table 1 and Chart 1). On a monthly comparison, prices peaked in March 1984 at a level 15 percent above March 1983, then stabilized at a slightly lower level in April and May before declining in four consecutive months by a cumulative 9.4 percent. The July index was 1.3 percent below the level for July 1983, the first time in 16 months that the monthly index has fallen below the level of the corresponding month of the previous year. By September 1984 the index was 6.0 percent below the level for the corresponding month of the previous year.

The pattern of price movements for the four major commodity groups was diverse. Food prices rose by 33 percent (in U.S. dollar terms) from their trough in October 1982 to their peak in September 1983; subsequently, they declined somewhat but remained relatively high during the first half of 1984. In the third quarter of 1984, however, they declined by 10 percent largely because of prospective crop increases for a number of commodities. Beverage prices reached their most recent peak in May 1984, which was 57 percent higher than their trough in June 1981. They then declined by 5 percent in the third quarter of 1984 with increased supplies coming onto the market. The prices of agricultural raw materials peaked

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<sup>1/</sup> Developments in 1983 and the outlook for 1984 was discussed in a recent paper, DM/84/28 (4/26/84).

<sup>2/</sup> The price index comprises 35 price series for 30 primary commodities (excluding gold and petroleum) exported by developing countries (see Annex Tables).

Table 1. Indices of Primary Commodity Prices 1/  
(1980=100)

	All Commodities		Food	Beverages	Agricultural Raw Materials	Metals	
	Nominal	Deflated <u>2/</u>					
	US\$	SDRs	- - - - - (In terms of US\$) - - - - -				
1974	73.4	79.5	128.3	92.4	46.5	71.2	71.9
1975	59.3	63.6	92.3	70.7	44.7	57.1	58.0
1976	68.1	76.8	105.8	59.7	85.6	71.0	61.5
1977	82.5	92.0	119.2	58.6	148.3	73.2	66.1
1978	79.1	82.3	100.8	67.8	107.6	78.8	69.6
1979	92.0	92.7	102.7	76.9	113.9	96.0	90.4
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981	85.4	94.2	89.7	86.4	77.7	90.3	86.0
1982	75.1	88.5	81.4	68.5	79.7	77.9	78.1
1983	80.1	97.6	90.7	74.5	85.7	85.4	78.2
<u>1983</u>							
Q1	74.4	88.7	81.5	66.1	81.3	78.1	77.2
Q2	79.4	95.9	88.7	74.2	82.2	84.2	80.1
Q3	82.8	102.2	95.7	80.0	84.5	88.9	79.1
Q4	83.9	103.8	97.5	77.8	95.0	90.2	76.3
<u>1984</u>							
Q1	85.8	106.4	97.4	77.5	101.0	92.9	76.6
Q2	86.0	107.0	97.1	78.7	101.7	91.1	76.7
Q3	79.6	102.4	89.6	70.6	96.2	85.4	71.7
<u>1983</u>							
July	81.6	99.9	93.7	76.5	84.0	88.8	79.6
Aug.	83.4	103.4	95.9	81.7	84.5	89.5	78.9
Sept.	83.3	103.2	95.7	81.9	84.9	88.5	78.7
Oct.	83.8	102.7	97.4	80.9	90.3	88.7	77.1
Nov.	83.6	103.4	97.1	76.8	95.3	90.0	76.3
Dec.	84.4	105.3	98.1	75.6	99.4	92.0	75.7
<u>1984</u>							
Jan.	84.9	106.7	96.4	76.3	101.8	92.1	74.6
Feb.	85.6	106.5	97.2	77.7	100.1	92.8	76.6
March	86.8	106.2	98.6	78.5	101.2	93.7	78.7
April	86.6	106.6	97.8	78.9	100.8	92.6	78.7
May	86.7	108.4	97.9	79.1	104.2	92.0	76.2
June	84.6	106.0	95.6	78.4	100.0	88.8	75.2
July	80.5	102.7	90.6	72.5	94.8	86.5	72.9
Aug.	79.6	102.0	89.6	70.4	95.9	85.5	72.4
Sept. <u>3/</u>	78.7	102.4	88.6	69.0	97.8	84.3	69.7

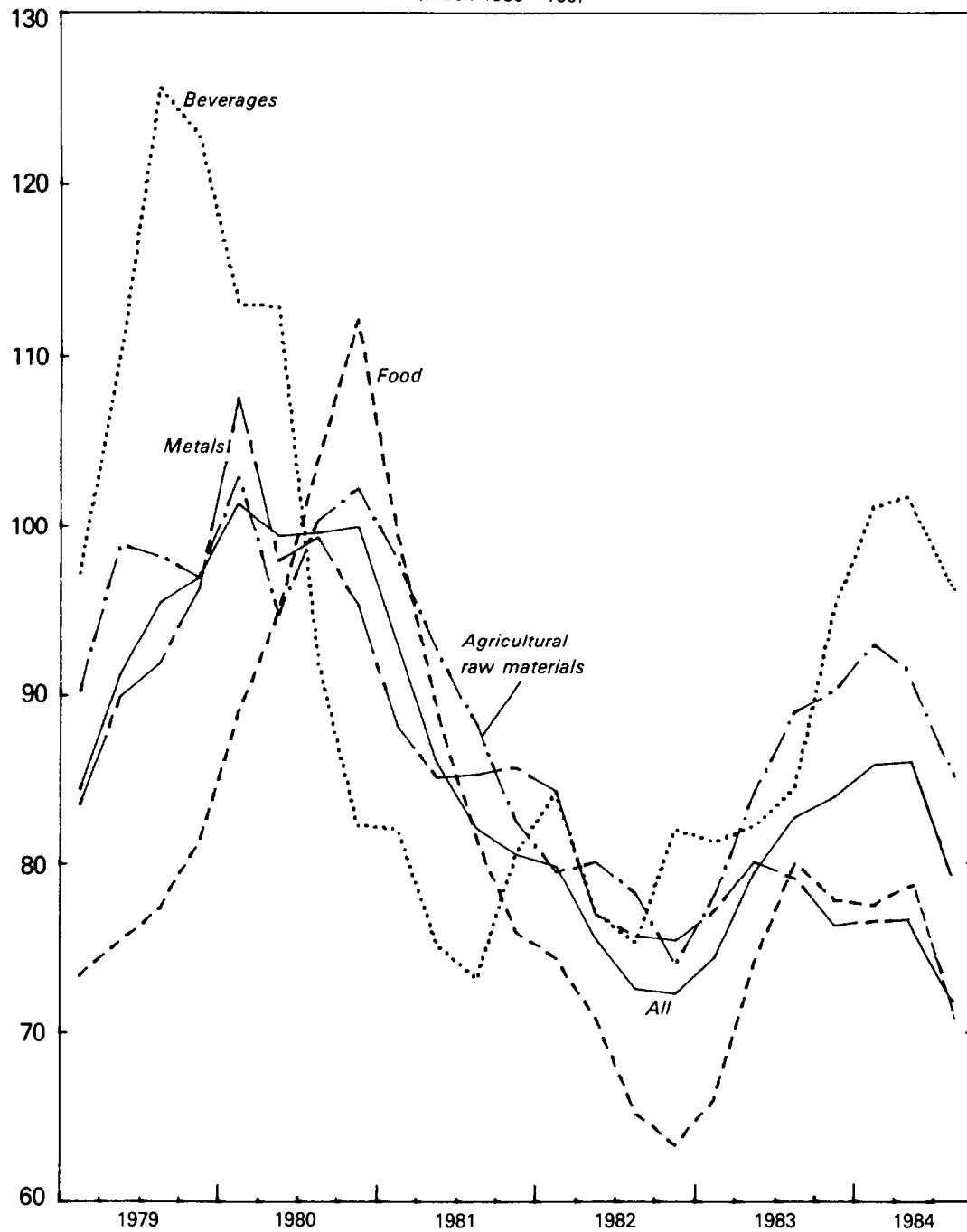
1/ Indices comprise 35 price series for primary commodities.

2/ Deflated by the UN price index of manufactures exported by developed countries.

3/ September prices are provisional.

CHART 1  
NON-OIL PRIMARY COMMODITY PRICES,  
QUARTERLY MOVEMENTS: 1979-84

(Index 1980 = 100)





in March 1984 at a level 28 percent higher than the trough reached in December 1982, before declining during the following five consecutive months; by September they averaged 10 percent below the March 1984 level. Unlike the other three commodity groups, metal prices rose only briefly in the first half of 1983, peaking in May at 9 percent above the trough reached in November 1982, but then retreated in the second half, with the result that prices in 1983 remained at their depressed level of 1982. Metal prices declined further during 1984 and by September they averaged 7 percent below the November 1982 trough.

Commodity prices for the first three quarters of 1984 were 6 percent higher than for the comparable period in 1983. For the year as a whole, however, nominal prices are expected to average only slightly higher--by 2-3 percent--than prices in 1983, and on present expectations, prices in 1985 may be little different from the average of the 1983-84 prices. At these annual levels, prices during the 1983-85 recovery period would represent an increase of 8 percent from the trough of annual prices reached (in 1982) during the recession; they would remain, however, some 15 percent below the pre-recession levels.

Commodity prices in SDR terms recovered at a somewhat faster rate than prices in U.S. dollar terms over the period from the beginning of 1983 through early 1984 because of the appreciation of the U.S. dollar. Similarly, the decline in prices in recent months was less pronounced when stated in SDR terms. Prices in SDR terms remained roughly unchanged in August and September 1984, and in the latter month prices were 5.5 percent lower than in May 1984 (9.2 percent in U.S. dollar terms). In August the index in SDR terms fell below its level in August 1983, the first time in 18 months that the index in SDR terms has fallen below the level for the corresponding month in the previous year.

Commodity prices in real terms, estimated by deflating nominal prices by the UN price index of manufactured exports of developed countries, rose by 11 percent in 1983. During the first two quarters of 1984, they remained at about the same level as in the fourth quarter of 1983, but subsequently they declined by 8 percent in the third quarter. Thus, part of the improvement in the terms of trade of the non-oil developing countries in 1983 is likely to be lost during 1984.

## 2. Supply factors

The pattern of commodity price movements during 1983-84 has been greatly influenced by supply developments, particularly for agricultural commodities. The rise in prices associated with the recovery of the world economy was reinforced by the effects of lower production in 1983/84 for a number of agricultural commodities (Table 2). The major factors responsible for these production declines (ranging from 5 percent for cotton to 8 percent each for selected food and beverages) were mostly related to weather, but in some cases (i.e, maize, soybeans, and cotton) lower output resulted from acreage reduction undertaken by the United States, a major world supplier. The production declines experienced in

Table 2. World Production of Selected Agricultural Commodities  
(In percent changes)

Commodity	1983/84 <u>1/</u>	1984/85 <u>1/</u>
Selected food products <u>2/</u>	-8	+11
Groundnut oil	-2	+3
Copra	-4	+19
Fishmeal	-9 <u>3/</u>	+2
Palm oil	-6	+12
Soybean meal	-7	+6
Soybeans	-14	+16
Maize	-22	+27
Sugar	-6	+5
Selected beverages <u>4/</u>	-8	+9
Coffee	-8 <u>3/</u>	+9
Cocoa	-10 <u>3/</u>	+9
Cotton <u>5/</u>	-5 <u>3/</u>	+10

1/ Based on different crop years, but generally represent production changes influencing prices over specified split year.

2/ Average percent change of selected commodities using weights in IMF index. Commodities selected account for 54 percent of total weight of the food group in the index.

3/ Commodities for which output declined in two successive years; the figures represent cumulative declines in 1982/83 and 1983/84.

4/ Average percent change of selected commodities using weights in IMF index. Coffee and cocoa account for 87 percent of total weight of the beverages group in the index.

5/ Cotton accounts for 34 percent of the total weight of the agricultural raw materials group in the IMF index.

1983/84 are expected to be followed by recoveries in 1984/85, with the consequent effect on prices already evident in recent months. The production increases in prospect for 1984/85 (roughly 10 percent for each category) are mainly attributable to return of normal weather, although larger supplies were generally stimulated by the higher prices in 1983/84. Supplies of a number of other agricultural commodities not listed in the table (e.g., wheat, rice, wool, and rubber) are expected to remain plentiful, and metal prices continue to be adversely affected by the existence of large stocks and excess capacity.

### 3. Demand factors

The relationship between non-oil commodity prices and demand factors has been discussed in a number of recent studies. <sup>1/</sup> In these studies, changes in aggregate non-oil commodity prices have been shown to be positively correlated with changes in economic activity and inflation in consuming countries. In Chart 2, this relationship is illustrated in a summary form by superimposing the percentage change in real commodity prices (nominal prices deflated by prices of manufactures) on the percentage change in aggregate industrial production of the seven major industrial countries. The chart shows fairly synchronized movements of changes in real commodity prices and changes in industrial production from the first quarter of 1972 to the third quarter of 1984, with the amplitude of the former sharply higher than that of the latter. <sup>2/</sup> The quarterly change in industrial production from the corresponding quarter in the preceding year decelerated from 10.4 percent in the fourth quarter of 1983 and 10.9 percent in the first quarter of 1984 to 8.5 percent in the second quarter and 7.5 percent in the third quarter (Table 3, part A). The quarterly change in real commodity prices decelerated more sharply from 20.7 percent in the fourth quarter of 1983, and 19.5 percent in the first quarter of 1984, to 9.5 percent in the second quarter of 1984 and -5.8 percent in the third quarter.

The quarter-to-quarter changes in real commodity prices and in industrial production show similar but more volatile movements. Real commodity prices decelerated sharply for five consecutive quarters from the second quarter of 1983 to the third quarter of 1984 (Table 3, part B). Industrial production decelerated less sharply from the third quarter of 1983 to the second quarter of 1984, but then accelerated in the third quarter. The annualized rate of increase in real commodity prices dropped from 32.1 percent during the third quarter of 1983 to -27.5 percent during the third quarter of 1984; this drop, partly reflecting an increase in the deflator (price of manufactures), coincided with a slowdown in the recovery of industrial production from 13.6 percent to 9.6 percent.

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<sup>1/</sup> For example, World Economic Outlook, 1983, pp. 154-159; and 1984, pp. 137-145.

<sup>2/</sup> Percentage changes refer to a comparison of the level in a given quarter with the level in the corresponding quarter of the preceding year.

Table 3. Changes in Non-Oil Primary Commodity Prices,  
(Nominal and Real), and Industrial Production, Q1 1980-Q3 1984

	Commodity Prices		Manufacture	Industrial
	Nominal <u>1/</u>	Real <u>2/</u>	Prices	Production <u>3/</u>
	(1)	(2)	(3)	(4)

Part A

(Percentage changes from corresponding  
quarter of previous year)

1980 Q1	19.9	4.8	14.4	3.0
Q2	9.0	-4.2	13.7	-1.4
Q3	4.3	-6.7	11.8	-4.1
Q4	3.1	-4.0	7.3	-2.8
1981 Q1	-8.2	-9.1	0.9	-2.6
Q2	-13.4	-9.0	-4.9	1.2
Q3	-17.6	-7.9	-10.5	3.5
Q4	-19.4	-15.4	-4.6	-0.3
1982 Q1	-14.1	-10.9	-3.6	-3.0
Q2	-12.1	-11.8	-0.3	-4.5
Q3	-11.5	-10.3	-1.3	-5.8
Q4	-10.2	-3.2	-7.2	-5.6
1983 Q1	-6.7	-2.8	-4.0	-2.0
Q2	5.1	9.8	-4.3	1.9
Q3	14.0	18.6	-3.9	6.3
Q4	16.0	20.7	-3.9	10.4
1984 Q1	15.2	19.5	-3.6	10.9
Q2	8.2	9.5	-1.1	8.5
Q3 <u>4/</u>	-3.8	-5.8	2.1	7.5

Part B

(Annualized percentage changes from preceding quarter)

1983 Q1	12.1	3.5	8.3	6.8
Q2	29.7	40.4	-7.7	11.7
Q3	17.9	32.1	-10.7	13.6
Q4	5.6	10.6	-4.5	9.4
1984 Q1	9.1	-0.5	9.6	8.9
Q2	1.0	-1.2	2.3	2.4
Q3 <u>4/</u>	-26.5	-27.5	1.4	9.6

1/ U.S. dollar terms.

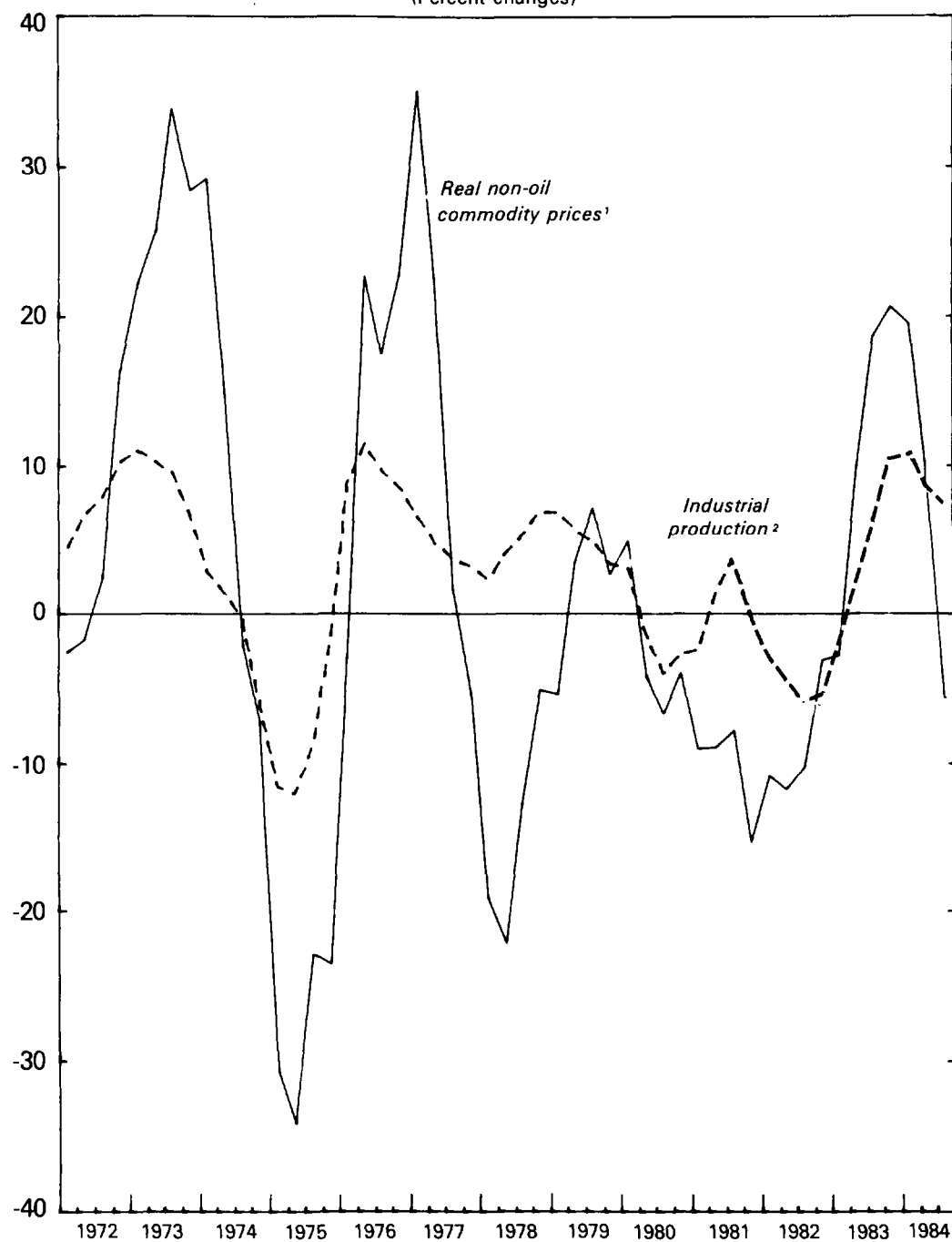
2/ Based on nominal prices deflated by the UN price index of manufactures exported by developed countries, reported in column (3).

3/ Based on GNP-weighted aggregate index of industrial production in seven major industrial countries.

4/ Estimated.

CHART 2  
REAL NON-OIL COMMODITY PRICES AND  
INDUSTRIAL PRODUCTION

(Percent changes)



Source: Based on data in Part A of Table 3.

<sup>1</sup>Deflated by UN price index of manufactures exported by developing countries.

<sup>2</sup>For seven major industrial countries; the second quarter of 1984 is estimated.



4. Export earnings and use of Fund special facilities

After recovering by 3 percent in 1983, export earnings of the non-oil developing countries are estimated to grow by about 13 percent in 1984. The recovery in commodity prices assisted this growth, although volume increases appear to have played a more important role. Reflecting the lag between movements in commodity prices and export unit values and the weakness in the behavior of the non-primary component of exports of non-oil developing countries, their export unit values are estimated to have declined by 2.6 percent in 1983, and to increase by 3.2 percent in 1984. Total export volume of non-oil developing countries, on the other hand, is estimated to have increased by 5.8 percent in 1983 and to increase by 9.1 percent in 1984.

The recovery of export earnings of the non-oil developing countries during 1983-84 has resulted in fewer countries meeting the conditions for use of the Fund's compensatory financing facility. Only seven compensatory financing facility purchases amounting to SDR 757 million were made in the first ten months of 1984 compared with 28 purchases amounting to SDR 2.6 billion in 1982 and 24 purchases totaling SDR 2.8 billion in 1983; outstanding purchases amounted to SDR 7.5 billion at the end of 1983. Likewise, use of the Fund's buffer stock financing facility has diminished considerably in 1984 with only one purchase of SDR 2 million. Outstanding purchases under the buffer stock financing facility, resulting from Fund support of members in connection with their contributions to the tin, rubber, and sugar agreements reached a peak of SDR 375 million in January 1984. No new contributions from members of the Tin and Rubber Agreements which could be compensated by the Fund's facility were required in 1984 and stocking operations under the Sugar Agreement are scheduled to terminate at the end of 1984 (see Section VI).

II. Food

Food prices rose strongly during 1983, reaching a level in the third quarter that was 26 percent higher than the level of the fourth quarter of 1982 (Chart 3). They then declined by 2 percent in the fourth quarter of 1983 and remained rather stable at about that level through the first two quarters of 1984 before declining by 10 percent in the third quarter. Although increased demand contributed to the recovery in food prices, lower world supplies for a number of important commodities exerted a substantial influence. Oils and oilseeds (accounting for 27 percent of the weight of the food price index) experienced the largest price increases. Adverse weather conditions in major producing areas caused world output of virtually all the major oil and oilseed commodities to decline in 1983/84, resulting in prices almost doubling between the trough in the fourth quarter of 1982 and the second quarter of 1984. Output of maize, sugar, and bananas also dropped because of unfavorable growing conditions, with maize also being affected by the acreage reduction program in the United States.

As world output of these food crops is forecast to return to more normal levels in 1984/85, food prices are expected to decline in the last half of 1984 and remain low on average in 1985. An indication of this easing was the 10 percent decline in the third quarter of 1984, led by a 17 percent fall in oils and oilseed prices, and a 26 percent fall in sugar prices in the free market.

1. Oils and oilseeds

a. Soybeans and products

The high prices of soybeans and soybean products in the last half of 1983 and the first half of 1984 were caused by shortages of soybeans and other sources of vegetable oil supplies. In contrast to record high world soybean production of 93.8 million tons and an average price of US\$258 per ton in 1982/83, production declined by 14 percent to 80.9 million tons in 1983/84 (October-September) and the price averaged US\$319 per ton in the last half of 1983 (Table 4). The decline in soybean production resulted solely from lower U.S. acreage as a consequence of the payment-in-kind program (PIK) for corn and cotton (which are double-cropped with soybeans) and the reduction in U.S. yield due to a severe drought during the summer of 1983. U.S. soybean production dropped 30 percent to a seven-year low of 43.4 million tons. As a consequence, stocks were depleted, and soybean prices rose by 29 percent in one month (from July to August 1983). Prices peaked at US\$350 per ton in September before the arrival of the U.S. new crop to the market in October 1983 which eased the last quarter average price to US\$321 per ton. The price slipped further to an average of US\$299 per ton during the first two months of 1984 because of lower soybean meal demand in both the United States and the European Community (EC) as livestock herds were reduced in response to high feed costs.

The soybean price recovered in March 1984 to US\$314 per ton and reached US\$338 per ton in May as world supplies were reduced. Prospects of a larger 1984/85 world crop, however, began to put downward pressure on prices in June. From June to September, prices declined by a cumulative 31 percent, reaching an average of US\$245 per ton in September. During this period, arrival of new crops on the market from South America, particularly Brazil and Argentina, and increased palm oil production in Malaysia also contributed to the weakening of soybean prices.

The shortage of soybeans resulted in a 5 percent decline in the production of soybean oil in 1983/84. Droughts in several parts of the world caused shortages in other vegetable oils, including palm and coconut oils. Soybean oil consumption which had increased steadily during 1976/77-1982/83 (Table 5) declined to 13.4 million tons in 1983/84. In response to the supply shortage and inelastic demand, soybean oil prices increased sharply from US\$425 per ton in June 1983 to US\$733 per ton in September 1983. Prices declined during the fourth quarter to an average of US\$641 per ton because U.S. soybean oil production was at a seasonal high. The much higher prices during the second half of 1983 resulted in an 18 percent annual price increase from 1982 to an average of US\$527 per ton in 1983.

CHART 3  
FOOD: QUARTERLY PRICE MOVEMENTS  
(Index 1980 = 100)

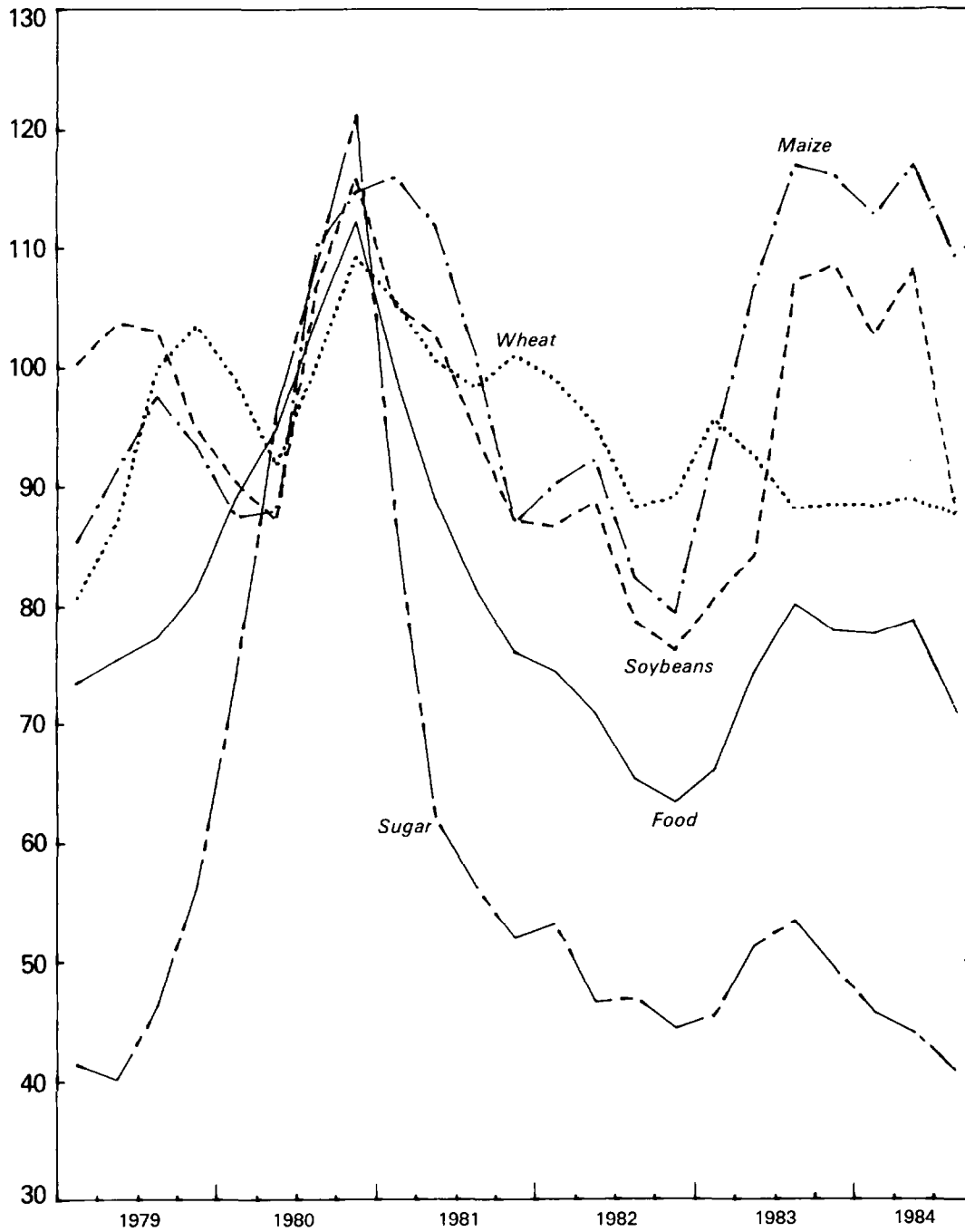




Table 4. Soybeans: World Commodity Balance, 1973/74-1984/85

(In millions of metric tons)

	October/September Years											
	1973/74	74/75	75/76	76/77	77/78	78/79	79/80	80/81	81/82	82/83	83/84	1/ 84/85 2/
Beginning stocks												
Total	<u>3.8</u>	<u>9.1</u>	<u>10.4</u>	<u>13.0</u>	<u>10.7</u>	<u>10.8</u>	<u>10.3</u>	<u>19.1</u>	<u>16.5</u>	<u>15.6</u>	<u>18.0</u>	<u>11.9</u>
United States	<u>1.6</u>	<u>4.7</u>	<u>5.1</u>	<u>6.7</u>	<u>2.8</u>	<u>4.4</u>	<u>4.7</u>	<u>9.8</u>	<u>8.7</u>	<u>7.2</u>	<u>9.4</u>	<u>3.0</u>
Argentina	0.1	0.3	0.4	0.5	0.7	1.0	0.9	1.4	1.0	1.7	2.4	1.9
Brazil	1.6	3.4	4.2	5.0	6.4	4.4	3.4	6.5	6.0	5.7	4.9	5.3
World production	<u>61.3</u>	<u>54.6</u>	<u>66.0</u>	<u>59.5</u>	<u>72.8</u>	<u>77.5</u>	<u>93.8</u>	<u>80.9</u>	<u>86.8</u>	<u>93.8</u>	<u>80.9</u>	<u>93.1</u>
Of which:												
United States	(42.1)	(33.1)	(42.1)	(35.0)	(48.0)	(50.9)	(61.7)	(48.8)	(54.4)	(61.3)	(43.4)	(55.1)
Brazil	(7.9)	(9.9)	(11.2)	(12.5)	(10.2)	(10.2)	(15.2)	(15.0)	(2.8)	(14.6)	(15.2)	(15.4)
China	(...)	(...)	(7.4)	(7.2)	(7.3)	(7.6)	(7.5)	(7.9)	(9.3)	(9.0)	(9.8)	(9.7)
Argentina	(0.5)	(0.5)	(0.7)	(1.4)	(2.7)	(3.7)	(3.6)	(3.6)	(4.1)	(3.2)	(6.2)	(5.8)
Total supply	<u>65.1</u>	<u>63.7</u>	<u>76.5</u>	<u>72.5</u>	<u>83.5</u>	<u>88.3</u>	<u>104.1</u>	<u>100.0</u>	<u>103.3</u>	<u>109.4</u>	<u>98.9</u>	<u>104.4</u>
Consumption	<u>56.1</u>	<u>53.2</u>	<u>63.4</u>	<u>61.8</u>	<u>72.7</u>	<u>78.0</u>	<u>85.0</u>	<u>83.5</u>	<u>87.7</u>	<u>90.6</u>	<u>86.3</u>	<u>90.7</u>
Noncrush uses (including stock changes in other countries)	8.4 <u>1/</u>	8.2 <u>1/</u>	9.2 <u>1/</u>	10.8	11.3	12.4	12.2	12.1	13.7	13.4	14.0	13.6
World trade (exports)	<u>17.6</u>	<u>15.2</u>	<u>19.5</u>	<u>18.9</u>	<u>23.2</u>	<u>24.9</u>	<u>28.3</u>	<u>25.5</u>	<u>28.7</u>	<u>28.5</u>	<u>25.3</u>	<u>28.3</u>
Crushings	<u>47.7</u> <u>2/</u>	<u>45.0</u> <u>2/</u>	<u>54.2</u> <u>2/</u>	<u>51.0</u>	<u>61.4</u>	<u>65.6</u>	<u>72.8</u>	<u>71.4</u>	<u>74.0</u>	<u>78.0</u>	<u>73.0</u>	<u>78.2</u>

Source: Oil World (Hamburg, Germany), various issues.1/ Estimated.2/ Forecast.

Table 5. Soybean Oil: World Commodity Balance, 1976/77-1984/85

(In millions of metric tons)

		October/September Years									
		1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1/ 1984/85	2/ 1984/85
Beginning stocks											
Total		1.2	1.0	1.2	1.3	1.9	2.0	1.6	1.7	1.2	1.2
Of which:											
United States		(0.6)	(0.3)	(0.2)	(0.3)	(0.5)	(0.8)	(0.5)	(0.6)	(0.3)	(0.3)
Brazil		(0.1)	(0.1)	(0.2)	(0.2)	(0.4)	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)
EEC		(0.2)	(0.1)	(0.1)	(0.2)	(0.3)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
Production											
Total		9.3	11.0	11.9	13.0	13.0	13.1	13.9	13.4	14.2	14.2
Of which:											
United States		(3.9)	(4.7)	(5.1)	(5.5)	(5.1)	(5.0)	(5.5)	(4.9)	(5.2)	(5.2)
Brazil		(1.4)	(1.8)	(1.8)	(2.0)	(2.6)	(2.3)	(2.4)	(2.4)	(2.5)	(2.5)
EEC		(1.6)	(1.8)	(2.0)	(2.1)	(1.8)	(2.0)	(2.0)	(1.7)	(1.8)	(1.8)
Consumption											
Total		9.5	10.8	11.8	12.4	13.0	13.5	13.9	14.0	14.2	14.2
Of which:											
United States		(3.4)	(3.8)	(4.1)	(4.1)	(4.1)	(4.3)	(4.5)	(4.3)	(4.4)	(4.4)
EEC		(1.2)	(1.6)	(1.5)	(1.6)	(1.6)	(1.6)	(1.5)	(1.5)	(1.4)	(1.4)
Brazil		(0.9)	(1.1)	(1.2)	(1.4)	(1.4)	(1.4)	(1.5)	(1.6)	(1.6)	(1.6)
Trade (exports)		2.0	2.7	2.9	3.3	3.4	3.5	3.7	3.8	4.0	4.0

Source: Oil World (Hamburg, Germany), various issues.

1/ Estimated.

2/ Forecast.

Soybean oil prices continued to rise in 1984 while supplies of soybean oil and substitute oils were being reduced. In the first quarter of 1984, soybean oil prices averaged US\$694 per ton, 76 percent above prices in the first quarter of 1983. The price peaked in May at US\$914 per ton. An early seasonal increase of palm oil production in 1984, starting in April, began to ease the pressure on prices in the vegetable oil market. Soybean oil prices declined in June 1984 to US\$844 per ton and fell sharply to an average of US\$690 per ton during the third quarter in response to larger prospective world supplies of soybean oil and other vegetable oils.

The soybean meal market was unusually weak compared with the soybean oil market in 1983/84. In response to the shortage of soybeans which caused a 7 percent reduction in soybean meal production in 1983/84 (Table 6), monthly soybean meal prices increased only once in the last half of 1983--from US\$226 per ton in July to US\$279 per ton in August. Prices then declined in each of the four remaining months of the year. However, as the average price for the second half of 1983 was still 22 percent higher than the average for the first half of the year, high protein meal prices coupled with low livestock prices caused farmers to reduce their livestock numbers as well as to increase the use of substitutes, such as grains and powdered milk. Demand declined further in 1984 and prices fell continuously from US\$237 per ton in January to US\$168 per ton in September, the lowest level since 1977.

The outlook for prices of soybeans and products for the second half of 1984 and 1985 depends primarily on the outturn of the U.S. 1984/85 crop. Most of the expected 17 percent increase in world soybean production would result from the U.S. acreage expansion and yield improvements with some contribution from increased production in South America. The increased production of soybeans together with an increase in palm oil from Malaysia are also expected to exert downward pressure on vegetable oil prices in general. However, soybean stocks have been almost exhausted and supply for crushing will remain tight until supplies begin to flow from the current U.S. soybean harvest. Further weakening of prices of soybeans and soybean oil after October 1984 may be limited, however, because the market would have already discounted the expected large crop and a substantial portion of production increases will be used to rebuild stocks. Although livestock profitability is expected to improve in the last part of 1984, the prospects of soybean meal price increases may be limited by the larger soybean supplies in 1984/85, programs to reduce milk production in the United States and the EC, and increased competition from sunflower meal, rapemeal, and grains.

b. Other oils and oilseeds

The growth of the palm oil market has exceeded that of any other oil during the past ten years. Palm oil production has increased every year at an annual average rate of 10 percent over the period 1975-82. Currently, the volume of palm oil production is second only to soybean oil, and palm oil is as important as soybean oil in terms of

Table 6. Soybean Meal: World Commodity Balance, 1976/77-1984/85

(In millions of metric tons)

	October/September Years								
	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84 <u>1/</u>	1984/85 <u>2/</u>
Beginning stocks									
Total	<u>2.1</u>	<u>2.0</u>	<u>2.4</u>	<u>2.7</u>	<u>3.1</u>	<u>2.9</u>	<u>3.0</u>	<u>3.9</u>	<u>2.6</u>
Of which:									
EEC	(0.7)	(0.6)	(0.7)	(0.7)	(1.0)	(0.6)	(1.0)	(1.0)	(0.6)
United States	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.2)	(0.4)	(0.2)
Brazil	(0.2)	(0.5)	(0.3)	(0.5)	(0.8)	(1.1)	(0.6)	(0.7)	(0.7)
Production									
Total	<u>40.1</u>	<u>48.0</u>	<u>51.6</u>	<u>57.5</u>	<u>56.2</u>	<u>58.3</u>	<u>61.4</u>	<u>57.2</u>	<u>61.9</u>
Of which:									
United States	(16.8)	(20.3)	(22.1)	(24.6)	(22.1)	(22.3)	(24.2)	(20.4)	(22.9)
Brazil	(5.9)	(7.6)	(7.4)	(8.1)	(10.6)	(9.6)	(10.0)	(9.8)	(10.4)
EEC	(6.9)	(8.3)	(9.0)	(9.7)	(8.2)	(9.3)	(9.1)	(7.5)	(8.2)
Consumption									
Total	<u>40.9</u>	<u>46.9</u>	<u>51.6</u>	<u>57.3</u>	<u>55.4</u>	<u>59.0</u>	<u>61.3</u>	<u>58.4</u>	<u>61.3</u>
Of which:									
United States	(12.8)	(14.7)	(16.1)	(17.4)	(16.0)	(16.1)	(17.6)	(16.0)	(16.9)
EEC	(11.0)	(13.0)	(14.5)	(15.3)	(14.2)	(16.5)	(15.5)	(14.8)	(14.9)
U.S.S.R.	(1.6)	(0.8)	(1.3)	(1.5)	(2.3)	(2.5)	(3.3)	(2.0)	(2.5)
Eastern Europe	(3.5)	(4.3)	(4.3)	(5.1)	(5.2)	(4.3)	(4.3)	(4.6)	(4.9)
Trade (exports)	<u>11.1</u>	<u>15.1</u>	<u>15.3</u>	<u>17.2</u>	<u>19.7</u>	<u>20.3</u>	<u>23.1</u>	<u>21.4</u>	<u>23.7</u>

Source: Oil World (Hamburg, Germany), various issues.1/ Estimated.2/ Forecast.

the volumes entering international trade. After an 18 percent increase in production in 1981/82 (October-September), production fell by 6 percent in 1982/83 to 5.5 million tons. The decline was caused largely by droughts in Malaysia and Indonesia that began in early 1983 and reduced yields until early 1984; yields were also affected by "overstress" from the earlier application of stimulants. Palm oil prices increased from an average of US\$394 per ton during the first half of 1983 to US\$609 per ton in the second half. In the first quarter of 1984, palm oil production was still substantially below average and the price continued to rise reaching an average of US\$865 per ton. In April 1984, however, production began to increase sharply, especially in Malaysia and Indonesia, but exports did not rise until June since the initial flow of supplies was used to rebuild stocks. Palm oil prices reached a record high level in May at US\$951 per ton and then declined sharply to US\$783 per ton in June, and further to US\$585 per ton as the average for the third quarter. These sharp decreases resulted in an unusually large price discount of palm oil to soybean oil.

Production in 1984/85, much of which was harvested during July-September, is estimated to be about 12 percent larger than in 1983/84. Prices are expected to remain weak for the remainder of 1984 and in 1985 because of expected increases in supplies. During this period, yields are expected to benefit from the lagged effect of favorable weather in 1984.

Copra and coconut oil supplies were very tight in 1983/84 (October-September) and prices reached record high levels. Adverse weather conditions, a series of droughts and typhoons, affected copra production, especially in the Philippines, the major producer and exporter. The Philippine drought, which lasted from late 1982 to early 1983, has affected copra production with a time lag of about 14 months, and copra crushing and oil exports with a lag of about 15 months. In anticipation of a sharp decrease of supplies, the Philippines suspended copra exports in September 1982 to conserve supplies for domestic use. As drought in the Philippines continued, copra and coconut oil production declined by 5 percent in 1982/83 and prices began to increase from April 1983. World copra and coconut oil exports fell by 45 and 20 percent, respectively, in 1982/83 from the previous year. Copra and coconut oil prices reached their 1983 highs in August (US\$657 per ton and US\$985 per ton for copra and coconut oil, respectively) when they were more than double their respective averages in 1982.

World copra production in 1983/84 is estimated to have been less than 4.0 million tons, or 17 percent below the 1982/83 level, and the lowest production since 1975. Coconut oil production for the same period was expected to decline by about 15 percent to 2.4 million tons. After a brief decline in prices in October and November 1983 following the seasonal production peak in September, copra and coconut oil prices began to rise, reaching record high levels as supplies were reduced. Copra prices averaged US\$745 per ton during the first quarter of 1984 and US\$792 per ton during the second quarter, while coconut oil prices

averaged US\$1,117 per ton and US\$1,298 per ton for the same periods. These prices were double the prices for the same periods a year earlier. Copra prices declined to an average of US\$680 per ton during July-September 1984, as a result of sharp increases in production of palm kernel oil, a major competing oil for coconut oil.

Tight supplies of copra and coconut oil are expected to prevail during 1984/85. The previously expected production recovery from the lagged effects of the drought are now expected to be at least partly offset by the recent damage caused by a severe typhoon which hit the major coconut area in the Philippines in early September 1984. In view of these supply developments, prices are not expected to weaken further in 1984 and may begin to increase depending on the extent of the typhoon damage and on supply developments of competing oils.

The combination of declines of 2 percent in world groundnut oil production in 1983/84 and of 27 percent in beginning stocks caused world exports of groundnut oil to fall by 28 percent to 390,000 tons. Extended drought in Africa caused lower groundnut crops in major groundnut exporting countries, especially Senegal and Sudan; groundnut crops in South America and the United States were also below normal. These factors accounted for the sharp rise in price during 1983; groundnut oil prices nearly doubled within a span of three months (from US\$593 per ton in June to US\$1,052 per ton in September). By November, prices began to weaken as the Indian groundnut crop reached a record high level and eased the tight supply situation somewhat.

Prices increased again in early 1984 as the supplies of groundnut oil and other oils were still below normal. The average price during the first quarter of 1984 reached US\$1,031 per ton, double the level of the same period in 1983. High prices continued during the second quarter at an average of US\$1,162 per ton and peaked at US\$1,171 per ton in May. However, the average price for the third quarter declined to US\$990 per ton and prices are expected to continue to decline during the remainder of the year as a result of a recovery in supplies of both groundnut and other oils.

Groundnut meal production accounts for less than 5 percent of total supplies of meals and the price of groundnut meal moves in line with soybean meal prices. The 1984/85 production is expected to increase by 4 percent to 4.7 million tons, which is still below the record volume of 4.8 million tons harvested in 1981/82. Groundnut meal prices rose by 4 percent to US\$196 per ton in 1983, but then declined in the first half of 1984 to US\$164 per ton, in line with the movement of other meal prices. The price decreased further to US\$131 per ton in the third quarter. The meal market is forecast to remain weak until at least the end of 1984.

Fish meal production in 1982/83 declined by 9 percent (to 4.5 million tons) from its record high of nearly 5.0 million tons in 1981/82 due to unfavorable weather in 1983. The price climbed 21 percent to US\$429 per ton during the first half of 1983 from the average 1982 price.

As stocks were drawn down, the price increased further and averaged US\$477 per ton in the second half of 1983. As the 1983/84 production recovered only slightly (to 4.6 million tons) and beginning stocks were low, the supply of fishmeal remained rather tight during 1983/84. However, weak demand for protein meal in general depressed fish meal prices in 1984 from US\$458 per ton during the first quarter to US\$385 per ton during the second quarter and down to US\$331 per ton during the third quarter of 1984. The average price during the first half of 1984 was about the same as the 1983 average of US\$422 per ton. The fish meal price is expected to decrease further as 1984/85 production is expected to be somewhat larger, although an expected recovery in meal demand during the first half of 1985 should limit the extent of any price decline.

## 2. Cereals

### a. Wheat

Wheat prices have been under pressure during the last three crop years (years ending June) due to three successive record world wheat crops. World wheat production increased from 443 million tons in 1980/81 to 450 million tons in 1981/82, 480 million tons in 1982/83, and to 490 million tons in 1983/84 (Table 7). Though world wheat utilization also increased during this period, it did not keep pace with production and end-of-period stocks increased steadily from 78.5 million tons in 1980/81 to 102 million tons in 1983/84. As a result, wheat prices declined from US\$4.88 per bushel in 1980/81 to US\$4.62 per bushel in 1981/82, US\$4.30 per bushel in 1982/83, and US\$4.16 per bushel in 1983/84.

After fluctuating narrowly around a level of US\$4.55 per bushel between January and April of 1983, wheat prices started to decline in May 1983 when the prospects for a large 1983/84 crop became evident. By July 1983 prices had declined to US\$4.01 per bushel. A narrowing of the normal wheat/maize price ratio because of the prospect of a poor feed grain harvest and sharply higher feed grain and oil seed prices, resulted in a sharp increase in wheat fed to livestock. This helped to sustain wheat prices within a narrow range between US\$4.10 and US\$4.20 per bushel from the fourth quarter of 1983 through the first quarter of 1984. With the approach of a new crop year, unfavorable weather in wheat growing areas of the United States and revisions to the 1984 U.S. wheat program helped wheat prices to rally to US\$4.28 per bushel during April 1984. However, revised supply/demand estimates which indicated stocks in excess of trade expectations and the prospect of a large maize crop caused prices to weaken in May 1984. Over the next three months, when all indications pointed to another record wheat crop in 1984/85, ample wheat supplies and large end-of-period stocks, prices continued to weaken and by July 1984 they had reached a level of US\$4.00 per bushel. Declining crop prospects caused by adverse weather particularly in the U.S.S.R. and to a lesser extent in Argentina and Canada, and heavy wheat purchases by the U.S.S.R. early in the marketing year caused prices to rally to US\$4.15 per bushel in August and US\$4.24 in September.

Table 7. Wheat: World Commodity Balance, 1974/75-1984/85

(In millions of metric tons)

July/ June Years	Production	Utilization	End-Period Stocks	Trade <u>1/</u>
1974/75	360.2	366.4	64.0	64.3
1975/76	356.0	356.2	63.8	66.7
1976/77	421.3	385.8	99.3	63.3
1977/78	384.1	399.3	84.3	72.8
1978/79	446.8	430.2	100.9	72.0
1979/80	422.8	443.5	80.4	86.0
1980/81	442.7	445.3	78.5	94.1
1981/82	448.6	441.6	85.4	101.3
1982/83	478.6	467.1	96.8	98.4
1983/84	488.7	484.2	101.3	101.6
1984/85 <u>2/</u>	499.6	498.7	102.2	103.0

Sources: U.S. Department of Agriculture, Foreign Agriculture Circular: Grains (Washington), various issues; and staff estimates.

1/ Including wheat flour and products but excluding inter-EC trade.

2/ Estimate.

World wheat production in 1983/84 was 488.7 million tons, 10.1 million tons more than the record 1982/83 crop. The record global wheat crop in 1983/84 resulted from sharply higher production in Australia, China, and India, which more than compensated for reduced production in the United States, the U.S.S.R., and Argentina (Table 8). Extremely favorable growing conditions helped boost Australian wheat production to a record 21.8 million tons, more than double the drought-reduced 1982/83 crop of 8.9 million tons. Favorable weather and increased use of high-yielding varieties, fertilizers and irrigation contributed to a 19 percent increase in the 1983/84 wheat crop in China and a 13 percent increase in India. Chinese production, which increased to 81.4 million tons, exceeded that of the U.S.S.R. (78.0 million tons) which has traditionally been the world's largest wheat producer. Wheat output in the United States

Table 8. Wheat: Production and International Trade, 1980/81-1983/84

(In millions of metric tons)

	June/July Years							
	1980/81		1981/82		1982/83		1983/84 1/	
	<u>Production</u>	<u>Exports</u>	<u>Production</u>	<u>Exports</u>	<u>Production</u>	<u>Exports</u>	<u>Production</u>	<u>Exports</u>
Major exporters	<u>157.6</u>	<u>88.1</u>	<u>179.7</u>	<u>97.2</u>	<u>185.4</u>	<u>92.3</u>	<u>185.5</u>	<u>97.7</u>
United States	64.6	41.9	75.8	48.8	75.3	39.9	65.9	40.1
Canada	19.2	17.0	24.8	17.6	26.9	21.2	26.9	20.4
Australia	10.9	10.6	16.4	11.0	8.9	8.1	21.8	11.6
Argentina	7.8	3.9	8.3	4.3	14.5	7.5	11.7	9.6
EC	55.1	14.7	54.4	15.5	59.8	15.6	59.2	16.0
	<u>Production</u>	<u>Imports</u>	<u>Production</u>	<u>Imports</u>	<u>Production</u>	<u>Imports</u>	<u>Production</u>	<u>Imports</u>
Major importers	<u>279.8</u>	<u>55.5</u>	<u>265.6</u>	<u>61.9</u>	<u>291.0</u>	<u>60.5</u>	<u>300.7</u>	<u>57.9</u>
U.S.S.R.	98.2	16.0	80.0	19.5	86.0	20.2	78.0	20.0
EC	55.1	4.5	54.5	4.7	59.8	3.7	59.2	4.0
Japan	0.6	5.8	0.6	5.6	0.7	5.8	0.7	5.6
Eastern Europe	34.5	5.9	30.5	6.3	34.8	4.3	34.9	4.1
China	55.2	13.8	59.6	13.2	68.4	13.0	81.4	10.0
India	31.8	--	36.3	2.3	37.5	3.6	42.5	4.3
Egypt	1.8	5.6	1.9	5.8	2.0	6.0	2.0	6.1
Brazil	2.6	3.9	2.2	4.5	1.8	3.9	2.0	3.8
World totals	<u>442.7</u>	<u>94.1</u>	<u>448.6</u>	<u>101.2</u>	<u>478.6</u>	<u>98.2</u>	<u>488.7</u>	<u>101.0</u>

Sources: U.S. Department of Agriculture, Foreign Agriculture Circular: Grains (Washington), various issues.

1/ Staff estimates.

declined by 12 percent from the very high levels of 1982/83 because of reductions in both planted area and harvested area due to the effects of the 1983 wheat price support program. The 1983 program consisted of an acreage reduction program (ARP), a paid-land-diversion (PLD) program, and a PIK program. <sup>1/</sup> The 1983 wheat program, which was announced in the fall of 1982 and affected U.S. production in the 1983/84 crop year, attracted heavy producer participation, and a total of 28.2 million acres was set aside or diverted in 1983/84 compared with 5.8 million acres in 1982/83. In 1983/84, area harvested declined by 22 percent, but generally favorable growing conditions and the idling of less productive lands resulted in an 11 percent increase in yields. Consequently, total 1983/84 U.S. production of 66 million tons was the third largest crop in history and only 13 percent lower than the record 1981/82 crop.

Wheat production in the U.S.S.R. in 1983/84 declined by 9 percent, largely because of a poor winter wheat crop. Large areas had to be ploughed under and resown due to adverse weather conditions. The 1983/84 wheat crop in Argentina was 12 million tons or about 19 percent lower than the previous year's all time record crop of 14.5 million tons. Production was adversely affected by a reduction in planted area as well as cold dry weather in July and August 1983 which delayed sowings in southern areas and affected the early development of crops. Production in Canada, the EC, and Eastern Europe in 1983/84 was virtually identical to that in 1982/83.

World wheat utilization increased from 467 million tons in 1982/83 to 484 million tons in 1983/84. Due to the combined effects of a record wheat crop and a sharp reduction in the world maize crops, the price premium for wheat over maize was reduced to about US\$10 per ton in 1983/84 compared with an average level of about US\$40 per ton in recent years. This and the availability of large quantities of weather-damaged feed wheat contributed to a sharp increase in the use of wheat to meet feed requirements. Use of wheat for feed was particularly prevalent in the United States, the EC, and South Africa. In 1983/84 wheat utilization is estimated to have increased by 23 percent in the United States and by 12 percent in China, while it declined by 10 percent in the U.S.S.R..

Despite the existence of a buyer's market for wheat characterized by ample supplies and low prices, world wheat trade grew by only 3 percent in 1983/84 and there was keen competition for markets amongst the major wheat exporting countries. Import demand from the U.S.S.R., China, and India, which have traditionally been large importers, was reduced because of large domestic wheat and other grain crops. The 3 percent growth in world wheat trade was largely attributable to increased demand from a large number of smaller importers. As a result of the above developments, end-of-period world wheat stocks are estimated to have increased from 96.8 million tons in 1982/83 to 101.3 million tons in 1983/84.

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<sup>1/</sup> For a brief description of these price support measures see "Recent Developments and Outlook for Primary Commodities" (DM/84/28, 4/26/84, page 21).

Assuming normal weather, the 1984/85 world wheat crop should attain an all time high of around 500 million tons. Production in the United States is expected to increase by 4 percent, reflecting a projected increase in the area harvested. Despite a freeze in agricultural support prices for 1984/85, wheat production in the EC is expected to increase by about 10 percent, while another record harvest is in prospect in India. However, adverse weather conditions have caused an earlier projected increase of 10 percent in 1984/85 U.S.S.R. wheat production to be scaled down to 2.5 percent. The sharply higher import requirements of the U.S.S.R. are expected to boost world wheat trade to about 103 million tons. As a consequence, global wheat utilization is expected to nearly equal global production and end-of-period stocks are expected to remain at approximately the same level in 1984/85 as in 1983/84. Large wheat supplies resulting from a fourth successive record world wheat crop, and the prospect of sharp recovery in world coarse grain supplies are expected to act as a cushion against any large increase in world wheat prices. However, any further significant increase in wheat import demand or a further deterioration in crop prospects could lead to higher wheat prices. Given the above prospective supply and demand outlook, wheat is expected to continue to trade at present or slightly higher price levels.

b. Maize

The announcement in January 1983 of the 1983 U.S. acreage reduction program for maize, a low level of free stocks in the United States and crop failure due to a drought in South Africa were the main factors that caused maize prices to rise during the first quarter of 1983. Strong farmer participation in the 1983 U.S. maize program, buoyant feed and industrial demand in the United States and import demand from South Africa and Mexico reinforced the upward price movement through the second quarter of 1983. Hot dry weather in the U.S. corn belt in July caused prices to advance further. In August when it became apparent that the U.S. crop would be substantially reduced by the drought, prices moved sharply higher. The actual harvest was 50 percent less than the previous year as a result of the combined effects of the drought and the acreage reduction program, and the market remained buoyant through the remainder of 1983. The average price for maize in 1983, at US\$3.50 per bushel, <sup>1/</sup> was 30 percent higher than in the previous year. Prices during the first eight months of 1984 remained firm due to the very tight supply situation, averaging US\$3.64 per bushel. In September, with the onset of the Northern Hemisphere harvest and larger prospective supplies, maize prices declined to US\$3.35 per bushel.

World maize production is estimated to have declined by 20 percent in 1983/84 (October/September year) due primarily to the sharp reduction in the U.S. crop (Table 9). As a result of the strong farmer participation in the 1983 program, 31.3 million acres were set aside or diverted in 1983/84, the bulk of it under the PIK program. Total U.S. planted

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<sup>1/</sup> Price quotations refer to U.S. No. 1 yellow corn, f.o.b. Gulf ports.

acreage declined by 26 percent to 60.2 million acres. Production on this reduced acreage was further reduced by the drought which lowered yields by about 29 percent. Maize production outside the United States increased from 228.1 million tons in 1982/83 to 240.8 million tons in 1983/84 due to larger crops in China, the U.S.S.R., and Mexico.

Table 9. Maize: World Commodity Balance, 1978/79-1984/85

(In millions of metric tons)

October/ September Years	Production	Utilization	End-of-Period Stocks <u>1/</u>	Trade
1978/79	390.8	389.2	48.4	65.6
1979/80	424.2	414.1	58.5	73.9
1980/81	406.8	415.1	50.3	78.5
1981/82	439.0	413.0	76.3	67.9
1982/83	437.3	417.7	95.7	64.1
1983/84	349.1	410.6	34.2	59.6
1984/85 <u>2/</u>	439.0	431.5	41.7	66.9

Sources: U.S. Department of Agriculture, Foreign Agriculture Circular: Grains (Washington), various issues; and staff estimates.

1/ Based on aggregate stocks at end of different local marketing years and excludes countries for which estimates are unavailable, e.g., China and parts of Eastern Europe.

2/ Estimated.

As noted above, the availability of large supplies of relatively low priced wheat helped to cushion the impact of the shortfall in maize production. Wheat feed use increased in the United States, the EC, and South Africa and the major coarse grain importing countries in East Asia increased their imports of Canadian rye for feed use. Nevertheless, the high maize prices caused world trade in maize to decline by about 7 percent in 1983/84. Reduced import demand by China was partly offset by increased imports by the U.S.S.R. and South Africa. South Africa, which is normally an exporter of maize, imported maize because a second consecutive year of drought sharply reduced 1983/84 maize production.

The outlook for the 1984/85 crop year is for sharply higher world maize production because of a large projected increase in the U.S. crop. The area planted with maize in the United States is estimated to be about 33 percent larger than in the previous year. Growing conditions in the United States have been relatively favorable and yields are expected to recover from their very low levels of 1983/84. World maize production in 1984/85 is expected to be about 439 million tons or some 26 percent larger than the 1983/84 crop. World trade in maize is expected to increase by about 7.3 million tons in 1984/85 largely on account of a projected sharp increase in maize imports by the U.S.S.R.. The larger prospective maize crop and lower maize prices are expected to result in increased maize utilization and in a rebuilding of stocks. Increased maize imports by the U.S.S.R. are expected to moderate the otherwise downward pressures on prices associated with the larger prospective harvest.

c. Rice

In 1983, favorable weather conditions in the main rice producing countries, weak import demand and strong competition among the main rice exporting countries caused rice prices to decline for the third consecutive year. After declining by 5.5 percent in 1983, prices continued to decline through the first six months of 1984. By June 1984 they had reached a level of US\$256 per metric ton <sup>1/</sup> which was 47 percent lower than the unusually high price of US\$483 per ton in 1981 and 8 percent less than the price of US\$277 per ton in 1983. In real terms, prices in June 1984 were at their lowest level in the last two decades. Nominal prices recovered by 6.6 percent to US\$273 per ton in July and remained at the same level in August before declining to US\$255 per ton in September.

Three factors are largely responsible for the relatively large degree of price instability that has been a characteristic of the world rice market. First, rice production in Asia, which accounts for about 90 percent of total world rice production, is dependent on the timeliness and duration of monsoon rains. This is especially so in Thailand, Bangladesh, Burma, Viet Nam, and Laos where the percentage of irrigated acreage in total rice acreage is relatively low. Second, the world rice market is "thin" because only about 5 percent of total world rice production is traded; this compares with about 20 percent for wheat and about 14 percent for maize. Third, government policies in the major rice exporting and importing countries have a significant impact on the market because about 50 percent of the world rice trade takes place under direct government-to-government contracts.

World rice production increased by 1.7 percent in 1982/83 and by 7 percent in 1983/84 (Table 10). The most significant increase in 1983/84 occurred in India where output recovered sharply from the drought-reduced

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<sup>1/</sup> Price quotations refer to Thailand white milled 5 percent broken f.o.b. Bangkok.

crop of 69.8 million tons harvested in 1982/83 to a record of 85.6 million tons in 1983/84. Modest production increases were also recorded in China, Bangladesh, Thailand, and Brazil. Rice production in the United States is estimated to have declined by 36 percent in 1983/84 because of a sharp reduction in the area planted as a result of large participation in the acreage reduction program.

Table 10. Rice: Production, Utilization, and Stocks, 1976/77-1984/85

(In millions of metric tons, milled basis)

Crop Years <u>1/</u>	Production	Utilization	End-Period Stocks <u>2/</u>	Stocks as Percent of Utilization
1976/77	236.8	238.4	17.7	7.4
1977/78	251.4	246.4	22.8	9.2
1978/79	263.7	258.6	27.8	10.8
1979/80	257.4	261.9	23.3	8.9
1980/81	271.0	272.2	22.1	8.1
1981/82	280.5	281.3	21.2	7.5
1982/83	285.4	289.7	16.9	5.8
1983/84	305.3	305.4	16.8	5.5
1984/85 <u>3/</u>	308.2	308.9	16.1	5.2

Source: U.S. Department of Agriculture, Foreign Agriculture Circular: Grains (Washington), August 1984.

1/ Rice is mostly harvested over a 6-8 month period. Thus, crop year 1981/82 represents crops harvested in late 1981 and early 1982 in the Northern Hemisphere, and early 1982 in the Southern Hemisphere.

2/ Based on aggregate stocks at end of different local marketing years and excludes countries for which estimates are unavailable, e.g., North Korea and China.

3/ Estimate.

After reaching a level of 13.1 million tons in calendar year 1981, world rice imports declined to 11.6 million tons in 1982, but recovered to 11.8 million tons in 1983 mainly because of sharply higher imports by Indonesia and larger imports by Brazil and India. Indonesia was the world's largest rice importer in 1983, purchasing 1.1 million tons, three times as much as it imported in the previous year. For the first time in seven years, India re-entered the market as a rice importer in 1983 because of the poor 1982/83 rice crop and a sharp drawdown in stocks.

Rice export availabilities in 1983 were more than adequate to meet import demand which was limited by the world recession, the debt and foreign exchange problems of many importing countries, as well as ample wheat supplies and relatively low wheat prices. As a result, competition for markets intensified and prices remained under pressure throughout the year.

In 1984, Asia's total import requirements are expected to be about the same as in 1983. Indonesia's imports are likely to decline because a good main crop was harvested in the first half of 1984. However, despite the recent bumper crop, India's imports are likely to rise in 1984 because of the need to replenish stocks. The demand for rice imports is expected to continue to increase in both the Middle East and Africa because of the rapid rate of increase in rice consumption in those areas. Exports from Thailand, the world's largest exporter, are expected to be marginally higher than the 3.7 million tons exported in 1983, while exports from the United States are expected to be lower than the 2.3 million tons exported in 1983; exports from Pakistan, Burma, and Australia are expected to rise in 1984.

The rice production outlook for 1984/85 is favorable because of good weather conditions in Asia. Newly planted crops in Thailand and India have benefited from the southwest monsoon which arrived ahead of schedule and widespread rains have benefited the crops in China. Barring unforeseen production shortfalls, world import demand is expected to be lower than in 1984 and rice prices can be expected to remain at about their current levels.

### 3. Sugar

Despite the first production shortfall in three years in 1983/84 (crop year ending August) and the continued implementation of the price stabilization provisions of the 1977 International Sugar Agreement (ISA) <sup>1/</sup>, sugar prices during the first eight months of 1984 fell to their lowest levels in thirteen years. The average monthly price of sugar, which in recent years had already fallen significantly below the cost of production of even the most efficient producers, declined from about U.S. 7 cents per pound in January 1984 to about U.S. 4 cents per

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<sup>1/</sup> A description of the International Sugar Agreement is contained in Section VI.

pound in August/September. The price last reached this level in 1971, when prices averaged U.S. 4.5 cents per pound. This price decline is attributable to several factors, the most important of which being a structural imbalance between world supply and demand as reflected in a sharp and continuous growth in world stocks. Other contributing factors include the lack of progress, and eventual collapse in June 1984, of negotiations for a new agreement to succeed the present ISA which expires at the end of 1984; the anticipated liquidation of special stocks held by exporting members of the present Agreement and the lifting of export quotas upon expiry of the Agreement; and the prospects for continued increases in world sugar production in 1984/85.

After bumper crops in 1981/82 and 1982/83, when world production of about 100 million tons annually exceeded annual consumption of about 90 million tons, world sugar production is estimated to have fallen by 6.2 percent to 94.7 million tons in 1983/84 (Table 11). The decline reflected adverse growing conditions and reduced areas harvested in some important producing countries (South Africa, the Philippines, Australia, and the EC), which were partly offset by higher production in other areas, particularly in the U.S.S.R., which is a large importer of sugar. The decline in production was accompanied by a 4.0 percent increase in sugar consumption, compared with increases of 2.9 percent and 1.0 percent in 1981/82 and 1980/81, respectively, with the expansion attributable to the continued low level of free market prices and the increased availability of domestically produced sugar in large developing countries such as India and China. These factors more than compensated for the adverse effects on sugar consumption in the industrialized market economies of sugar substitutes consumed for dietary reasons or alternative caloric sweeteners such as high-fructose corn syrup (HFCS). As a result, in 1983/84 production fell short of consumption by 1.0 million tons, compared with production excesses in 1981/82 and 1982/83 of 11.2 million tons and 9.0 million tons, respectively, and the level of stocks declined from 49.3 percent of current consumption in 1982/83 to 46.4 percent in 1983/84. This percentage is still significantly above the level generally considered "normal" (24 percent of current consumption) and is the main reason for the continued downward pressure on free market prices.

As the demand for sugar is relatively stable, the imbalance between free market supply and demand and the build-up in stocks which have depressed prices are mainly attributable to exogenous supply shocks, such as the favorable growing conditions that prevailed in many sugar-producing areas in two of the three most recent years, and to the domestic price support programs in the EC and the United States. The price support programs have had the effect of protecting domestic producers from the sharp decline in free market prices and increasing the availability of sugar on the free market through higher EC exports and reduced U.S. imports; the imposition by the United States of sugar import quotas since May 1982 has effectively raised the domestic price of sugar to support levels, a development that has in turn encouraged the rapid displacement of sugar by substitutes, such as HFCS.

Table 11. Sugar: World Production, Consumption, and Stocks, 1973-85

Years Ending August	Production			Consump- tion	Ending Stocks	"Normal"	Stocks/
	Beet	Cane	Total			Stock	Consumption
	(1)	(2)	(3)			Level 1/	Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)

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	- - - - - (In millions of metric tons) - - - - -					(In percent)	
1973	30.1	44.8	75.1	77.7	17.2	18.6	22.1
1974	32.0	48.0	80.0	80.0	17.3	19.2	21.6
1975	28.5	50.0	78.5	77.1	18.9	18.5	24.5
1976	31.7	49.9	81.7	79.2	21.0	19.0	26.5
1977	32.8	53.5	86.3	81.9	24.8	19.6	30.3
1978	35.0	57.7	92.7	86.2	30.0	20.7	34.8
1979	34.6	56.7	91.3	89.6	31.0	21.5	34.6
1980	33.5	51.1	84.6	89.5	24.2	21.5	27.0
1981	32.9	55.6	88.5	88.5	25.2	21.2	28.5
1982	37.0	63.6	100.6	89.4	36.4	21.5	40.7
1983	37.4	63.6	101.0	92.0	45.4	22.1	49.3
1984E	35.3	59.4	94.7	95.7	44.4	23.0	46.4
1985E	36.8	63.0	99.8	97.3	46.9	23.4	48.2

Source: USDA, Foreign Agricultural Service.

Note: E refers to estimate; F refers to forecast.

1/ Calculated as 24 percent of current consumption.

The operation of the 1977 ISA also has affected the free market price of sugar through the imposition of export quotas and the accumulation of special stocks with the objective of stabilizing prices within the agreed range of 13 to 23 cents per pound. These measures helped to stabilize prices during 1978 and 1979, the first two years of the Agreement's operation, and subsequently were suspended when prices rose sharply in 1980. However, the measures have failed to stabilize prices in more recent years mainly because of the emergence of surplus world production on a scale that was not foreseen when the Agreement was negotiated and with which it was not designed to cope. Consequently, efforts began in late 1982 to conclude a new and more effective Agreement, with the participation of the EC, which is not a member of the present Agreement but has become the leading exporter of sugar to the free market. However, differences among the major exporters over crucial issues relating to the price stabilization mechanism could not be resolved and further negotiations are not expected to be resumed in the near future.

Instead, the present Agreement is to be replaced when it expires at the end of 1984 with an administrative agreement, without market intervention provisions. Consequently, the 2.3 million tons of special stocks presently held by exporting members of the 1977 ISA are expected to be released from the control of the International Sugar Organization on January 1, 1985, and countries then will be free to dispose of them on the world market or to continue to hold them on a voluntary basis.

Prospects for a significant improvement in prices in the short term are not favorable. In 1984/85 sugar production is expected to increase by 5 percent to 99.8 million tons, compared with an expected 2 percent increase in consumption, resulting in a further rise of world stocks from their already exceptionally high level.

#### 4. Other food

After strengthening in the first quarter of 1983 in response to a recovery in demand, beef prices <sup>1/</sup> remained stable through the second and third quarters of the year. Prices, which weakened in the fourth quarter of 1983, have continued to decline in 1984 reaching a level in the third quarter that was 7 percent below the level in the fourth quarter of 1983. This decline is related to increased supplies resulting from high feed grain prices and the enactment of the U.S. dairy law which increased dairy cow slaughter.

World beef and veal production is estimated to have increased from 36.3 million tons in 1982 to 37.0 million tons in 1983. Beef and veal production in Australia and Argentina declined significantly due to herd rebuilding but this was outweighed by increased production in the U.S.S.R., the United States, Brazil, and the EC. World trade in beef and veal fell slightly in 1983 and there was a significant shift in the pattern of world trade. Exports from the traditional major exporting countries, Australia and Argentina, declined sharply due to reduced availabilities; Australian shipments declined by 19 percent from 623,000 tons in 1982 to 504,000 tons in 1983 and Argentine exports declined by 21 percent from 522,000 tons in 1982 to 410,000 tons in 1983. Increased exports from the EC and Brazil and increased production in the importing countries themselves offset the shortfall in exports from Australia and Argentina.

The short-run outlook is for a reduction in beef supplies as beef production continues to decline in Australia and Argentina due to herd rebuilding and improved forage conditions, and lower feed grain prices reduce beef production in the United States. The demand for beef is expected to remain strong due to the world economic recovery and beef prices are expected to recover over the short run.

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<sup>1/</sup> Price quotations refer to the average price for imported frozen boneless cow meat from Australia and New Zealand at U.S. ports.

World sheep meat production is estimated to have increased by about 1 percent to 4.68 million tons in 1983, largely on account of an increase in production in New Zealand and the U.S.S.R. which outweighed a large decline in Australia. Imports by the EC, the largest importer of sheepmeat, declined sharply in 1983 due to the high level of stocks in the EC of New Zealand lamb carried over from 1982, and the diversion of New Zealand lamb to markets in the Middle East and the U.S.S.R. After reaching a level of 146 U.S. cents per pound in May 1981, lamb prices <sup>1/</sup> declined to an average level of 88 cents per pound in 1983. Due to the low level of prices in 1983, substantial deficiency payments were made to New Zealand sheep farmers under the meat industry's price stabilization scheme. During the first nine months of 1984, there was a very modest recovery in lamb prices.

World demand for lamb is expected to improve over the short term. Though imports by the U.S.S.R. are likely to be substantially lower than in 1983 due to an expected increase in production, imports by the Middle East are expected to increase. Lower production in New Zealand, which is expected to be only partly offset by slightly higher production in Australia, and the low level of carry-over lamb stocks in New Zealand, suggest that lamb prices are likely to improve in the short run.

The average monthly price of bananas of Central American and Ecuadorian origin in the United States over the period January to September 1984 was US\$7.09 per box of 40 pounds, 13 percent below the average for the corresponding months of 1983 and almost the same level as in the corresponding periods in 1981 and 1982. Prices in 1983 were higher because torrential rain and flood damage in Ecuador and hurricane damage in some producing countries in Central America reduced supplies. Although recovery in Ecuador in the early months of 1984 was reported to have been incomplete, world supply conditions were more normal and the seasonal increases in prices over the period April to June were less marked than usual. Prices fell in July and August, as is usually the case, as fresh summer fruit competed with bananas in import markets. Unless adverse weather conditions develop in major exporting countries or there are prolonged labor disputes or other factors leading to a serious disruption of either production or shipping, banana prices are expected to remain stable through 1985, apart from the usual seasonal movements.

### III. Beverages

Similar to food prices, beverage prices rose strongly during 1983 due to lower output in major producing areas, reaching a level in the fourth quarter that was 16 percent higher than the level in the fourth quarter of 1982 (Chart 4). They then rose slightly higher and stabilized in the first two quarters of 1984 before falling by 5 percent in the

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<sup>1/</sup> Price quotations refer to the price of New Zealand lamb, grade PL, at the Smithfield market, London.

third quarter. Unfavorable weather conditions adversely affected the crops of all three beverages (coffee, cocoa, and tea) during 1983. The coffee crop in Brazil and several African countries declined because of adverse weather, and the West African drought caused a drop in cocoa production. Tea production fell in Sri Lanka and in the southern producing region of India because of insufficient rainfall.

Beverage prices are expected to decline somewhat in the last half of 1984 and in 1985 as larger harvests are in prospect for all three commodities. The 5 percent drop in beverage prices in the third quarter appears to have been the beginning of this price response to increasing supplies.

1. Coffee

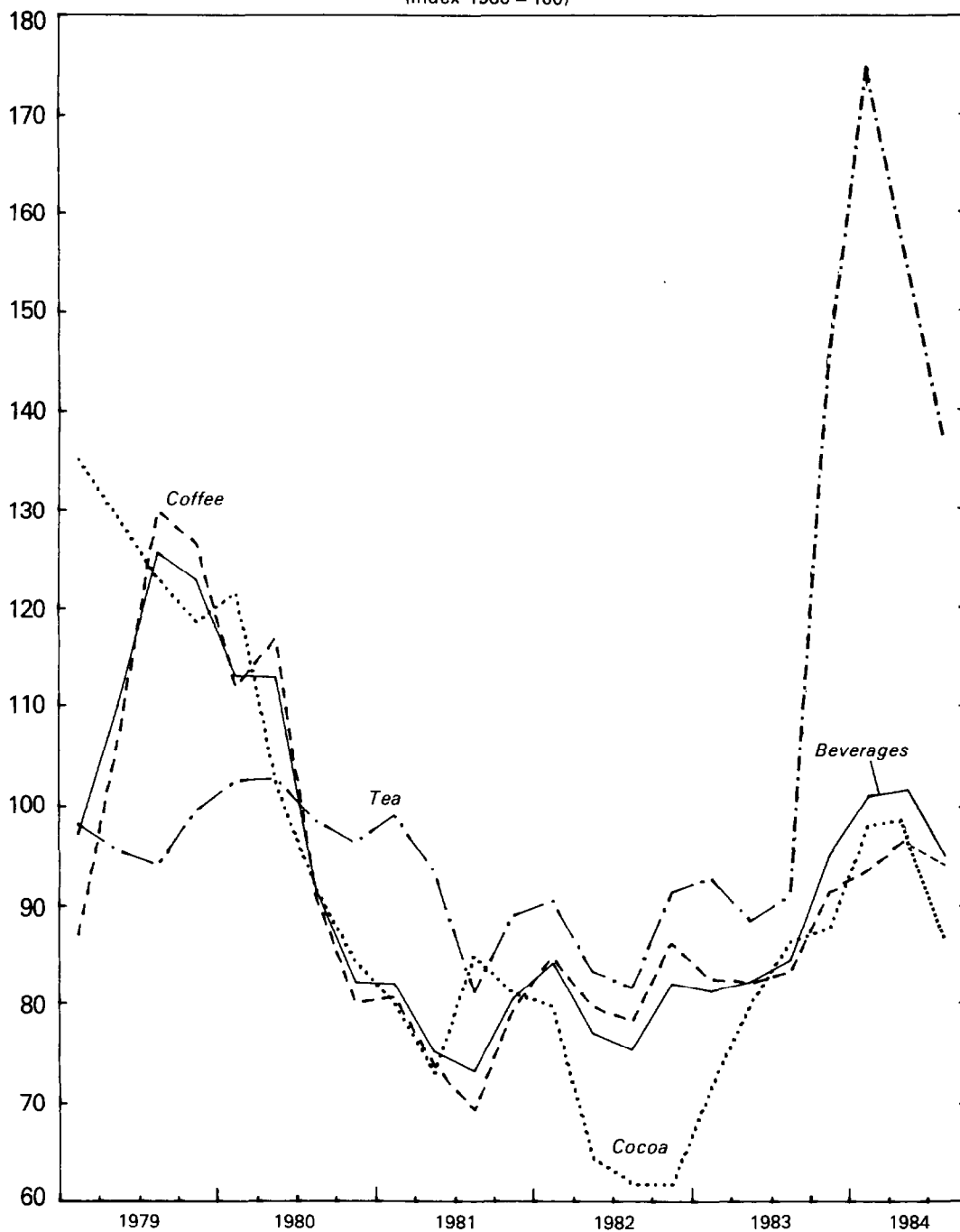
Coffee prices in 1983/84 have been substantially higher than in the three previous years although they have been considerably below prices over the period 1976/77 through 1979/80. The average of the International Coffee Organization (ICO) composite daily prices, which are an average of spot prices in major import markets for "other milds" (Salvadoran, Guatemalan, and Mexican origins) and robustas (African origins), over the period October 1983 to September 1984 was 12 percent above the average for the 1982/83 coffee year. The increases for the different types of coffee were of similar orders of magnitude.

During the 1982/83 international coffee year (October–September) the ICO indicator price (a 15-day moving average of the composite daily price) remained between 120 U.S. cents per pound, the price at which major downward adjustments of the export quotas established under the provisions of the 1976 International Coffee Agreement would have occurred, and 140 U.S. cents, the price at which major upward adjustments of the export quotas would have occurred. For the 1983/84 year, the first year of the operation of the 1983 International Coffee Agreement <sup>1/</sup>, the International Coffee Council left the price range unchanged from 1982/83 and set the initial global quota for exports by exporting member countries to importing member countries at 56.2 million bags of 60 kgs each, only marginally higher than the final global quota for 1982/83. Prices rose steadily in the first quarter of the coffee year (October–December 1983). As a result, on December 19, 1983 the indicator price passed 140 U.S. cents per pound leading to an automatic increase of one million bags in the annual global export quota. Prices fell somewhat in early January but soon increased again so that a second quota increase of one million bags took place on February 7, 1984 when the indicator price once again passed 140 U.S. cents. A third quota increase of one million bags occurred in accordance with the Council's quota decision on May 16 when the indicator price passed 145 U.S. cents. A fourth increase of one million bags took place in accordance with the price provisions of the 1983 Agreement on

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<sup>1/</sup> A description of the International Coffee Agreement is contained in Section VI.

CHART 4  
BEVERAGES: QUARTERLY PRICE MOVEMENTS  
(Index 1980 = 100)





May 31 when the price passed 150 U.S. cents. Partly in response to the quota increases in May, average prices in June 1984 were nearly 2 percent below those for May. Prices fell further in July with the result that the fourth quota increase was rescinded only to be restored at the end of August when prices rose in response to a frost in Brazil. The frost was subsequently judged only to have caused minor damage.

A number of mainly supply factors appear to have contributed to the strengthening of coffee prices in 1983/84 (Table 12). The quality, and to a lesser degree, the quantity of Brazilian coffee and coffee from an number of robusta producers was adversely affected by weather conditions leading to some shortage of quality Brazil and robusta coffee. A partly related factor was the failure of certain exporting countries to fill their export quotas in the early part of the 1983/84 quota year. Export shipments to quota markets in the first two quarters were 8 percent below the export quotas. These two factors contributed to an uneasiness in the coffee trade as to the quality of the large stocks of coffee accumulated since the introduction of coffee export quotas in October 1980.

Improved weather conditions for the 1984/85 crop in a number of producing countries, the absence of major frost in Brazil and increased exports to meet the increased export quotas led to a weakening of prices in the final quarter of the 1983/84 coffee year (July-September 1984). The allocation for the 1984/85 coffee year of quotas by the International Coffee Council under the provisions of the 1983 Coffee Agreement proved less difficult to negotiate than previously anticipated because some of the burdens of stockholding by exporting countries were alleviated by the quota increases and shortfall redistributions during 1983/84. The global quota for 1984/85 was increased to 59 million bags with no change in the prices that would trigger increases and decreases in exports to quota markets. However, an additional two million bags have been allocated to the first quarter (October-December 1984) with provision that one million would be withdrawn should the indicator price fall below US\$1.35 per pound and the second million be withdrawn should the price fall below US\$1.30 per pound. Unless a major frost occurs in Brazilian coffee-producing areas, prices should remain for the most part within the ranges specified, as no major changes are anticipated in demand. The indicator price fell below US\$1.40 per pound following the announcement of the 1984/85 quotas and prices in 1984/85 are likely to remain near the middle part of the range as compared with 1983/84 when the prices were near or above the top of the range for much of the year. With a modest increase in stocks projected for 1984/85 (7 percent forecast by USDA as shown in Table 12), a similar situation is likely to prevail for 1985/86, subject as always to the possibility of supply shocks, principally as a result of frost in Brazil.

Table 12. Coffee: World Commodity Balance, 1974-85

(In million bags of 60 kilograms)

Coffee Year Ending In September <u>2/</u>	Production	Consumption 1/ Net exports			End-of-Year Stocks in Producing Countries
		Producing countries	of producing countries	Total	
1974	65.7	19.0	60.1	79.1	36.1
1975	82.8	19.2	55.0	74.2	44.7
1976	73.1	19.2	59.3	78.5	39.4
1977	60.9	18.4	56.2	74.6	25.7
1978	70.9	18.8	48.2	67.0	29.5
1979	78.9	19.5	63.9	83.4	25.1
1980	81.9	20.0	61.0	81.0	26.0
1981	86.4	20.6	59.0	79.6	32.7
1982	98.1	21.3	63.9	85.2	45.6
1983	83.1	20.7	64.6	85.3	43.5
1984	90.7	21.6	65.4	87.0	47.2
1985 <u>3/</u>	91.9	21.9	66.9	88.8	50.4

Source: U.S. Department of Agriculture, Foreign Agriculture Circular: Coffee, (Washington), July 1984, Table 3.

1/ Consumption is defined as most consumption in producing countries plus net exports of producing countries. Comprehensive series of stocks data in importing countries are not readily available.

2/ Coffee year for most countries is October to September. For Brazil, coffee year is July to June.

3/ USDA forecast.

## 2. Cocoa

The behavior of cocoa prices has been remarkably similar to that of coffee prices, with the explanation largely in terms of similar supply variation. Cocoa prices in 1983/84 were substantially higher than those of the preceeding three years, but nevertheless were well below the average prices of the period 1976/77 to 1979/80. The International Cocoa Organization (ICCO) daily price, which is an average of future market prices for cocoa beans on London and New York markets, over the period October 1983 to September 1984 averaged 24 percent above that for the 1982/83 cocoa year.

Prices fell from around 95 U.S. cents per pound early in 1982 to around 70 U.S. cents in mid-year following the suspension of cocoa purchases by the buffer stock manager of the ICCO. <sup>1/</sup> However, prices recovered in late 1982 and early 1983 as the effects of the dry weather in West Africa on the 1982/83 crop became increasingly evident. From May to November 1983 prices fluctuated around 100 U.S. cents per pound. In December 1983 prices rose again as it became clear that there would be a second successive small crop in West Africa on account of low rainfall, and from December until June 1984 prices fluctuated around 115 U.S. cents. By June the consistent reports of good weather for the development of the main crops in West Africa and Brazil led to changed expectations and prices began to fall. Prices averaged 102 U.S. cents in the third quarter of 1984.

These price variations, as indicated, reflect the expectations regarding production, grindings (the first stage of consumption) and stocks. World production in 1983/84 has been forecast to be 1,520,000 tons, almost the same level as the preceding year, but much below world production in the three preceding years: 1,660,000 tons in 1979/80, 1,690,000 tons in 1980/81 and 1,720,000 tons in 1981/82 (Table 13). Similarly, world grindings in 1983/84 have been forecast to be 1,660,000 tons, marginally above the level in the preceding year, and considerably above world grindings in the preceding three years: 1,490,000 tons in 1979/80, 1,570,000 tons in 1980/81, and 1,570,000 tons in 1981/82. As a result, whereas world stocks accumulated in 1979/80, 1980/81, and 1981/82 with world production exceeding world grindings, world stocks fell in 1982/83, and are expected to be around 510,000 tons at the end of 1983/84, the equivalent of less than four months of grindings compared with the equivalent of nearly six months of grindings two years earlier.

The prospect of favorable crops for 1984/85 in most of the major producing countries has served to weaken prices. Unless adverse weather conditions develop just prior to the harvest, prices in 1984/85 are likely to average considerably below those in 1983/84. In May 1984 the United Nations Cocoa Conference convened in Geneva to renegotiate the

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<sup>1/</sup> A description of the International Cocoa Agreement is contained in Section VI.

Table 13. Cocoa Beans: World Commodity Balance, 1974-85

(In thousands of metric tons)

Cocoa Year Ending in September	Production <u>1/</u>	Consumption (Grindings)		Total	End-of-Cocoa- Year Stocks
		Producing countries <u>2/</u>	Importing countries		
1974	1,450	350	1,140	1,490	330
1975	1,540	380	1,110	1,490	360
1976	1,500	410	1,100	1,510	340
1977	1,350	400	1,030	1,430	250
1978	1,510	440	950	1,390	360
1979	1,510	500	980	1,480	380
1980	1,660	520	970	1,490	530
1981	1,690	510	1,060	1,570	640
1982	1,720	470	1,100	1,570	770
1983	1,540	490	1,140	1,630	670
1984	1,520	500	1,160	1,660	510
1985 <u>3/</u>	1,720	500	1,170	1,670	540

Source: International Cocoa Organization, Quarterly Bulletin of Cocoa Statistics (London), various issues.

1/ Gross production. For comparison with consumption (grindings), deduct approximately 1 percent.

2/ Approximately 60 percent of the cocoa products obtained from grinding cocoa beans in producing countries are subsequently exported.

3/ Forecast.

1980 International Cocoa Agreement, but its failure to reach a successful conclusion at that session led to the extension of the 1980 Agreement for a year to cover the period from October 1984 to September 1985. It seems unlikely that the buffer stock manager of the ICCO will be permitted to use his resources in this period to make further purchases as there appears to be a desire to maintain these funds for use in a new agreement. However, should an agreement be reached when the United Nations Conference which resumed in October 1984, the threat of intervention by the buffer stock manager, possibly supported by export quotas, should give some support to cocoa prices. Otherwise, both in 1985 and 1986 the dominant factor influencing prices will continue to be the expectations concerning the size of the forthcoming world cocoa crop.

### 3. Tea

Beginning in October 1983 tea experienced a price boom, similar in magnitude, though of longer duration, to the one experienced in the first seven months of 1977. Average prices on the weekly London tea auctions rose by nearly 20 percent each month over the period October 1983 to January 1984 and, as a result, average January prices of US\$4.29 per kilogram were more than double those four months earlier in September. Prices declined by 13 percent in February, then stabilized for a period of three months before falling by 10 percent both in June and July. In spite of these declines, the average price for July 1984, US\$2.87 per kilogram, remained 48 percent above the average price for July 1983 in U.S. dollar terms and was 71 percent higher in terms of pounds sterling. In late August, prices began to rise again and the average price for September was 19 percent above that for July. The average price for the 12-month period October 1983 to September 1984 was US\$3.41 per kilogram, 68 percent higher than the average for the preceding 12-month period.

The immediate cause of the 1983/84 price surge was a poor monsoon resulting in low rainfall in Sri Lanka and drought in southern India, two of the world's major tea producing regions. As a result, the 1983 crop in Sri Lanka fell by 9,000 tons and the southern India crop fell by 8,000 tons. While available production estimates suggest that these declines were more than compensated by increases in production elsewhere, particularly in northern India, the dislocation in the market was sufficient to bring about a strong price reaction.

Two factors contributed to the strength of the price increase. First, stocks held in importing countries, of which the most important is the United Kingdom, have fallen in recent years (Table 14). In part this reduction was an adjustment to innovation in transportation of tea insofar as use of container shipping served to cut the time required to move tea from producer to consumer and hence, to reduce both the actual amount of the stocks in the pipeline and the perceived stock requirements. In addition, high interest rates served to make both sellers and buyers reluctant to hold large stocks. In this context, stocks in early 1983 were considered to be relatively large and when the first signs of unfavorable weather occurred, buyer reaction was slow. Later when companies reassessed their positions and attempted to obtain greater cover, prices rose quickly.

Table 14. Tea: World Commodity Balance, 1975-84

(In thousands of metric tons)

Calendar Year	Production <u>1/</u>	Consumption		Total	End-of-Year Stocks in United Kingdom
		Producing countries <u>2/</u>	Imports for consumption <u>3/</u>		
1975	1,540	790	750	1,540	68
1976	1,590	800	780	1,580	65
1977	1,710	890	810	1,700	88
1978	1,770	970	760	1,730	70
1979	1,790	940	820	1,760	60
1980	1,830	970	850	1,820	60
1981	1,840	990	840	1,830	43
1982	1,890	1,070	860	1,930	49
1983 <u>4/</u>	1,950	1,100	870	1,970	39
1984 <u>5/</u>	2,020	1,130	880	2,010	45

Source: Commodities Division; based on data published by FAO (Rome) and International Tea Committee (London).

1/ Includes green tea, which accounted for approximately 25 percent of total in 1982.

2/ Production minus exports.

3/ As reported by the International Tea Committee, adjusted by addition of 3 percent to make data comparable with exports over the period covered.

4/ Estimated.

5/ Forecast.

Also contributing to the price increase was a partial ban on the export of CTC (crush, tear, and curl) leaf by the Government of India at the beginning of January 1984. In normal years most of the northern India crop, which is largely CTC tea, is exported, while the southern India crop is used for domestic consumption. The Government considered export control necessary to ensure an adequate supply of tea for the domestic market in view of the poor southern India crop. Following the lifting of the controls in May and with reports of favorable weather for the 1984 crop in most major tea producing regions, tea prices fell in June and July. However, at the end of the August the export controls were reimposed and prices rose again.

Price prospects in the near future depend on whether the increase in production in 1984 is sufficient to meet expanding demand, mainly in Asian countries, and to replenish stocks which were depleted in the period of high prices. Production over the first six months of 1984 in southern India was 58 percent higher than over the corresponding period in 1983, and was 37 percent higher in Sri Lanka, although production in both areas in the month of June 1984 was lower than in June 1983. Of the major producing countries, only Kenya on account of drought, appears to be having a poorer crop in 1984 than in 1983. The higher prices of recent months are expected to lead to increased use of inputs, such as fertilizer and to renewed interest in investment in tea production. In the longer run the increasing dominance of the market by consumers in Asian countries, where demand is expanding as incomes and population increase, as opposed to industrial countries where demand has been largely stagnant for some time, should improve price prospects.

#### IV. Agricultural Raw Materials

The prices of agricultural raw materials increased by 10 percent in 1983 under the influence of rising industrial demand and a production shortfall for cotton (Chart 5). Prices continued to rise somewhat in the first quarter of 1984, but then declined for six consecutive months from March to September by a cumulative 10 percent. Rubber prices fell by 24 percent from February to June as major European consumers completed their stock rebuilding and a temporary surplus of RSS1 rubber emerged due to an increase in output associated with an unusually mild winter in Malaysia and Indonesia. Medium staple cotton prices declined by 17 percent from May to September under the influence of a much larger prospective harvest compared with the below-average crop of 1983/84. Wool prices fell by 10 percent in the third quarter of 1984 under the pressure of large world output and increasing stocks.

The prices of agricultural raw materials are expected to resume their upward trend during 1985, but prices for 1985 as a whole should on an average be about the same as in 1984. Although the weakness in cotton and wool prices is expected to remain in the short term, it is offset by demand-induced increases in the prices of rubber and other agricultural raw materials.

## 1. Cotton

Medium-staple cotton prices declined by 23 percent during the recession of 1981-82 because of the stagnation in cotton consumption, the bumper crop of 1981/82 that brought supply well above demand, and the high level of interest rates that prompted mill owners to reduce cotton inventories. Producer stocks accumulated as a result of the combined effects of low demand and an increase in supply.

In 1983, prices of medium-staple cotton increased by 16 percent. The price recovery that peaked at 90 U.S. cents per pound in the third quarter of 1983 was fuelled by the economic upturn, and the decline in the U.S. crop to two thirds of the previous year's level as a result of an acreage reduction program 1/ and weather damage. However, in the last quarter of 1983 and first quarter of 1984, prices declined reaching a low of 87.40 U.S. cents per pound in February 1984. Prices fell because the growth in world demand for cotton was less than expected and because China was expected to have a bumper crop. The expectations regarding large increases in supplies from China, however, did not materialize. Moreover, a shortage of certain varieties of cotton developed after heavy spring rains affected both the quantity and the quality of the harvest in Argentina and Paraguay, and after the crop in Pakistan, a major world exporter, turned out to be about 50 percent of the expected tonnage. As a consequence, prices resumed their upward movement in March 1984, reaching an average of 87 U.S. cents per pound in May, a level at which polyester prices, at 81 U.S. cents per pound, started to become more attractive to textile mills. Thereafter, prices fell steadily to average 73.4 U.S. cents per pound in September, reflecting expectations of a record crop in 1984/85, lower textile demand than forecast, and the possible substitution of polyester for cotton. The price of long-staple cotton increased steadily from the fourth quarter of 1982 to the first quarter of 1984, with a cumulative increase of 30 percent, but remained almost unchanged during the first three quarters of 1984. 2/

The three major world producers of cotton are China, the U.S.S.R. and the United States, but of these only the United States and the U.S.S.R. are major exporters. Although in most years, China is a net importer of cotton, output has increased rapidly in recent years. In 1983/84 China produced over 30 percent of total world cotton, but remained only a marginal exporter. Although Egypt and the Sudan together produce less than 5 percent of total world cotton, they are the main suppliers of

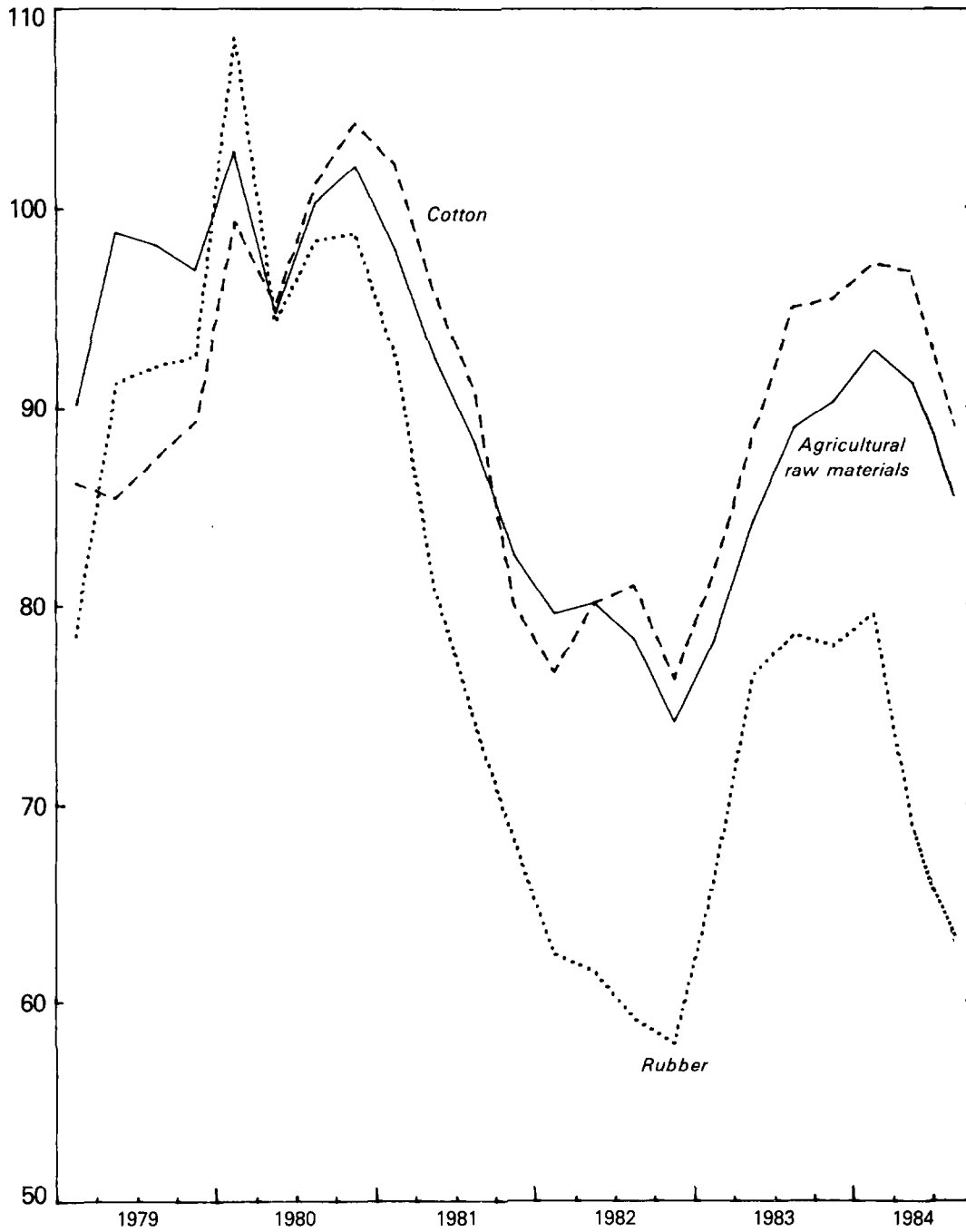
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1/ Under this program, federally held stocks were used to compensate farmers for reducing the land under cotton cultivation.

2/ Long-staple cotton sells at a substantial premium over medium-staple cotton. The price ratio of long- to medium-staple cotton has fluctuated over time; the price of medium staple was 58 percent of the price for long staple in 1982, 60 percent in 1983, and 51 percent in the first three quarters of 1984.

CHART 5  
AGRICULTURAL RAW MATERIALS:  
QUARTERLY PRICE MOVEMENTS

(Index 1980 = 100)





the higher-priced long-staple cotton. Egypt, the major world producer of long-staple cotton, sold its entire 1983/84 crop at an early date and drew down its stocks substantially. The 1983/84 Egyptian crop prices were 20 percent above those of the 1982/83 crop.

World trade in cotton peaked in 1979/80 at 5.1 million tons and declined thereafter largely because of the world recession (Table 15). Trade remained depressed after the upturn in economic activity, however, with only 4.1 million tons recorded in 1983/84. The causes are twofold. First, China, a major net importing country in the past, progressively achieved self-sufficiency; thus, China's cotton imports steadily declined from 900,000 tons in 1979/80 to 22,000 tons in 1983/84. Second, protectionist tendencies in industrialized countries discouraged raw cotton imports by LDCs that produce low-cost textiles for export; Hong Kong, for example, imported an average of 230,000 tons from 1975/76 to 1979/80, but only 168,000 tons in the post-recession 1983/84 year. U.S. exports declined in 1982/83 because of the reduced domestic crop and the strength of the U.S. dollar. They increased by almost 20 percent in 1983/84, however, despite the continued strength of the dollar, because crop failures in several exporting countries caused a shortage of certain quality fibers in world markets.

Table 15. Cotton: World Commodity Balance, 1979/80-1984/85

(In millions of metric tons)

	August/July Years					
	1979/80	1980/81	1981/82	1982/83	1983/84 <sup>1/</sup>	1984/85 <sup>1/</sup>
Production	14.1	14.0	15.4	14.7	14.7	16.8
Consumption	14.2	14.4	14.3	14.8	15.0	15.1
Trade (exports)	5.1	4.3	4.4	4.1	4.1	4.2
Stocks (end of period)	5.0	4.9	4.6	5.7	5.7	6.5

Sources: Cotton-World Statistics, Quarterly Bulletin of the International Cotton Advisory Committee; Cotton Outlook, Liverpool Cotton Services Ltd.

<sup>1/</sup> Estimate.

World cotton production in 1984/85 is projected to increase by 14.3 percent to 16.8 million tons, largely reflecting increased acreage in response to the relatively high prices obtained in the previous season. In the United States, production is forecast to increase by more than 50 percent because the high cotton prices prevailing in 1983/84 led to a low participation in the acreage reduction program, and rainfall was adequate at planting time. In Pakistan, Mexico, Turkey, Brazil, and India, significantly larger crops are also anticipated. World cotton consumption is projected to increase by a modest 2 percent. Given this prospective imbalance between world supply and demand, prices of medium-staple cotton are likely to remain under pressure in the next few months and could average well below their 1983/84 levels during 1984/85. <sup>1/</sup> Prices of long-staple cotton are expected to remain unchanged or to drop slightly in the last quarter of 1984 because of indications that the Egyptian crop will be larger, and to resume their upward trend in 1985, albeit at a much slower pace.

## 2. Rubber

Under the influence of higher prices for synthetic rubber resulting from the 1979 oil shock, the price of natural rubber (RSS1, f.o.b. Malaysia) reached a peak average price of 64.6 U.S. cents per pound in 1980. However, with the onset of the international recession, prices began to decline in 1981, and in 1982 they fell to an average of 38.9 U.S. cents per pound, 40 percent below their 1980 level. A monthly low of 36.1 U.S. cents per pound was recorded in December 1982. Partly in response to the turnaround in economic activity in industrial countries and to support operations under the International Rubber Agreement <sup>2/</sup>, rubber prices moved upward in the first half of 1983, averaging 46.0 U.S. cents per pound. The rate of recovery in prices slackened somewhat in the second half of the year, but the average price for the whole of 1983, at 48.3 U.S. cents per pound, was 24 percent higher than in 1982. Prices continued to rise in the opening months of 1984, reaching 51.7 U.S. cents per pound in February, but for reasons discussed below, fell by 24 percent during the next four months to 39.9 U.S. cents per pound in June. This was only 6 percent above the average price prevailing in the second half of 1982. Prices then rose slightly, averaging 41.1 U.S. cents per pound in the third quarter of 1984.

The fall in the price of rubber during the 1981-82 recession can be explained largely in terms of the relative movements of world demand and supply. Consumption declined by a cumulative 6 percent between 1979 and 1982 (Table 16) as the demand for automobiles in industrial countries

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<sup>1/</sup> An element of uncertainty regarding future cotton prices was introduced in August 1984, when the United States promulgated new regulations on "rules of origin" for textile and apparel imports that took effect on September 7, 1984.

<sup>2/</sup> A description of the International Natural Rubber Agreement is contained in Section VI.

Table 16. Rubber: World Commodity Balance, 1975-84

(In thousands of metric tons)

	Opening Commercial Stocks	Production	Deliveries from Government Stockpiles	Current Supply	Consumption	Closing Commercial Stocks	INRO <u>1/</u> Stocks	Total Year-End Stocks	Exports
1975	1,590	3,315	15	4,920	3,368	1,552	--	1,552	2,920
1976	1,552	3,585	3	5,140	3,505	1,635	--	1,635	3,165
1977	1,635	3,615	--	5,250	3,715	1,535	--	1,535	3,210
1978	1,535	3,745	--	5,280	3,725	1,555	--	1,555	3,250
1979	1,555	3,860	--	5,415	3,870	1,545	--	1,545	3,325
1980	1,545	3,845	--	5,390	3,760	1,630	--	1,630	3,265
1981	1,630	3,690	1	5,321	3,700	1,621	50	1,671	3,100
1982	1,621	3,755	--	5,376	3,655	1,721	260	1,981	3,060
1983	1,721	3,985	--	5,706	3,950	1,756	270	2,026	3,365
1984 <u>2/</u>	1,756	4,065	--	5,821	4,120	1,701	270	1,971	3,505

Sources: International Rubber Study Group, Rubber Statistical Bulletin (London), various issues; and Fund staff estimates.

1/ International Natural Rubber Organization.

2/ Estimated.

was adversely affected by reduced incomes and high interest rates. <sup>1/</sup> Although the weakening of prices induced a production decline of 155,000 tons in 1981, shortages of foreign exchange in producing countries induced an increase in world output of 65,000 tons in 1982. As a result, commercial stocks of natural rubber increased by 90,000 tons during the two-year period, and at end-1982 amounted to 1.72 million tons, the equivalent of over five and one half months' world consumption. In addition, price-support purchases by the buffer stock of the International Natural Rubber Organization were 50,000 tons in 1981 and 110,000 tons in 1982. A further 10,000 tons were added to the buffer stock in January 1983.

The upturn in prices which began in February 1983 reflected both the recovery of consumption in line with sharply higher demand for automobiles, and the constraint on production of a prolonged "wintering" season in the major producing countries. In the first half of 1983, consumption exceeded production by 105,000 tons and by end-June, commercial stocks had been reduced to 1.62 million tons, or to about the same level as in September 1982. Most of the reduction in stocks (70,000 tons) occurred in producing countries, but stocks in consuming countries or in transit were also reduced. Augmented by the need to rebuild stocks, the demand for rubber remained strong during the second half of 1983 and maintained upward pressure on prices. Production also responded to higher prices, and enabled stocks in consuming countries or in transit to rise by 110,000 tons, and in producing countries to increase by 35,000 tons during this six month period. By end-year, total commercial stocks reached a record 1.76 million tons. For 1983 as a whole, consumption rose by 295,000 tons to 3.95 million tons, and led to a corresponding increase in the volume of exports to 3.37 million tons.

Import data indicate that stock replenishment continued in the opening months of 1984, but that it probably was completed in Europe and Japan by the beginning of the second quarter. This development coincided with an extremely mild wintering period in Malaysia and Indonesia and, therefore, virtually no seasonal (March-May) reduction in the supply of RSS1. Since Europe constitutes the largest market for high quality rubber such as RSS1, a market glut developed and its price fell sharply from March through June 1984. <sup>2/</sup> The prices of lower grade rubber, however, were sustained to some extent by continued restocking in the United States, and the premium of RSS1 over other grades narrowed considerably. These factors suggest that there was no major underlying weakness of demand for rubber and that the surplus of RSS1 was only temporary. The price recovery which occurred in the third quarter of 1984 is therefore expected to continue in the final quarter and through 1985. The upward movement of prices, however, is expected to be moderated by the projected stability of oil prices, which largely determine the price

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<sup>1/</sup> More than two thirds of natural rubber consumption is used for tires and other automotive products.

<sup>2/</sup> Demand for RSS 1 was also affected temporarily by the German metal workers' strike in May-June 1984.

of synthetic rubber substitutes. In addition, sufficiently large price increases would trigger releases from the INRO buffer stock of 270,000 tons. World output of natural rubber is estimated to increase by 2 percent in 1984, compared with an estimated 4 percent growth in consumption and exports.

### 3. Other agricultural raw materials

The 1981-82 recession resulted in decreased demand for wool textiles; and in turn wool prices fell and inventories accumulated. The lower level of demand was reflected in a 14 percent drop in prices for fine wool and an 20 percent drop in prices for coarse wool from the first half of 1982 to the first half of 1983. It also resulted in the highest inventory accumulation since the mid-1960s, after four consecutive seasons during which disposals to the wool textile industry remained below new clip offerings. <sup>1/</sup> The high level of inventory accumulation was due to the lower demand for wool coupled with the price support operations of the wool marketing authorities in the main producing countries, especially Australia.

In the first half of 1984, fine wool prices increased by 6 percent and coarse wool prices by 4 percent above the prices in the last half of 1983. These price increases primarily reflected improved demand for wool, including purchases by the Australian Wool Corporation to support prices. In the third quarter of 1984, however, both fine and coarse wool prices declined by 10 percent because of the expectation of a record high level of world wool production in 1984/85.

Wool production in the 1983/84 season is estimated at 2.9 million tons, which represents a 1 percent increase with respect to the previous season. This small increase took place despite a severe drought in Australia and adverse weather in New Zealand and South Africa, as excellent seasonal conditions prevailed in other wool-growing regions that caused an increase in average fleece weights. The increase took the size of the 1983/84 world clip to a 15-year high. The size of the world flock, which at the beginning of the 1983/84 season had declined by 3 million head below the level at the beginning of the previous season, appears to be increasing slowly in 1984.

World consumer spending on wool textiles and clothing increased in the third quarter of 1983 <sup>2/</sup> by 6.6 percent above the level of the corresponding period in the previous year; this increase was the first since the spring of 1980 and signaled the emergence from the most protracted recession the wool industry has experienced since the 1930s. Moreover, wool's share of total fiber consumption (which in the first half of 1983

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<sup>1/</sup> Carry-over stocks at the end of the 1982/83 season were 206,000 tons; the surplus of production over disposals widened to 41,000 tons in 1982/83.

<sup>2/</sup> These are the latest available data.

was the lowest since the mid-1970s) in the July-September quarter was above the corresponding period in the previous year, and the gain was wholly at the expense of synthetic fibers. Wool consumption increased mainly in the United States, the United Kingdom, Belgium, and Australia. Raw wool exports in the first three quarters of 1983 were only marginally above exports in the corresponding period in 1982.

World wool production in 1984/85 is forecast at 2,965,000 tons, an increase of 1.8 percent, on the basis of trends in sheep numbers, seasonal conditions, and the favorable influence of official assistance schemes. This production, were it to materialize, would represent a new record. The opening stock for the 1984/85 season was tentatively estimated at 222,000 tons, an 8 percent increase over the opening stock of the previous season.

A continuation of the recent upward trend in wool consumption is forecast as a result of the economic recovery and an expected increase in demand for wool resulting from a campaign to promote the use of wool. This increase, however, is expected to be insufficient to match the increase in supply. As a result of the increasing imbalance between demand and supply, both fine and coarse wool prices are projected to register moderate declines in the short term.

Jute prices declined in 1981 and 1982 due to the combined effects of the recession and the high level of stocks accumulated following two large pre-recession crops—approximately 6.0 million tons. Annual consumption declined by 8 percent over the period 1978-83 to 3.5 million tons in 1983 due to the slowdown in economic activity and the competition from synthetic fibers, particularly polypropylene. Jute production declined thereafter, stabilizing around 3.2 million tons during the two crop years ending in 1982/83, and inventories consequently declined.

In 1983/84, another crop of only 3.2 million tons, along with low inventories and increased demand due to low prices, resulted in a shortage of jute. Prices increased by 17 percent during the second half of 1983 by 25 percent during the first half of 1984 and by a further 4 percent in the third quarter of 1984. Contributing to the price increases were shortages of good quality seed in India and unfavorable weather conditions in Bangladesh, resulting in lower production in those two countries which together account for about 60 percent of world jute production.

Given the sustained growth in demand and the low level of inventories at the end of the 1983/84 season, the price outlook depends mainly upon future output developments. High prices encouraged more extensive plantings, but because of flood damage in Bangladesh and expectations of a poor crop in India, prices have recently been firm and are expected to remain so in the short run.

Sisal prices declined steadily during the 1980-83 period due to the contraction in economic activity and the decline in the demand for sisal products, whose market has suffered a prolonged erosion due to the use

of nontwine harvesting techniques and competition from polypropylene twine. Prices fell by 5 percent to US\$564 per metric ton in 1983. That year witnessed an increasing split in the sisal market; the cheaper Brazilian sisal tended to be sold exclusively for agricultural twine, while the more expensive East African sisal tended to be sold increasingly for commercial twine and cordage production in addition to the traditional agricultural end uses. Competition in the commercial twine and cordage market is not as intense as in the agricultural twine market; therefore, the erosion of the sisal market may moderate in the future as a result of the increasing use of sisal for commercial twine and cordage.

In the first half of 1984, prices fell by a further 1 percent, and in the third quarter of 1984, they remained unchanged. However, sisal prices are expected to increase moderately in the short run because, first, a better balance between demand and supply is expected due to droughts in several producing countries, including Brazil; second, polypropylene prices have been rising, causing the differential between sisal and polypropylene twine to narrow considerably; and, third, stocks in Brazil are believed to have fallen by more than 50 percent because of purchases by the domestic cellulose industry.

After averaging 36.5 U.S. cents per pound in the first quarter of 1983, hides prices <sup>1/</sup> recovered steadily during the next three quarters and averaged 52.80 U.S. cents per pound in the fourth quarter. The average price for 1983 of 45.1 U.S. cents was 17 percent higher than the average price in the previous year. The recovery in prices continued during the first three quarters of 1984 when prices averaged 59.1 U.S. cents per pound.

The decline in cattle slaughtering due to the herd rebuilding in Australia and Argentina reduced exports of cattle hides from these two sources. However, slaughtering in the United States, the major exporter of hides and calf skins, increased sharply in the second half of 1983 due to rising feed costs and the enactment of the U.S. dairy law which had the effect of increasing dairy cow slaughter. Higher slaughtering in the EC and Canada also augmented supplies. The total supply of hides on the international market in 1983 was about the same level as in 1982. The demand for hides improved rapidly during the second half of 1983 due to a recovery in tanning activity associated with increased demand for leather and leather manufacturers. The prospect of a continuing economic recovery suggests that the demand for hides and skins is likely to increase while supplies of hides and skins are likely to decline as herds continue to be rebuilt. The prospect of lower feed prices should also contribute to a reduction in slaughtering. As a result, the recovery in hide prices which started in 1983 can be expected to continue during 1984 and 1985.

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<sup>1/</sup> Price quotations refer to the U.S. wholesale price for heavy native 53 pound hides.

## V. Metals

Unlike the other three commodity groups, metal prices did not recover during 1983. Although in the second quarter of 1983 they reached a level 6 percent higher than the trough in the fourth quarter of 1982, they retreated in the last half of 1983 back to their previous low levels. They remained low in the first two quarters of 1984, and then declined by 7 percent in the third quarter (Chart 6). Prices in September 1984 were 11 percent below the average for 1983 and 5 percent below the previous trough reached in June 1982. Copper, iron ore, and tin prices have experienced the largest declines in 1984 while aluminum, zinc, and lead prices have increased in response to stronger recoveries in demand. The decline in metal prices, which has occurred in spite of generally rising world consumption, has been caused by stock levels which are still high by historical standards, weak recoveries in demand in European countries, high real interest rates, and the appreciation of the U.S. dollar. After declining in 1984, metal prices are expected to recover in 1985 as the supply imbalances begin to decrease.

### 1. Copper

After recovering in the first half of 1983, copper prices <sup>1/</sup> retreated and by year-end were back to the trough reached in September 1982. While prices increased moderately from February to April 1984 with stronger consumption and a steady decline in stocks, from April to September 1984, they declined by 16 percent. Prices in September 1984 were 58.7 U.S. cents per pound, the lowest level since May 1978.

World production of copper exceeded consumption for four consecutive years from 1980 to 1983, resulting in stocks increasing by about 50 percent over the period (Table 17). Even in 1983, the first year of recovery from the 1981-82 recession, consumption declined marginally in the face of a rise in production of refined copper, and stocks continued to increase. The increase in prices in the first half of 1983 was mainly caused by large purchases by China and speculative demand, but the subsequent fall in prices in the last half of the year resulted from the failure of demand to increase, the premature reactivation of idle capacity, and the consequent continuing build up of stocks.

In 1984, it is estimated that for the first time in four years, world consumption of copper will roughly be in balance with production. Production of refined copper is estimated to be about 2 percent higher than in 1983, but a substantial portion of mine capacity remains idle in North America, where additional production cutbacks have been announced this year, and in the Philippines. World consumption of refined copper in 1984 is estimated to be about 5 percent higher than in 1983, reflecting increased output in the major industrial countries.

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<sup>1/</sup> Price quotations refer to spot prices for high grade electrolytic copper wire bars on the London Metal Exchange, c.i.f., London.

CHART 6  
METALS: QUARTERLY PRICE MOVEMENTS

(Index 1980 = 100)

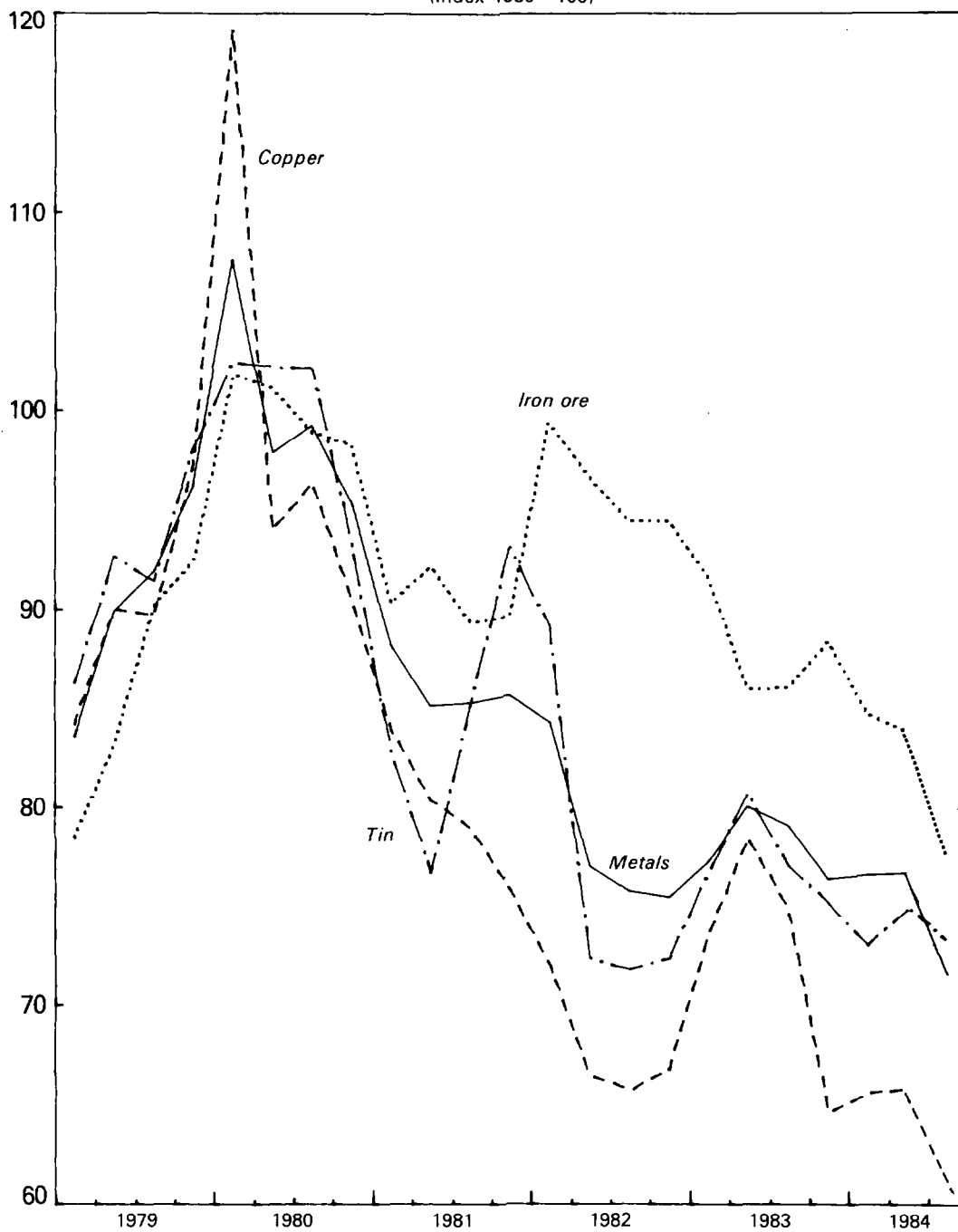




Table 17. Copper: World Commodity Balance, 1977-83 <sup>1/</sup>

(In millions of metric tons)

	1977	1978	1979	1980	1981	1982	1983
1. Mine production	<u>6,272</u>	<u>6,101</u>	<u>6,135</u>	<u>6,042</u>	<u>6,487</u>	<u>6,243</u>	<u>6,179</u>
2. Smelter production	<u>6,438</u>	<u>6,273</u>	<u>6,309</u>	<u>6,147</u>	<u>6,554</u>	<u>6,446</u>	<u>6,513</u>
3. Refined supply	<u>6,873</u>	<u>6,907</u>	<u>7,079</u>	<u>7,119</u>	<u>7,415</u>	<u>7,197</u>	<u>7,109</u>
a. Refined production	<u>6,853</u>	<u>6,903</u>	<u>7,016</u>	<u>7,043</u>	<u>7,358</u>	<u>7,151</u>	<u>7,312</u>
(1) Primary	(5,925)	(5,894)	(5,862)	(5,842)	(6,253)	(6,029)	(6,106)
(2) Secondary	(928)	(1,009)	(1,154)	(1,201)	(1,105)	(1,122)	(1,206)
b. Net trade							
with CPE's <sup>2/</sup>	17	11	34	41	55	41	-202
c. Strategic stockpile sales	3	-7	29	36	3	5	--
4. Refined consumption	<u>6,873</u>	<u>7,276</u>	<u>7,517</u>	<u>7,110</u>	<u>7,233</u>	<u>6,766</u>	<u>6,737</u>
5. Refined balance (3 minus 4)	<u>--</u>	<u>-369</u>	<u>-436</u>	<u>10</u>	<u>184</u>	<u>431</u>	<u>372</u>
6. Reported commercial stocks of refined copper	<u>1,961</u>	<u>1,535</u>	<u>1,090</u>	<u>1,029</u>	<u>1,087</u>	<u>1,499</u>	<u>1,535</u>

Source: World Metal Statistics (London: World Bureau of Metal Statistics), various issues.<sup>1/</sup> Excluding centrally planned economies.<sup>2/</sup> CPE acronym for centrally planned economies.

The realization of a supply-demand balance during 1984 has caused a reduction of stocks; stocks at the end of 1983 reached 1.5 million tons or 11.8 weeks of current consumption, compared with a "normal" level of 8.1 weeks of current consumption. Stocks on the London Metal Exchange and the New York Commodities Exchange, which amounted to 807,000 tons at the end of 1983 (roughly one half of total commercial stocks), fell to 518,000 tons by August, 1984. Copper prices, however, in recent months have not reflected the improving supply-demand balance because of: (1) the appreciation of the U.S. dollar; (2) increases in real interest rates that have only recently been reversed; (3) uncertainty related to the possibility that the United States would impose import restrictions on copper (which were rejected in September); and (4) keen competition among exporters which still have large supplies to market.

Assuming that North American producers maintain their restraints on production and the economic recovery continues, a further reduction of stock is expected, which should provide support to copper prices by the end of 1984 and in 1985.

## 2. Iron Ore

The price of iron ore <sup>1/</sup> declined by 8.6 percent in 1983 to about US\$24.0 per ton after having increased by 6.4 percent in 1982. This decline, which was in contrast to increases in the prices of other metals except lead in 1983, reflected the continued stagnation of the steel industry as well as the appreciation of the U.S. dollar. The iron ore price in 1983 was the lowest since 1979. Furthermore, the 1984 contract prices negotiated between ore producers and European and Japanese steel mills were lower than the 1983 price and the spot price has accordingly averaged about 7 percent less in the first three quarters of 1984 than the average 1983 level.

World consumption of iron ore in recent years has grown at an even lower rate than the low rate of growth of world steel production, mainly due to the increased efficiency in the use of iron ore. Iron ore consumption in industrial countries actually declined during 1974-83, while it increased somewhat in the centrally planned economies and increased at a higher rate in developing countries. On the supply side, the decline in the growth of demand for steel since the mid-1970s resulted in excess capacities of iron ore production (Table 18). Thus many iron ore mining projects were cancelled or delayed and no substantial increment in world iron ore production capacity has taken place.

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<sup>1/</sup> The price originally expressed in Deutsche marks and refers to "spot" deliveries (c.i.f. at German ports) of Brazilian ore (with 65 percent iron content). Although spot deliveries are only about 2 percent of world exports, this price has a close correlation with contract prices that are negotiated every year or every other year. Changes in market conditions are reflected in the next round of negotiations for contract prices. The negotiation results of contract prices in turn affect "spot" prices in the following months.

Table 18. Iron Ore: Production and Trade; and Pig Iron and Steel Production, 1974-83

(In millions of metric tons)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	<u>1/</u>
Iron ore											
Production	901	902	893	840	841	880	876	852	759	762	
Exports	410	379	379	357	350	390	386	362	316	...	
Pig iron											
Production	504	469	489	488	507	529	507	499	453	455	
Crude steel											
Production	708	647	678	676	717	747	714	710	645	650	

Sources: The Iron Ore Industry (Geneva), various issues; World Steel in Figures (Brussels), various issues.

1/ Estimates.

A factor that has been important in both supply and trade of iron ore has been the shift in the location of iron ore production from the traditional steel-producing countries to new producing regions, particularly Australia and Brazil. This has caused an increase in internationally traded iron ore and also an increase in the share of developing countries in this trade in recent years. Exports from industrial countries consist mainly of intra-European sales by Sweden and France, sales of Canadian ore to the United States, and Australia's exports to Japan.

Prices in 1984 are expected to be lower than in 1983. A slight improvement in the demand for iron ore in 1985 is projected on the basis of higher steel production for the year. This, with almost no change in supply, will mean an improved balance between supply and demand in the next couple of years and probably some increases in prices.

### 3. Tin

Following a steady rise from 312 U.S. cents per pound in 1975 to 761 U.S. cents per pound in 1980, tin prices on the London Metal Exchange declined by 16 percent in 1981 and a further 9 percent in 1982 to an average of 582 U.S. cents per pound. The major price movement in 1982 was a 20 percent fall in March which preceded a low of 503 U.S. cents per pound in June. The price then stabilized around 549 U.S. cents per pound in the second half of 1982. In the first months of 1983, prices increased again, peaking at 625 U.S. cents per pound in April 1983.

Since then, prices have weakened, averaging 579 U.S. cents per pound in the second half of 1983 and 563 U.S. cents per pound in the first half of 1984. This level was only 2.5 percent above the average prevailing in the second half of 1982, just prior to the 1983 upturn.

The price of tin on the Penang market, which is the indicator price of the International Tin Agreement (ITA), <sup>1/</sup> moved broadly in line with the LME price. As the price fell from M\$35.71 per kilogram on average in 1980, the Buffer Stock Manager commenced purchases of tin in 1981 and increased these purchases sharply in the first half of 1982. The price was stabilized at, or just above, the ITA floor price of M\$29.15 per kilogram during the second half of 1982 and the first two months of 1983. The price then rose to a peak of M\$31.83 in mid-April 1983 but settled within a narrow range around M\$30 per kilogram until December 1983 when it once again fell to the floor price; it has remained at or just above the floor price subsequently.

The decline in tin prices in 1981 and 1982 reflected a growing imbalance between demand and supply. While consumption of tin-metal declined from 1979 onward, production remained at high levels in 1980 and 1981 and commercial stocks rose to 43,200 tons, the equivalent of 27 percent of annual world consumption at end-1981 (Table 19). Factors underlying the decline in consumption were the recession in industrial countries, and the long-term substitution of other materials--aluminum, plastic, and glass--for tin in the packaging industry. Producers failed to respond to the deteriorating market situation until after the break in prices of March 1982 when the ITC imposed export quotas on producing member countries of the ITA for the period April 15-June 30, 1982. Equivalent initially to a 15 percent cutback from average quarterly exports in 1981, export controls have since remained in effect, being intensified to a 36 percent cutback for the four quarters to June 1983 and to about 40 percent subsequently. Largely as a result of these measures, production of tin metal was reduced in 1982 and in 1983 fell to 158,100 tons, or 38,500 tons below the prequota level of 1981. Consumption of tin metal continued its secular decline in 1982, but with the improvement in the world economy, rose by 4,200 tons in 1983 to 161,300 tons. Annual consumption thus exceeded production for the first time since 1976, and commercial stocks of tin metal began to decline in the third quarter of 1983. These trends continued in 1984, and at end-June (the latest date for which data are available) commercial stocks are estimated at 61,900 tons or about 15,200 tons less than their peak in June 1983. Although commercial stocks declined during the 12 months to June 1984, stocks held by the ITC buffer stock rose by some 4,700 tons to a peak of 58,635 tons, (of which, 23,707 tons was held under the authority of the Fifth ITA). This reflected substantial net purchases in the first half of 1984 in defence of the floor price of the Sixth ITA.

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<sup>1/</sup> The Sixth ITA came into effect on July 1, 1982, replacing the Fifth ITA which commenced operations in 1976. A description of the Sixth ITA is contained in Section VI.

Table 19. Tin: World Commodity Balance, 1975-84

(In thousands of metric tons)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Production of tin-in-concentrates <u>1/</u>	181	180	188	197	200	201	205	191	172	161 <u>2/</u>
Production of primary tin metal <u>1/</u>	178	182	180	192	201	198	197	180	158	149 <u>2/</u>
Consumption of primary tin metal <u>1/</u>	173	194	185	185	186	174	163	157	161	165 <u>2/</u>
Exports	201	193	202	217	218	222	224	194	174 <u>2/</u>	...
Of which:										
Tin metal	(154)	(155)	(160)	(178)	(185)	(189)	(198)	(170)	(138) <u>2/</u>	(...)
Imports	202	207	210	212	219	199	186	157	175 <u>2/</u>	...
Of which:										
Tin metal	(149)	(170)	(167)	(170)	(177)	(166)	(157)	(128)	(141) <u>2/</u>	(...)
Stocks	59	47	44	44	39	43	53	86	97	...
Of which:										
Tin metal	(44)	(39)	(36)	(34)	(28)	(33)	(43)	(67)	(74)	(...)

Source: International Tin Council, Monthly Statistical Bulletin (London), various issues.1/ Excluding CMEA countries and the People's Republic of China.2/ Estimates.

Total commercial stocks in mid-1984 represented about 38 percent of annual world consumption. This rather high level mitigates against any marked upward movement of prices in the near term. Nevertheless, a small improvement in prices may be expected in 1984/85 on account of a further modest rise in consumption as the international recovery proceeds, and additional cutbacks in production by producing members of the ITA in response to the continued application of export controls. In this situation, it is possible that, with the consent of consuming members, the floor price of the Agreement will be raised to cover the cost of production of the average producing member. Other factors affecting the future supply of tin include intensified efforts by neighboring countries to halt the smuggling of tin concentrates to Singapore for smelting. On the other hand, production by nonmembers of the ITA is likely to increase as higher output from Brazil and the United Kingdom should exceed the reduction of output in Bolivia.

#### 4. Aluminum

The aluminum industry recovered rapidly in the second half of 1983 as economic activity picked up. During 1983, world aluminum consumption (excluding CMEA countries and China) rose by 8 percent (by more than 10 percent in the United States). The price of primary aluminum averaged 71 U.S. cents per pound in the first half of 1984 compared with 60 U.S. cents per pound in the first half of 1983. These increases in consumption and prices have led to a rapid reactivation of idle capacity, which resulted in a significant price weakness in recent months. After reaching a peak of 72.7 U.S. cents per pound in March 1984, the price declined for six consecutive months reaching 62.8 U.S. cents per pound in September.

World production of aluminum in 1983 totalled 14.3 million tons, slightly higher than the 1982 level. World consumption, however, amounted to 15.3 million tons in 1983 compared with 14.2 million tons in 1982. Thus, a tight supply situation developed in 1983, as reflected in a decline in stocks from 3.2 million tons at the end of 1982 to 2.2 million tons at the end of 1983 (Table 20).

The 1981-82 recession and the decline in aluminum consumption resulted at first in an inventory increase, but production cutbacks followed. Thus, world aluminum production declined (excluding CMEA countries and China) declined by 2 million tons from 1980 to 1982. These cutbacks were regionally uneven, affecting more those areas with higher electricity costs. In Japan, production dropped more than 0.7 million tons; similarly in the United States declining aluminum prices and higher electricity tariffs were the major causes of the 25 percent drop in operating rates at U.S. aluminum smelters. The situation in Japan and the United States also had a negative impact on suppliers of bauxite and alumina such as Caribbean countries, Indonesia, and Malaysia.

Table 20. Bauxite, Alumina, and Aluminum: Production, Consumption, Stocks, and Trade, 1974-83

(In millions of metric tons)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Bauxite										
Mine										
production	84.3	76.5	79.5	84.8	83.9	88.9	93.1	88.4	78.1	78.6
Alumina										
Production <sup>1/</sup>	24.3	22.1	22.7	25.2	25.1	26.0	28.1	26.6	22.2	23.4
Aluminum										
Primary										
production	13.8	12.7	13.1	14.2	14.8	15.2	16.0	15.7	14.0	14.3
Primary										
consumption	13.9	11.3	14.0	14.4	15.3	16.0	15.3	14.6	14.2	15.3
Secondary										
(scrap)										
production	2.8	2.5	3.0	3.2	3.2	3.5	3.5	3.7	3.7	3.8
Primary										
stocks	2.0	3.1	2.3	2.5	2.1	1.5	2.1	3.3	3.2	2.2
Exports	3.6	3.2	3.1	3.2	3.6	3.4	4.1	4.1	4.5	...

Source: World Bureau of Metal Statistics, World Metal Statistics (London), various issues.

<sup>1/</sup> Excludes Yugoslavia. Any alumina production in China and CMEA countries is also excluded.

Growth of trade in aluminum has declined in recent years and is expected to increase only modestly in the near future. World primary aluminum consumption is expected to grow by about 3 percent in 1985. Major producers in North America and Europe have been cutting back production since mid-1984, so that world aluminum production is expected to be approximately equal to consumption in 1985. This would imply a period of consolidation of prices at roughly current levels after the relatively large swings in 1984.

##### 5. Other metals

Apart from aluminum, zinc has been the only other metal whose price has experienced rapid increases in 1983-84. This price rise, from 32 U.S. cents per pound in the first half of 1983 to 45 U.S. cents per pound in

the first half of 1984, was caused by a rapid build up in industrial demand, particularly from the automobile sector, and a sharp rise in purchases by China. Overall zinc consumption in 1983 rose by some 7 percent. A smaller increase in production caused world stocks to fall to around 13 percent of consumption in 1983, compared with 19 percent in 1982. The price of zinc has fallen in recent months, however, to 35 U.S. cents per pound in September as large production increases in response to high prices caused stocks to build up. Recent announcements of production cutbacks are expected to improve the supply-demand balance, and prices are expected to strengthen somewhat by the end of 1984 and in 1985.

The nickel market in 1984 has been adversely affected by large oversupply due to renewed production by INCO and Falconbridge from previously idle capacity and to new production from Yugoslavia, Brazil, and Colombia. Consequently, free market prices have been very depressed in recent months. Nonetheless, fundamental demand factors for nickel are strong, particularly in the vital stainless steel sector, where producers are operating at almost full capacity; plating use of nickel is also buoyant, and the ferro-nickel market is very strong. At the same time inventories of nickel have been falling to more normal levels. Nickel demand is expected to rise by about 10 percent in 1984 to around 550,000 tons, a level roughly equal to production. This should cause the free market prices to strengthen by the end of 1984, and the recovery is expected to continue in 1985.

The natural coupling of lead and zinc (mined together) appeared rather questionable in 1983, because, by contrast to the zinc market, the lead market was extremely depressed. With production down only marginally from 1982 levels and consumption virtually static, lead stocks reached record levels in 1983. The strength of the zinc market has maintained lead production above levels that could be justified by developments in the lead market taken in isolation. Although lead prices rebounded in mid-1984, due to strikes in the United States and South America, they have declined again in September. Continued declines in lead usage in the automobile industry and the impact of higher zinc production suggest that lead prices will rise only modestly in 1985.

#### VI. Recent Developments Concerning International Commodity Agreements

For a number of primary commodities, the provisions of international commodity agreements and the operations carried out in accordance with those provisions play an important role in determining market prices and other aspects of international trade.

During 1984 there have been in operation five commodity agreements with market intervention provisions: the International Sugar Agreement 1977, the International Natural Rubber Agreement 1979, the Sixth International Tin Agreement (1980), the International Cocoa Agreement 1980,

and the International Coffee Agreement 1983. The five commodities covered by these Agreements together provide approximately one third of the earnings from exports of non-oil primary commodities for "non-oil" developing countries. 1/ The operations under these Agreements are discussed briefly below.

1. The International Sugar Agreement 1977

The 1977 Sugar Agreement initially covered calendar years 1978-82 but was extended to cover calendar years 1983-84, the maximum period permitted under its provisions. Efforts at renegotiation, which began in 1982, ended in June 1984. Because the major exporters failed to reach agreement on the size and distribution of export quotas under a new agreement, the current agreement is to be replaced by one containing only "administrative" provisions (i.e., without market intervention provisions). This administrative agreement is scheduled to last for two years but could be renewed on an annual basis thereafter.

When the 1977 Sugar Agreement entered into operation in January 1978, the price of sugar on the free market was below the lower point of the initial price range of 11 to 21 U.S. cents per pound. As a consequence, all the economic provisions of the Agreement became operative, including the obligation for exporting countries to adhere to export quotas in the form of "basic export tonnages" (BETs) and to accumulate "special stocks." Six Fund members were provided financial assistance under the Buffer Stock Financing Facility (BSFF) amounting to a total of SDR 74 million in relation to their obligation to accumulate special stocks as members of the Agreement. 2/ Prices rose gradually at first as the control measures took effect, but rapidly in 1980 partly in response to a small crop in Cuba. In February 1980, prices rose above the upper point in the price range resulting in the removal of all the supply restrictions, including the release of the special stocks accumulated. Consequently, the drawings by Fund members under the BSFF were repaid in May 1980.

In May 1981 when the price of sugar on the free market once again fell below 16 U.S. cents per pound, the revised intervention trigger point when prices are falling, export quotas, set in terms of BETs for individual countries, were reimposed. The BETs were substantially reduced to 85 percent of their initial levels as prices fell successively below 15 U.S. cents, 14 U.S. cents, and even 13.5 U.S. cents, the revised floor price. In addition, exporting members were required once again to accumulate special stocks. The price decline was temporarily halted and from October 1981 to February 1982 there were signs of a possible recovery although the price never stayed above 13.5 U.S. cents for more than a few days.

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1/ Over the period 1979-81 the five commodities provided 34.8 percent of the earnings of "non-oil" developing countries from exports of non-oil primary commodities.

2/ The Fund, in December 1977, decided that the International Sugar Agreement met the criteria for support under the BSFF.

In March 1982 prices once again began to decline. As the BETs were already set at the minimum level provided for in the Agreement, arrangements were made to speed the accumulation of special stocks and to provide for voluntary "additional" stocks of up to 50 percent of the special stocking obligations of individual exporting countries. In addition the BETs for 1983 and 1984 were frozen at their 1982 levels. Over the period 1982-84, seven Fund members were provided financial assistance under the BSFF, amounting to a total of SDR 128 million in respect to obligations of these countries to accumulate special stocks. Despite these measures, prices failed to increase to the lower point of the price range of 13.5 U.S. cents and remained well below 10 U.S. cents except for the period July to September 1983. Following the failure of the negotiating conference in June 1984 to reach agreement on economic provisions for a new agreement, the average price for sugar in the free market in August-September 1984 fell to only 4 U.S. cents per pound, the lowest level since 1971.

The accumulation of stocks in the early years of the agreement and their release in 1980 appear to have dampened the price fluctuations in that period. However the agreement has been unsuccessful in preventing prices from remaining below the floor level from 1982 to 1984. One problem is related to the design of the Agreement itself which provided a formula for use in calculating BETs based on retrospective trade averages which served to inflate export quotas in years when demand for sugar from members of the Agreement was falling. Perhaps a more fundamental factor that has had the effect of gradually impeding the operations of the Agreement has been the nonparticipation of the EC, which has emerged as the largest exporter of sugar to the free market in the six years since the 1977 Agreement came into force. The active involvement of the EC in the unsuccessful negotiations towards a new agreement in 1983-84 was an attempt to rectify this situation. A contributing factor was the introduction in May 1982 of an import quota system by the United States as a part of a domestic price support program. The quota system has had the effect of reducing access of foreign sugar to the U.S. market, and at the same time has encouraged the displacement of sugar by alternative sweeteners, particularly HFCS.

## 2. International Natural Rubber Agreement 1979

The 1979 Natural Rubber Agreement entered into force on October 23, 1980 and will expire on October 22, 1985, unless it is extended for a further period of up to two years. The International Natural Rubber Council at its session in May 1984 decided to renegotiate the Agreement and established a committee to prepare the documentation for a negotiating conference which is likely to be held in early 1985.

When the 1979 Agreement entered into force, the market indicator price was above the intervention range of the Agreement. However, in October 1981, the market indicator price fell below the "lower intervention price" of 179 Malaysian/Singapore cents per kilogram, the price at which the buffer stock manager "may buy" rubber. Between November 1981

and January 1983, the buffer stock manager purchased 270,000 tons of natural rubber, approximately one half the maximum capacity of 550,000 tons provided for in the Agreement. Throughout that period the buffer stock manager intervened in the market each month, except for April and September 1982 when the market intervention price was either above or very close to the upper boundary of the "may buy" sector of the intervention range. In May 1982, when the market indicator price averaged over a six-month period had fallen below the lower intervention price of 168 Malaysian/Singapore cents, the price at which the buffer stock manager "must buy" rubber, the Council, in accordance with the provisions of the Agreement, revised the reference price and the upper and lower intervention and trigger action prices downward by 1 percent. The Fund provided financial assistance under the BSFF totaling SDR 132 million to exporting members of the Agreement in respect of their obligations to provide funds to finance buffer stock purchases. 1/

Beginning in February 1983, rubber prices began to rise sharply and the market indicator price rose well into the nonintervention zone. In June-July 1983 and again in January-February 1984, the market indicator price rose above the upper intervention price of 239 Malaysian/Singapore cents per pound. However, as the penetration of the "may sell" sector of the intervention range was not confirmed to be more than temporary, no sales were made from the buffer stock and in April 1984 the market indicator price fell back well into the nonintervention zone. In June-September 1984 the indicator was once again approaching the lower intervention price at which the buffer stock manager "may buy."

The operations under the Natural Rubber Agreement appear to have worked well to achieve its price objectives. The accumulation of stocks over the period November 1981 to January 1983 was sufficient to prevent the market indicator price from falling below the lower "trigger action price." These purchases coincided with a period of much-reduced world demand for natural rubber on account of world economic recession. While none of the accumulated stocks were sold during the subsequent period of recovery, one-half the capacity of the buffer stock as provided in the Agreement remains to be filled, if necessary. The procedure for compulsory "call-ups" of funds from both exporting and importing members to finance buffer stock purchases has not presented any major problems. In July 1984 the Council agreed to refund to its members cash considered surplus to current needs, although, given the current weakness of prices, there is a possibility of further call-ups before the Agreement ends.

### 3. Sixth International Tin Agreement (1980)

The Sixth International Tin Agreement, which directly followed the Fifth Agreement, covers initially a five-year period which began July 1, 1982, and may be extended for a further period of two years.

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1/ The Fund, in November 1982, decided that the International Rubber Agreement met the criteria for support under the BSFF.

In early 1982, the indicator price for tin fell rapidly from the upper sector of the price intervention range established under the provisions of the Fifth Agreement--the sector in which the buffer stock manager is required to be a "net seller" of tin, through the middle "no action" sector of the range, into the lower sector of the range--the sector in which the manager is required to be a "net buyer" of tin. To reinforce the effects of the buffer stock purchases in this situation, the Council of the Fifth Agreement imposed export controls on producing members in April 1982 to cover the remaining months of the operation of that Agreement. A total of SDR 100 million, of which SDR 55 million remains outstanding, was provided to three members of the Fifth Agreement under the Fund's BSFF to cover their contributions to the buffer stock.

Throughout the period to date of the operation of the Sixth Agreement, the indicator price has remained within the "net buyer" sector of the intervention range. From July 1982 through March 1983 and again from December 1983 through July 1984 the indicator price was at or close to the floor price, the price at which the buffer stock manager is required to purchase tin in the market until the indicator price rises or the funds at his disposal are exhausted.

The buffer stock of the Sixth Agreement began with 27,766 tons of tin transferred from the Fifth Agreement. The stock increased to 33,723 tons by end-September 1983 but was reduced to 31,338 tons at end-December 1983, the latest date for which data are available. The Fund provided a total of SDR 95 million under the terms of the BSFF to three exporting members in respect of their obligations towards providing the initial cash contributions under the provisions of the Sixth Agreement. <sup>1/</sup> The initial cash contributions by producing and consuming members of the Sixth Agreement were used up during the first six months of the Agreement. Intervention has since been financed by large-scale commercial borrowing using warrants against tin in the buffer stock as security. However, in July 1984, Malaysia made a voluntary cash contribution to the buffer stock to increase its liquidity and other producing countries are expected to make similar contributions.

Export controls have remained in effect through the entire period of operation of the Sixth Agreement and have been progressively tightened. In addition, measures to improve their enforcement have been stepped up. Finally, in view of the weak market situation, the Council of the Fifth Agreement decided that the tin in the buffer stock would not be distributed to members by June 30, 1984 as originally planned, and that the liquidation date would be extended until such time as the Council considered appropriate.

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<sup>1/</sup> The Fund, in November 1982, decided that the Sixth International Tin Agreement met the criteria for support under the BSFF. Similar decisions were taken at earlier dates with respect to the Fourth and Fifth Agreements.

Although the Agreement has been weakened in comparison with the Fifth Agreement by the nonparticipation of Bolivia, a major producer of tin, and the United States, the largest consumer of tin, the operations under its provisions have been successful to date in keeping the price of tin from falling below the floor price of the Agreement. However, the achievement of this objective has involved a significant deterioration of the financial position of the buffer stock. In addition, increasing reliance has had to be placed on export controls.

#### 4. International Cocoa Agreement 1980

Operations under the 1980 Cocoa Agreement began on August 1, 1981, 16 months after the expiration of the 1975 Cocoa Agreement. <sup>1/</sup> The 1980 Agreement, which was scheduled initially to remain in force until end-September 1984, was extended in July 1984 by the International Cocoa Council until end-September 1985. Under the provisions of the Agreement, the Agreement may be extended further for an additional year.

Discussions on the renegotiation of the 1980 Agreement began in 1983 and preparation for these discussions led to a renegotiating conference in Geneva under UNCTAD auspices in May 1984. The Ivory Coast, the world's largest producer of cocoa, which is not a member of the 1980 Agreement but was a member of earlier cocoa agreements, participated in the discussions and the negotiations. The United States, the world's largest consumer of cocoa, which has not been a member of any of the cocoa agreements, was also represented at the various meetings and the conference. The negotiations in May were inconclusive and the conference was resumed in October 1984.

For some months prior to the entry into force of the 1980 Agreement, cocoa market prices were considerably below both the lower intervention price of 110 U.S. cents per pound and the minimum price of 100 U.S. cents per pound as specified in the Agreement. However, in anticipation of buffer stock purchases under the provisions of the Agreement, prices gradually rose from the low level of 71 U.S. cents in mid-June 1981 to an average of 93 U.S. cents in July 1981 and of 102 U.S. cents in August 1981. Purchases of 100,000 tons of cocoa over the period September 1981 through March 1982 by the buffer stock manager at a total cost of US\$235 million were, nevertheless, insufficient to raise the indicator price above the lower intervention price. In March 1982, the funds for the buffer stock, which had been accumulated largely from an export levy during the periods of operation of the 1972 and 1975 Agreements, were depleted and purchases were discontinued. When total purchases of cocoa by the buffer stock manager reached 100,000 tons, a lowering of the prices in the Agreement by 4 U.S. cents occurred automatically.

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<sup>1/</sup> The 1975 Cocoa Agreement followed directly the 1972 Cocoa Agreement; the Fund, in April 1973, decided that the 1972 Agreement met the criteria for support under the BSFF but because the market price remained above the intervention prices in the Agreement throughout its life, no stocks were accumulated and the Fund's facility was not used.

In subsequent months, various attempts were made to obtain commercial loans to support buffer stock operations, but although a loan of US\$75 million was obtained eventually, the Cocoa Council was unable to arrive at a decision on the modalities of the use of this loan. Consequently, no further buffer stock purchases have been made. The cocoa indicator price remained well below the revised lower intervention price of 106 U.S. cents per pound until December 1983 when, on account of drought, a second successive poor crop in West Africa led to substantial price increases. However, in anticipation of improved harvests in the crop year 1984/85, the indicator price again fell below the lower intervention price in July 1984.

The operations under the 1980 Agreement cannot be said to have worked well to further the price objectives of the Agreement. The financial resources proved inadequate to provide for the necessary purchases, at least on the basis specified in the 1980 Agreement, which provided for outright purchases in contrast with the provisions for partial payment contained in the 1972 and 1975 Agreements. The absence of any well defined supplementary price-defense measures together with the limited membership in the Agreement further weakened its operations. Nevertheless, the Agreement did provide in the early months of its operation support for the cocoa market at a time when the downward pressure on cocoa prices was at its greatest.

#### 5. International Coffee Agreement 1983

The 1983 Coffee Agreement was concluded in 1982 for entry into force on October 1, 1983 following the expiration of the 1976 Coffee Agreement. The 1983 Agreement is a six-year agreement which may be extended by the Coffee Council for an additional two years. It relies, as did the 1962, the 1968 and the 1976 Agreements which preceded it, mainly on quotas on the coffee exports of individual exporting members to importing member countries to check price declines below specified levels. The quotas, and the price triggers for changes in quotas, are established by the Coffee Council just prior to the beginning of each coffee year. During the year, as market prices rise and fall, quotas are increased and decreased automatically, in accordance with the provisions of the Council's decision. Export quotas are to be removed when market prices rise above a specified level. When export quotas are in effect, importing member countries are required to restrict imports from non-member countries. Little control is exercised over exports by exporting members to nonmember countries although increased surveillance over this trade is being exercised.

The operations under the 1983 Agreement covering coffee year 1983/84 (October-September) have been very similar to those covering the final three years of operations, 1980/81 through 1982/83, under the 1976 Agreement. In the earlier years of the 1976 Agreement, no quotas were in effect because of comparatively high coffee prices. For 1983/84, an initial "global" annual export quota of 56.2 million bags of 60 kg each was established in a decision by the Coffee Council in September 1983.

This global quota was distributed among the individual exporting members in accordance with the provisions of the Agreement. During the year quotas were increased four times with each increase totaling 1 million bags. Two of the increases were triggered when the "indicator" price rose above 140 U.S. cents per pound, a third when the price rose above 145 U.S. cents and a fourth when the price rose above 150.3 U.S. cents. The final increase was rescinded in July 1984 when the indicator price once again fell below 145 U.S. cents, but was reinstated at the end of August when the indicator price once again rose above 145 U.S. cents.

Despite a substantial build-up of coffee stocks in exporting countries since the reintroduction of the quotas in October 1980, the operations of the quota mechanism under the 1976 and 1983 Agreements have served well to meet the price objectives of these Agreements. The mechanism for adjusting annual quotas served to check downward pressure on prices in 1980-83 and also to restrain upward pressure on prices in 1984. The experience gained in operating quotas and the flexibility of the provisions of the Agreement has enabled a "fine-tuning" of export quotas. However, two major problems warrant mention. First, the exclusion of sales of coffee to nonmember countries from the export quotas has resulted in sales to these markets at much lower prices than to quota markets and has created a two-tier market with considerable gains to be made by illegal shipments from non-quota markets to quota markets; these pressures appear to have been reduced considerably in recent months by more effective controls. Second, the allocation of the quotas among exporting countries is a continuing problem. The Coffee Council, nevertheless, was able to carry out a major reassessment of the allocation before the beginning of the 1984/85 coffee year with less difficulty than some observers anticipated.

Table 21. Indices of Non-Oil Primary Commodity Prices - Nominal and Deflated  
(1981-1984)

Year	Nominal (U.S. dollar terms)					Deflated (By the price of manufactures) 1/				
	All	Food	Beverages	Agricultural raw materials	Metals	All	Food	Beverages	Agricultural raw materials	Metals
Index, 1980=100 2/										
(Annual)										
1981	85.4	86.4	77.7	90.3	86.0	89.7	90.9	81.5	94.9	90.4
1982	75.1	68.5	79.7	77.9	78.1	81.4	74.3	86.2	84.6	84.7
1983	80.1	74.5	85.7	85.4	78.2	90.7	84.5	96.9	96.6	88.3
(Quarterly)										
1983										
Q1	74.4	66.1	81.3	78.1	77.2	81.5	72.5	88.8	85.5	84.5
Q2	79.4	74.2	82.2	84.2	80.1	88.7	83.0	91.6	94.1	89.4
Q3	82.8	80.0	84.5	88.9	79.1	95.1	92.1	96.9	102.2	90.8
Q4	83.9	77.8	95.0	90.2	76.3	97.5	90.5	110.2	104.8	88.7
1984										
Q1	85.8	77.5	101.0	92.9	76.6	97.4	88.2	114.5	105.5	87.0
Q2	86.0	78.7	101.7	91.1	76.7	97.1	89.0	114.6	103.0	86.6
Q3	79.6	70.6	96.2	85.4	71.7	89.6	79.6	108.0	96.2	80.6
(Monthly)										
1984										
Jan.	84.9	76.3	101.8	92.1	74.6	96.4	86.8	115.4	104.6	84.7
Feb.	85.6	77.7	100.1	92.8	76.6	97.2	88.4	113.5	105.4	87.0
March	86.8	78.5	101.2	93.7	78.7	98.6	89.3	114.7	106.4	89.3
April	86.6	78.9	100.8	92.6	78.7	97.8	89.2	113.6	104.6	88.9
May	86.7	79.1	104.2	92.0	76.2	97.9	89.5	117.5	103.9	86.0
June	84.6	78.4	100.0	88.8	75.2	95.6	88.7	112.7	100.3	84.9
July	80.5	72.5	94.8	86.5	72.9	90.6	81.8	106.5	97.4	82.1
Aug.	79.6	70.4	95.9	85.5	72.4	89.6	79.3	107.7	96.2	81.4
Sept.	78.7	69.0	97.8	84.3	69.7	88.6	77.8	109.9	94.9	78.4
Percentage change from preceding period										
(Annual)										
1981	-14.6	-13.6	-22.3	-9.7	-14.0	-10.3	-9.1	-18.5	-5.1	-9.6
1982	-12.1	-20.7	2.6	-13.7	-9.2	-9.3	-18.3	5.8	-10.9	-6.3
1983	6.7	8.8	7.5	9.6	0.1	11.4	13.7	12.4	14.2	4.3
(Quarterly)										
1983										
Q1	2.9	4.3	-0.9	5.5	2.4	0.9	2.3	-2.8	3.4	0.4
Q2	6.7	12.3	1.1	7.8	3.8	8.8	14.5	3.2	10.1	5.8
Q3	4.3	7.8	2.8	5.6	-1.2	7.2	11.0	5.8	8.6	1.6
Q4	1.3	-2.8	12.4	1.5	-3.5	2.5	-1.7	13.7	2.5	-2.3
1984										
Q1	2.3	-0.4	6.3	3.0	0.4	-0.1	-2.5	3.9	0.7	-1.9
Q2	0.2	1.7	0.7	-1.9	0.1	-0.3	1.0	0.1	-2.4	-0.5
Q3	-7.4	-10.4	-5.4	-6.3	-6.5	-7.7	-10.7	-5.8	-6.6	-6.9
(Monthly)										
1984										
Jan.	0.6	0.9	2.4	0.1	-1.5	-1.7	-1.4	0.1	-2.2	-3.7
Feb.	0.8	1.8	-1.7	0.8	2.7	0.8	1.8	-1.6	0.8	2.7
March	1.4	1.0	1.1	1.0	2.7	1.4	1.0	1.1	0.9	2.6
April	-0.2	0.5	-0.4	-1.2	--	-0.8	-0.1	-1.0	-1.7	-0.4
May	0.1	0.3	3.4	-0.6	-3.2	0.1	0.3	3.4	-0.7	-3.3
June	-2.4	-0.9	-4.0	-3.5	-1.3	-2.3	-0.9	-4.1	-3.5	-1.3
July	-4.8	-7.5	-5.2	-2.6	-3.1	-5.2	-7.8	-5.5	-2.9	-3.3
Aug.	-1.1	-2.9	1.2	-1.2	-0.7	-1.1	-3.1	1.1	-1.2	-0.9
Sept.	-1.1	-2.0	2.0	-1.4	-3.7	-1.1	-1.9	2.0	-1.4	-3.7

1/ Based on the UN index of the prices of manufactures exported by developed countries.

2/ Weights are based on 1968-70 average export earnings of primary producing countries; the indices are rebased on 1980.

Table 22. Actual Prices: Index of Market Prices, in Terms of U.S. Dollars,  
for Primary Commodities Exported by Primary Producing Countries

(1980 = 100)

Commodities	Weights	1981	1982	1983	Jan.-	April-	July-	July	Aug.	Sept. 1/
					March	June	Sept.			
1984										
All exports	100.0	85.4	75.1	80.1	85.8	86.0	79.6	80.5	79.6	78.7
Food and beverages		83.1	72.7	78.8	86.5	87.5	80.4	81.0	80.1	80.0
Food	31.4	100.0	86.4	68.5	74.5	77.5	78.8	70.6	72.5	70.4
Oils and										
oilseeds	27.1	100.5	72.0	90.3	117.9	119.6	99.5	104.4	97.8	96.1
Groundnut oil	7.2	121.4	68.1	82.8	120.1	135.3	115.2	122.7	114.6	108.4
Copra	7.1	83.6	69.3	109.5	164.5	174.9	150.2	159.6	144.2	146.8
Groundnut cake	4.7	99.2	78.5	81.4	72.8	63.1	54.4	57.3	55.2	50.6
Fish meal	4.5	92.7	70.1	89.7	90.8	76.4	65.6	67.6	66.0	63.0
Palm oil	2.7	97.9	76.3	86.0	148.3	147.2	100.3	99.5	96.4	105.0
Soybean meal	0.5	97.7	84.3	92.0	88.6	82.6	68.8	71.9	69.6	65.0
Soybeans	0.4	97.4	82.5	95.1	102.6	108.1	87.3	91.1	88.1	82.7
Cereals	25.7	104.9	83.6	90.0	89.2	91.0	88.7	89.4	89.4	87.1
Maize	10.1	103.9	86.0	108.2	112.7	116.9	109.5	113.4	110.2	104.9
Wheat	8.3	101.3	92.8	91.1	88.3	89.0	87.9	85.1	88.3	90.2
Rice	7.3	111.3	67.6	63.8	58.6	58.8	61.5	63.0	62.7	58.8
Sugar	21.1	64.3	47.8	49.9	45.8	44.1	40.6	41.5	40.3	40.0
United States	10.1	65.7	66.3	73.4	72.6	73.4	72.5	72.9	72.3	72.3
Free Market	7.5	58.9	29.3	29.5	23.3	19.9	14.8	15.8	14.1	14.3
EEC	3.5	85.7	82.0	79.5	75.7	75.1	72.1	73.3	72.9	69.9
Meat	18.5	91.6	85.3	80.8	77.8	81.7	75.7	76.4	76.8	74.1
Beef	14.1	89.6	86.6	88.4	84.3	86.9	80.6	80.9	81.7	79.2
Lamb	4.4	95.3	82.8	67.0	65.7	72.1	66.8	68.1	67.7	64.7
Bananas	7.6	107.0	99.9	114.4	104.2	115.5	92.9	97.7	90.5	90.5
Beverages	18.2	100.0	77.7	79.7	85.7	101.0	101.7	96.2	94.8	95.9
Coffee	67.1	75.8	82.2	84.8	93.7	96.8	94.1	93.6	94.8	94.1
Robusta	34.8	69.9	75.5	84.3	93.0	96.9	95.3	94.0	95.2	96.5
Other milds	32.3	83.1	90.6	85.4	94.5	96.6	92.7	93.0	94.2	91.0
Cocoa	19.7	79.8	66.9	81.4	98.0	98.6	86.3	85.1	85.0	88.8
Tea	13.2	90.6	86.7	104.3	174.8	153.6	138.0	129.1	131.6	153.3
Agricultural raw materials	22.5	100.0	90.3	77.9	85.4	92.9	91.1	85.4	86.5	84.3
Cotton	34.2	92.1	78.4	90.1	97.2	96.8	88.1	90.4	87.7	86.1
Medium	23.1	89.6	77.4	89.7	93.8	93.0	81.1	84.3	80.6	78.3
Long	11.1	99.0	81.4	91.2	106.3	106.7	106.8	106.8	106.8	106.8
Wool	28.7	99.1	91.0	85.5	91.0	91.7	82.8	84.5	83.6	80.3
Fine	21.3	102.6	95.9	90.4	97.1	97.6	88.2	90.0	89.1	85.6
Coarse	7.4	91.1	79.8	74.5	76.9	78.1	70.5	71.9	71.2	68.3
Rubber	23.1	78.8	60.2	74.7	79.5	68.6	63.6	62.5	63.5	64.8
Hides	8.0	90.9	84.0	98.3	118.9	129.3	137.8	139.0	137.2	137.2
Jute	4.0	88.8	90.3	95.1	129.4	128.6	133.9	136.2	135.6	129.9
Sisal	2.0	84.4	77.8	73.8	73.2	74.5	74.5	74.5	74.5	74.5
Metals	27.9	100.0	86.0	78.1	78.2	76.6	76.7	71.7	72.7	69.7
Copper	48.6	79.8	67.8	72.9	65.7	65.8	60.5	60.9	61.2	59.2
Iron ore	20.8	90.4	96.2	88.0	84.7	83.8	77.7	79.7	78.6	74.9
Tin	11.0	84.5	76.5	77.4	73.1	74.8	73.2	74.2	73.3	72.1
Aluminum	10.2	87.5	75.6	76.1	84.1	81.8	76.1	77.4	77.1	73.8
Zinc	3.7	111.2	97.9	100.5	131.2	129.0	107.5	112.1	109.5	100.8
Nickel	3.0	100.3	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
Lead	2.7	80.2	60.3	47.0	46.3	52.1	50.2	54.6	51.6	44.3

1/ Provisional.

Table 23. Actual Market Prices for Primary Commodities  
Exported by Primary Producing Countries

(In terms of U.S. dollars)

Commodities	Units U.S.	1981	1982	1983	Jan.- March	April- June	July- Sept.	July 1984	August	Sept. 1/
All exports										
Food and beverages										
Food										
Oils and oilseeds										
Groundnut oil	\$/MT	1,043	585	711	1,031	1,162	990	1,054	984	931
Copra	\$/MT	379	314	496	745	792	680	723	653	665
Groundnut cake	\$/MT	239	189	196	175	152	131	138	133	122
Fish meal	\$/MT	468	354	453	458	385	331	341	333	318
Palm oil	\$/MT	571	445	501	865	858	585	580	562	612
Soybean meal	\$/MT	253	218	238	229	214	178	186	180	168
Soybeans	\$/MT	288	245	282	304	320	259	270	261	245
Cereals										
Maize	\$/56LB	3.32	2.75	3.45	3.60	3.73	3.50	3.62	3.53	3.35
Wheat	\$/60LB	4.76	4.36	4.28	4.15	4.18	4.13	4.00	4.15	4.24
Rice	\$/MT	483	293	277	254	255	267	273	272	255
Sugar										
United States	CTS/LB	19.73	19.92	22.04	21.81	22.04	21.77	21.89	21.72	21.70
Free Market	CTS/LB	16.89	8.41	8.47	6.68	5.71	4.23	4.54	4.05	4.11
EEC	CTS/LB	18.93	18.12	17.57	16.72	16.59	15.91	16.19	16.11	15.44
Meat										
Beef	CTS/LB	112.1	108.4	110.7	105.6	108.8	100.9	101.3	102.3	99.1
Lamb	CTS/LB	125.0	108.6	87.9	86.2	94.5	87.7	89.3	88.8	84.9
Bananas	\$/40LB	7.28	6.80	7.79	7.09	7.86	6.32	6.65	6.16	6.16
Beverages										
Coffee										
Robusta	CTS/LB	102.9	111.0	124.1	136.9	142.5	140.2	138.3	140.1	142.0
Other milds	CTS/LB	128.1	139.7	131.7	145.7	149.0	143.0	143.4	145.3	140.2
Cocoa	CTS/LB	94.2	79.0	96.1	115.8	116.4	101.9	100.5	100.4	104.8
Tea	CTS/LB	91.6	87.6	105.4	176.6	155.3	139.4	130.5	133.0	154.9
Agricultural raw materials										
Cotton										
Medium	CTS/LB	84.0	72.5	84.1	87.9	87.2	76.0	79.0	75.5	73.4
Long	CTS/LB	152.0	124.9	140.0	163.1	163.8	164.0	164.0	164.0	164.0
Wool										
Fine	CTS/KG	612.6	572.6	539.9	580.1	583.0	526.9	537.4	532.0	511.3
Coarse	CTS/KG	391.4	342.8	320.2	330.6	335.8	302.8	309.0	306.0	293.4
Rubber	CTS/LB	50.9	38.9	48.3	51.4	44.3	41.1	40.3	41.1	41.8
Hides	CTS/LB	41.7	38.6	45.1	54.6	59.4	63.3	63.8	63.0	63.0
Jute	\$/LT	283	288	303	412	410	427	434	432	414
Sisal	\$/MT	645	595	564	560	570	570	570	570	570
Metals										
Copper	CTS/LB	79.0	67.2	72.2	65.1	65.3	59.9	60.4	60.7	58.7
Iron ore	\$/MT	24.6	26.2	24.0	23.1	22.8	21.2	21.7	21.4	20.4
Tin	CTS/LB	642.7	581.9	589.1	556.5	569.7	556.9	564.4	557.9	548.3
Aluminum	CTS/LB	74.5	64.3	64.8	71.6	69.7	64.8	65.9	65.6	62.8
Zinc	CTS/LB	38.4	33.8	34.7	45.3	44.5	37.1	38.7	37.8	34.8
Nickel	CTS/LB	342.4	320.0	320.0	320.0	320.0	320.0	320.0	320.0	320.0
Lead	CTS/LB	32.9	24.8	19.3	19.0	21.4	20.6	22.4	21.2	18.2

1/ Provisional.