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# COMMODITY MARKETS AND THE DEVELOPING COUNTRIES

A WORLD BANK QUARTERLY

MAY 1995

Nonfuel primary commodity prices rose 3.1% for the quarter and 29.5% compared with the first quarter of 1994. The one-year gain for agriculture was 27.1% and for metals and minerals 39.8%. Petroleum prices were 24.1% higher over the same period.

**CHANGE IN QUARTERLY AVERAGES (4Q94-1Q95)**  
Percent

<b>Nonfuel</b>	+3.0
Food	+2.3
Beverages	-4.9
Cocoa	+4.3
Mild coffee	-5.7
Tea	-7.1
Fats and oils	-0.6
Grains	+2.9
Other	+5.4
Agricultural raw materials	+9.5
Cotton	+28.6
Natural rubber	+24.9
Timber	-4.8
Metals and minerals	+5.2
Aluminum	+5.7
Copper	+5.7
Tin	-2.1
<b>Petroleum</b>	+0.9

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Rising prices are causing many companies to consider capacity expansion.

### ■ POTASSIUM CHLORIDE PAGE 31

Canadian exporters agree to \$6.50/ton increase in potash prices for the first two quarters of 1995.

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### ■ UREA PAGE 32

Prices continue to rise, reaching \$232/ton in March, up 132% over two years.

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## SUMMARY

Commodity prices rose during the first quarter, reversing the decline of the fourth quarter of 1994. The revised World Bank index of nonfuel primary commodity prices averaged 3.0% higher than the average of the previous version of the index in the fourth quarter of 1994 (see the description of the index revision on page 5). Crude petroleum prices (not included in the nonfuel index) were relatively steady and increased 0.9% on average.

Food prices rose 2.3% overall as moderately lower vegetable oil prices were offset by higher prices for cereals (2.9%) and

other food products (5.4%). Beverage prices fell 4.9% as coffee prices were weakened by higher than expected harvests in both Brazil and Colombia. Tea prices were depressed by prospects that black tea output would exceed demand for the third consecutive year.

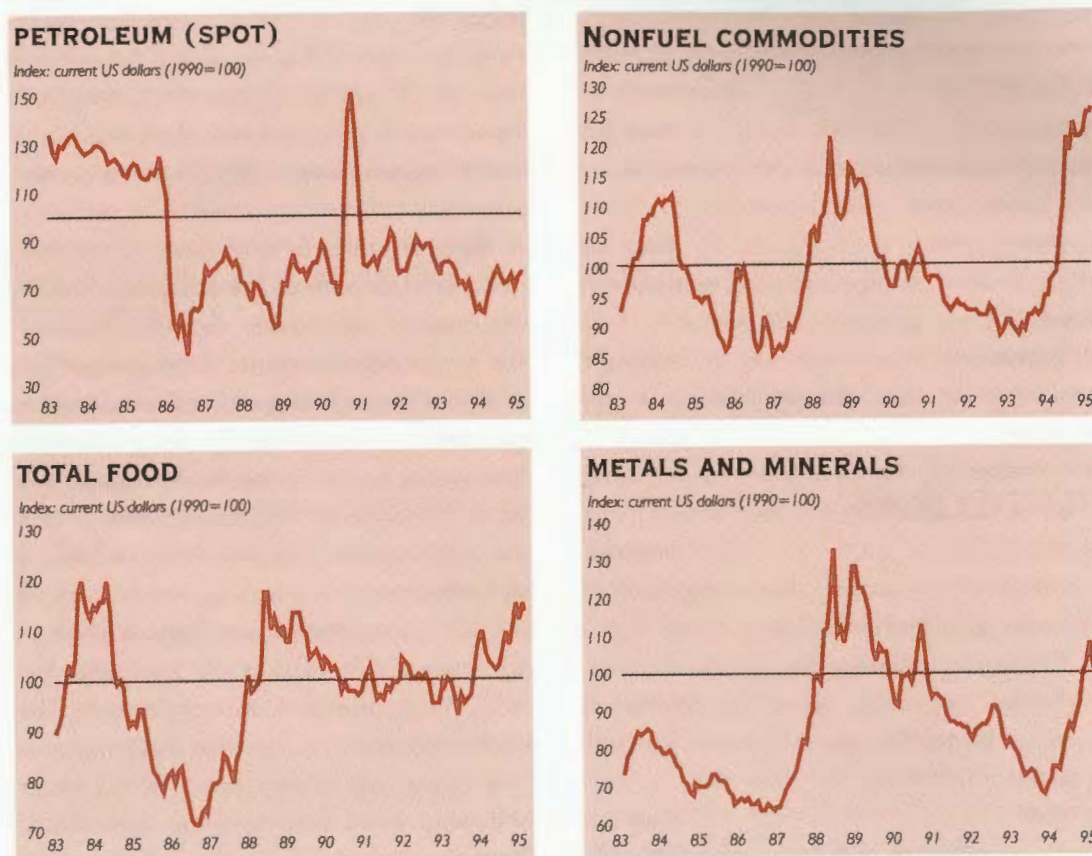
Tight supplies of important agricultural raw materials were of great concern during the quarter. Exportable supplies of cotton are expected to remain scarce until the northern hemisphere new crop is available in quantity late in the year. Spinning mills with inadequate cotton in the short run also face limited allocations of polyester fiber to substitute for cotton. Natural rubber producing and consuming countries agreed to a successor to the International Natural Rubber Agreement that expires on December 28, 1995. When approved, the new rubber agreement will remain in force for a minimum of four years and a maximum of six years. Malaysian RSS1 rubber prices rose 24.9% during the quarter in response to recovering automobile production. Prices are expected to remain above the long-term trend during the next three years due to the lack of new rubber tree plantings during recent years of low prices.

The continued price rise in metals and minerals during the quarter was led by 5.7% increases in the prices for aluminum and copper. Strong demand for aluminum has drawn down London Metal Exchange (LME) stocks by half over the past year. Aluminum market conditions that deterred investments in new capacity in recent years have raised prospects for higher metal prices in the long term.

Fertilizer prices remain strong as high crop prices stimulate prospects for large plantings, especially in China and the United States. Supplies remain especially tight for nitrogen fertilizer due to capacity constraints, though fertilizer prices may be nearing their peaks as many companies are increasing output from existing plants and are planning expansion projects.

# COMMODITY PRICE INDICES

**FIGURE 1. WEIGHTED INDEX OF PRIMARY COMMODITY PRICES FOR LOW- AND MIDDLE-INCOME ECONOMIES**



**TABLE 1. WEIGHTED INDEX OF PRIMARY COMMODITY PRICES FOR LOW- AND MIDDLE-INCOME ECONOMIES IN CURRENT DOLLARS**  
1990=100

	Agriculture												
	Petroleum	Nonfuel commodities (100.0)	Food						Raw materials		Metals and minerals		Fertilizers (2.7)
			Total (69.1)	Total (29.4)	Grains (6.9)	Fats and oils (10.1)	Other (12.4)	Beverages (16.9)	Total (22.8)	Timber (9.3)	(28.1)		
<b>Annual</b>													
1992	83.1	92.1	94.4	100.0	101.7	111.7	89.5	79.4	98.3	114.5	86.1	95.8	
1993	73.6	91.6	99.1	98.6	93.6	111.5	90.7	84.9	110.3	152.4	74.0	83.7	
1994	69.4	111.9	123.7	106.8	102.1	126.0	93.9	150.4	125.8	156.6	84.6	93.4	
<b>Quarterly</b>													
1Q94	60.5	97.5	107.3	108.0	114.4	119.3	95.1	96.2	114.6	147.6	74.1	90.4	
2Q94	70.7	105.4	116.5	102.8	96.6	122.7	89.9	126.2	127.0	163.4	79.3	93.1	
3Q94	74.4	122.2	137.9	105.8	95.4	126.1	95.1	201.5	132.2	165.9	86.6	93.6	
4Q94	72.1	122.5	133.3	110.8	101.9	135.9	95.3	177.8	129.5	149.3	98.5	96.3	
1Q95	75.1	126.3	136.4	113.5	104.9	135.1	100.6	169.2	141.8	142.1	103.6	101.7	
<b>Monthly</b>													
1994 Mar	59.5	98.6	108.3	105.4	103.8	117.0	96.9	100.6	117.8	148.8	75.4	91.1	
1994 Apr	65.9	99.5	109.9	103.7	101.8	118.0	93.1	102.9	123.2	157.8	74.6	92.3	
1994 May	71.2	105.9	117.2	102.7	95.3	123.3	90.0	128.6	127.3	164.2	79.5	93.6	
1994 Jun	75.0	110.7	122.4	101.8	92.7	126.8	86.6	147.1	130.5	168.4	83.9	93.6	
1994 Jul	78.1	121.9	137.5	102.6	90.4	120.6	94.6	203.3	133.7	167.3	86.5	93.6	
1994 Aug	74.3	120.2	135.7	105.8	95.9	126.8	94.1	192.2	132.5	167.7	84.7	93.6	
1994 Sep	70.8	124.6	140.5	109.2	99.9	130.8	96.7	209.0	130.2	162.7	88.7	93.6	
1994 Oct	72.0	121.9	135.1	106.9	101.8	128.5	92.0	192.9	128.7	152.9	92.2	95.5	
1994 Nov	74.7	122.5	132.6	110.5	101.2	138.8	92.5	177.5	127.9	149.9	100.3	96.7	
1994 Dec	69.7	123.1	132.3	115.2	102.8	140.4	101.4	163.0	131.8	145.2	102.9	96.7	
1995 Jan	73.6	126.1	134.3	111.7	104.6	134.7	96.9	166.5	139.7	147.8	108.5	100.1	
1995 Feb	75.8	125.9	136.5	115.1	104.7	135.2	104.5	166.6	141.9	141.4	102.2	102.6	
1995 Mar	75.8	126.7	138.5	113.7	105.5	135.4	100.5	174.4	144.0	137.2	100.1	102.6	

Note: Weighted by average 1987-89 export values for low- and middle-income economies. Indices were revised on April 27, 1995. See the description of the changes on pages 5 and 6.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

## REVISIONS TO COMMODITY PRICE INDEX

The World Bank commodity price index of nonfuel commodity prices is being revised with this issue. The index is weighted by export earnings of primary commodities of lower- and middle-income countries, calculated using the fixed-weight Laspeyers formula. The weights have been updated from an average of the 1979–81 period to the 1987–89 period. Additional commodities have been included, some of the price series have been changed, and several commodities have also been dropped from the index (table 2). The new and old indices for non-fuel commodities and two of the subindices are shown in figure 2.

The weights were revised to reflect recent changes in the export revenues of developing countries resulting from shifts in the value of exports and in the countries included in the index. In the new index agricultural commodities account for 69.1% of the total, metals and minerals for 28.1%, and fertilizers for 2.7%. Strict comparison of the old and new index weights for the major aggregates is difficult because some commodities, such as timber, that were previously treated separately are now included in agriculture. In general, however, the weights given to agricultural commodities have declined slightly relative to metals and minerals and fertilizer. In country composition, index coverage has expanded to include the new states of the former Soviet Union, Eastern Europe, Cuba, and oil-exporting countries.

One of the most important changes in the weights has been the increased importance of timber as a share of export revenues of developing countries. This is captured by adding sawnwood to the index. The weight for timber in the price index increased from 5.2% in 1979–81 to 9.3% in 1987–89. Another major change is the decline in the share of coffee in the index from 15.8% to 10.8%, due in large part to the decline in coffee prices relative to other commodity prices.

Less dramatic changes in other prices also occurred.

The number of commodities included in the index remains the same at 32, with a total of 34 price series. The commodity group indices are expanded to allow more specific coverage. Beverages are separated from food, agricultural raw materials have been renamed (they were previously called non-food agriculture) and expanded to include timber, and fertilizers are included as a separate group rather than as part of metals and minerals. The prices that have been dropped include copra, groundnut meal, jute, and bauxite. Energy prices are not included in the index, though changes have been made in the petroleum price.

A number of price series have been replaced to include a more widely traded commodity category or to drop a series that no longer reflects the best price estimates available:

- Coffee: Robusta prices have been added to the index along with Other Milds to form a trade-weighted average of the two prices.
- Petroleum: The price has been changed from the average of the weekly OPEC spot prices to the daily average of Brent, Dubai, and West Texas intermediate.
- Rice: The official posted board of trade price for Thai 5% broken rice has been replaced by the indicative price obtained from market surveys to better reflect market transactions.
- Rubber: The Kuala Lumpur price has replaced the New York price in the index because it is believed to be a more representative price for developing countries.
- Sawnwood: The French import price has been replaced in the index by the UK import price.
- Tin: The Kuala Lumpur Tin Market (KLTM) price has been replaced by the London Metal Exchange (LME) price.
- Tobacco: The US import unit value price has replaced the Indian export unit value price because of its more timely availability.

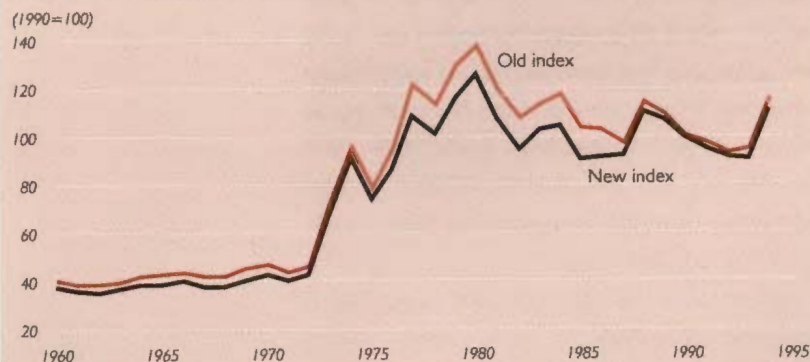
- TSP: Prices have been added and combined with phosphate rock to form a fertilizer price index.
- Wheat: The Canadian wheat export price has been replaced with the price of US Hard Red Winter wheat, which is more widely traded.

**TABLE 2. WEIGHTS USED IN THE WORLD BANK NONFUEL COMMODITY PRICE INDICES**  
(percent)

Commodity group	Old index, average 1979-81 <sup>a</sup>	New index, average 1987-89 <sup>b</sup>
<b>Nonfuel commodities</b>	<b>100.0</b>	<b>100.0</b>
<b>Agriculture</b>	<b>67.7</b>	<b>69.1</b>
Food	53.2	29.4
Grains	9.4	6.9
Maize	2.8	1.7
Rice	4.3	2.9
Sorghum	0.9	0.4
Wheat	1.4	1.9
Vegetable oils and meals	9.3	10.1
Coconut oil	1.2	0.7
Copra	0.3	—
Groundnut meal	0.3	—
Groundnut oil	0.5	0.2
Palm oil	2.7	2.3
Soybean meal	2.7	4.1
Soybean oil	—	0.8
Soybeans	1.7	2.0
Other food	12.3	12.4
Bananas	1.7	2.3
Beef	2.2	1.8
Oranges	1.4	0.8
Sugar	7.0	7.5
Beverages	22.3	16.9
Cocoa	4.0	3.9
Coffee	15.8	10.8
Tea	2.5	2.1
<b>Agricultural raw materials</b>	<b>—</b>	<b>22.8</b>
Cotton	5.2	5.9
Jute	0.3	—
Natural rubber	6.0	4.8
Timber	5.2	9.3
Hardwood	5.2	9.3
Logs	5.2	2.9
Sawnwood	—	6.4
Tobacco	3.0	2.9
<b>Metals and minerals</b>	<b>27.1</b>	<b>28.1</b>
Aluminum	3.4	7.9
Bauxite	1.2	—
Copper	8.9	9.3
Iron ore	4.8	5.4
Lead	0.8	0.5
Nickel	1.0	2.2
Tin	4.2	1.6
Zinc	0.8	1.3
<b>Fertilizers</b>	<b>—</b>	<b>2.7</b>
Phosphate rock	2.1	1.8
Triple superphosphate (TSP)	—	0.9

**FIGURE 2. WORLD BANK COMMODITY PRICE INDICES**

**NONFUEL COMMODITIES**



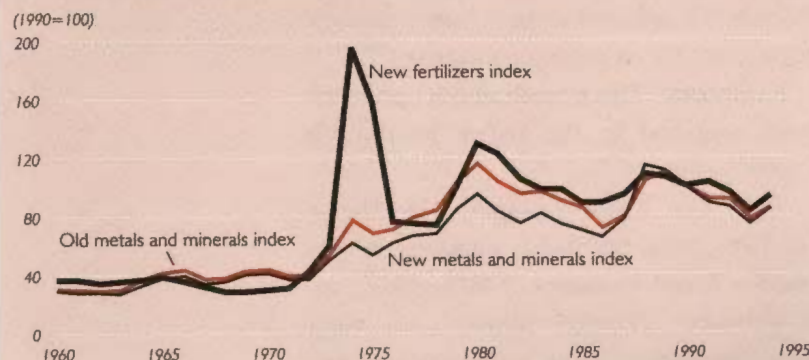
Old weights: 1979-81 export values for developing economies, excluding former Soviet Union, E. Europe, and Cuba.  
New weights: 1987-89 export values for low- and middle-income countries.  
New nonfuel index includes new and revised price series, and new subgroups.

**AGRICULTURE**



New index weight includes timber.

**METALS AND MINERALS AND FERTILIZERS**



Metals and minerals weights dropped for phosphate rock and bauxite, and phosphate rock dropped from price series.  
Fertilizers is a new subgroup in the new nonfuel index; weighted average of phosphate rock and TSP.

— Price series not included in the index.

Note: Group components may not sum to totals because of rounding.  
a. Developing countries' weights shown according to the original commodity group definitions. Country coverage excluded the republics of the former Soviet Union (FSU), Eastern European, and oil-exporting economies but included Cyprus, Israel, Hong Kong, Singapore, and Taiwan (China).  
b. Low- and middle-income countries' weights, with income groups as defined by the World Bank as of December 30, 1994.  
Source: World Bank staff calculations from Food and Agriculture Organization (FAO) and the World Bank Metal and Minerals (METMIN) data bases.

## COMMODITY EXPORT REVENUES RISE SHARPLY

Commodity booms have occurred roughly once each decade for the past 50 years. The boom of the 1970s was the longest and strongest, with commodity prices soaring 240% in nominal terms from 1971 to 1980. Many developing countries reaped huge export revenue gains. Since the current boom in commodity prices began in late 1992, the World Bank's monthly index of nonfuel primary commodities prices has increased by 45%, reaching a high in March 1995. While this commodity boom may not be over, it shows few signs of matching the price increases of the 1970s. The current increases appear to be based on supply disruptions more than on the demand increases that fueled the commodity price rise throughout most of the 1970s. If so, the increases are likely to be short lived, coming to an end as production returns to normal.

The current boom has favored the developing countries because prices have generally risen more for the commodities they export, such as coffee, cotton, and copper, than for the commodities they import, such as grains and petroleum. Developing countries have traditionally relied on commodities for a significant part of their export earnings, and that continues to be the case for most of them (table 3). In 1992 primary commodities accounted for 47% of the

**TABLE 3. COMMODITIES MADE UP LARGE SHARE OF MERCHANDISE EXPORTS OF DEVELOPING COUNTRIES IN 1992**  
(percent)

Region	Fuels, minerals, metals	Other primary commodities
Low- and middle-income economies	29	18
Sub-Saharan Africa	44	32
East Asia and Pacific	11	15
South Asia	6	21
Europe and Central Asia	..	..
Middle East and North Africa	85	5
Latin America and Caribbean	32	30
Severely indebted	34	27
High-income economies	7	11
World	12	13

.. Not available.

Source: World Development Report 1994, p. 191.

merchandise exports of low- and middle-income countries. That share was as high as 90% for the Middle East and North Africa, nearly all of it from oil exports, and 76% for Sub-Saharan Africa. Among the most severely indebted economies, 61% of merchandise exports revenues came from primary commodities.

**EXPORT REVENUE.** While the average price of primary commodity exports from developing countries rose by 22% between 1993 and 1994, the effect on export revenues was often much greater because of the concentration of exports in certain commodities. We estimated export revenues for developing countries from 11 commodities (aluminum, cocoa, coconut oil, coffee, copper, cotton, groundnuts, nickel, palm oil, rubber, and soybean oil) with the largest price increases in 1994 to give a sense of the magnitude of the effect of the 1994 commodity price changes. We calculated export revenues by estimating export volumes for selected commodities based on best available information and then used the changes in world prices to estimate the increase in export unit values. Although not based on official country records, the estimates can provide useful information for planning purposes.

Export revenues in developing countries for the specified commodities rose an esti-

**TABLE 4. DEVELOPING COUNTRIES' EXPORT REVENUES BENEFIT FROM RISING COMMODITY PRICES**

(billions of dollars)

Commodity	1992	1993	1994	Increase 1993-94
Agricultural commodities	18.01	18.54	28.19	9.65
Cocoa	2.18	2.23	2.73	0.50
Coconut oil	0.76	0.54	0.72	0.18
Coffee	5.19	5.76	10.62	4.86
Cotton	2.60	2.37	2.82	0.45
Groundnut oil	0.13	0.16	0.22	0.06
Palm oil	2.76	3.10	4.90	1.80
Rubber	3.49	3.33	4.64	1.31
Soybean oil	0.90	1.05	1.54	0.49
Metals and minerals	14.44	13.79	17.77	3.98
Aluminum	4.94	5.21	7.18	1.97
Copper	8.09	7.22	8.65	1.43
Nickel	1.41	1.36	1.94	0.58
Total	32.45	32.33	45.96	13.63

Source: World Bank estimates.

**TABLE 5. GAINS ARE WIDESPREAD BUT UNEVEN**  
(billions of dollars)

Region	1992	1993	1994	Increase 1993-94
Sub-Saharan Africa	5.67	5.38	7.21	1.83
East Asia and Pacific	8.96	9.05	13.36	4.31
South Asia	1.03	0.84	0.68	-0.16
Europe and Central Asia	3.10	4.32	6.38	2.06
Middle East and North Africa	0.43	0.52	0.63	0.11
Latin America and Caribbean	13.23	12.20	17.84	5.65

Source: World Bank estimates.

mated \$13.6 billion in 1994 over revenues in 1993 (table 4). Agricultural exports accounted for 71% of the total increase, with coffee alone accounting for half that increase. After coffee came vegetable oils, at \$2.53 billion of the increase in export revenues, and rubber, at \$1.31 billion. Cocoa and cotton each contributed about \$500 million. Metals and minerals accounted for about \$4.0 billion of the \$13.6 billion increase in export revenues, with aluminum accounting for \$2.0 billion and copper and nickel for the other \$2.0 billion.

**BIG WINNERS.** The gains from primary commodity exports were widespread, with most regions benefiting from the higher export prices (table 5). Latin America and the Caribbean had the largest gains, followed by East Asia and the Pacific. Sub-Saharan Africa's \$1.83 billion increase in export revenue came largely from cocoa, coffee, and cotton. Larger exports of metals and minerals accounted for much of Europe and Central Asia's increase of \$2.06 billion.

In percentage terms, the largest gainers were East Asia and the Pacific, which experienced a 48% boost in export revenues, and Latin America and the Caribbean, where export revenues rose 46%. Sub-Saharan Africa experienced a 33% hike in export revenues.

Malaysia's export revenues for the commodities considered shot up \$1.76 billion, \$1.36 billion of it from palm oil and \$34 million from rubber (table 6). Most of the big winners were coffee exporters (coffee prices rose 121%). Brazil was a big gainer from the boom in commodity prices, despite its coffee production problems. Export revenues from

the selected commodities increased from \$2.88 billion in 1993 to \$4.54 billion in 1994. Colombia also benefited from sharply higher export revenues from coffee, which soared from \$1.21 billion in 1993 to \$2.23 billion in 1994 and accounted for nearly all the increased export revenue. Indonesia also won big, reaping large gains from a diversified list of commodity exports including rubber (\$40 million), palm oil (\$32 million), and coffee (\$30 million). In Sub-Saharan Africa the big winner was Côte d'Ivoire (\$55 million), whose export revenue gains were led by cocoa (\$25 million) and coffee (\$20 million).

Many other countries had large percentage changes in export revenues and in the share of total merchandise exports coming from primary commodities. Most countries that experienced high percentage increases in their export revenues were coffee or cotton exporters. As a share of 1993 GDP, the increase in export revenue was as high as 30% for Ethiopia and nearly 6% for Côte d'Ivoire. Sharply higher coffee exports lifted Ethiopia's export revenues an estimated 80%. Export revenues in Uganda and Benin rose an estimated 48% to 50%. Other countries with large percentage changes in export revenues include Rwanda (37%), Chad (28%), El Salvador (20%), and Guatemala and Tanzania (17%).

**TABLE 6. THE BIG WINNERS**  
(billions of dollars)

Country	1992	1993	1994	Increase 1993-94	Increase as % of 1993 GDP
Malaysia	3.40	3.41	5.17	1.76	2.74
Brazil	2.84	2.88	4.54	1.66	0.33
FSU	2.02	3.19	4.66	1.47	..
Indonesia	2.56	2.70	3.92	1.22	0.84
Colombia	1.52	1.33	2.38	1.05	1.94
Côte d'Ivoire	1.22	1.19	1.74	0.55	5.91
Thailand	1.19	1.21	1.67	0.46	0.37
Mexico	0.59	0.62	1.02	0.46	0.11
Argentina	0.64	0.67	1.05	0.38	0.15
Ethiopia	0.11	0.19	0.35	0.16	30.37
Cameroon	0.33	0.33	0.47	0.14	1.29
Ecuador	0.14	0.19	0.30	0.11	0.77
Benin	0.08	0.07	0.15	0.08	3.66

.. Not available.

Source: World Bank estimates.



## RISK MANAGEMENT AND REFORMS IN UGANDA'S COFFEE SECTOR

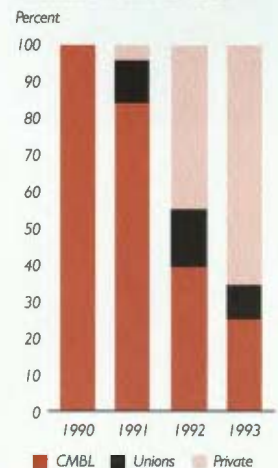
In 1962 the government of Uganda set up the Coffee Marketing Board (CMB) and granted it monopoly power over the internal and external marketing of robusta coffee. In 1969 the monopoly was extended to all coffee. During the 1960s domestic farmgate prices remained low, and almost no new coffee trees were planted—even during the boom years of the mid-1970s. Some private hulleries emerged in the mid-1980s, in response to a shortage of hulling capacity, but margins were set by the CMB. In 1989 the economic clause of the International Coffee Agreement expired, and coffee prices fell. At that point there had been virtually no investment in new coffee trees for nearly 30 years. It was clear to the new, reform-minded government that the coffee sector, which provided most of Uganda's export earnings, was in crisis.

A working group set up by the government of Uganda and the World Bank recommended a phased liberalization program beginning in 1990. Though international coffee prices continued to fall to historical lows from 1990 to 1992, the government remained resolutely committed to reform. In 1990 it allowed cooperatives to compete with the CMB, and in 1991 the CMB was transformed into a for-profit company, the Coffee Marketing Board, Ltd. (CMBL) and its regulatory functions were transferred to the newly established Ugandan Coffee Development Agency (UCDA). Seven new exporters were licensed that same year, bringing the total licensed exporters to 21. In 1993 the government and the World Bank established a joint review of earlier reforms and provided a detailed set of recommendations, which the government endorsed in 1994. Between 1994 and 1995 the majority of

seats on the UCDA's governing board were transferred to the industry, minimum export floor prices were removed, and the CMBL was slated for privatization. An assessment of risk management needs conducted jointly by the UCDA and the Bank led to an ongoing project to implement changes in trade finance and risk management policy. The boom in coffee prices in 1994, following a frost in Brazil, bolstered farm-level support for the already popular reform program.

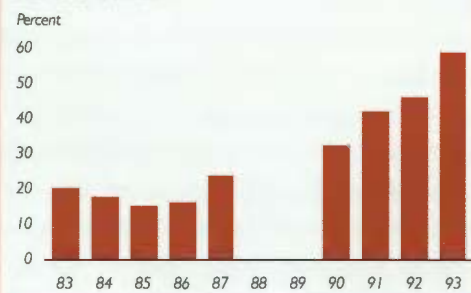
Several lessons can be drawn from the experience of coffee reforms in Uganda. First, separating the regulatory and marketing functions of marketing boards can provide a more stable transition. Second, private activity can emerge quickly. Despite a 30-year absence, the private sector captured 70% of Uganda's export market within three seasons (figure 3). Third, increased competition can dramatically boost farmers' share of the export price (figure 4). Fourth, the private sector can also create channels for credit. In Uganda several private traders established financing agreements with foreign buyers and extended cash purchases down to the farm level. (The CMB had previously used an IOU voucher system to purchase coffee.) And fifth, local banks may not be able to immediately meet the new demand for financial services, including risk management.

FIGURE 3. COFFEE MARKET SHARES DURING TRANSITION



Source: World Bank data.

FIGURE 4. FARMERS' SHARE OF COFFEE EXPORT PRICE

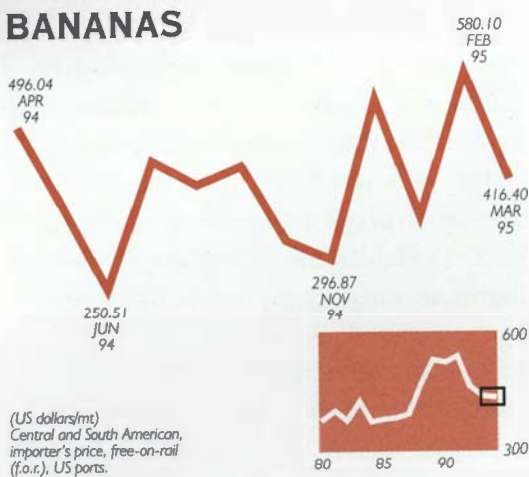


Note: Data are not available for 1988 and 1989. Source: World Bank data.

Food prices continue to rise due to higher grain and sugar prices.



## BANANAS



(US dollars/mt)  
Central and South American,  
importer's price, free-on-rail  
(f.o.r.), US ports.

### LARGE STOCKS DEPRESS EU PRICES IN JANUARY, BUT PRICES RECOVER IN FEBRUARY

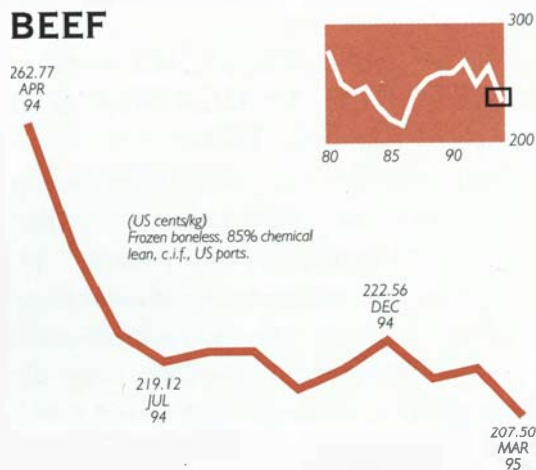
US imports of bananas from Latin America during the first quarter averaged \$580/ton, about 2% higher than a year ago. Reports from Pacific banana markets indicate that the abundant world supply of bananas undermined prices during the fourth quarter of 1994.

A recently organized joint venture in Brazil plans a banana production project in northeast Brazil on 4,000 hectares of irrigated land. The project is expected to plant around 40 hectares a month and to have 1,300 hectares producing fruit by the end of 1996. Most of the fruit will be sold in the domestic market and in nearby countries.

New arrangements for importing bananas into the European Union have been introduced under the Framework Agreement on Bananas. During the first quarter of 1995 bananas released into free circulation required certificates of origin, while bananas originating in Colombia, Costa Rica, and Nicaragua imported under category A or C import licenses required a special export certificate issued by one of the authorities listed in the agreement's annex.

Researchers in West Africa were awarded the 1994 King Badouin Award for the most outstanding agricultural breakthrough of the year for breeding a better banana. Biotechnology firms in North America and Europe are also conducting research to improve bananas.

## BEEF



(US cents/kg)  
Frozen boneless, 85% chemical  
lean, c.i.f., US ports.

### PRICE DECLINES EXPECTED AS US MEAT SUPPLIES EXPAND

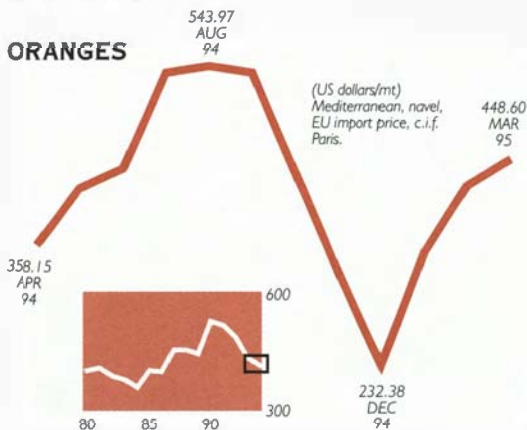
The US market for imported beef was pressured by rising domestic meat production and seasonal declines in domestic demand. Prices for frozen boneless beef (85% chemical lean, c.i.f.) averaged 195¢/kg in April—more than 25% lower than a year ago. In contrast, soaring demand is bolstering meat markets in Asia and South America.

Continuing growth in consumer demand for beef and increased minimum import quotas promise a rosy outlook for Korean markets. The strong economy fueled demand growth in 1994, with beef consumption at 268,000 tons, more than 15% above 1993 levels. Beef imports exceeded the minimum import quota. The outlook for 1995 is for further growth and market development, with an increase in the base quota to 123,000 tons. The Uruguay Round affected import tariffs, which rose from 20% to 43.6%, and the markup percentage on imports was pruned to a maximum of 70% under the simultaneous buy and sell system. Consumer demand for domestic and imported beef is forecast to continue to rise in response to continued strong economic growth, targeted at 7% in 1995.

In Japan, beef consumption rose 9.2% in the first half of 1994/95, to 501,850 tons. Poultry remains the most popular meat, with consumption at 866,500 tons (up more than 4%), followed by pork at 719,200 tons. Meat consumption is also growing rapidly in other Asian countries.

## CITRUS

## ORANGES



#### FRESH ORANGE CONSUMPTION AND LOWER PRODUCTION TO CUT BRAZIL'S JUICE EXPORTS

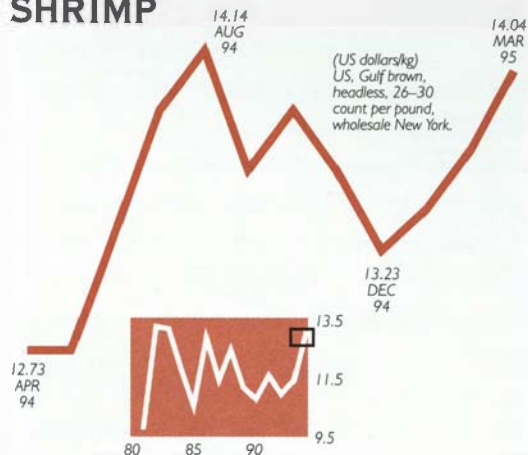
The US orange harvest is now forecast at 10.55 million tons, 13% higher than last year. The forecast was revised due to higher production of Valencia Lates in Florida. Juice yields are estimated at 1.15 gallons per box, up 17% over the freeze-damaged 1993/94 crop.

Brazil's orange market is expected to be strong during 1995. Domestic consumption of fresh oranges has risen considerably in response to increased consumer income, while dry weather in late 1994 reduced production prospects. And producers, no longer constrained by the industry master contract in their bargaining with processors, are expecting a sharp rise in prices. This tight supply situation also indicates smaller supplies for processing and higher prices for Brazilian frozen concentrated orange juice.

Citrus production is increasing in China, and new tree planting is expected to expand at about 5% per year during the next several years. The predominant citrus is mandarins, estimated at around 67%, with oranges making up most of the rest. The bulk of production is consumed domestically in fresh form.

A breakthrough against the tristeza virus, a devastating disease of orange and grapefruit trees, was made by a joint project funded by the US-Israel Binational Agricultural Research and Development Fund. The researchers expect to apply newly discovered particles to immunize citrus trees against severe forms of the virus.

## SHRIMP



#### PRICES RISE AS GLOBAL SUPPLIES SHRINK

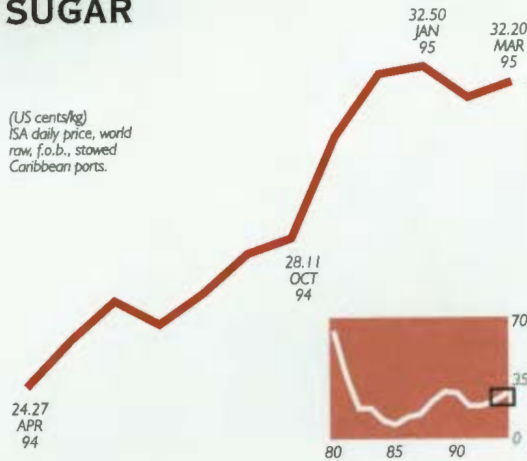
Strong demand combined with low inventories and declining supply in major producing countries boosted shrimp prices. US prices for frozen shrimp (shell-on, 26-30 count per pound) rose from \$13.58/kg in October-December 1994 to \$14.41/kg in April 1995. Landings from the Gulf of Mexico were low during the first quarter as supplies from major producing countries declined.

Export supplies have been low in recent months because of strong domestic demand, declines in landings, and aquaculture crop failures. Shrimp farms in a number of Asian countries suffered from poor growing conditions and disease. Heavy rains and cyclones in India hurt shrimp cultivation in many areas. Shrimp farmers in Andhra and Orissa lost 80% of shrimp production in recent months to low temperature, heavy rains, and disease, which thrived under conditions of low salinity. Aquaculture output is expected to improve by May-June in other Asian countries. The black tiger season begins in Bangladesh and India in late April to early May, while in Indonesia supplies may continue to improve as harvesting continues. Tropical shrimp supplies from Latin America should also improve in the third quarter.

Major shrimp-importing countries have increased their imports in recent months, despite the high prices and tight supply. US imports rose more than 5% to 21,924 tons in January 1995. Thailand remained the major supplier (6,691 tons).

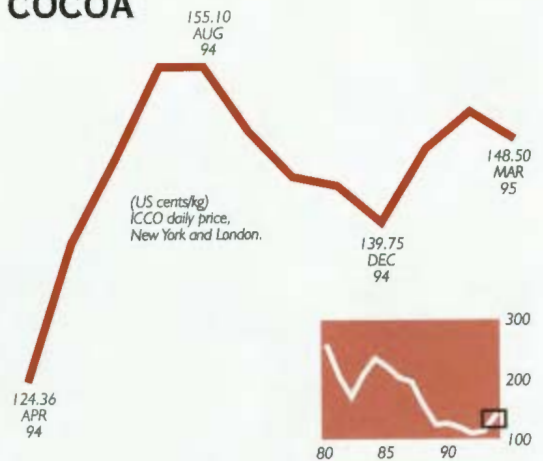
## SUGAR

(US cents/kg)  
ISA daily price, world  
raw, f.o.b., stowed  
Caribbean ports.



## COCOA

(US cents/kg)  
ICCO daily price,  
New York and London.



### MARKET ANTICIPATES NEW SUPPLIES

With near-term shortages but expectations of new supplies in the international sugar market, futures markets are in backwardation (with a 2¢/lb discount between May 1995 and May 1996 contracts). Measures of implied volatility from option contracts are constant to falling, indicating that the market is developing according to expectations.

The USDA revised its estimate of 1994/95 world centrifugal sugar production to 113.6 million tons (raw value) in March, up 1% from its November forecast. The new forecast implies a 3% increase over the 1993/94 crop, but production would remain below the record 1991/92 crop of 116.4 million tons.

Production gains in Brazil, Thailand, and Australia more than offset production declines elsewhere. Brazil is expected to produce a record 12.2 million ton crop, up 2.3 million tons from 1993/94. The increase in international prices appears to have diverted a substantial amount of cane from ethanol to sugar production.

World consumption, at 114.1 tons, is expected to slightly exceed global production. World stocks have fallen for three consecutive years. December 1994 stocks are estimated at 16.37 million tons, down from 23.59 million tons for the close of the 1991/92 season. The USDA's current stock-to-consumption estimate is 17.61%, up slightly from December's low of 16.37%.

### PRICES AND PRICE UNCERTAINTY LIKELY TO INCREASE IN 1995

First-quarter cocoa prices rose 4.6% over the last quarter of 1994 on concerns about the midyear crop in Africa and downward revision in production estimates for Asia and Brazil. Though consumption data indicate slower than expected growth, 1995 will be the fourth year in a row with a production deficit. Prices might have risen even more rapidly had stocks not been adequate.

The 1994/95 stock-to-consumption ratio is estimated at 0.47, still significantly higher than during the mid-1980s (0.31) when real prices were more than twice today's prices. Cocoa prices should continue rising in 1995 as they respond to the decline in stocks, although the size of the large stocks will hold down the price increase. Price uncertainty is also expected to increase as production and consumption give mixed market signals. Cocoa prices become more volatile when the stock-to-consumption ratio dips below 0.45.

On the bearish side, arrivals from Côte d'Ivoire and Ghana are running well ahead of last year. In mid-March estimated arrivals from Côte d'Ivoire were around 760,000 tons, up from 685,000 tons during the same period last year. Ghana's arrivals were 289,000 tons, far ahead of last year's 197,000 tons. The improved rainfall in Côte d'Ivoire in early March was probably too late to benefit the mid-crop, though reports suggest that next year's main crop will develop normally.

## COFFEE



## PRICES FLUCTUATE WIDELY

World coffee prices weakened in January as evidence mounted that Brazil's crop is larger than had been expected and that the drought damage to Colombia's crop is not serious. February saw prices increasing on news of the possible implementation of the stock retention program by all major exporting countries including Brazil. In March the market was disappointed when the USDA revised estimates of Brazil's 1995/96 crop upward from 15.7 to 17.7 million bags to 16.7 to 18.2 million bags. Doubts about how Brazil would reduce its exports within the framework of the retention program led to price weakness.

Since Brazil produces about 30% of the world crop, the market's prime focus remains on the forecasts for Brazil, whose 1995/96 crop was damaged by two frosts and a drought. Forecasts by the Brazilian government and by two Brazilian exporters, Marcellino Martins and E. Johnston Ltd. and Unicafe, are below USDA estimates. The Brazilian government puts the forecast at less than 15 million bags, while the two exporters forecast production of slightly more than 15 million bags, which is only slightly more than had been expected before the frosts of June and July 1994. Marcellino Martins and E. Johnston Ltd. expects production to fall everywhere except in Rondonia in the Amazon and report extensive frost and drought damage to trees. Trees in the states of São Paulo and Pirana were hit especially

hard, which will affect production for at least two more years.

Colombia's crop has been affected by a serious drought and the borer worm. The drought is reported to be burning berries for the March to May midway crop and withering flowers for the main end-of-the-year harvest. The borer worm plague has reportedly spread to nearly 60% of groves (30% at this time last year) and is expected to reduce production by 750,000 bags. Some Colombian exporters expect the 1994/95 crop to be around 11 million bags, down from over 17 million bags just a few years ago.

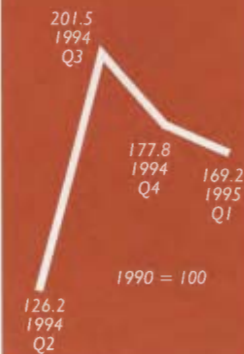
The market reacted weakly to discussions of the retention program among members of the Association of Coffee Producing Countries (ACPC) at mid-March meetings in London. Although the ACPC agreed to implement the retention program (exporting countries will reduce exports when prices are low), the market was uncertain about how Brazil would implement the program without government funding. Many doubt the program can maintain world coffee prices at recent high levels.

Liberalization of the coffee industry is progressing in some producing countries. Kenya now allows private competition in coffee processing, which had previously been monopolized by the Kenya Planters Cooperative Union. Coffee growers in India are demanding that the government liberalize exports to allow bypassing the Coffee Marketing Board. The government is resisting because of a concern that prices will rise at the domestic retail level. Growers are countering with proposals to the government to lift coffee import restraints, arguing that imports of lower-quality, less expensive coffee and exports of higher-quality coffee would serve both the interests of growers and those of domestic coffee buyers.

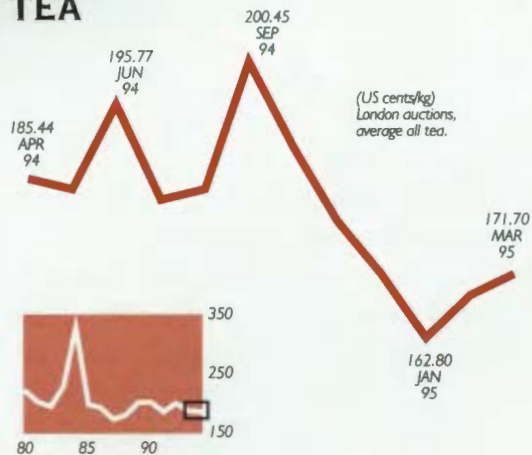
Coffee prices are likely to fluctuate widely in the near future as new forecasts are reported for Brazil's and Colombia's crops and as the ACPC's action on the retention program begins to take shape.

## BEVERAGES

Beverage prices continue to fall from their third-quarter peak.



## TEA

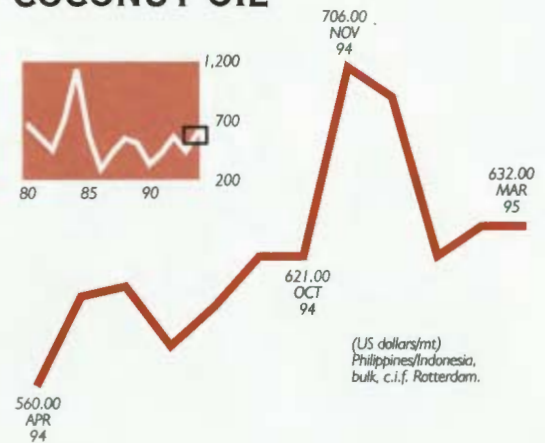


## PRICES WEAK AS GOOD WEATHER CONTINUES

Tea prices at the London auction remained stalled at depressed levels during the quarter as good weather prevailed over the past several months in major tea producing countries. If no output disruptions occur, this year's world black tea output is expected to substantially exceed demand for the third consecutive year. Weather in the first several months of the year is usually erratic and has considerably more impact on tea output for the year than does weather in the second half of the year, which tends to be more stable and has much less impact on output. The drought feared for Kenya's tea-producing areas has not developed, and Kenya's output for the year is expected to hit record levels—some expect it to be over 200,000 tons. The weather in Sri Lanka also was favorable, and output for the year is expected to be high. Productivity continues to improve with the privatization of management on Sri Lanka's highly efficient large estates.

Low world prices, accentuated by an above-normal buildup of local stocks, prompted some large Indian growers to halt production during November 1994–March 1995 in order to boost prices and maintain quality. Smaller estates, which needed to maintain their cash flow, did not follow suit. Output for the year is still expected to rise, however, since the output increases once plucking resumes in the spring are likely to outpace the declines that occurred during the November–March suspension.

## COCONUT OIL



## SUPPLIES AND EXPORTS REBOUNDED AS COPRA YIELDS RECOVER

The uptrend in world coconut oil exports was larger than expected this season. Led by the Philippines, world exports rose by more than 35% to 606,000 tons in October–January 1994/95. The Philippines' coconut oil exports more than doubled from last year to 320,000 tons in January–March 1995. Copra yields and production have rebounded since September 1994, leading to a significant increase in coconut oil and meal exports since October 1994. Coconut oil prices declined from \$673/ton in October–December 1994 to \$619/ton in April 1995.

The high output per tree since September combined with less favorable precipitation may result in lower copra production in late 1995 and early 1996. Average rainfall since October has been about 68% of normal, which could adversely affect copra yields and production with a lag of about 12 to 14 months. World coconut oil exports for October–September 1994/95 are projected at 1.6 million tons (up more than 17% from last year). Exports from the Philippines will be 35% larger than last season. This increase will be partly offset by reductions in Indonesia and Papua New Guinea.

World copra production is projected at 4.8 million tons in January–December 1996, down 200,000 tons from 1995 levels, but in line with the five-year average. With smaller copra output, world coconut oil production is likely to fall by about 100,000 tons (3% in 1995/96).

## PALM OIL

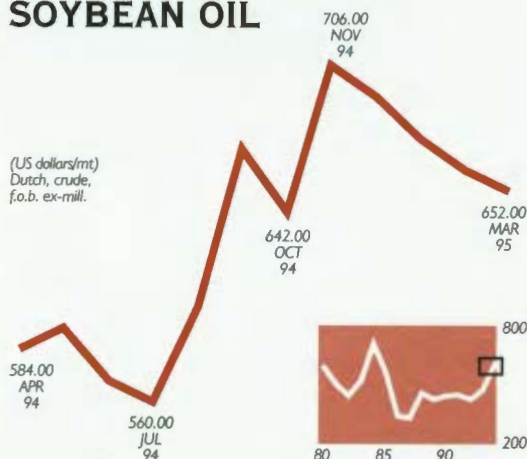


**SHARPLY INCREASING VEGETABLE OIL SUPPLIES  
WILL LEAD TO PRICE DECLINES**

World vegetable oil production is projected to rise during the second half of the 1994/95 season and through 1995/96. A sharp boost in world palm oil production and stocks will reestablish price differentials with seed oils and shift some consumption back to palm oil. Demand growth for seed oils will likely slow, allowing seed oil stocks to rebuild.

Palm oil prices have declined only slightly, from \$681/ton in October–December 1994 to \$668/ton in January–March 1995. Palm oil prices are expected to continue their decline as stocks recover and export availabilities strengthen, though they are not expected to fall to the low levels seen in the late 1980s and early 1990s. Prices for the nearest forward shipment in September–October 1995 are projected to fall to around \$450–500/ton. Projections for record Southeast Asian production for April–September 1995 will put further downward pressure on prices during the second half of the season. Southeast Asian palm oil production has started its seasonal rise. Malaysian palm oil stocks are reported above last year's levels and likely to continue to rise in the second half of 1995 since demand is unlikely to absorb the sharply increasing production. Despite very low stocks in early 1995 and strong world demand, supply is expected to exceed demand in the 1994/95 season, and palm oil stocks are expected to recover because of the robust production growth.

## SOYBEAN OIL



**SOYBEAN OIL PRICES DECLINING ON EXPECTATIONS  
OF LARGE SUPPLIES AND SLOWER DEMAND GROWTH**

Soybean oil prices, which peaked during late November to early December 1994, have declined since then as record production and export competition from South American supplies began to appear likely. Slower growth in world oilseed crushing has also contributed to the price decline.

Current soybean oil prices may stimulate demand in several importing countries, resulting in some very short-term price stabilization. But soybean oil prices are expected to decline over the next six months in response to larger supplies and generally slower demand growth during the second half of the 1994/95 season.

The sharp increase in soybean prices during 1993/94 was due to tight supply and high prices for oils. Soybean meal prices are projected to continue their recovery in line with the expected decline in soybean oil prices, slower growth of meal output, and projected increases in feedgrain prices as US corn plantings fall and 1995/96 corn stocks drop. The recovery in soybean meal prices will partly offset the bearish impact on soybean prices of the decline in soybean oil prices. The high meal yield for crushings and high raw protein content are responsible for the high price for the meal. Those high prices may in turn prevent soybean prices from dipping sharply over the next six months or so.

A strong boost in world oilseed crushing occurred during the first half of the 1994/95

## FATS AND OILS

Fats and oils prices declining due to higher production.



season. The United States and Western Europe accounted for more than three-quarters of the growth between October and March. More moderate increases were reported in Argentina, Brazil, Mexico, Republic of Korea, and Taiwan (China). Excellent crush margins and the strong demand for oil and for replenishing stocks have boosted oilseed crushing. Oil financed an above-average share of the crush value.

Oilmeals, a by-product of oilseed crushing, were offered at historically low prices, though the favorable meal prices stimulated new demand in major consuming countries. Strong meal demand in North America and Western Europe has resulted in rapid disposals of oilmeal supplies this season.

The expansion in world oilseed crushing is projected to slow during June–September 1995. The larger than expected excess of world production over demand in October–March 1994/95 has allowed stocks to recover in many importing countries. Oil tightness has eased, and crush margins, which had been excellent in 1994/95, are beginning to shrink in the United States and Western Europe. Processing will slow accordingly.

The boost in world palm oil production to record levels in April–September 1994 under the lead of Indonesia and Malaysia will reduce dependence on seed oils. Recent reports indicate a combined increase of 2 million tons in South American oilseed production in addition to the record 46.5 million tons in 1994. However, new crop sales have been limited and are lower than last year.

Vegetable oil prices are likely to decline further during the second half of the 1994/95 (September–October) season due to larger than expected soybean supply from South America, acceleration in the seasonal growth in Southeast Asian palm oil production, downturn in import demand, and rising stocks as world production grows faster than demand in major soybean producing and consuming countries. The main increases are expected in the oils stocks of the European Union, South America, and Southeast Asia.

## GRAINS

### VOLATILITY FACTORS MOUNTING

Grains markets have shifted their focus to next year's harvest after an uneventful quarter in which prices drifted lower for rice and wheat and higher for maize and sorghum. Next year's harvest will be especially important because of the low grain stocks expected at the end of the current crop year. World stocks are projected to fall to 16.8% of consumption in June, which is lower than previously expected and the lowest level since 1972–74. Stocks had averaged 19.2% of consumption during the past five years but had not dipped below 18% until this year. Slow world trade has reduced the pressure for price increases normally associated with low stocks.

Several factors suggest higher grain prices next year. Low stock levels will set the stage for higher prices if poor yields or a reduction in planted area pushes production to below-normal levels. Sharply higher fertilizer prices make lower yields a real possibility (urea prices, which averaged \$107/ton during 1993, hit \$228/ton in February 1995). Higher demand could further tighten market conditions as economic recovery extends from the United States to western Europe and Japan, and as the weak dollar reduces grain import costs for many countries. The rapid economic growth in industrial countries creates a favorable economic environment for developing countries. Recent World Bank projections put global real GDP growth at 3.2% a year during 1995–96, up from 2.8% a year in 1994. Growth in developing countries is projected at 4% a year during this same period.

The combination of low grain stocks, high fertilizer prices, and rapid economic growth creates an explosive situation that could lead to sharply higher prices. Add to this the possibility, always present, that poor weather could cause supply problems, as well as the increasing size and influence of speculative hedge funds, and the grain market could be in the most volatile situation it has experienced in at least 15 years.



## MAIZE



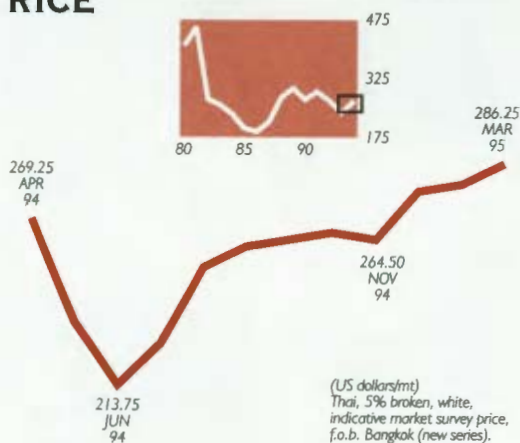
### US PLANTING INTENTIONS FOR COARSE GRAINS FALL 5%

Maize prices rose throughout the quarter as higher utilization estimates and deteriorating production prospects for the 1995 crop suggested a possible shortfall. US Gulf export prices rose from \$98.1/ton during the fourth quarter to \$107.8/ton during the first quarter. Further price increases are likely.

The record 1994/95 US maize crop led to a slight rebuilding of world coarse grain stocks during the past year, but lower planting intentions for 1995 suggest that stocks may fall again. At only 15.5% of world utilization, stocks remain very low by historical standards, with the average at 20.7% over the past 10 years. World coarse grain yields were 3.0% above trend in 1994 but are expected to be lower in 1995 because of the sharp increase in fertilizer prices. This pattern suggests that 1995 will be another year of high price variability as weather conditions dictate price trends.

The USDA's planting-intentions survey of US producers as of the end of March showed a 4.4% decline in all coarse grains area from the previous year and a 5.0% drop in maize plantings. This reduction could be significant since the United States produced 32.6% of the world's coarse grains and 45.8% of the world's maize in 1994/95. US government programs require a 7.5% set-aside for the 1995 crop. Planting conditions are poor in the United States due to wet, cold weather, and these conditions could hamper the crop.

## RICE



### STOCKS AT 20-YEAR LOW

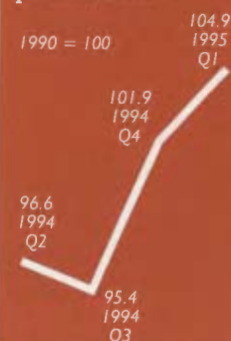
Rice stocks are projected to fall to 13.2% of consumption by the end of the current marketing year (which varies by country), the lowest level since 1974. For the past 10 years stocks have averaged 15.8% of consumption. Prices were calm during the quarter, however, despite the low stocks. The Thai official board of trade prices for 5% broken white rice were unchanged during the quarter at \$238/ton, while the survey of exporters showed prices at \$254/ton. The 100% broken A.1 special rice averaged \$226.30/ton according to the survey.

High fertilizer prices are a cause for concern for the next few years since rice requires heavy use of nitrogen. Fertilizer shortages have begun to appear in some regions as government importing agencies face rapidly rising prices. Acute shortages of urea in the northwestern districts of Bangladesh have led to widespread violence and looting of fertilizer warehouses. Lack of urea is threatening the winter rice crop. The shortage of urea is blamed on bureaucratic corruption, hoarding of fertilizer, and smuggling over the border to India, where prices are higher.

The high fertilizer prices increase the probability that rice production will fall below last year's record levels. With stock so low, prices could also be very volatile. Wheat and coarse grains are also facing tight stocks and are not likely to be available in large enough quantities to offset a shortfall in rice. Further, a rise in wheat prices would cause rice prices to rise as importers shift to rice.

## GRAINS

Prices edged higher in anticipation of potential problems with next year's production.



### COARSE GRAIN STOCKS (WORLD)

Market-year-ending stocks as % of consumption



### RICE STOCKS (WORLD)

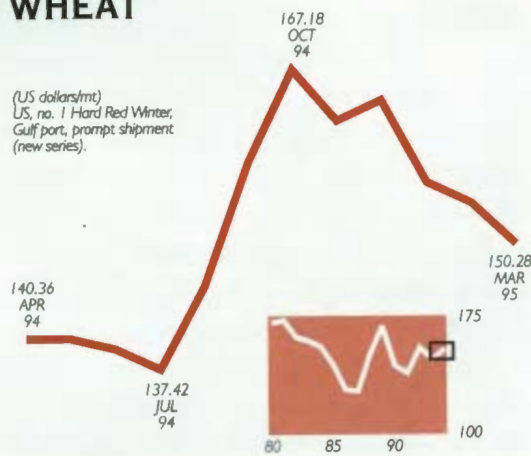
Market-year-ending stocks as % of consumption



Note: Data for 1994/95 are estimated.  
Source: USDA, FAS.

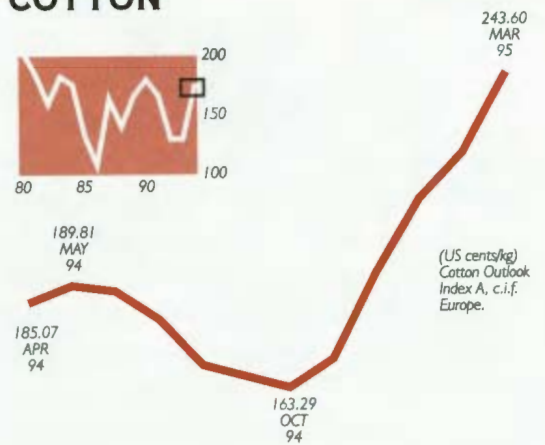
WHEAT

(US dollars/mt)  
US, no. 1 Hard Red Winter,  
Gulf port, prompt shipment  
(new series).



COTTON

(US cents/kg)  
Cotton Outlook  
Index A, c.i.f.  
Europe.



WHEAT STOCKS (WORLD)

Market-year-ending stocks as %  
of consumption



Note: Data for 1994/95 are estimated.  
Source: USDA, FAS.

PRODUCTION PROJECTED TO INCREASE MORE THAN 4% IN 1995/96

The International Wheat Council projects a 4.4% rise in world wheat production in the 1995/96 crop year. Plantings are expected to be higher. The USDA's planting-intentions report released at the end of March showed US spring wheat plantings up 2.3%, while wheat plantings are expected to be 4.5% higher in Canada and 4% higher in the European Union. Australian production is expected to recover from the severe drought in 1994. Production in the FSU, China, and India is expected to equal or exceed last year's. Drought has resulted in production problems for Morocco and southern Africa, especially Zimbabwe.

Growing conditions were generally good in most regions as of late in the quarter. US planted area is expected to be higher than last year, which would result in about a 3% increase in production, if yields are normal. Favorable weather and higher prices for wheat than for other crops make for good wheat production prospects. Winter wheat plantings rose in the United States, the European Union, China, India, and possibly in Eastern Europe according to the USDA, but declined in Russia and the Ukraine because of dry conditions. High relative wheat prices are expected to induce larger plantings in Australia and Canada as well. India has had excellent winter weather conditions, while China's unusually warm temperatures could result in reduced moisture reserves.

WORLD SUPPLY TIGHTENS AND PRICES SOAR

The late surge of cotton spinners covering their raw material needs during the quarter drove world cotton exports for 1994/95 to 6.5 million tons. Export commitments in mid-March were over 6 million tons, 26% higher than a year earlier. The demand surge was led by China and Pakistan, as textile mills sought cotton imports to offset shortfalls in domestic production. Although global cotton production during 1994/95 is estimated at 18.3 million tons, an increase of around 9%, consumption is expected to exceed that level by over 3%. The further tightening of world cotton stocks pushed the Cotlook A index of medium staple cotton prices in north Europe to an average of 225.6 ¢/kg during the quarter. The index averaged 243.6 ¢/kg in March and rose even higher in mid-April.

Cotton spinning mills with uncovered fiber requirements will face unusually high raw material costs for the remainder of the season whether they choose cotton or synthetic substitutes. Northern hemisphere producers with an early harvest will likely receive higher than average prices for the season unless the 1995/96 crop fails to meet expectations.

The price boom has stimulated farmers' interest in growing cotton in many countries during 1995/96. Cotton farmers in the United States have indicated intentions to increase their cotton area to 16.2 million acres—some 18% larger than 1994/95 plantings, which produced a record crop of 4.3 million tons. Even if growing conditions are less

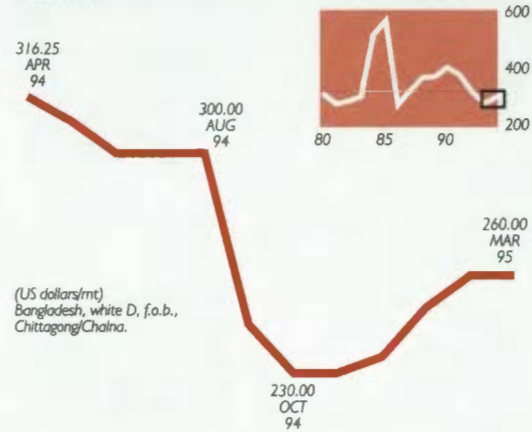
favorable than last season, output would still be expected to expand substantially. Cotton production should increase moderately in South Asia if measures to reduce pest and disease damage succeed. The cotton area in Turkey is expected to increase in 1995/96, while cotton production in Egypt is expected to recover from the low output of 1994/95. Sudan is also looking for another increase in production following the improved incentives generated by policy reforms. Benin, Chad, and Côte d'Ivoire are forecast to lead another record crop in Francophone African in 1995/96. Among southern hemisphere producers, Argentina, Australia, Brazil, and Paraguay are expected to increase cotton production in 1996 if weather is favorable.

For some countries the outlook continues to be less favorable. China's cotton-growing prospects are still held in check by bollworm resistance to pesticides. Uzbekistan's cotton area has contracted to about 1.5 million hectares as broader crop diversification continues.

World mill consumption of cotton has been nearly static in the 1990s. At 18.6 million tons, world mill consumption in 1993/94 was about the same as in 1990/91. Substantial consumption increases in some countries—20% in the United States, 14% in Pakistan, 11% in India, and 7% in China—have been largely offset by declines in others—48% in the FSU and Eastern Europe and 27% in Japan. The declines in the FSU and Eastern Europe are associated with economic transition and in Japan with increasing imports of highly competitive products. The restructuring of the textile industry in Japan may be permanent, while cotton milling may pick up in the transition economies as their growth resumes.

The high prices for cotton and synthetics are not sustainable, however, since the increasing cotton-growing area will eventually provide a more adequate supply of cotton. The timing of the recovery is difficult to forecast since weather, disease, and pest control will influence the outcome.

## JUTE

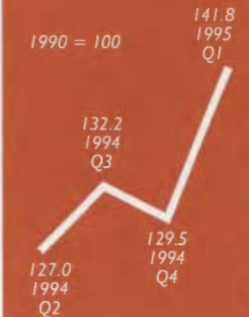


### PRODUCTION RECOVERS STRONGLY IN 1994/95

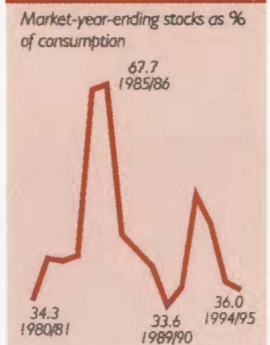
Bangladesh and India, major jute producing, manufacturing, and exporting countries, led a 14% increase in world jute production for the 1994/95 season (July–June). Bangladesh's crop of 929,500 tons was 19% larger than last year's crop, while India's 1.53 million ton crop was 21% larger. Both countries were able to replenish their stocks, which had declined sharply in 1993/94. Jute production was stable in China, at 670,000 tons. China, India, and Bangladesh continued to dominate world jute production, accounting for 90% of output.

Demand for raw jute continued to hold steady during the first half of 1994/95. At 135,003 tons, Bangladesh's exports were about 2% smaller than a year earlier. Late in the period it sold substantial amounts to Côte d'Ivoire and Russia. India and Pakistan were regular buyers, but their volumes were modest. Prospects for imports in Pakistan continue to weaken as synthetic fibers substitute for jute. By late January 1995 shippers were having difficulty acquiring exportable qualities, and prices rose. Offers were not available for white jute qualities above C grade; C grade was quoted at \$420/ton and D grade at \$395/ton for March/April shipment (c.i.f. European main ports). Tossa jute prices have risen \$40/ton for D grade and \$50/ton for B grade since October. Tight supply has led to some shipping delays for the higher grades.

### Agricultural raw material prices rise as cotton and rubber prices surge.



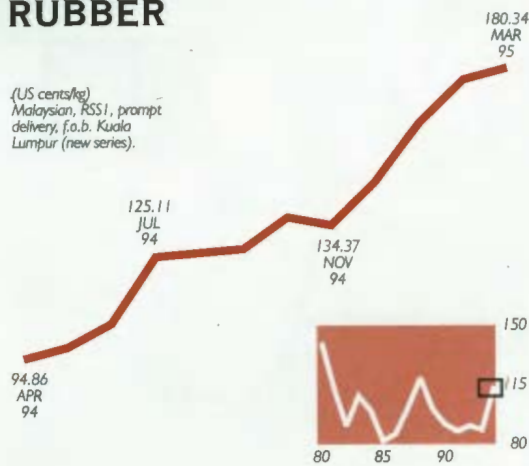
### COTTON STOCKS (WORLD)



Source: International Cotton Advisory Committee.

## RUBBER

(US cents/kg)  
Malaysian, RSS1, prompt  
delivery, f.o.b. Kuala  
Lumpur (new series).



### INRA LIVES

Delegates from 31 consuming and producing nations successfully negotiated a successor agreement to the International Natural Rubber Agreement (INRA) II in February. The new agreement, INRA III, must be approved by three-quarters of both member exporters and importers. Once approved, it will remain in force for a minimum of four and a maximum of six years. INRA II will expire on December 28, 1995.

The buffer-stock provision of INRA III provides the single method of market intervention. The maximum inventory stock remains set at 550,000 tons, with 400,000 tons devoted to normal operations and 150,000 tons as a contingency buffer stock. Average prices will continue to determine whether rubber stocks are bought or sold. The delegates rejected Indonesia's call for a minimum price based on cost of production and enforced by interventions in addition to buffer-stock operations and a proposal by producer countries for buffer stock's reference price. Recent price movements rendered the debate academic and triggered an automatic 5% rise.

Automatic price increases and decreases will continue under INRA III whenever the six-month moving average of the daily market indicator price (DMIP) exceeds the must-buy price or falls below the must-sell trigger price. Under INRA III, however, the trigger prices will be reviewed every 12 months rather than every 15 months as with INRA II.

As a concession to producers, consuming countries agreed to a 5¢/kg increase in the lower indicative price to M/S 157 ¢/kg. This price represents a minimum level, which producers can use to make planting decisions. Under INRA III the must-buy reference price can be lowered every six months as prices slide. However, once the must-buy price drops to the minimum indicative price, no further cuts will be imposed and stocks can accumulate up to the 550,000 ton limit.

Calculation of the DMIP will change under INRA III as well. Under INRA II, the DMIP was a simple average of prices for RSS1, RSS3, and TSR20. Under INRA III, these prices will be weighted (2:3:5).

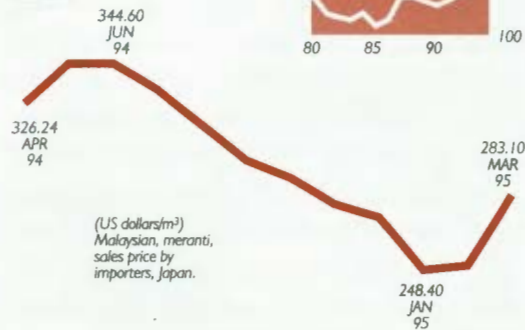
Rubber prices dipped briefly in February on rumors that China was reexporting rubber into international markets. Huge stockpiles of rubber appear to have accumulated, with end-users and market watchers speculating that Chinese imports would drop in the short run. Further, US new car production appears to be weakening. Year-on-year car sales for the big three US producers fell 8.5% in February, and truck sales dropped 4.7%. GM and Ford both announced reductions in scheduled production.

New car production continued to rise in Europe and Japan, where production gains were later getting started, and US demand for replacement tires grew. By March China was importing rubber again, and prices had recovered their former highs. Tire production grew in China, the Republic of Korea, and Taiwan (China). Demand and prices rose for synthetic rubber as well.

Prices are expected to drop within the year from current near-record highs but to remain robust through 1995. Prices will remain above long-term trends during the next three years because of the absence of new plantings during the recent years of low prices. Indonesia, Malaysia, and Thailand will dampen initial price-induced supply gains, though global natural rubber production is expected to return to 1992 levels this year, easing current prices.

**TIMBER**

**LOGS**



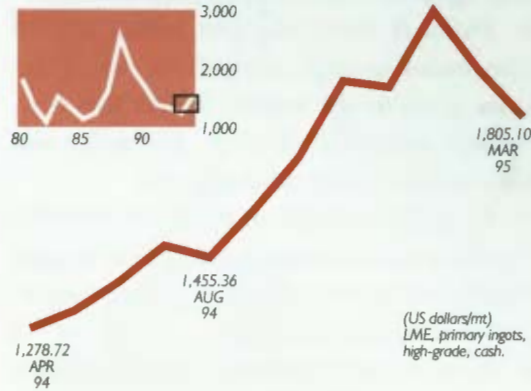
**SOME PRICE INCREASES FOLLOWING THE EARTHQUAKE IN JAPAN**

Though tropical log prices in Japan fell 7.7% on a quarterly basis between the last quarter of 1994 and the first quarter of 1995, prices were about 13% higher in March 1995 than in December 1994. All but 4% of the increase was attributable to appreciation of the yen in late February and March, following the January 17 earthquake that destroyed 109,000 houses. The houses destroyed are equivalent to a month's worth of housing starts in Japan.

The Japanese timber market is undergoing more significant structural changes. The rise in plywood imports and volatility in tropical log prices have led to a reduction in plywood mills from 114 in 1992 to 83 today. This contraction has reduced demand for logs for processing in Japan. Imports of tropical logs have decreased from 11 million cubic meters in 1990 to under 7 million cubic meters in 1994. Japanese manufacturers have been substituting softwood for tropical wood because of the large and consistent supply of softwood and more stable prices. This trend—switching from tropical logs to softwood and imported plywood for local processing—is expected to continue.

Timber sales increased during the last two quarters of 1994 in major Western European countries. The strengthening of timber markets in Europe is expected to continue into 1995, although at a slow pace, as economic recovery gains steam.

**ALUMINUM**



**STOCK DECLINES AND STRONG DEMAND CONTRIBUTE TO PRICE INCREASES**

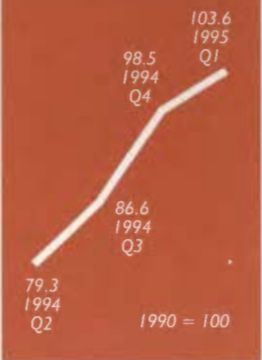
Aluminum prices increased early in the first quarter on strong demand and continuous drawdowns of London Metal Exchange (LME) stocks. At 1.3 million tons, LME stocks are half of last year's level. Stock declines are an indication that physical demand for aluminum is still strong.

World consumption in February was 6.4% higher than a year ago. Aluminum consumption grew by 8.9% in 1994, considerably faster than the 1.6% of 1993. The largest increases in consumption were in the United Kingdom, the United States, and Japan. World supply was down 1.2% in February 1995 compared with a year ago, with supply declining 2.6% during 1994. Supply declines reflect the memorandum of understanding signed in February by major aluminum producers seeking to reduce production as net exports from the former Eastern block countries mounted rapidly. Net exports from these countries rose by 36.4% in 1993 and 12.3% in 1994, depressing aluminum prices during 1991-94.

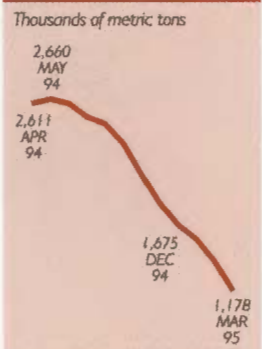
At \$200/ton in late March, aluminum prices have declined about 10% since January. Prices remained volatile throughout the quarter as market participants looked for direction. Thus, despite strong demand and the reductions in LME stocks, several factors point to the possibility of further price declines:

- There are indications that the memorandum of understanding is slowly unraveling and that the market is starting to prepare for

Metals and minerals prices continued to rise, but at a slower pace than during the fourth quarter.



**ALUMINUM STOCKS (LME)**



Source: Metal Bulletin.

**COPPER STOCKS (LME)**



Source: Metal Bulletin.

its demise. Aluminum production among several signatory countries increased in January.

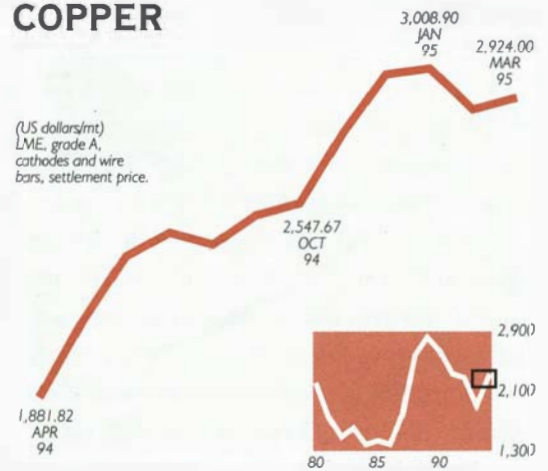
- There is excess capacity, which will be reactivated as expiration of the memorandum nears in the second half of this year. Several analysts predict that production will pick up during the third quarter.
- Aluminum consumption is still high, but wrought and unwrought stocks held by producers increased in January, fueling worries that demand is weakening.
- Based on the historical relation between aluminum stock levels and prices, current prices appear high.
- Technical trading factors are bearish and are responsible, in the main, for the recent shift of hedge funds away from aluminum.

Pressures for price declines will be stronger during the second half of the year, when demand is typically lower. In addition, the memorandum of understanding is expected to weaken during the third quarter, and the direction of the US economy is far from clear. Prices are also expected to remain volatile, awaiting clearer signs of where the market is heading.

\* \* \*

Following discussions with market analysts and taking into consideration recent long-term reports on the aluminum market, we decided to revise upward our long-term price forecast. The main reason for the revision is that the weak prices in the early 1990s deterred producers from investing in new capacity. In addition, only a few countries have ample and low-cost electricity to support competitive new smelters, and some of these countries do not currently offer an attractive investment climate. Also, after this year there is not expected to be much idle capacity that can be reactivated. On the demand side, the longer-term demand growth is expected to remain high due to both the continuous recovery in industrial countries and increases in demand in the developing world. The resulting market deficits are expected to reduce stocks below normal operating levels by the end of this decade, causing prices to rise.

## COPPER



### FIRST-QUARTER COPPER PRICES VOLATILE

Fund liquidation dropped the LME's three-month copper price by \$250/ton during eight days of hectic trading ending on February 6. The tide has turned since then, however, and copper prices entered April at near-January levels. Shortages of exchange inventories dominate current pricing. Steep backwardation is evident in the COMEX, with May 1996 copper selling at a 12% discount to May 1995 on April 6.

Inventory levels are dropping to historic lows on the COMEX and are falling fast on the LME as well. US demand seemed to slacken in January, but fabricators are reporting steady demand, which has further drawn down producer inventories. Availability varies greatly by grade. For example, scrap availability remains high in the United States following the closure of a Southwire secondary scrap-processing refinery at Gaston. Further, February's fund sell-off on the LME freed up the supply of copper warrants in London. Still, demand in Europe remains strong, demand in Japan is on an upward trend, and demand in China, the Republic of Korea, Taiwan (China), and Thailand is uniformly firm.

If exchange volume is an indication, the recent recovery appears to be fueled by fundamentals. Since January volume has remained low and stable in New York and London. Brokers report few signs of fund activity, and recent Commodity Futures Trading Commission (CFTC) data suggest that open interests held by large speculators

have fallen nearly 40% from the levels early in the year.

By the second half of the year, growing supplies from new mines and mine expansion should influence prices. Two of the largest projects—Phelps Dodge's Candelaria mine, at 120,000 tons per year (tpy), and the Zaldivar SX-EW project, at 125,000 tpy—are on track. Perhaps as significant as the new large-scale projects are the numerous smaller-scale projects that are receiving fresh capital. For example, Teck and Gibraltar Mines are both reopening in British Columbia. Quebrada Blanca in Chile (75,000 tpy) came on line in August. Future projects are planned as well. Magma Copper recently purchased the newly privatized Tintaya copper mine in Peru for about \$250 million. Magma expects the mine to produce 375,000 tpy by the end of 1996.

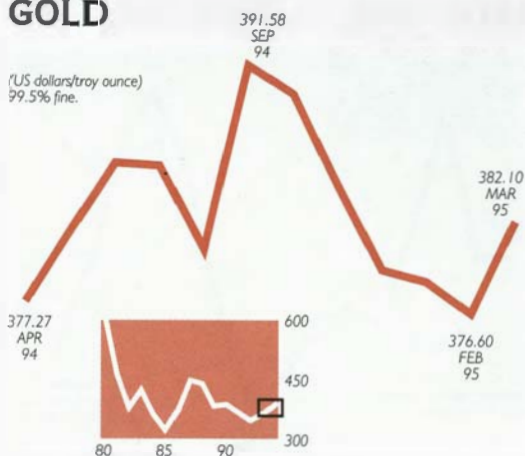
Adequate refining capacity is of regional concern. Japanese refiners, squeezed by falling import tariffs for refined copper and a scale-back in domestic sulfuric acid subsidies, are facing thinning margins and have expressed interest in investing in off-shore projects. Actions in this direction should accelerate the trend toward increased refining capacity in developing countries.

Despite Russian News Agency Interfax reports of 100,000 tons of first-quarter copper exports from the FSU, Western merchants report that FSU metal is in short supply. Following a surge of exports from Norilsk during the second half of 1994, supplies from Russia and Kazakhstan appear to have fallen off sharply because of a shortage in raw materials. This contention is supported by recent premia of up to \$25 per ton for European wirebar—a traditional destination market for FSU copper.

Prices are expected to fall as growth in new supplies outpaces growth in demand. A pick-up in the Japanese economy and in Asian demand is expected to offset a slowdown in US growth, so world demand should remain robust. The fall in price should not be precipitous: prices are expected to slip steadily into 1996 before returning to 1994 levels.

## GOLD

(US dollars/tray ounce)  
99.5% fine.

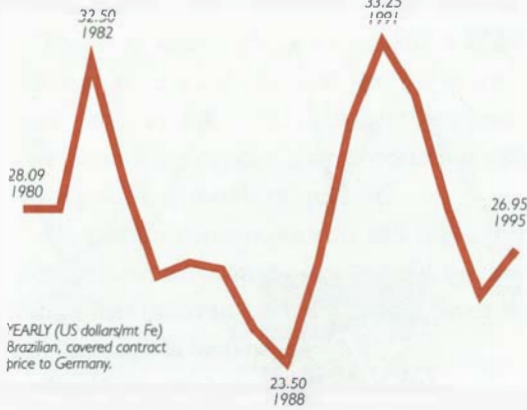


### PRICE RALLIES ON WEAK DOLLAR

The weak dollar is largely credited with the rally in gold from \$380/oz to \$400/oz in late March, but most market observers think the rally is over. As prices rose to \$400/oz, gold producers and central banks sold heavily, which convinced speculators to give up on the rally. Additional selling could follow since huge gold reserves are available and seem ready to enter the market at the \$390–400/oz price range. The prospects of forward sales by gold producers are another worry for the market since most producers are profitable at \$400/oz. Inflation has not increased enough to offset these concerns and scare investors into gold. All things considered, it seems that gold should continue to trade at between \$380 and \$400 for a while longer.

Demand is strong in a number of countries, including many Asian countries, partly because of the weak dollar. Gold is near a 20-year low when measured in yen, which sparked buying in Japan during the first quarter. However, Japan accounts for only 8% of the world market, and the increased buying has not been enough to stimulate overall demand. Demand has also been strong in China and India, as economic growth continues and consumers use gold as a store of wealth. If the dollar continues to weaken, demand for gold should strengthen further, absorbing some of the excess supply overhanging the market. US demand has remained strong, with the demand for gold coins and bullion at double last year's rate.

## IRON ORE



#### INCREASING PRICES AND HIGH DEMAND FOR IRON ORE AND STEEL

BHP Minerals, one of Australia's major iron ore mining companies, and Japanese steel mills agreed on price increases of 5.8% for fines and 7.9% for lump ore on December 20, the first rise since 1990. The new prices are \$27.15 per dry long ton f.o.b. for fines and \$35.89 for lump. The agreement sets the benchmark throughout the industry. At \$8.74 the lump premium over fines topped the previous record of \$8.12 set in 1990.

As demand continued to strengthen over recent months, the price of pellets jumped 12.6%. Brazil's CVRD has agreed with the German mills on a pellet price of \$49.14 (Fe 1% deadweight metric tons, f.o.b.).

With the recovery in Western European and the Japanese steel industry and rising demand in China, iron ore exports from Brazil and Australia reached record volumes in 1994. Brazil exported 125 million tons in 1994, up 11.6% from 1993, and Australian exports rose to nearly 120 million tons, a 7% increase.

Continued strong demand for scrap increased export prices across all major grades of iron in Western Europe and North America. Rising freight rates and reduced export supply from the United States increased scrap costs in the international market. Severe flooding in the Netherlands and Germany created short-term supply problems, adding to export price increases. In Japan, difficulties in obtaining ferrous scrap and damaged raw material supplies caused by

the earthquake pushed up some scrap prices and fueled pig iron imports, mostly from China. Demand in the major ore-importing countries of Western Europe and East Asia is expected to increase further in 1995.

Steel prices continued upward in all markets in the first quarter of 1995, riding strong worldwide demand that is expected to keep prices rising. Steel sheet prices have risen sharply in East and Southeast Asian markets in the first quarter of 1995. Another important factor that contributed to the price increase is the large drop in the FSU's steel exports to Asian market due to rising material and freight costs and raw material shortages, especially in Ukraine. Because of the higher prices, the steel mills in the FSU have also directed more material to the US market. Mills in the FSU, especially Russian mills, are planning to export more steel to the European Union because of its expanded import quotas. European demand for sheet products, especially in Germany, has been very strong. Japan's demand was also strong, to a great extent due to the Kobe earthquake in January.

Although, the loss of production in Kobe has been compensated by other steel mills, the production is not enough to meet the demand. Thus, the Japanese market is absorbing more steel from China and South Korea and redirecting some of its exports to the domestic market. Japanese steelmakers estimate that reconstruction due to the earthquake will add 3 million tons of steel demand over two years. The recent 10% appreciation of the Japanese yen may boost the imports to Japan.

In the first quarter, the prices for hot and cold rolled steel in the US market increased less than producers had hoped. The price disappointment reflects high year-end inventory accumulation due to anticipation of higher first-quarter prices and increased supply of domestic and imported material. One of the factors that contributed to slowing demand is the automotive industry. Higher interest rates have lowered demand, hence, production of cars.



## COAL



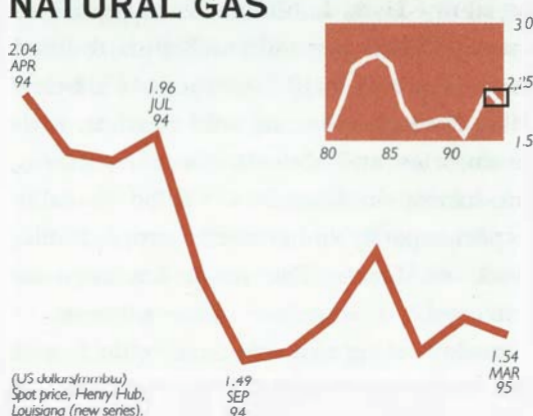
## INCREASE IN PRICES EXPECTED

Contract negotiations for coking coal with Japanese steel mills have dragged on for months, into the contract fiscal year that opened on April 1, 1995. Australia has been insisting on increases of more than \$5/ton, while the Japanese have cited several deals with Canadian and US producers with price increases of just under \$4/ton. These deals are conditional on the Australian producers accepting the Canadian prices as benchmarks. In March one of the US suppliers—Peabody—agreed to a price increase settlement of nearly \$5/ton, but the company is not a key player in the Japanese market.

Steam coal demand is expected to rise strongly this year because of new power plants in the Asia Pacific region, an upturn in European economic activity, and generally buoyant economic growth and electricity demand. Supplies are tight everywhere outside the United States, and all major exporters except Russia and Poland are expected to supply higher volumes. Steam coal prices are expected to rise about \$2/ton this year.

Substantial oversupplies have weakened prices for US domestic steam coal. Mild winter weather kept stocks relatively high and depressed sales and prices for US steam coal. There has been a surge in spot sales of US high-sulfur steam coal as European utilities take advantage of the low prices to blend it with low-sulfur grades. However, several European countries limit the sulfur content of any coal, regardless of how it is blended.

## NATURAL GAS

PRICES EXPECTED TO CONTINUE WEAK  
IN NORTH AMERICA

With this issue, we commence coverage of natural gas prices and markets for North America and Europe. There is no world market as such for natural gas, so reported prices serve as indicators of trends only in these markets. However, both are large markets with significant volumes of internationally traded gas.

The two markets have several contrasting features. The North American market has been largely deregulated and is now a highly competitive market in which gas-on-gas competition dominates. The European market remains highly regulated and controlled by a few players, with gas prices linked to oil products.

US gas prices held up reasonably well in the first quarter despite mild winter weather and much higher storage levels than a year ago. Commodity funds have been a factor in sustaining gas prices over the period. The high levels of storage will limit injection demand this spring, however, and it may take some time to reduce storage levels. Low prices are resulting in some shut-in gas production and keeping some producers from connecting new reserves in Canada and the United States.

Prices are expected to increase in the second half of the year as the storage is worked off, assuming normal weather and some reduction in supply due to reduced development activity. Still, the price of natural gas

Energy prices rose during the quarter due to more rapid economic growth. Petroleum prices rose by 4.19%.

at Henry Hub, Louisiana, is projected to average \$1.65 per million British thermal units (mmbtu) in 1995 or about 15% below 1994 levels, because of mild weather, high inventories, and abundant supplies. Rising production in Canada has filled available export capacity and created a supply bottleneck in Alberta. The result has been an extremely competitive environment in Canada leading to a significant widening of spot market prices between Canadian and US producers.

Although gas prices are not expected to return to 1994 levels until 1997, they are expected to rebound some in 1996 due to rising demand, diminishing surplus productive capacity, lower inventories, and a return to normal weather. Gas prices are highly sensitive to large fluctuations in the weather, so extremely cold temperatures could cause prices to return to \$2/mmbtu by next winter.

Deregulation and growing use of storage have dampened seasonal fluctuations in gas prices. For many years, prices in the US gas market were high in the winter, as demand peaked, and lower in the spring and summer, when demand and storage injections were not sufficient to offset reduced gas use for heating. Deregulation has greatly reduced cyclical price fluctuations by making gas transport more efficient and allowing for greater use of storage. This trend toward lower variation in seasonal gas prices is expected to continue.

Real prices for US natural gas are expected to increase only modestly over the long term. Total demand is expected to increase moderately, by about 1% a year, but supplies should be adequate to prevent a significant increase in real gas prices. Large production potential remains offshore in the US Gulf and onshore for deep gas. Rising imports from Canada and Mexico are expected to take a slightly higher share of US gas sales over time.

In Europe, the gas supply and transportation structure is far more concentrated than

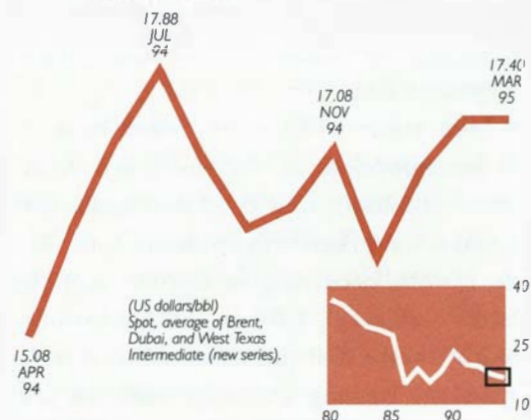
it is in North America. While supply fields number in the thousands in North America, 42% of European gas consumption comes from five fields—Urengoi, Yamburg, and Orenburg in the former Soviet Union (FSU), Groningen in the Netherlands, and Hassi R'Mel in Algeria (*World Gas Intelligence*, March 24, 1995). Natural gas prices are linked to competing oil products—fuel oil and gasoil—and there are few buyers and sellers on the continent. New gas supplies and transport systems are often large projects involving limited companies and the importing and exporting governments.

Attempts to introduce more competition have barely begun in Europe, where markets bear little resemblance to the intensely competitive North American gas market. However, there are signs that European markets will become more competitive. The big question is whether Europe will experience greater gas-on-gas competition, which has been the chief characteristic of the gas market in North America.

The Interconnector pipeline linking the United Kingdom's national grid system with the Belgian and Continental grids, which is expected to be completed by late 1998, has the potential to significantly increase gas competition in Europe. More competition is likely from the FSU, where substantial gas conservation may produce idle pipeline capacity to supply additional gas without having to duplicate the West Siberian pipelines. While the future structure of the European gas market is uncertain and intensely debated, indications are that there will be more supply competition.

Natural gas demand is projected to increase by about 2.5% a year over the longer term, with gas supplies more than ample to satisfy the growth in demand. Most analysts expect natural gas prices to continue tracking oil prices in the near to medium term. But greater supply competition and some change in Europe's gas market structure are expected to result in a slight decline in real gas prices in the longer term.

## PETROLEUM



## PRICES EXPECTED TO REMAIN FIRM

Beginning with this issue, the World Bank crude oil price benchmark has been changed. The new crude oil price reported in this publication is an average of three major crude oil streams—UK Brent, Dubai, and West Texas Intermediate (WTI). It is a relatively “light” basket of crudes, but it is difficult to capture a weighted average of the wide spectrum of crude oil grades traded throughout the world. The Brent crude price is arguably the premiere international marker crude, while the WTI is the most visible and referenced crude. Dubai crude provides a representative sample of Middle East crudes for the Asia Pacific market, although it is not a major marker crude like the other two oil streams.

Crude oil prices remained firm in the first quarter, despite mild weather, because of tight crude oil and gasoline stocks in the United States, concerns about supply tightness, and substantially higher commodity fund activity. Oil demand, OPEC production, and non-OPEC supplies were all relatively unchanged from the fourth quarter of 1994. World inventories (including miscellaneous) were drawn down by only 0.5 million barrels a day (mb/d), largely due to mild winter temperatures, so market fundamentals did not overwhelmingly seem to support the strength in crude oil prices.

Crude oil stocks were relatively low at the end of the first quarter, while product stocks

were high because mild weather left large gasoil stocks in North America and Europe. With the heating season passed, gasoil inventories are not a concern at the moment, but they will be later in the year. The low levels of US crude oil stocks and gasoline stocks—in particular reformulated gasoline stocks—have strengthened crude oil markets. Low levels of US stocks for crude and gasoline should keep the market strong into the summer. European stocks are also declining, which could give additional support to prices in the second and third quarters.

Commodity fund activity picked up significantly in the first quarter and has clearly contributed to some of the strength in prices. CFTC data show that speculators held a record long position in crude oil futures near the end of March and accounted for a record 20% of long open interest in crude. The previous peak was around 12% last spring, which contributed to a run-up in prices at that time.

Several supply-related concerns also contributed some support to oil prices: the belief that Iraqi exports would be out of the market for a considerable period; the availability of North Sea cargoes; planned US sanctions to expand the trade ban with Iran, which would prevent US firms and their subsidiaries from doing business with the country; and temporary production delays owing to strikes and technical difficulties. While none of these factors reduced supply to any great extent, they contributed to the bullish sentiment in the market.

OPEC production was unchanged overall in the first quarter, but there were some increments and reductions on the part of individual members (table 7). Declines in Nigerian output resulting from technical difficulties were essentially offset by increases elsewhere. OPEC continues to produce nearly 0.7 mb/d above its quota, but that has not caused any undue downward pressure on prices. The largest overproducers were Iraq (0.15 mb/d), Saudi Arabia (0.15 mb/d), and Venezuela (0.12 mb/d), although most countries were somewhat above quota.

Non-OPEC production, which surged by 1.0 mb/d in the fourth quarter of 1994, was nearly unchanged in the first quarter of this year (table 8). Declines in the FSU, the United States, and the North Sea were offset by increases in most other regions. The fall in FSU output was only 0.19 mb/d, and net FSU exports exceeded 2.1 mb/d. Apparently, oil exports were not as strongly affected by changing export regulations and a new pipeline allocation mechanism as had been expected. Output in both the United Kingdom and Norway was slightly lower because of weather and maintenance effects, while US output continued its moderate

decline. A number of other countries increased production, with the largest rises occurring in Colombia, Canada, Brazil, Egypt, and China.

Mild winter weather continued to affect oil consumption in the northern hemisphere (table 9). OECD oil demand is estimated to have risen only modestly, with all of the growth occurring in Europe and the Pacific (table 10). US demand fell by more than 3% in the first quarter, with much of the reduction coming in heavy fuel oil and gasoil. Low natural gas prices also contributed to the sharp decline in heavy fuel demand by electric utilities. In Europe, mild weather also weakened oil demand, although total demand was somewhat higher than last year. In the OECD Pacific, oil demand rose moderately, suggesting little impact from the Kobe earthquake in Japan. Demand for transport fuels and naphtha recorded strong growth due to the increase in economic activity in Japan.

Non-OECD oil demand increased by an estimated 2.5%, with the decline in FSU demand more than offset by continued robust growth in developing countries. The large year-on-year declines in FSU demand that have been evident in recent years began to moderate in the second half of 1994, and total non-OECD demand is now experiencing moderate rates of increase. The largest growth in demand continues to occur in Asia.

The low level of crude oil and gasoline stocks in the United States should help to keep oil prices firm in the second quarter. Oil demand is projected to increase by at least 1 mb/d as the economic recovery continues in Europe and Japan, consumption declines moderately in the FSU, and robust growth continues in the developing countries. Non-OPEC oil supplies will experience a normal seasonal decline for routine maintenance; and little change is expected in OPEC output. Add to this picture the typical buildup of crude and gasoline stocks, and prices during the quarter should hold fairly strong.

**TABLE 7. OPEC CRUDE OIL PRODUCTION AND QUOTAS**

Millions of barrels per day

	1993	1994	4Q94	1Q95	Quotas
					4Q93-4Q95
Algeria	0.75	0.75	0.75	0.75	0.750
Gabon	0.30	0.32	0.34	0.34	0.287
Indonesia	1.34	1.32	1.34	1.32	1.330
Iran	3.65	3.61	3.63	3.66	3.600
Iraq	0.48	0.53	0.55	0.55	0.400
Kuwait	1.69	1.84	1.86	1.83	2.000 <sup>a</sup>
Libya	1.37	1.38	1.39	1.40	1.390
Neutral Zone	0.36	0.39	0.40	0.42	
Nigeria	1.91	1.90	1.92	1.88	1.865
Qatar	0.42	0.41	0.39	0.44	0.378
Saudia Arabia	7.96	7.90	7.92	7.93	8.000 <sup>a</sup>
UAE	2.19	2.22	2.21	2.20	2.161
Venezuela	2.31	2.44	2.51	2.48	2.359
Total Crude	24.73	24.99	25.20	25.20	24.520
NGLs	2.25	2.33	2.37	2.31	
Total OPEC	26.98	27.32	27.56	27.51	

a. Quota includes Neutral Zone.

Source: IEA, OPECNA.

**TABLE 8. NON-OPEC OIL SUPPLY**

Millions of barrels per day

	1993	3Q94	4Q94	1Q95	Change
					1Q95-4Q94
Canada	2.18	2.30	2.34	2.38	0.04
Norway	2.37	2.50	2.94	2.87	-0.07
United Kingdom	2.19	2.64	2.90	2.89	-0.01
United States	8.81	8.58	8.67	8.61	-0.06
Other OECD	1.26	1.34	1.30	1.36	0.06
Africa	2.05	2.06	2.09	2.13	0.04
Asia	1.78	1.93	2.00	2.01	0.01
China	2.91	2.91	2.95	2.98	0.03
Eastern Europe	0.28	0.28	0.28	0.29	0.01
FSU	7.82	7.26	7.27	7.08	-0.19
Latin America	5.77	5.97	5.99	6.09	0.10
Middle East	1.63	1.79	1.85	1.88	0.03
Processing gain	1.45	1.50	1.50	1.50	0.00
Total non-OPEC	40.50	41.06	42.08	42.06	-0.02

Note: Includes natural gas liquids (NGLs), nonconventional, and other supply sources.

Source: IEA.

The major uncertainties are Iraqi oil exports and commodity speculators. The prevailing view on the possible return of Iraqi oil exports changes surprisingly quickly. During the first quarter the view seemed to be that the lifting of sanctions could be delayed until after the US presidential election in November 1996. However, more recent pressures by France and Russia to end the sanctions could lead to limited sales for humanitarian purposes, although Iraq continues to reject this option under its current framework and conditions. Should exports resume, even on a limited basis, prices could weaken, which could induce a hasty exit by commodity funds and other speculators.

For the second half of 1995, the high levels of gasoil stocks could weaken crude oil

prices. Crude oil demand will remain strong during the gasoline season, which in addition to the manufacture of gasoline will result in growing gasoil inventories. Once winter supplies are met this fall, crude oil prices could falter, as has occurred the past few years. In the fourth quarter of 1995 world oil demand is projected to be 1.1 mb/d higher than last year, while non-OPEC supplies are expected to be 0.5 mb/d higher. Assuming that OPEC continues producing at current rates, stock draws of 0.8 mb/d would be needed, a fairly typical reduction of global inventories for that time of year.

OPEC's next scheduled meeting is set for June 21 in Vienna, but no changes in quotas are expected for the remainder of the year. OPEC set its full 1995 quotas last November,

**TABLE 9. OIL CONSUMPTION**

	Millions of barrels per day				Percentage change			
	OECD	FSU and Eastern Europe	Developing countries	Total	OECD	FSU and Eastern Europe	Developing countries	Total
1990	38.0	10.2	18.4	66.5	0.4	-4.3	4.1	0.6
1991	38.2	9.7	19.1	66.9	0.4	-4.4	3.8	0.6
1992	38.8	8.2	20.2	67.2	1.7	-15.3	6.0	0.5
1993	39.1	6.9	21.3	67.1	0.8	-16.1	5.5	0.1
1994	39.9	6.2	22.1	68.2	2.0	-10.1	3.8	1.4
1Q93	39.6	7.6	20.9	68.1	-0.1	-19.1	4.2	-1.4
2Q93	37.6	6.9	20.9	65.4	0.5	-16.9	3.9	-0.6
3Q93	38.6	6.3	20.9	65.8	0.7	-17.1	4.9	-0.2
4Q93	40.4	6.9	22.2	69.2	1.5	-8.0	5.3	1.6
1Q94	40.6	6.7	22.0	69.3	2.7	-11.8	5.0	1.8
2Q94	38.7	5.7	21.9	66.2	3.0	-17.4	4.7	1.2
3Q94	39.7	5.9	21.8	67.4	2.8	-6.3	4.3	2.6
4Q94	40.8	6.3	22.8	69.9	0.9	-8.7	4.1	1.0
1Q95	40.8	6.4	22.8	70.0	0.4	-4.5	3.7	1.0

Source: IEA, World Bank.

**TABLE 10. WORLD PETROLEUM DEMAND AND SUPPLY**

Millions of barrels per day

	1991	1992	1993	1Q94	2Q94	3Q94	4Q94	1994	1Q95	2Q95	3Q95	4Q95	1995
<b>Demand</b>													
OECD	38.2	38.8	39.1	40.6	38.7	39.7	40.8	39.9	40.4	39.3	40.0	41.4	40.4
FSU	8.3	6.9	5.6	5.3	4.4	4.6	4.9	4.8	4.9	4.0	4.1	4.6	4.4
Other	20.4	21.5	22.4	23.4	23.1	23.1	24.2	23.5	24.7	24.0	24.1	25.1	24.4
Total	66.9	67.2	67.1	69.3	66.2	67.4	69.9	68.2	70.0	67.3	68.2	71.1	69.2
<b>Supply</b>													
OECD	16.3	16.6	16.8	17.5	17.4	17.4	18.1	17.6	18.1	17.6	17.4	18.2	17.8
FSU	10.4	9.0	7.8	7.1	7.1	7.3	7.3	7.2	7.1	6.7	6.7	6.8	6.8
Other <sup>a</sup>	15.2	15.4	15.9	16.2	16.1	16.3	16.6	16.4	16.9	16.8	17.3	17.6	17.3
OPEC <sup>b</sup>	25.0	26.2	27.0	27.2	27.2	27.3	27.6	27.3	27.5	27.5	27.6	27.7	27.6
Total	66.9	67.2	67.5	68.0	67.8	68.3	69.6	68.5	69.6	68.6	69.0	70.3	69.5
<b>Stock change and miscellaneous</b>													
OECD	0.0	0.0	0.2	-1.4	1.3	1.0	-0.2	0.2	-0.6				
Floating/transit	-0.1	0.0	0.1	-0.1	0.1	-0.1	0.0	0.0	-0.2				
Other/miscellaneous	0.0	0.1	0.1	0.3	0.2	0.1	-0.1	0.1	0.3				
Total	0.0	0.0	0.4	-1.2	1.6	1.0	-0.3	0.3	-0.5	1.3	0.8	-0.8	-0.3

Note: Includes natural gas liquids (NGLs), nonconventional, and other supply sources.

a. Includes processing gains (1.5 mb/d in 1993).

b. Includes NGLs (2.2 mb/d in 1993).

Source: IEA, World Bank.

Fertilizer prices increased 5.6%, with urea 22% higher and DAP 18.4% higher compared with last quarter.

and market conditions would seem to warrant little increase. OPEC will meet later this year to review quotas for 1996. The demand for OPEC crude should increase next year because of rising consumption in most regions that will not be offset by commensurate increases in non-OPEC supplies. OPEC will have to decide whether to raise quotas or to leave them as they are to generate higher prices.

Much depends on Iraq. If Iraq is not granted limited oil exports in April, a number of countries are likely to push to have the sanctions lifted or to establish a formula for limited sales that Iraq will accept. A resumption of limited sales this year would affect OPEC's decision on whether and how to reallocate quotas.

While limited Iraqi oil sales would have some effect on the market, the complete lifting of sanctions could have a significant impact on prices and OPEC quotas. Thus oil prices are projected to decline slightly over the next two years, although a full lifting of sanctions could result in substantially lower prices unless Iraq's production increase is fully accommodated by other OPEC producers. Even then, prices will likely be weak for some period of time—depending on the circumstances and timing of the removal of sanctions.

Over the longer term, real crude oil prices are expected to remain fairly flat. While world oil demand is projected to increase moderately (by up to 2% a year), adequate supplies are expected to be forthcoming to satisfy the increase in demand. Non-OPEC supplies should continue to increase in aggregate as improved technology is adopted, more countries open up to foreign companies, and fiscal terms and conditions improve. OPEC countries—particularly in the Middle East—have substantial reserves, and it is expected that they will supply the increase in demand. Surplus capacity is expected to endure in OPEC countries, so a significant sustained increase in real oil prices is unlikely. Any price spike should soon revert to previous levels, in real terms.

## FERTILIZERS

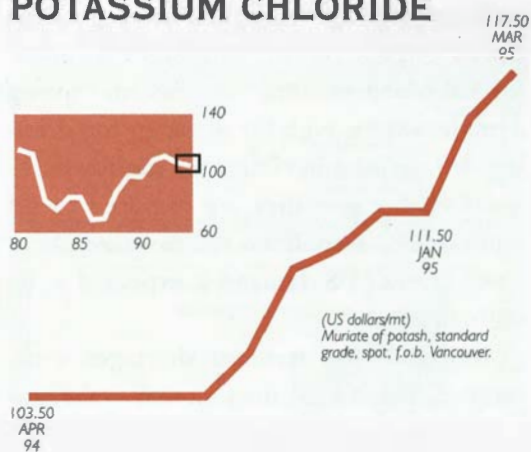
### PRICES MAY BE NEAR THEIR PEAK

Fertilizer prices remained strong during the first quarter, with demand supported by high crop prices and prospects for large plantings, especially in the United States. A major effort to expand agricultural output in China further added to world fertilizer demand. Supplies remained tight as many companies were near short-term production capacity constraints and fully committed for existing production. Capacity is especially tight in nitrogen fertilizer production plants, while some other fertilizers still have excess capacity. Freight rates remain firm for fertilizer shipments because of high levels of fertilizer chartering activity. The Baltic freight index reached a record high in mid-March, and Baltic-to-China or Baltic-to-Brazil rates for muriate of potash (MOP) were \$33–34/ton.

Fertilizer prices may be nearing their peaks. Many companies are increasing production from existing plants and drawing up plans for expansion projects in the near term. Fertilizer companies worldwide are reporting record sales and higher profits, ending nearly five years of depressed sales and low prices. The low prices forced many companies to reduce costs and capacity, contributing to the recent surge in prices. Expansion plans should lead to lower prices next year unless raw material costs, such as natural gas, begin to rise.

Recent examples of expanding production include the Greek company EKO Chemicals, which restarted production at its 120,000 ton a year ammonia plant at Thessaloniki. The plant had been idle since mid-1992. The Turkish company Toros Fertilizer & Chemicals also recently restarted production after a prolonged closure. The Sri Lankan government is reportedly negotiating with Freeport-McMoRan Resource Partners over a joint-venture phosphate project that could lead to a 600,000 ton a year DAP plant in the country.

## POTASSIUM CHLORIDE

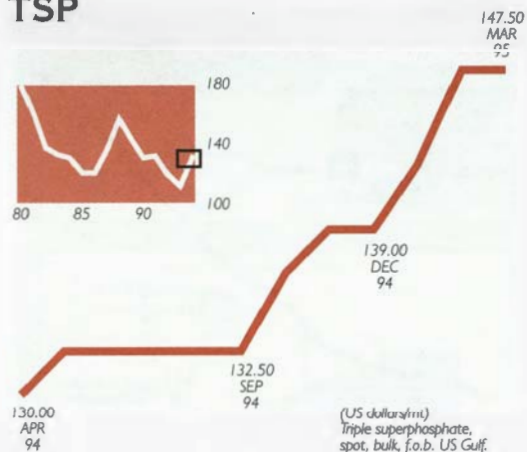


### NEGOTIATED PRICES RISE NEARLY 10%

Negotiations between Canpotex, the Canadian potash export association, and Japanese buyers were concluded in early February, with both sides agreeing to a \$6.50/ton price increase on potash for first-half shipments. The new price for Japan is now \$117–118/ton f.o.b. Vancouver. Canpotex had initially requested an \$8/ton increase. Japanese importers also agreed to MOP and SOP contracts with Kali & Salz in mid-February, at a \$6.50/ton increase for MOP and just under \$4/ton for SOP for January–June contracts. Record deliveries to China and increasing demand in other markets enabled the Canadians to achieve one of the highest price increases in years. Record profits are reported for many of the world's potash producers in 1994.

The large sales to China, combined with greater control over exports by FSU countries and strong demand in Asia, Latin America, and the United States, have kept prices strong. Despite the recent price increases, the potash industry has been plagued with overcapacity, most of it in Canada and the FSU. However, the gap between demand and production capacity is expected to shrink over the next decade as a result of increased global demand and capacity closures in Europe and perhaps the FSU. Although smaller Canadian and Middle Eastern producers tend to operate at close to full capacity, a number of Saskatchewan mines generally operate at less than 50% of capacity.

## TSP



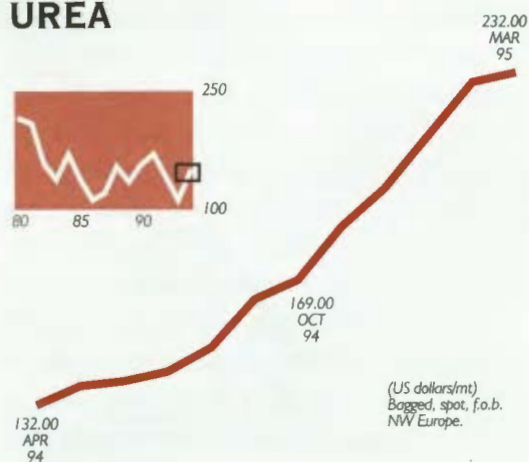
### CHINA CONTINUES TO BE THE BIG BUYER

TSP prices were higher during the quarter, rising to an average of \$146/ton from \$138/ton during the fourth quarter. US Gulf prices for DAP passed the psychological barrier of \$200/ton during the first quarter, hitting \$210/ton in March, while f.o.b. West European prices were \$215/ton.

China bought record amounts of DAP and potash in 1994, accounting for much of the increase in DAP prices. In 1994 China imported 4 million tons of DAP, nearly all from the United States. These imports were double the level of 1993, due in part to compensate for the lower urea imports. Potash imports also rose, reaching 2.85 million tons, with Canada supplying 1.7 million tons. The outlook for 1995 is for a repeat of 1994's performance. First-half 1995 imports of DAP and MOP are expected to be large.

The huge Chinese imports of DAP and MOP were needed to improve the nutrient balance, which has historically favored nitrogen. The goal, according to Chinese authorities, is to attain a nitrogen-phosphate-potash application ratio of 1:41:08. Though still lower in potash than the world average (1:41:26), this ratio is considerably improved over the situation a decade ago. Total fertilizer consumption is scheduled to increase by 6.4% in 1995. The central government is pushing agricultural production in an effort to raise rural incomes, which have risen more slowly than urban incomes, and promote social stability.

## UREA



## SHORTAGES DEVELOP IN SOME REGIONS

Prices continued to rise during the quarter, averaging \$232/ton in March compared with \$123/ton a year ago. Strong demand from China, India, and the United States and continuing tight supplies for prompt shipment have pushed prices 132% above the low of April 1993.

US demand has remained strong despite the high prices because heavy application rates are expected this spring for cotton, maize, and wheat. Cotton prices of more than \$1/pound are expected to result in record fertilizer and chemical demand per acre. Cotton area is also expected to be large because the government program is not restricting cotton plantings. Poor cotton crops in China, India, and Pakistan in 1994 have led to low cotton stocks and the prospects of another year of high cotton prices. Fertilizer demand, especially for nitrogen, is expected to be strong among US wheat farmers because of high 1994 prices

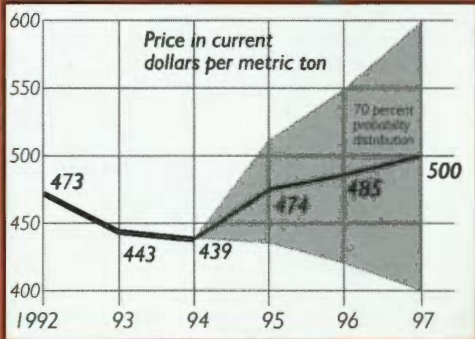
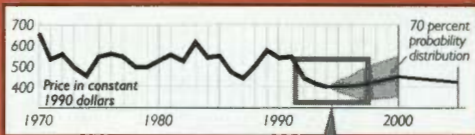
and no government acreage restrictions for the 1995 crop. The strong fertilizer demand for fall wheat planting suggests that spring demand will be high for nitrogen top dressing. US corn farmers may see slightly lower demand, because they are required to set aside 7.5% of their corn base acreage in 1995. Overall US demand is expected to be high, however.

India has had fertilizer shortages, especially of urea, during the past year as the government has had to procure supplies from world markets at high prices. A black market is reported to be flourishing in urea, which remains subject to official price controls and heavy subsidies and has been trading at prices above the controlled rate in several areas. Selective liberalization of imports and decontrol of certain fertilizer prices have led to price rises of more than 200% for some fertilizers during the past three years. Political pressure caused some subsidies to be restored. The domestic fertilizer industry has been disrupted by shortages of raw materials and intermediates, leading to shortages in fertilizer output. The 1995/96 government budget for fertilizer subsidies remains unchanged from the current system, with the subsidy on domestically produced DAP and imported MOP expected to continue at Rs 1,000/ton. Urea prices are to remain at the same level as last year, with subsidy allocations rising to Rs 37.5 billion for domestic supplies and Rs 16.5 billion for imports. Urea imports are forecast to rise to 3.5 million tons in 1995, up from 3.0 million tons during 1994.

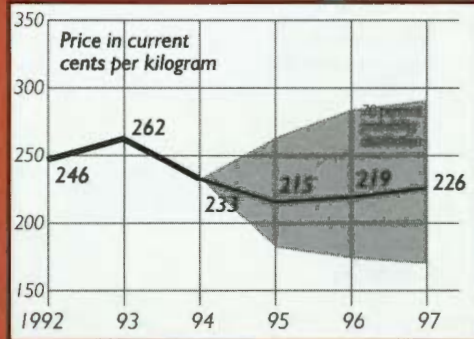
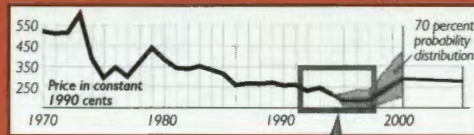


FOODS

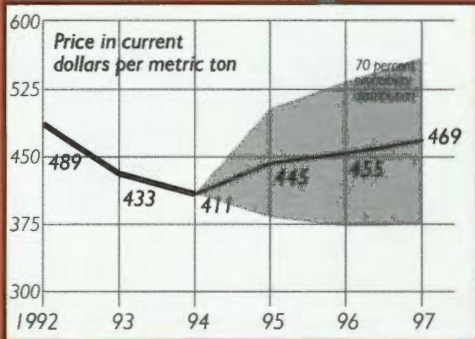
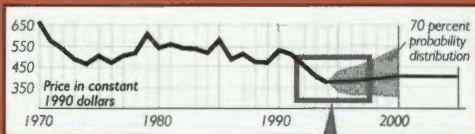
**BANANAS** Demand expected to support real prices



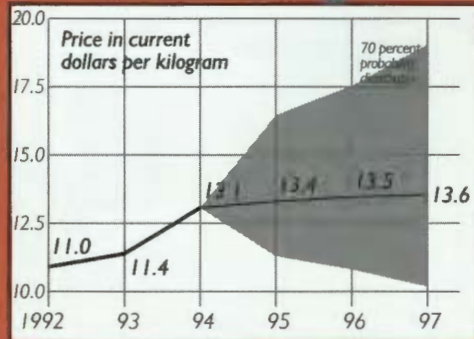
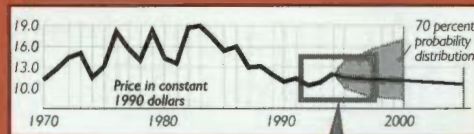
**BEEF** US prices decline as meat supplies continue to expand



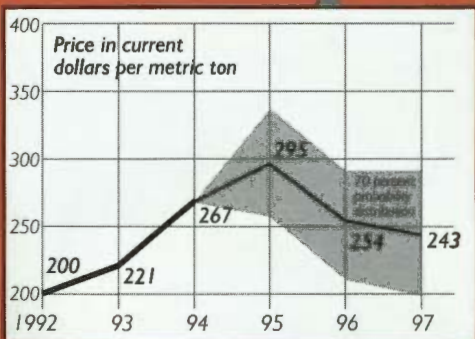
**CITRUS (ORANGES)** Higher prices expected in 1995



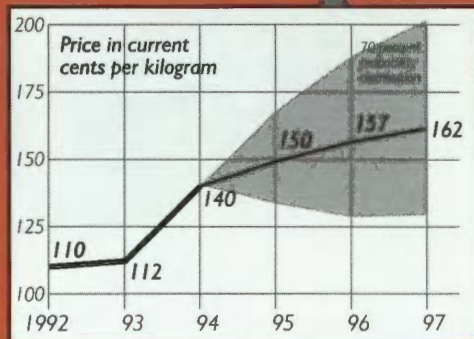
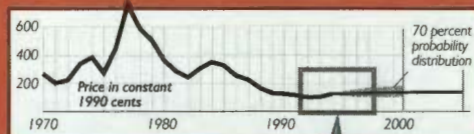
**SHRIMP** Prices pressured by tight supplies and low aquaculture output



**SUGAR** Prices to linger near highs



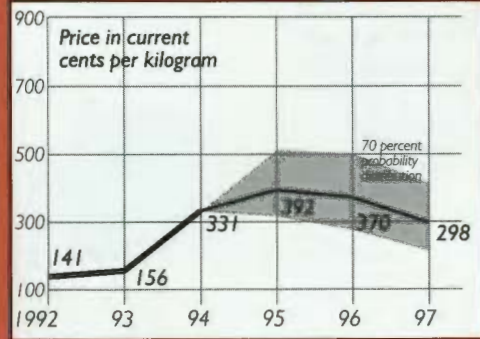
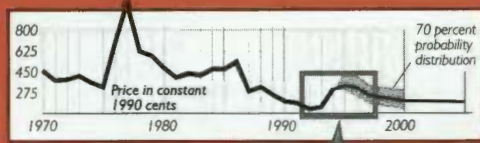
**COCOA** Prices rising despite mixed production and consumption signals



BEVERAGES

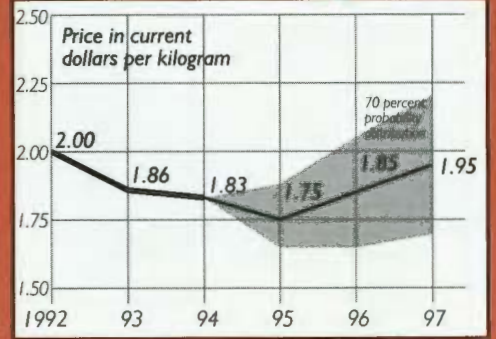
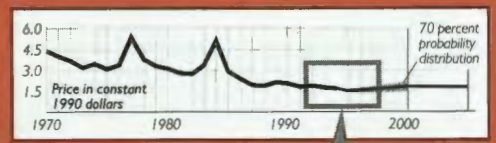
**COFFEE**

*Prices uncertain for the next year or two*



**TEA**

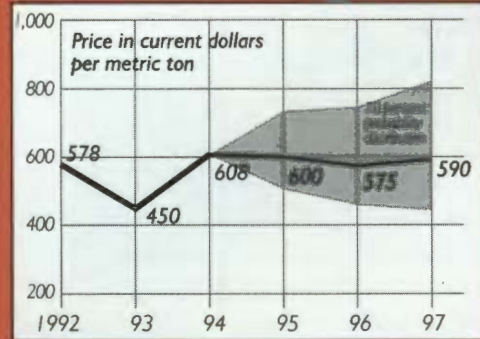
*High world output depresses prices*



**FATS AND OILS**

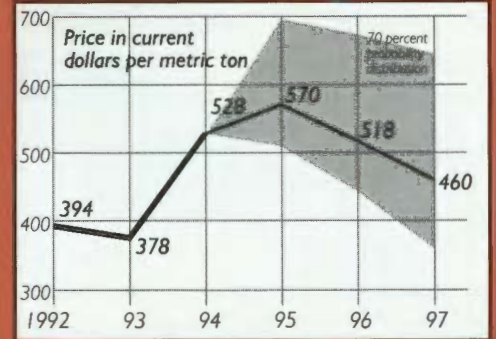
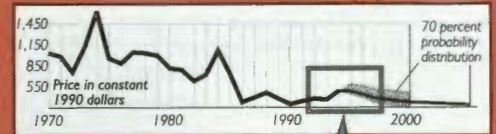
**COCONUT OIL**

*Prices decline on expansion of production and exports*



**PALM OIL**

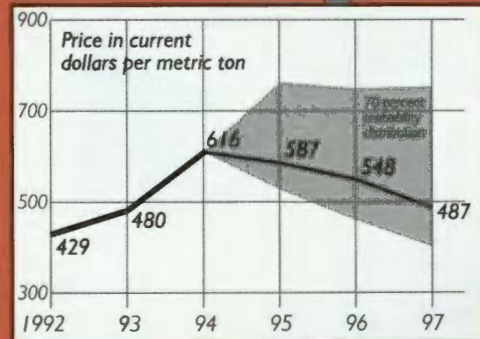
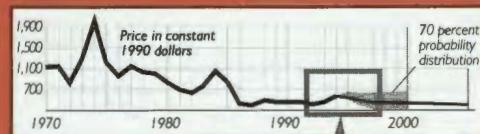
*Prices will come under pressure during the second half of the season*



**GRAINS**

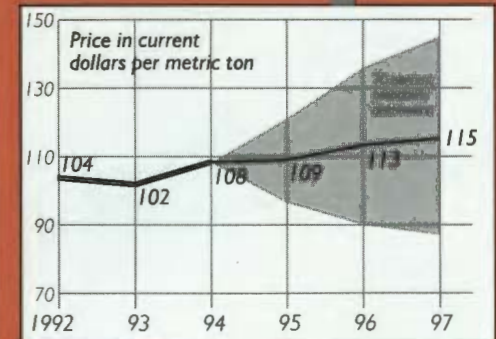
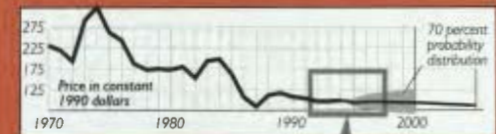
**SOYBEAN OIL**

*High price volatility will remain*



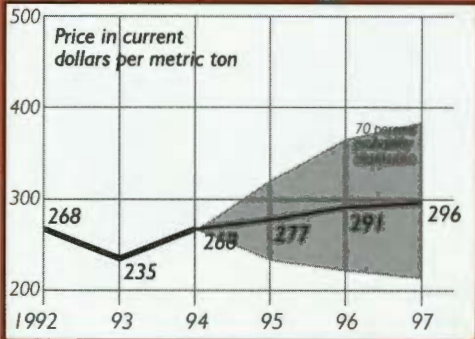
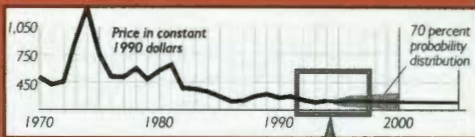
**MAIZE**

*Volatile prices expected*



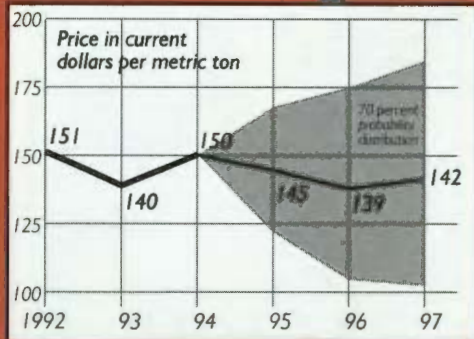
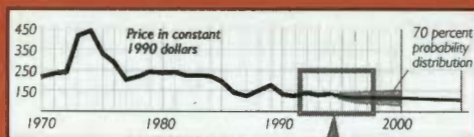
**RICE**

*Tight stocks keep prices volatile*



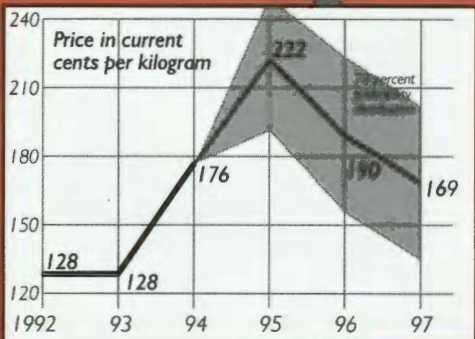
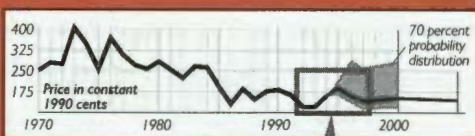
**WHEAT**

*Production expected to rebound*



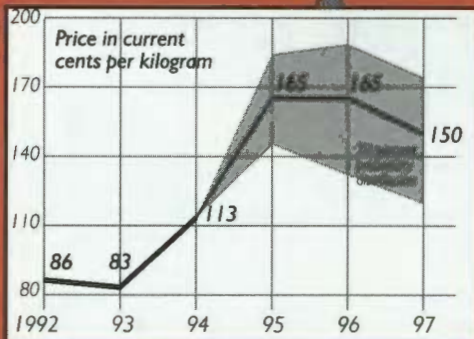
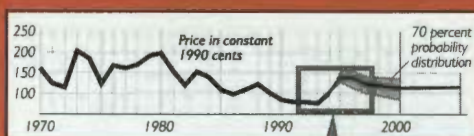
**COTTON**

*Stocks very tight*



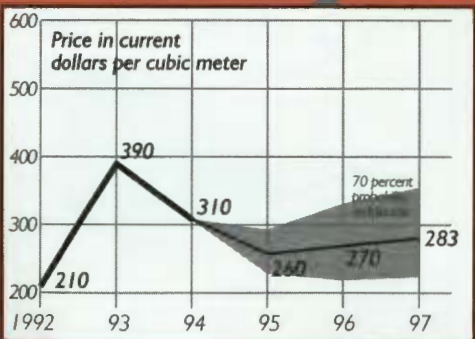
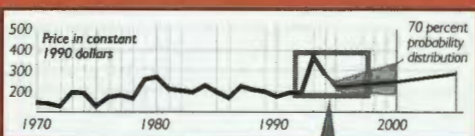
**RUBBER**

*Price rally continues*



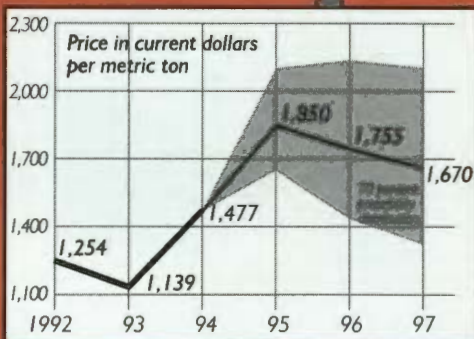
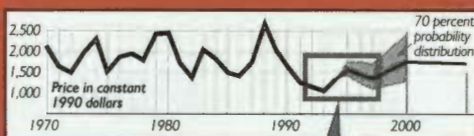
**TIMBER (MERANTI LOGS)**

*Slow demand puts downward pressures on prices*



**ALUMINUM**

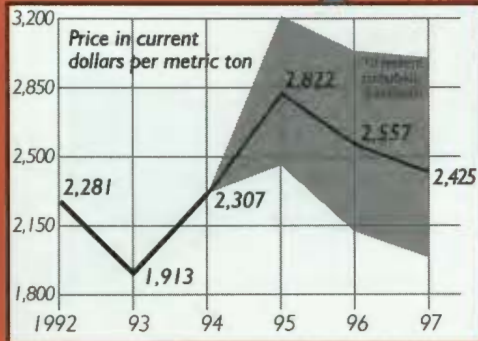
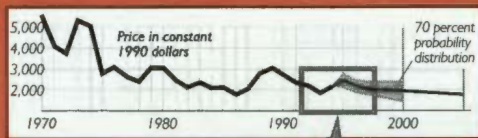
*Prices react to mixed market signals*



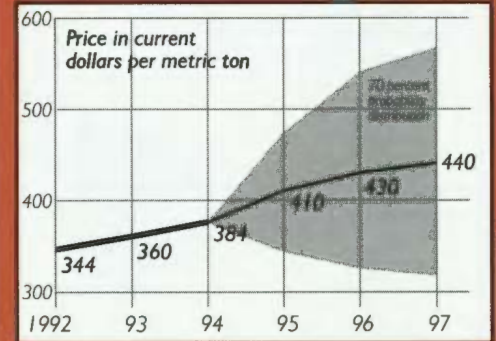
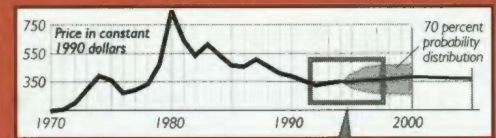
**AGRICULTURAL RAW MATERIALS**

**METALS AND MINERALS**

**COPPER** *High prices hold*

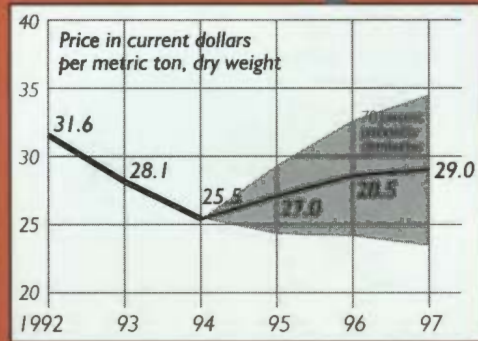
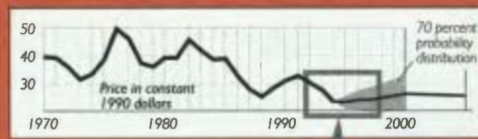


**GOLD** *Price stalls at \$400/oz*

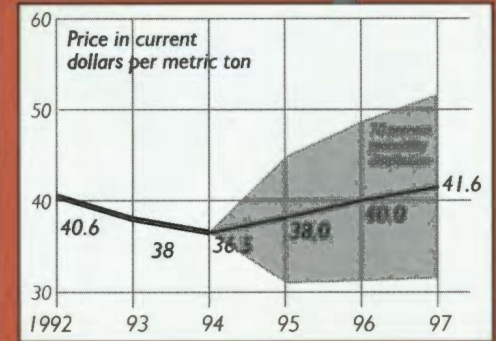
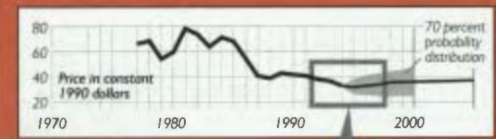


**ENERGY**

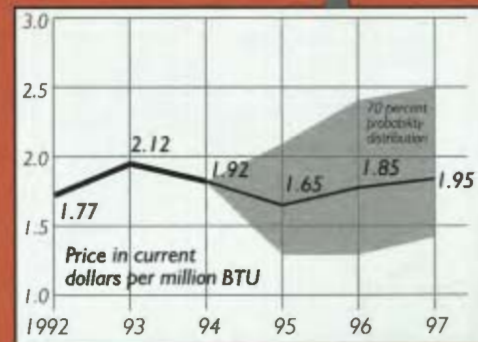
**IRON ORE** *High demand continues, price increases*



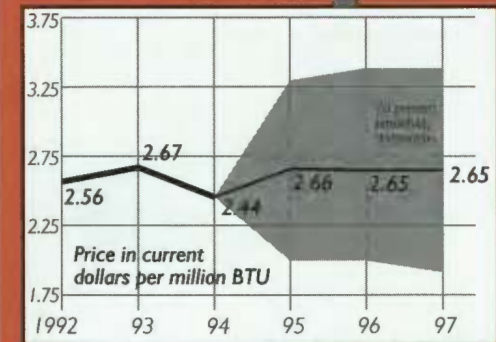
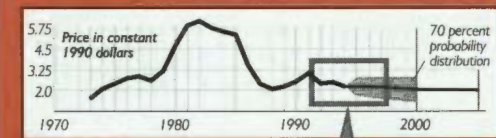
**COAL** *Higher prices expected*



**NATURAL GAS (US)** *Prices expected to recover*



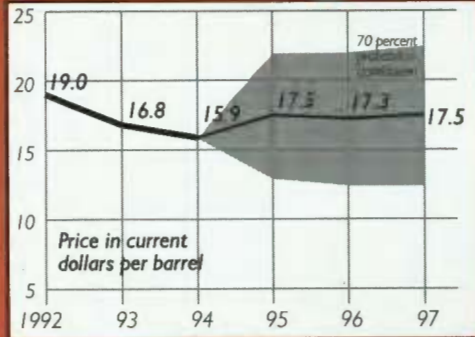
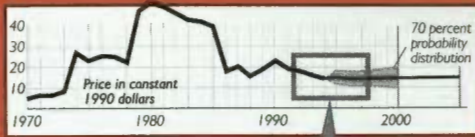
**NATURAL GAS (EUROPE)** *Supply competition pressures prices*



# FERTILIZERS

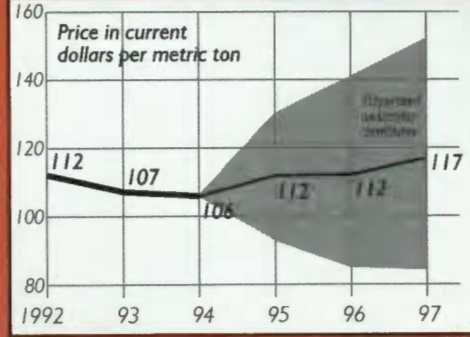
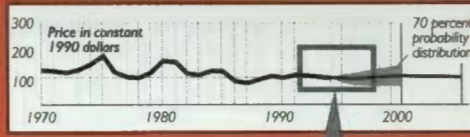
## PETROLEUM

Resumption of Iraqi exports could weaken prices



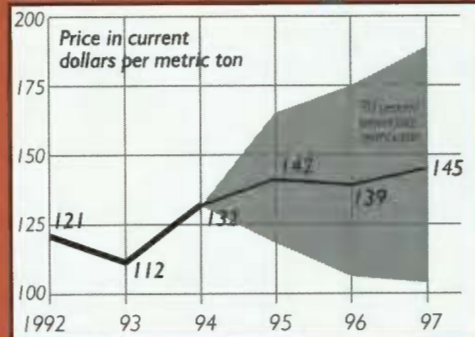
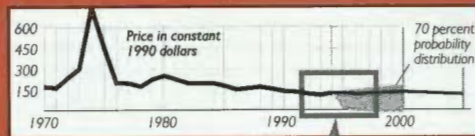
## POTASSIUM CHLORIDE

Prices continue to rise



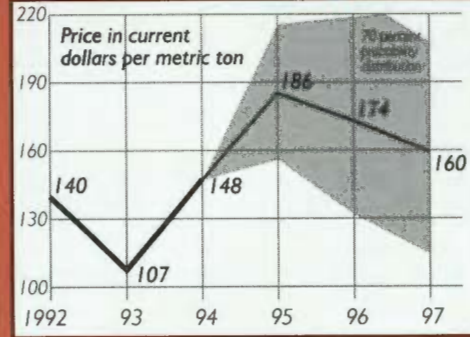
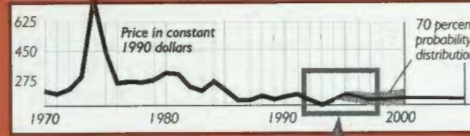
## TSP

Chinese demand pushes prices higher



## UREA

Prices rise sharply



Note: New price series for rice, wheat, rubber, and petroleum.

**COMMODITY PRICE OUTLOOK**
**TABLE A1. COMMODITY PRICES AND PRICE PROJECTIONS IN CONSTANT 1990 DOLLARS**

Commodity	Unit	Actual								Short-term projections			Long-term projections	
		1970	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	2000	2005
<b>Energy</b>														
Petroleum <sup>a</sup>	\$/bbl	4.82	51.23	39.62	22.88	18.95	17.84	15.85	14.50	14.95	14.44	14.42	14.65	14.86
Coal	\$/mt	..	59.89	67.93	41.80	40.59	38.07	35.77	33.30	32.45	33.49	34.28	35.92	37.31
Natural gas, US <sup>a</sup>	\$/mmbtu	0.68	2.15	3.57	1.70	1.46	1.66	2.00	1.75	1.41	1.55	1.61	1.70	1.83
Natural gas, Eur. <sup>a</sup>	\$/mmbtu	..	4.72	5.39	2.55	3.04	2.40	2.51	2.23	2.27	2.22	2.18	2.04	2.00
<b>Food</b>														
Coffee (other milds)	¢/kg	457	482	471	197	183	132	147	302	335	310	246	202	196
Coffee (robusta) <sup>a</sup>	¢/kg	364	451	386	118	105	88	109	239	264	240	189	155	147
Cocoa	¢/kg	269	362	329	127	117	103	105	127	128	131	133	135	139
Tea	¢/kg	437	310	289	203	180	188	175	167	149	155	161	180	175
Sugar	\$/mt	323	878	130	277	193	187	208	244	252	212	200	242	235
Beef	¢/kg	520	384	314	256	260	230	246	213	184	183	186	291	280
Shrimp	¢/kg	1,108	1,421	1,529	1,079	1,129	1,027	1,072	1,193	1,144	1,130	1,121	1,105	1,051
Bananas	\$/mt	659	527	551	541	547	444	417	401	405	406	412	451	424
Oranges	\$/mt	670	543	581	531	510	459	407	375	380	381	386	406	403
Rice <sup>a</sup>	\$/mt	504	571	287	271	287	251	222	244	237	244	243	236	233
Wheat <sup>a</sup>	\$/mt	219	240	198	136	126	142	132	137	124	116	117	115	105
Maize	\$/mt	233	174	164	109	105	98	96	98	93	95	95	93	86
Grain sorghum	\$/mt	207	179	150	104	103	96	93	95	91	92	92	91	84
<b>Fats and oils</b>														
Palm oil	\$/mt	1,037	811	730	290	332	369	356	482	487	434	379	322	284
Coconut oil	\$/mt	1,584	936	860	337	424	542	424	554	512	481	486	599	489
Groundnut oil	\$/mt	1,510	1,194	1,319	964	874	572	696	933	794	622	593	588	450
Soybean oil	\$/mt	1,142	829	834	447	444	402	452	562	529	481	445	434	400
Soybeans	\$/mt	466	412	327	247	234	221	240	230	218	226	223	233	248
Copra	\$/mt	897	629	563	231	280	357	278	381	318	285	272	420	344
Groundnut meal	\$/mt	407	334	208	185	147	146	158	154	162	160	158	167	187
Soybean meal	\$/mt	411	364	229	209	193	192	196	176	172	180	181	196	224
<b>Nonfood agriculture</b>														
Cotton	¢/kg	252	284	192	182	164	120	121	161	190	159	139	150	144
Jute	\$/mt	1,092	428	850	408	370	300	257	272	256	268	268	280	275
Rubber <sup>a</sup>	¢/kg	162	198	111	86	81	81	78	103	141	138	124	115	117
Tobacco <sup>a</sup>	\$/mt	4,290	3,162	3,807	3,392	3,424	3,226	2,537	2,409	2,306	2,294	2,291	2,371	2,246
<b>Timber</b>														
Logs (meranti)	\$/m <sup>3</sup>	148	271	199	177	196	196	367	283	222	226	233	247	287
Logs (sapelli)	\$/m <sup>3</sup>	171	350	253	344	309	311	292	301	290	297	307	320	337
Sawnwood <sup>a</sup>	\$/m <sup>3</sup>	699	551	448	533	540	569	714	749	641	645	659	694	726
<b>Metals and minerals</b>														
Copper	\$/mt	5,634	3,032	2,066	2,662	2,288	2,139	1,801	2,106	2,410	2,141	1,998	1,922	1,753
Tin <sup>a</sup>	¢/kg	1,465	2,331	1,682	609	547	572	528	499	478	472	480	577	584
Nickel	\$/mt	11,348	9,058	7,142	8,864	7,978	6,566	4,983	5,786	6,843	6,765	5,933	7,502	7,687
Aluminum	\$/mt	2,153	2,466	1,517	1,639	1,274	1,176	1,072	1,348	1,580	1,469	1,376	1,774	1,728
Lead	\$/mt	1,212	1,259	570	811	545	508	383	500	521	515	511	616	555
Zinc	\$/mt	1,176	1,057	1,141	1,513	1,093	1,163	906	911	905	908	906	1,188	1,092
Iron ore	\$/mt	39.23	39.03	38.72	30.80	32.52	29.65	26.49	23.25	23.02	23.86	23.90	26.11	25.43
Gold	\$/toz	143	845	463	384	354	322	339	350	350	360	363	385	371
Silver	¢/toz	706	2,867	895	482	395	369	405	482	461	461	461	477	447
<b>Fertilizers</b>														
Phosphate rock	\$/mt	44	65	49	41	42	39	31	30	30	31	31	33	32
Urea	\$/mt	193	309	199	157	168	132	101	135	159	146	132	142	137
TSP	\$/mt	169	251	177	132	130	113	105	121	121	116	119	125	115
DAP	\$/mt	215	309	246	171	169	136	122	158	165	151	153	162	153
Potassium chloride <sup>b</sup>	\$/mt	126	161	122	98	107	105	101	96	96	94	96	104	99

.. Not available.

Note: Computed from unrounded data and deflated by MUV (1990=100). Forecast as of May 4, 1995.

a. New price series.

b. Also known as muriate of potash.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

TABLE A2. COMMODITY PRICES AND PRICE PROJECTIONS IN CURRENT DOLLARS

Commodity	Unit	Actual								Short-term projections			Long-term projections	
		1970	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	2000	2005
<b>Energy</b>														
Petroleum <sup>a</sup>	\$/bbl	1.21	36.87	27.18	22.88	19.37	19.02	16.84	15.89	17.50	17.25	17.50	19.00	21.50
Coal	\$/mt	..	43.10	46.60	41.80	41.50	40.60	38.00	36.48	38.00	40.00	41.60	46.57	53.99
Natural gas, US <sup>a</sup>	\$/mmbtu	0.17	1.55	2.45	1.70	1.49	1.77	2.12	1.92	1.65	1.85	1.95	2.20	2.65
Natural gas, Eur. <sup>a</sup>	\$/mmbtu	..	3.40	3.70	2.55	3.11	2.56	2.67	2.44	2.66	2.65	2.65	2.65	2.90
<b>Food</b>														
Coffee (other milds)	\$/kg	115	347	323	197	187	141	156	331	392	370	298	262	283
Coffee (robusta) <sup>a</sup>	\$/kg	91	324	265	118	107	94	116	262	309	287	229	201	212
Cocoa	\$/kg	68	260	225	127	120	110	112	140	150	157	162	175	201
Tea	\$/kg	110	223	198	203	184	200	186	183	175	185	195	233	253
Sugar	\$/mt	81	632	90	277	198	200	221	267	295	254	243	313	340
Beef	\$/kg	130	276	215	256	266	246	262	233	215	219	226	377	405
Shrimp	\$/kg	278	1,023	1,049	1,079	1,155	1,095	1,139	1,308	1,340	1,350	1,360	1,433	1,521
Bananas	\$/mt	165	379	378	541	560	473	443	439	474	485	500	585	614
Oranges	\$/mt	168	391	398	531	521	489	433	411	445	455	469	527	583
Rice <sup>a</sup>	\$/mt	126	411	197	271	293	268	235	268	277	291	296	307	337
Wheat <sup>a</sup>	\$/mt	55	173	136	136	129	151	140	150	145	139	142	149	152
Maize	\$/mt	58	125	112	109	107	104	102	108	109	113	115	121	125
Grain sorghum	\$/mt	52	129	103	104	105	103	99	104	106	110	112	118	122
<b>Fats and oils</b>														
Palm oil	\$/mt	260	584	501	290	339	394	378	528	570	518	460	418	411
Coconut oil	\$/mt	397	674	590	337	433	578	450	608	600	575	590	777	708
Groundnut oil	\$/mt	379	859	905	964	894	610	739	1,023	930	743	720	762	651
Soybean oil	\$/mt	286	597	572	447	454	429	480	616	620	575	540	563	579
Soybeans	\$/mt	117	296	224	247	240	236	255	252	255	270	271	302	359
Copra	\$/mt	225	453	386	231	286	380	295	417	372	340	330	545	498
Groundnut meal	\$/mt	102	240	143	185	150	156	168	168	190	191	192	217	271
Soybean meal	\$/mt	103	262	157	209	197	204	208	192	201	215	220	254	324
<b>Nonfood agriculture</b>														
Cotton	\$/kg	63	205	132	182	168	128	128	176	222	190	169	195	208
Jute	\$/mt	274	308	583	408	378	320	273	298	300	320	325	363	398
Rubber <sup>a</sup>	\$/kg	41	142	76	86	83	86	83	113	165	165	150	149	169
Tobacco <sup>a</sup>	\$/mt	1,076	2,276	2,612	3,392	3,500	3,440	2,695	2,639	2,700	2,740	2,780	3,075	3,250
<b>Timber</b>														
Logs (meranti)	\$/m <sup>3</sup>	37	195	136	177	200	210	390	310	260	270	283	320	415
Logs (sapelli)	\$/m <sup>3</sup>	43	252	174	344	316	331	310	330	340	355	373	415	487
Sawnwood <sup>a</sup>	\$/m <sup>3</sup>	175	396	307	533	553	607	758	821	750	770	800	900	1,050
<b>Metals and minerals</b>														
Copper	\$/mt	1,413	2,182	1,417	2,662	2,339	2,281	1,913	2,307	2,822	2,557	2,425	2,492	2,536
Tin <sup>a</sup>	\$/kg	367	1,677	1,154	609	560	610	561	546	560	564	582	748	845
Nickel	\$/mt	2,846	6,519	4,899	8,864	8,156	7,001	5,293	6,340	8,013	8,080	7,200	9,728	11,123
Aluminum	\$/mt	540	1,775	1,041	1,639	1,302	1,254	1,139	1,477	1,850	1,755	1,670	2,300	2,500
Lead	\$/mt	304	906	391	811	558	541	406	548	610	615	620	799	803
Zinc	\$/mt	295	761	783	1,513	1,117	1,240	962	998	1,060	1,085	1,099	1,541	1,580
Iron ore	\$/mt	9.84	28.09	26.56	30.80	33.25	31.62	28.14	25.47	26.95	28.50	29.00	33.85	36.80
Gold	\$/toz	36	608	318	384	362	344	360	384	410	430	440	499	537
Silver	\$/toz	177	2,064	614	482	404	394	430	528	540	550	560	619	647
<b>Fertilizers</b>														
Phosphate rock	\$/mt	11	47	34	41	43	42	33	33	35	37	38	43	46
Urea	\$/mt	48	222	136	157	172	140	107	148	186	174	160	184	198
TSP	\$/mt	43	180	121	132	133	121	112	132	142	139	145	162	166
DAP	\$/mt	54	222	169	171	173	145	129	173	193	180	186	210	221
Potassium chloride <sup>b</sup>	\$/mt	32	116	84	98	109	112	107	106	112	112	117	135	143

.. Not available.

Note: Data have been rounded. Forecast as of May 4, 1995.

a. New price series.

b. Also known as muriate of potash.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

**COMMODITY PRICE OUTLOOK**
**TABLE A3. WEIGHTED INDEX OF COMMODITY PRICES IN CURRENT DOLLARS AND IN CONSTANT 1990 DOLLARS**

1990=100

Year	Petroleum	Nonfuel commodities (100.0)	Agriculture										
			Food						Raw materials		Metals and minerals		Fertilizers
			Total (69.1) <sup>a</sup>	Total (29.4) <sup>a</sup>	Grains (6.9) <sup>a</sup>	Fats and oils (10.1) <sup>a</sup>	Other (12.4) <sup>a</sup>	Beverages (16.0) <sup>a</sup>	Total (22.9) <sup>a</sup>	Timber (2.2) <sup>a</sup>	(20.1) <sup>a</sup>	(2.7) <sup>a</sup>	
<i>Current dollars</i>													
1980	161.1	126.3	138.9	139.2	134.3	148.6	134.3	185.1	104.3	79.0	95.1	128.9	
1985	118.8	91.7	100.5	86.3	89.2	113.0	62.9	165.3	70.8	59.1	70.2	89.0	
1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1991	84.7	95.5	97.9	99.2	101.7	104.5	93.4	93.8	99.1	104.2	88.9	102.4	
1992	83.1	92.1	94.4	100.0	101.7	111.7	89.5	79.4	98.3	114.5	86.2	95.8	
1993	73.6	91.6	99.1	98.6	93.6	111.5	90.7	84.9	110.3	152.4	74.0	83.7	
1994	69.4	111.9	123.7	106.8	102.1	126.0	93.8	150.4	125.8	156.6	84.6	93.4	
1995	76.5	124.5	135.3	110.9	102.9	131.0	98.9	172.6	139.2	141.5	100.3	99.9	
1996	75.4	121.2	132.1	108.9	104.9	129.3	94.4	166.5	136.5	145.5	96.5	100.3	
1997	76.5	115.4	124.8	108.3	106.8	125.4	95.2	143.4	132.4	151.3	93.4	104.1	
2000	83.0	127.0	133.0	122.4	111.7	135.7	117.5	135.9	144.6	170.4	113.3	116.6	
2005	94.0	138.9	146.9	131.9	119.0	152.7	122.6	149.5	164.8	201.8	121.3	121.9	
<i>Constant 1990 dollars</i>													
1980	223.8	175.4	192.9	193.4	186.5	206.4	186.5	257.1	144.9	109.7	132.1	179.0	
1985	173.2	133.6	146.5	125.9	130.0	164.8	91.7	241.0	103.3	86.1	102.3	129.8	
1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1991	82.8	93.4	95.7	97.0	99.5	102.2	91.3	91.8	97.0	102.0	87.0	100.2	
1992	78.0	86.4	88.6	93.8	95.4	104.8	84.0	74.5	92.2	107.4	80.8	89.9	
1993	69.3	86.2	93.3	92.8	88.2	105.0	85.4	79.9	103.8	143.5	69.6	78.8	
1994	63.4	102.1	112.9	97.5	93.1	115.0	85.6	137.3	114.8	142.9	77.2	85.2	
1995	65.3	106.3	115.5	94.7	87.9	111.8	84.4	147.4	118.9	120.8	85.6	85.3	
1996	63.1	101.4	110.5	91.1	87.8	108.2	79.0	139.3	114.2	121.7	80.7	83.9	
1997	63.0	95.1	102.8	89.2	88.0	103.3	78.4	118.1	109.0	124.7	77.0	85.7	
2000	64.0	97.9	102.6	94.4	86.1	104.6	90.6	104.8	111.5	131.3	87.3	89.9	
2005	64.9	96.0	101.4	91.1	81.6	105.5	84.7	102.6	113.8	139.5	83.8	84.2	

Note: Figures for 1995–2005 are projections. Weights used are the average 1987–89 export values for low- and middle-income economies. Forecast as of May 4, 1995.

a. Percentage share of commodity group in nonfuel index.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

**TABLE A4. INFLATION INDICES FOR SELECTED YEARS**

Year	G-5 MUV index <sup>a</sup>		US GDP deflator		G-5 GDP/GNP deflator <sup>b</sup>		G-7 CPI <sup>c</sup>	
	1990=100	% change	1990=100	% change	1990=100	% change	1990=100	% change
1980	71.98		63.33		63.99		63.13	
1985	68.61	-0.95	83.38	5.66	67.57	1.09	64.96	0.57
1990	100.00	7.83	100.00	3.70	100.00	8.16	100.00	9.01
1991	102.23	2.23	103.80	3.80	104.73	4.73	104.62	4.62
1992	106.64	4.31	106.71	2.81	111.04	6.03	110.11	5.24
1993	106.24	-0.37	109.00	2.15	115.01	3.58	110.09	-0.01
1994	109.58	3.14	111.30	2.11	117.49	2.15	112.51	2.20
1995	117.11	6.87	114.75	3.10	120.46	2.53	115.46	2.62
1996	119.45	2.00	118.19	3.00	123.46	2.49	118.58	2.70
1997	121.38	1.62	121.38	2.70	126.50	2.46	121.82	2.73
2000	129.69	2.23	132.64	3.00	137.01	2.70	132.18	2.76
2005	144.72	2.22	152.72	2.86	156.29	2.67	151.97	2.65

Note: For 1985, 1990, 2000, and 2005, the average annual growth rates for the period starting with the year shown above. Figures for 1993–94 are provisional estimates, except the US GDP deflator, which is actual; all figures for 1995–2005 are projections. Forecast as of February 10, 1995.

a. Unit value index in US dollar terms of manufactures exported from the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States), weighted proportionally to the countries' exports to the developing countries.

b. Aggregate index of GDP/GNP deflators in US dollar terms for the G-5 countries, using SDR-based moving weights.

c. Aggregate consumer price index in US dollar terms for the G-7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), weighted by the countries' 1988–90 average GDP/GNP in current US dollars.

Source: G-5 MUV index, G-5 GDP/GNP deflator, and G-7 CPI: World Bank. US GDP deflator: US Department of Commerce.



TABLE A5. COMMODITY PRICE PROBABILITY DISTRIBUTIONS IN CONSTANT 1990 DOLLARS

Commodity	Unit	70% probability distribution			
		1995	1996	1997	2000
<b>Energy</b>					
Petroleum	\$/bbl	11.1-18.8	10.5-18.4	10.3-18.5	9.2-20.1
Coal	\$/mt	26.5-38.4	26.1-40.9	25.9-42.7	24.7-47.5
Natural gas, US	\$/mmbtu	1.1-1.8	1.1-2.0	1.1-2.1	1.1-2.3
Natural gas, Eur.	\$/mmbtu	1.7-2.8	1.6-2.8	1.5-2.8	1.3-2.8
<b>Food</b>					
Coffee (other milds)	¢/kg	272-439	233-419	176-344	137-302
Coffee (robusta)	¢/kg	213-345	180-324	136-264	105-233
Cocoa	¢/kg	114-143	108-158	107-166	98-186
Tea	¢/kg	141-161	138-172	138-181	147-212
Sugar (world)	\$/mt	219-288	176-244	164-240	174-302
Beef	¢/kg	156-225	147-239	140-240	204-436
Shrimp	¢/kg	973-1,407	904-1,469	840-1,569	807-1,713
Bananas	\$/mt	372-437	352-460	330-494	347-556
Oranges	\$/mt	326-433	312-450	309-464	301-549
Rice	\$/mt	199-274	185-307	175-316	154-343
Wheat	\$/mt	104-143	88-146	84-152	75-159
Maize	\$/mt	83-103	76-114	72-119	65-126
Grain sorghum	\$/mt	81-101	74-111	70-116	64-123
<b>Fats and oils</b>					
Palm oil	\$/mt	435-593	371-563	297-531	225-483
Coconut oil	\$/mt	435-630	385-626	365-681	419-898
Groundnut oil	\$/mt	675-977	497-809	445-830	412-882
Soybean oil	\$/mt	450-652	385-626	334-623	304-651
Soybeans	\$/mt	196-268	181-294	167-312	163-349
Copra	\$/mt	270-413	228-398	204-408	294-672
Groundnut meal	\$/mt	138-200	128-208	119-222	117-251
Soybean meal	\$/mt	146-211	144-234	136-251	137-294
<b>Nonfood agriculture</b>					
Cotton	¢/kg	163-216	131-188	111-167	118-183
Jute	\$/mt	220-292	219-316	214-321	218-341
Rubber	¢/kg	123-158	111-158	99-145	83-139
Tobacco	\$/mt	1,983-2,628	1,880-2,707	1,832-2,748	1,849-2,893
<b>Timber</b>					
Logs (meranti)	\$/m <sup>3</sup>	197-251	185-276	185-293	177-343
Logs (sapelli)	\$/m <sup>3</sup>	258-328	243-363	244-387	230-445
Sawnwood	\$/m <sup>3</sup>	815-969	528-787	524-830	499-965
<b>Metals and minerals</b>					
Copper	\$/mt	2,096-2,747	1,777-2,462	1,639-2,397	1,383-2,401
Tin	¢/kg	430-526	401-543	388-571	433-721
Nickel	\$/mt	5,713-7,971	5,539-8,262	4,857-7,245	5,626-9,376
Aluminum	\$/mt	1,415-1,796	1,203-1,795	1,093-1,732	1,275-2,467
Lead	\$/mt	469-573	438-592	414-608	463-771
Zinc	\$/mt	815-996	772-1,045	733-1,078	891-1,485
Iron ore	\$/mt	20.7-25.3	20.3-27.5	19.4-28.4	19.6-32.4
Gold	\$/toz	294-406	274-454	261-468	250-478
Silver	¢/toz	378-535	350-580	332-595	300-600
<b>Fertilizers</b>					
Phosphate rock	\$/mt	25-35	24-39	23-41	21-46
Urea	\$/mt	133-184	111-184	95-171	93-199
TSP	\$/mt	102-141	88-147	86-155	81-175
DAP	\$/mt	138-191	115-190	110-199	105-227
Potassium chloride	\$/mt	80-111	71-118	69-125	68-146

Notes: Forecasts as of May 4, 1995.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

TABLE A6. COMMODITY PRICE PROBABILITY DISTRIBUTIONS IN CURRENT DOLLARS

Commodity	Unit	70% probability distribution			
		1995	1996	1997	2000
<b>Energy</b>					
Petroleum	\$/bbl	13.0-22.0	12.5-22.0	12.5-22.5	12.0-26.1
Coal	\$/mt	31.0-45.0	31.2-48.8	31.4-51.8	32.0-61.6
Natural gas, US	\$/mmbtu	1.3-2.1	1.3-2.4	1.4-2.5	1.40-3.0
Natural gas, Eur.	\$/mmbtu	2.0-3.3	2.0-3.4	1.9-3.4	1.70-3.7
<b>Food</b>					
Coffee (other milds)	€/kg	318-514	278-500	214-417	178-392
Coffee (robusta)	€/kg	250-404	215-387	165-321	136-302
Cocoa	€/kg	134-168	129-189	130-202	127-241
Tea	€/kg	165-189	165-205	168-220	191-275
Sugar (world)	\$/mt	257-337	210-292	199-291	226-392
Beef	€/kg	183-264	175-285	170-291	264-566
Shrimp	€/kg	1,139-1,648	1,080-1,755	1,020-1,904	1,046-2,221
Bananas	\$/mt	436-512	420-550	400-600	450-721
Oranges	\$/mt	382-507	373-537	375-563	390-712
Rice	\$/mt	233-321	221-367	213-384	199-445
Wheat	\$/mt	122-168	105-175	102-184	97-206
Maize	\$/mt	97-121	90-136	87-145	85-163
Grain sorghum	\$/mt	94-118	88-132	85-141	83-159
<b>Fats and oils</b>					
Palm oil	\$/mt	510-694	443-673	360-644	292-626
Coconut oil	\$/mt	510-738	460-748	443-826	544-1,165
Groundnut oil	\$/mt	791-1,144	594-966	540-1,008	534-1,144
Soybean oil	\$/mt	527-763	460-748	405-756	394-844
Soybeans	\$/mt	230-314	216-351	203-379	211-453
Copra	\$/mt	316-484	272-476	248-495	381-871
Groundnut meal	\$/mt	162-234	153-248	144-269	152-325
Soybean meal	\$/mt	171-247	172-280	165-305	178-381
<b>Nonfood agriculture</b>					
Cotton	€/kg	191-253	156-224	135-203	153-237
Jute	\$/mt	258-342	262-378	260-390	283-442
Rubber	€/kg	144-185	132-189	120-175	107-180
Tobacco	\$/mt	2,322-3,078	2,246-3,233	2,224-3,336	2,398-3,752
<b>Timber</b>					
Logs (meranti)	\$/m <sup>3</sup>	231-294	221-330	225-356	230-445
Logs (sapelli)	\$/m <sup>3</sup>	302-384	291-434	296-469	298-577
Sawnwood	\$/m <sup>3</sup>	954-1,135	630-940	636-1,007	647-1,252
<b>Metals and minerals</b>					
Copper	\$/mt	2,455-3,217	2,123-2,941	1,989-2,910	1,794-3,114
Tin	€/kg	504-616	479-649	471-693	561-935
Nickel	\$/mt	6,691-9,335	6,616-9,869	5,895-8,794	7,296-12,160
Aluminum	\$/mt	1,657-2,103	1,437-2,144	1,327-2,102	1,654-3,199
Lead	\$/mt	549-671	523-707	502-738	600-1,000
Zinc	\$/mt	954-1,166	922-1,248	890-1,308	1,156-1,926
Iron Ore	\$/mt	24.3-29.6	24.2-32.8	23.5-34.5	25.4-42.0
Gold	\$/toz	344-476	327-542	317-568	324-620
Silver	€/toz	443-626	418-693	403-722	389-778
<b>Fertilizers</b>					
Phosphate rock	\$/mt	29-41	28-47	27-49	28-60
Urea	\$/mt	156-216	132-219	115-208	120-258
TSP	\$/mt	119-165	106-175	104-189	105-227
DAP	\$/mt	162-224	137-227	134-242	137-294
Potassium chloride	\$/mt	94-130	85-141	84-152	88-189

Note: Forecast as of May 4, 1995.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.



**COMMODITY PRICE OUTLOOK**
**TABLE A7. RECENT COMMODITY PRICES (CONTINUED)**

Commodity	Unit	Annual averages			Quarterly averages					Monthly averages		
		Jan-Dec	Jan-Dec	Jan-Mar	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Jan	Feb	Mar
		1993	1994	1995	1994	1994	1994	1994	1995	1995	1995	1995
<b>Steel</b>												
Rebar <sup>a</sup>	\$/mt	348.8	322.5	346.7	338.3	313.3	310.0	328.3	346.7	330.0	340.0	370.0
Wire rod <sup>a</sup>	\$/mt	395.8	371.7	366.7	390.0	373.3	366.7	356.7	366.7	350.0	360.0	390.0
Hr coilsheet <sup>a</sup>	\$/mt	375.8	402.9	416.7	391.7	400.0	410.0	410.0	416.7	410.0	420.0	420.0
Cr coilsheet <sup>a</sup>	\$/mt	470.0	511.7	526.7	500.0	510.0	516.7	520.0	526.7	520.0	520.0	540.0
<b>Energy</b>												
Crude oil												
Spot, average <sup>c</sup>	\$/bbl	16.8	15.9	17.2	13.8	16.2	17.0	16.5	17.2	16.9	17.4	17.4
Brent <sup>c</sup>	\$/bbl	17.0	15.8	16.9	14.0	16.0	16.8	16.5	16.9	16.5	17.1	17.0
Dubai <sup>c</sup>	\$/bbl	14.9	14.7	16.4	12.7	14.8	15.8	15.3	16.4	16.1	16.6	16.5
West Texas Int <sup>c</sup>	\$/bbl	18.6	17.2	18.2	14.8	17.7	18.5	17.6	18.2	17.9	18.3	18.5
Natural gas												
Europe <sup>a</sup>	\$/mmbtu	2.7	2.4	2.7	2.4	2.4	2.5	2.6	2.7	2.7	2.7	2.7
US <sup>a</sup>	\$/mmbtu	2.1	1.9	1.5	2.4	2.0	1.7	1.6	1.5	1.5	1.6	1.5
Coal												
Australia <sup>a</sup>	\$/mt	31.3	32.3	37.7	30.5	31.5	33.1	34.1	37.7	37.1	37.6	38.3
US <sup>a</sup>	\$/mt	38.0	36.5	41.2	37.7	35.8	35.4	37.0	41.2	40.5	41.5	41.5
<b>Timber</b>												
Logs												
Cameroon <sup>a</sup>	\$/m <sup>3</sup>	310.3	330.3	341.5	306.8	319.6	345.4	349.2	341.5	341.0	334.1	349.3
Malaysia	\$/m <sup>3</sup>	276.5	309.6	261.1	302.9	338.1	316.2	281.4	261.1	248.4	251.8	283.1
Sawnwood												
Ghana <sup>a</sup>	\$/m <sup>3</sup>	530.7	618.5	651.1	586.7	606.2	627.3	654.1	651.1	649.3	649.4	654.5
Malaysia <sup>a</sup>	\$/m <sup>3</sup>	758.3	821.0	753.5	768.1	849.5	874.3	792.2	753.5	793.8	753.2	713.6
Plywood <sup>a</sup>	¢/sheet	661.4	602.0	602.2	594.1	637.9	615.7	560.2	602.2	551.0	599.1	656.5
Woodpulp <sup>a</sup>	\$/mt	423.9	552.5	699.1	438.0	513.9	578.1	679.9	699.1	690.5	703.4	703.4
<b>Fertilizers</b>												
Phosphate rock	\$/mt	33.0	33.0	35.0	33.0	33.0	33.0	33.0	35.0	35.0	35.0	35.0
Urea <sup>a</sup>	\$/mt	106.8	147.9	224.3	120.7	136.0	151.3	183.7	224.3	213.0 <sup>d</sup>	228.0 <sup>d</sup>	232.0 <sup>d</sup>
TSP <sup>a</sup>	\$/mt	111.9	132.1	145.8	126.0	131.7	132.5	138.2	145.8	142.4	147.5	147.5
DAP <sup>a</sup>	\$/mt	129.1	172.8	215.0	162.5	171.4	175.7	181.6	215.0	211.0	218.3	215.6
Potassium chloride <sup>a</sup>	\$/mt	107.4	105.7	114.8	105.2	103.5	104.1	110.1	114.8	111.5	115.5	117.5 <sup>b</sup>
<b>World Bank commodity price indices for low- and middle-income countries (1990=100)</b>												
Agriculture		99.1	123.7	136.4	107.3	116.5	137.9	133.3	136.4	134.3	136.5	138.5
Food		98.6	106.9	113.5	108.0	102.8	105.8	110.8	113.5	111.7	115.1	113.7
Beverages		84.9	150.4	169.1	96.2	126.2	201.5	177.8	169.1	166.5	166.6	174.4
Fats and oils		111.5	126.0	135.1	119.3	122.7	126.1	135.9	135.1	134.7	135.2	135.4
Grains		93.6	102.1	104.9	114.4	96.6	95.4	101.9	104.9	104.6	104.7	105.5
Other food		90.7	93.9	100.6	95.1	89.9	95.1	95.3	100.6	96.9	104.5	100.5
Agricultural raw materials		110.3	125.8	141.8	114.6	127.0	132.2	129.5	141.8	139.7	141.9	144.0
Timber		152.4	156.6	142.1	147.6	163.5	165.9	149.3	142.1	147.8	141.4	137.2
Other raw materials		81.5	104.8	141.6	92.0	102.1	109.1	115.9	141.6	134.2	142.2	148.5
Metals and minerals (excl. steel)		74.0	84.6	103.6	74.1	79.3	86.6	98.5	103.6	108.5	102.2	100.1
Steel products		91.4	92.7	98.4	92.1	91.2	92.7	94.6	98.4	96.0	97.2	102.2
Fertilizers		83.7	93.4	101.7	90.4	93.1	93.6	96.3	101.7	100.1	102.6	102.6
Nonfuel commodities (excl. steel)		91.6	111.9	126.3	97.5	105.4	122.2	122.5	126.3	126.1	125.9	126.7

Note: Prices as of April 25, 1995.

a. Not included in index.

b. Average for less than period indicated.

c. Included in the petroleum index but not in the nonfuel index.

d. Estimate.

Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

## COMMODITY DESCRIPTIONS

### Foods

**Bananas** (*Central & South American*), first-class quality tropical pack, importer's price to jobber or processor, f.o.b. US ports

**Beef** (*Australian/New Zealand*), cow forequarters, frozen boneless, 85% chemical lean, c.i.f. US port (East Coast), ex-dock

**Cocoa** (ICCO), International Cocoa Organization daily price, average of the first three positions on the terminal markets of New York and London, nearest three future trading months

**Coffee** (ICO), International Coffee Organization indicator price, other mild Arabicas, average New York and Bremen/Hamburg markets, ex-dock

**Coffee** (ICO), International Coffee Organization indicator price, Robustas, average New York and Le Havre/Marseilles markets, ex-dock

**Fishmeal** (*any origin*), 64-65%, c&f Hamburg, nfs

**Lamb** (*New Zealand*), frozen whole carcasses, wholesale price, Smithfield market, London

**Oranges** (*Mediterranean exporters*) navel, EEC indicative import price, c.i.f. Paris

**Shrimp** (US), frozen, Gulf brown, shell-on, headless, 26 to 30 count per pound, wholesale price at New York

**Sugar** (EU), European Union negotiated import price for raw unpacked sugar from African, Caribbean and Pacific (ACP) under Lomé Conventions c.i.f. European ports

**Sugar** (US), import price, nearest future, c.i.f. New York

**Sugar** (*world*), International Sugar Agreement (ISA) daily price, raw, f.o.b. and stowed at greater Caribbean ports

**Tea** (*London auctions*), average price received for all tea

### Fats and oils

**Coconut oil** (*Philippines/Indonesian*), bulk, c.i.f. Rotterdam

**Copra** (*Philippines/Indonesian*), bulk, c.i.f. N.W. Europe

**Groundnut meal** (*Argentine*), 48/50%, c.i.f. Rotterdam

**Groundnut oil** (*any origin*), c.i.f. Rotterdam

**Palm oil** (*Malaysian*), 5% bulk, c.i.f. N. W. Europe

**Soybean meal** (*any origin*), Argentine 45/46% extraction, c.i.f. Rotterdam; prior to 1990, US 44%

**Soybean oil** (*Dutch*), crude, f.o.b. ex-mill

**Soybeans** (US), c.i.f. Rotterdam

### Grains

**Grain sorghum** (US), no. 2 milo yellow, f.o.b. Gulf ports

**Maize** (US), no. 2, yellow, f.o.b. US Gulf ports

**Rice** (*Thai*), 5% broken, white rice (WR), milled, Board of Trade (BOT) posted export price, government standard, f.o.b. Bangkok

**Rice** (*Thai*), 5% broken, WR, milled, indicative market price based on weekly surveys of export transactions (indicative survey price), government standard, f.o.b. Bangkok

**Rice** (*Thai*), 35% broken, WR, milled, indicative survey price, government standard, f.o.b. Bangkok

**Rice** (*Thai*), 100% broken, A.1 Special, broken kernel obtained from the milling of WR 15%, 20%, and 25%, indicative survey price, government standard, f.o.b. Bangkok

**Wheat** (*Canadian*), no. 1, Western Red Spring (CWRS), in store, St. Lawrence, export price

**Wheat** (US), no. 1, hard red winter, ordinary protein, export price delivered at the Gulf port for prompt or 30 days shipment

**Wheat** (US), no. 2, soft red winter, export price delivered at the Gulf port for prompt or 30 days shipment

### Agricultural raw materials

**Cotton** ("cotton outlook", "A" index), middling 1-3/32 inch, c.i.f. Europe

**Jute** (*Bangladesh*), raw, white D, f.o.b. Chittagong/Chalna

**Rubber** (*Asian*), RSS no. 1, in bales, Rubber Association of Singapore Commodity Exchange (RASCE)/Singapore Commodity Exchange, midday buyers' asking price for prompt or 30 days delivery; prior to June 1992, spot, Singapore

**Rubber** (*Malaysian*), RSS no. 1, in bales, Malaysian Rubber Exchange & Licensing Board, midday buyers' asking price for prompt or 30 days delivery, f.o.b. Kuala Lumpur

**Rubber** (*any origin*), RSS no. 1, in bales, Rubber Traders Association

(RTA), spot, New York

**Sisal** (*East African*), UG (rejects), c.i.f. UK

**Wool** (*Dominion*), crossbred, 56's, clean, c.i.f. UK

### Timber

**Logs** (*Malaysian*), meranti, Sarawak, sale price charged by importers, Tokyo; prior to February 1993, average of Sabah and Sarawak weighted by Japanese import volumes

**Logs** (*West African*), sapelli, high quality (loyal and marchand), f.o.b. Cameroon

**Plywood** (*Southeast Asian*), Lauan, 3-ply, extra, 91 cum x 182 cum x 4 mm, wholesale price, spot Tokyo

**Sawnwood** (*Ghanaian*), sapele, bundled, f.o.b. Takoradi

**Sawnwood** (*Malaysian*), dark red seraya/meranti, select and better quality, General Market Specification (GMS), width 6 inches or more, average 7 to 8 inches; length 8 inches or more, average 12 to 14 inches; thickness 1 to 2 inch(es); kiln dry, c. & f. UK ports

**Woodpulp** (*Swedish*), softwood, sulphate, bleached, air-dry weight, c.i.f. North Sea ports

### Metals and minerals

**Aluminum** (LME) London Metal Exchange, unalloyed primary ingots, high grade, minimum 99.7% purity, cash price

**Copper** (LME), grade A, minimum 99.9935% purity, cathodes and wire bar shapes, settlement price

**Gold** (UK), 99.5% fine, London afternoon fixing, average of daily rates

**Iron ore** (*Brazilian*), CVRD Southern System standard sinter feed, 64.3% purity (dry weight) ores from Itabira and other southern mines, contract price to Germany, f.o.b. Tubarao; unit refers to US dollars per metric ton fe, which is equivalent to US cents per fe unit (1%)

**Lead** (LME), refined, 99.97% purity, settlement price

**Nickel** (LME), cathodes, minimum 99.8% purity, official morning session, weekly average bid/asked price

**Silver** (*Handy & Harman*), 99.9% grade refined, New York

**Steel products price index**, 1990=100, (Japanese), composite price index for eight selected steel products based on quotations f.o.b. Japan excluding shipments to the United States and China, weighted by product shares of apparent combined consumption (volume of deliveries) at Germany, Japan and the United States. The eight products are as follows: rebar (concrete reinforcing bars), merch bar (merchant bars), wire rod, section (H-shape), plate (medium), hot rolled coil/sheet, cold rolled coil/sheet, and galvanized iron sheet

**Tin** (*Malaysian*), Straits quality minimum 99.85% purity, Kuala Lumpur Tin Market (KLTM) settlement price

**Zinc** (LME), special high grade, minimum 99.995% purity, weekly average bid/asked price, official morning session; prior to April 1990, high grade, minimum 99.95% purity, settlement price

### Energy

**Coal** (*Australian*), thermal, 12,000 btu/lb, less than 1.0% sulfur, 14% ash, f.o.b. piers, Newcastle/Port Kembla

**Coal** (US), thermal, 12,000 btu/lb, less than 1.0% sulfur, 12% ash, f.o.b. piers, Hampton Road/Norfolk

**Natural Gas** (*Europe*), average import border price

**Natural Gas** (US), spot price at Henry Hub, Louisiana

**Petroleum** (*spot*), average spot price of Brent, Dubai and West Texas Intermediate, equally weighed

**Petroleum** (*spot*), U.K. Brent 38° API, f.o.b. U.K. ports

**Petroleum** (*spot*), Dubai Fateh 32° API, f.o.b. Dubai

**Petroleum** (*spot*), West Texas Intermediate (WTI) 40° API, f.o.b. Midland Texas

### Fertilizers

**DAP** (*diammonium phosphate*), bulk, spot, f.o.b. US Gulf

**Phosphate rock** (*Moroccan*), 70% BPL, contract, f.a.s. Casablanca

**Potassium chloride** (*muriate of potash*), standard grade, spot, f.o.b. Vancouver

**TSP** (*triple superphosphate*), bulk, spot, f.o.b. US Gulf

**Urea** (*varying origins*), bagged, spot, f.o.b. West Europe

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