

COMMODITY MARKETS

AND THE DEVELOPING COUNTRIES



FEBRUARY

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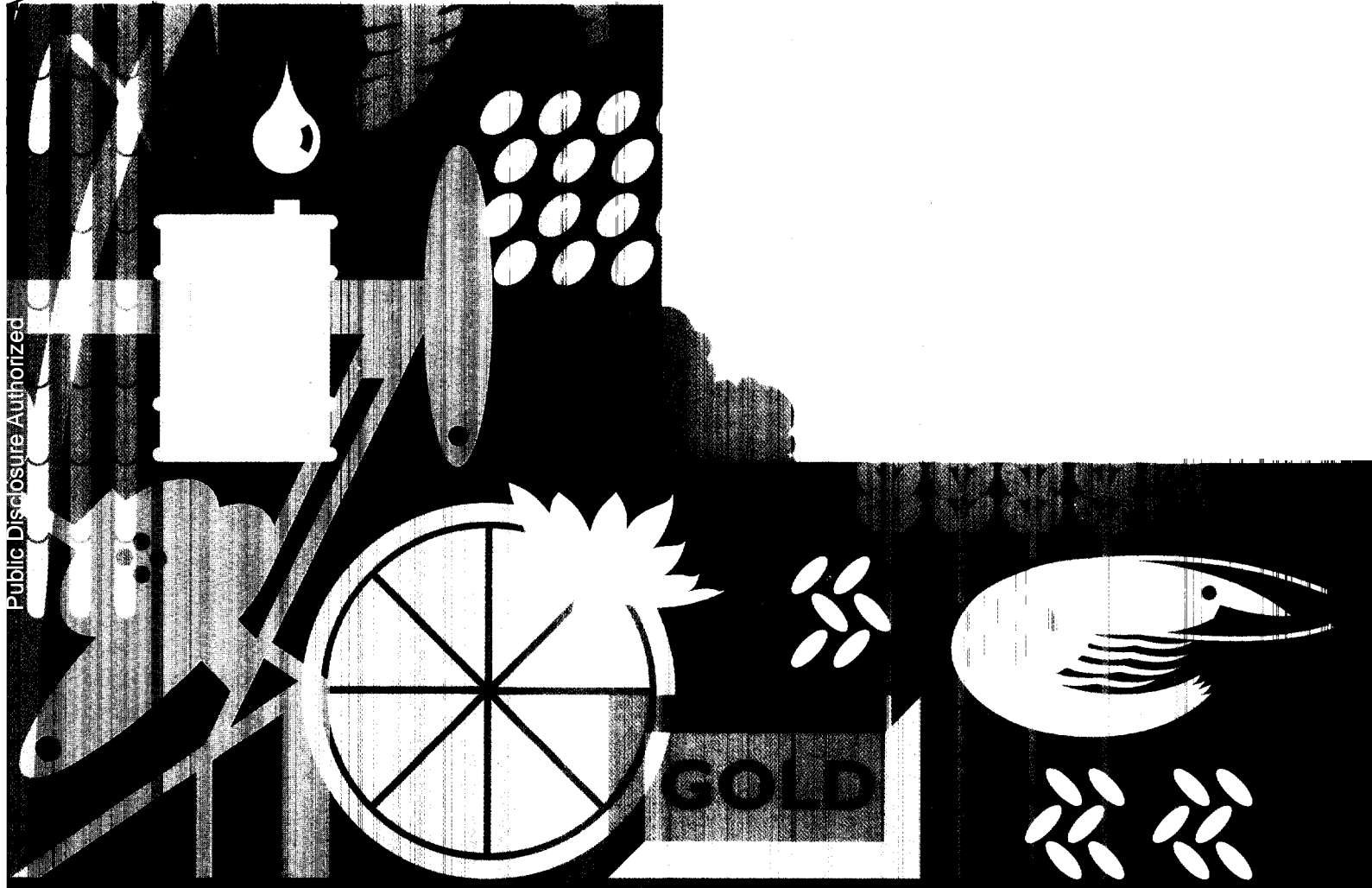
Volume 4
Number 2

Why have oil prices risen?

Grains lead declines in food prices

Copper begins to strengthen

Gold collapses



Energy prices rose 11.7% on low stocks and continued tight supplies from both OPEC and non-OPEC producers. Non-energy prices were down 2.1%, due mostly to a large drop in grain prices following a record harvest

CHANGE IN QUARTERLY AVERAGES, 3Q96 TO 4Q96
Percent

Energy	+11.7
Nonenergy	-2.1
Total agriculture	-3.2
Beverages	-2.1
Total food	-5.3
Fats and oils	+0.1
Grains	-15.3
Others	-3.7
Raw materials	-1.4
Timber	-0.6
Fertilizers	+1.6
Metals and minerals	+1.6

SUMMARY

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SPECIAL FEATURE

■ **WHY HAVE OIL PRICES RISEN?** PAGE 6

Prices have risen more than expected because of strong demand, limited expansion in non-OPEC supplies, and production restraint from OPEC suppliers.

MANAGING COMMODITY PRICE RISK

■ **WAREHOUSE RECEIPTS HELP COMMODITY TRADING AND FINANCING** PAGE 11

Warehouse receipts are becoming important in the transition from government controlled to liberalized commodity markets.

ENERGY

■ **COAL** PAGE 12

Prices are weak as supply exceeds demand. Real prices are expected to fall over the longer term as new low-cost supplies in the western US, Indonesia, Colombia, and Venezuela come onto the market.

■ **NATURAL GAS** PAGE 12

Tightness in storage and production cause US gas prices to soar in the fourth quarter. An improving supply situation should moderate prices for the remainder of the year. In Europe prices are edging upward.

■ **PETROLEUM** PAGE 13

Prices continue to rise, pressured by low stocks, shortfalls in non-OPEC supplies, stronger than expected demand, and continued production restraint by OPEC producers. With oil supplies expected to outstrip demand in 1997, prices should fall significantly.

BEVERAGES

■ **COCOA** PAGE 17

Prices are still slow in responding to a sizable projected deficit for 1996/97. Production in Côte d'Ivoire and Ghana will be lower than a year ago. But stocks are still ample enough to keep prices from rising rapidly.

■ **COFFEE** PAGE 17

Robusta prices are down because of high production, while arabica prices remain sta-

ble because of stagnant Colombian production and uncertainty surrounding Brazil's next crop. Historically low levels of stocks will keep prices volatile.

■ **TEA** PAGE 18

Prices are strong except in Calcutta, reflecting strong import demand. Especially strong demand from the countries of the former Soviet Union benefits Sri Lanka. Major producing countries increased production in response to strong demand.

FOOD

FATS AND OILS

■ **COCONUT OIL** PAGE 19

Philippine production is recovering, but more slowly than expected. Copra production is up 2-3.7% in Indonesia and India.

■ **PALM OIL** PAGE 19

Growth in output is expected to accelerate following a seasonal decline. Malaysia is likely to step up its planting of new palm plantations.

■ **SOYBEAN OIL** PAGE 20

Strong demand for soybean meal and soybean oil is expected in 1997. China, once a surplus producer of soybeans, is now an aggressive importer.

GRAINS

■ **GRAINS** PAGE 20

World production is up 7.5%, a new record. World stocks remain low by historical standards, while stocks in the major exporting countries are considered adequate.

■ **MAIZE** PAGE 21

Production is up 11% globally and 26% in the US. The US accounts for 40% of production and 70% of trade, so the fate of the US crop will be critical to prices in 1997.

■ **RICE** PAGE 21

Production and consumption are about equal for 1997, meaning that the recent price declines will probably be reversed later in the year as import demand rises. World stocks should remain largely unchanged in 1997.

WHEAT PAGE 22

Production is up 16.3% in the major exporting countries for 1996/97, and stocks are up 57%. These increases largely account for the sharp price drop over the past six months and provide a buffer for next year.

OTHER FOOD**BANANAS** PAGE 22

Prices get a jump on their seasonal climb. The Caribbean industry remains under pressure, and a WTO panel ruling on a challenge to the European banana regime is expected in February.

SHRIMP PAGE 23

Supplies are expected to remain tight. US demand for headless black tiger shrimp remains strong despite higher prices. US imports are down because of the US embargo and problems in exporting countries.

SUGAR PAGE 23

Supplies are expected to exceed demand. Production in Brazil is ahead of expectations. India loosens restrictions on trade.

AGRICULTURAL RAW MATERIALS**COTTON** PAGE 24

Despite some instability in New York futures, spot prices are remarkably stable. As a result of lower yields production for 1996/97 will not exceed 18.7 million tons, thus narrowing the consumption-production gap to 200,000 tons. The gap should close in 1997/98.

RUBBER PAGE 25

Prices drift lower, while INRA III moves forward. The Polish tire industry grows after restructuring, increasing rubber demand.

TIMBER PAGE 26

Demand improves in Japan, but prices remain sluggish because of plentiful supplies. In Europe prices increase on improved demand, low inventories, and supply restrictions and other problems in Africa.

FERTILIZERS**FERTILIZERS** PAGE 27

Prices stabilize after rising for several years.

Demand is expected to weaken with the collapse in grain prices during the last quarter.

POTASSIUM CHLORIDE PAGE 27

Little price increase seems likely since supplies are adequate and excess capacity remains. Negotiations on contracts for the first half of 1997 have been settled at the same prices as for the second half of 1996.

TSP PAGE 28

Prices for DAP and phosphate rock are expected to remain firm until at least the end of the spring planting season in the northern hemisphere. World import demand has remained strong, with China a major buyer.

UREA PAGE 28

Urea prices are largely unchanged for the quarter as traders wait for new orders, with China considering a new import tax on urea to offset the VAT paid by domestic producers; import demand has slowed.

METALS AND MINERALS**ALUMINUM** PAGE 29

Despite higher production, prices recover as demand growth picks up. Consumption is up in the US and East Asia. Supply and demand are expected to be in balance during the first half of 1997.

COPPER PAGE 29

Improved consumption and lower stocks contribute to price increases. Consumption growth was high in North America for 1996 but is expected to slow in 1997. Stepped up consumption growth is expected in East Asia.

GOLD PAGE 30

Prices fall below \$350/toz as central bank selling increases. At current prices some mines are unprofitable and are being closed. Falling prices may hit export earnings hard.

IRON ORE AND STEEL PAGE 31

Observers expect 1997 prices to increase with demand, especially for sheet prices. Long product markets will weaken for the short term with a downturn in construction.

COMMODITY PRICES**COMMODITY PRICE INDICES** PAGE 5**COMMODITY PRICE OUTLOOK** PAGE 32

SUMMARY

Energy prices were up 11.7% for the quarter on sharply higher crude oil prices. Oil demand remained strong in the fourth quarter and, along with low stocks and a shortfall in expected supplies, caused prices to rise sharply. OPEC supplies rose only slightly as OPEC Gulf countries continued to restrain output. Non-OPEC supplies, although plagued by delayed start-ups and other problems, rose 1.3 mb/d during the quarter. World oil demand continued to grow strongly, ending the year up 2.5%. The most rapid growth continues to be in developing countries, where demand was up 4.5% for 1996. Despite the recent strength we expect prices to tend down during 1997. Our Special Feature looks at the crude oil market and the factors that have confounded most analysts' expectations over the past year.

Nonenergy prices continued to drop, dragged down by sharply lower grain prices. The World Bank's nonenergy price index was down 2.1% over the previous quarter. The index of food prices was down 5.3%, with grains down a startling 15.3%, fats and oils slightly higher, and other foods lower by 3.7%. Beverages were down 2.1% over the previous quarter. Agricultural raw materials were down 1.4%, with timber down 0.6%. Fertilizers and metals and minerals were both up 1.6%.

Grain prices led the declines with sharply lower prices for maize (down 31.3%), rice (7.3%), and wheat (9.0%). A record world grain harvest and the likely rebuilding of grain stocks in 1997 are forcing down prices. Production was up 11.1% for the year for coarse grains, 7.9% for wheat, and 1.6% for rice. The five largest grain exporting countries increased production by a staggering 20.4%. With world trade expected to post no increase in 1997, there should be considerable restocking among the major exporters. Other major producers, such as China and

India, also had good harvests; few countries report a poor harvest.

Fats and oils prices were only slightly higher, reflecting world oilseed production near expected levels and unchanged from a year ago. Vegetable oil prices were mixed, with some higher and some lower. Soybean prices declined during the quarter, while palm oil prices were higher. Soymeal and groundnut meal prices were both lower in response to the sharp drop in maize prices, a close animal feed substitute. Other food prices were down 3.7%, influenced largely by lower sugar and oranges prices; bananas, beef, and shrimp prices were higher.

Beverage prices were down slightly, with robusta down 10.8% and other mild coffees down by less than 1%. Tea prices were up 10%. Large production of robusta coffee in Indonesia, Uganda, and Vietnam pressured robusta prices, while the Association of Coffee Producing Countries held down arabica supplies to boost prices. Cocoa prices were flat during the quarter, despite prospects of higher prices in 1997.

The index of metals prices was up 1.6% for the quarter, with prices rebounding sharply in November and December after hitting a two-year low in October. The index rose 7.5% from October to December. Copper prices jumped 8.8% from depressed third quarter levels following the trading scandal that led to liquidation of large futures and physical positions by Sumitomo. Aluminum prices were unchanged from the same time a year ago, following a year-long decline of 14%. Gold prices drifted lower as central bank selling kept pressure on prices. Other precious metals followed gold's decline. Nickel prices were down almost 5%.

Fertilizer prices were higher, continuing their steady rise of the past several years. Prices may be weakening, however, with sharply lower grain prices and increasing fertilizer production.

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

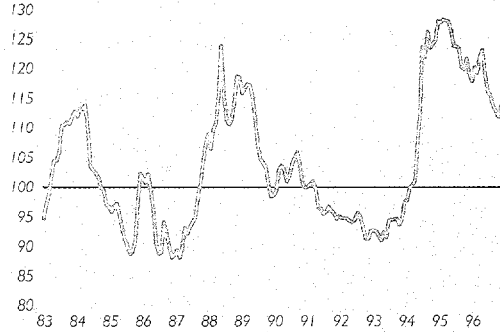
ENERGY (CRUDE OIL)

Index: current US dollars (1990=100)



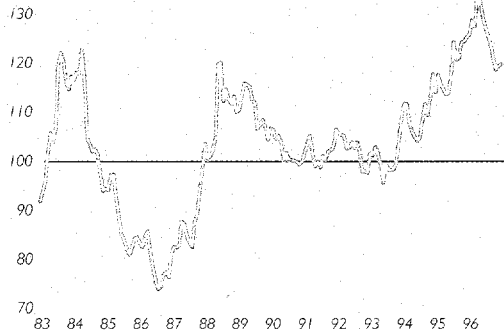
NONENERGY COMMODITIES

Index: current US dollars (1990=100)



TOTAL FOOD

Index: current US dollars (1990=100)



METALS AND MINERALS

Index: current US dollars (1990=100)

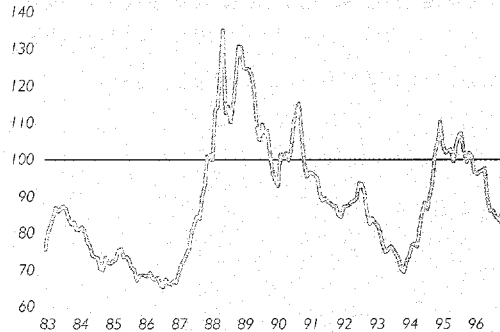


TABLE 1. WEIGHTED INDEX OF PRIMARY COMMODITY PRICES FOR LOW- AND MIDDLE-INCOME ECONOMIES IN CURRENT DOLLARS
1990=100

	Energy (100) ^a	Agriculture										
		Nonenergy commod- ities (100)	Total agri- culture (69.1)	Food (29.4)		Other (12.4)			Raw materials (22.8)			Metals and minerals (28.2)
			Beverages (16.9)	Total food (10.1)	Fats and oils (6.9)	Grains	Food and other (12.4)	Total raw materials (22.8)	Timber (9.3)	Fertilizers (2.7)		
Annual												
1994	69.4	111.6	123.3	148.8	106.8	125.9	102.1	93.9	125.8	156.6	93.4	84.6
1995	75.1	122.2	131.3	151.2	116.9	136.6	120.4	98.8	135.2	139.5	103.6	101.6
1996	89.3	115.1	125.5	126.5	123.6	147.0	140.5	95.0	127.1	139.6	119.8	89.1
Quarterly												
1995Q4	73.9	118.2	126.4	128.3	122.1	144.2	137.6	95.3	130.6	134.5	107.5	98.9
1996Q1	80.0	117.1	126.2	124.0	124.8	142.6	147.1	97.8	129.7	135.5	116.2	94.7
1996Q2	84.8	119.4	130.3	131.3	129.7	150.1	157.2	97.6	130.3	141.4	118.9	92.8
1996Q3	90.8	113.1	124.7	126.6	123.2	147.7	139.6	94.0	125.2	141.1	121.1	83.8
1996Q4	101.4	110.7	120.7	124.0	116.7	147.8	118.2	90.5	123.4	140.3	123.0	85.1
Monthly												
1995 Dec	78.1	116.9	124.5	117.0	122.7	147.4	137.6	94.0	132.3	134.6	109.8	99.1
1996 Jan	77.8	115.8	124.4	118.6	123.3	145.2	143.2	94.3	130.1	134.6	113.4	94.8
1996 Feb	77.4	118.2	128.0	128.4	126.3	142.3	147.7	101.0	130.0	134.6	116.6	94.3
1996 Mar	84.8	117.2	126.2	124.8	124.9	140.2	150.4	98.0	128.9	137.5	118.7	95.0
1996 Apr	90.3	120.0	130.2	129.1	131.2	151.5	156.7	100.2	129.8	141.1	118.7	95.2
1996 May	83.3	121.2	131.7	134.1	130.8	152.0	161.3	96.3	131.0	142.1	118.7	95.9
1996 Jun	80.9	117.0	129.0	130.7	127.1	146.7	153.5	96.3	130.2	140.8	119.2	87.4
1996 Jul	85.6	114.0	125.8	126.8	125.0	143.2	150.3	95.8	126.3	140.5	119.7	84.2
1996 Aug	89.3	113.6	125.2	129.4	123.3	147.2	141.2	93.8	124.4	140.7	121.1	84.4
1996 Sep	97.3	111.7	123.1	123.7	121.4	152.7	127.3	92.5	124.8	142.2	122.5	82.8
1996 Oct	103.2	109.9	121.1	126.6	116.1	145.4	120.0	89.9	123.4	142.4	123.0	81.3
1996 Nov	97.9	111.6	121.3	125.3	116.9	147.8	117.4	91.3	124.0	141.6	123.0	86.6
1996 Dec	103.2	110.7	119.7	120.0	117.2	150.2	117.1	90.3	122.7	136.9	123.0	87.4

a. Crude oil index.

Note: Weighted by average 1987-89 export values for low- and middle-income economies.

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

WHY HAVE OIL PRICES RISEN?

The steep rise in oil prices in 1996 took most analysts by surprise. Brent closed the year at \$24 a barrel (bbl), up 40% from the end of 1995 and 70% from the lows of late 1993. Prices were still rising in early 1997. Several factors contributed to the tight market, but the fundamental reasons leading to higher prices were low stocks and unfulfilled expectations of higher oil supplies. Buyers kept delaying purchases during 1996 anticipating large increases in non-OPEC supplies and the return of Iraqi crude oil. When Iraq oil did not return in September and non-OPEC supplies continued to come up short, pent-up demand and low inventories heading into winter sent prices soaring. Also important is that in the face of rising demand OPEC producers with spare capacity did not raise output.

The seemingly abrupt tightening and rise in price are not necessarily an indication of the future direction of oil prices, however. Prices remain well above the costs of production and can quickly move in either direction as a result of production decisions by certain OPEC producers or changes to demand and non-OPEC supply. For 1997 supplies are expected to exceed demand by a sizable amount, and prices are likely to fall significantly from their recent highs. A large volume of oil would have been kept off the market for this not to occur. There is also some concern about the underlying data, which adds to the uncertainty about near-term price movements.

THE DATA

Most observers rely heavily on the International Energy Agency's (IEA) data. The well-regarded *Oil Market Report* provides most analysts with the major source of oil supply, demand, and stock data because few companies or organizations compile these data in the comprehensive manner of the IEA. There are various lags in the data to contend with, however, particularly for demand in many developing countries (the IEA pub-

lished complete annual 1994 data only published in September 1996). Monthly data contain a lot of estimates, not only for demand but also for supply (e.g., OPEC production, some of which is never officially verified by the source countries). And stock data for most developing countries are largely unknown.

At the beginning of 1996 most forecasters were calling for little change in oil prices, and futures prices were flat (figure 2). IEA projections were indicating that the market would require less crude from OPEC than it had in 1995, assuming no change in stocks (table 2). In addition, the concern was that Iraq would be permitted to export limited volumes of crude under a UN-sponsored oil-for-food program, further upsetting the supply-demand balance.

Throughout the year it appeared that supply would exceed demand on an annual basis, although the implied annual surplus (assuming no change in prevailing OPEC production or in stocks) fell from 1.1 million barrels per day (mb/d) in the January 1996 *Oil Market Report* to 0.4 mb/d in the January 1997 report. Given the course of prices and the drop in OECD oil inventories in 1996, it seems more likely that global demand exceeded supply for the year. It is possible that demand may be underestimated, or supply overestimated, or both. Given the lags in the demand data for developing countries, many analysts believe that the gap in the data is an underestimation of demand.

FIGURE 2. WEST TEXAS INTERMEDIATE FORWARD PRICES DURING 1996

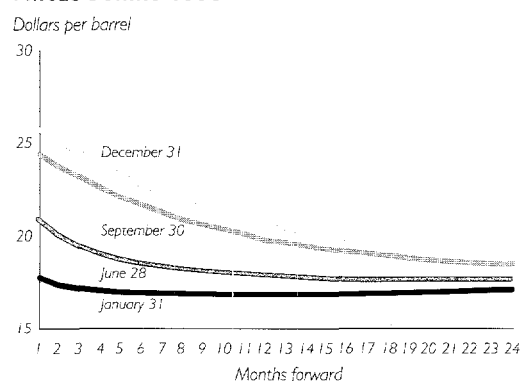


TABLE 2. WORLD OIL SUPPLY AND DEMAND

Millions of barrels per day

	Oil Market Report January 1996			Oil Market Report January 1997					Difference in growth for 1995 to 1996 ^a
	1995	1996	Change	1995	1996	Change			
						1997	1995 to 1996	1996 to 1997	
Demand	70.00	71.50	1.50	70.10	71.70	73.60	1.60	1.90	0.10
Supply									
Non-OPEC	42.53	44.47	1.94	42.41	43.59	45.63	1.18	2.04	-0.76
OPEC natural gas liquids	2.42	2.70	0.28	2.42	2.60	2.89	0.18	0.29	-0.10
OPEC crude	25.06	24.30	-0.76	25.07	25.89	26.60	0.82	0.71	1.58
Total supply	70.01	71.47	1.46	70.1	71.68	73.62	1.58	1.94	0.12
Stock change	0.00	0.00	0.00	-0.20	0.40	1.50	0.60	1.10	0.60

a. Difference between the January 1996 and January 1997 *Oil Market Report* estimates for growth over the period 1995 to 1996.

Note: January 1996 *Oil Market Report* data were corrected for Gabon's shifting to the non-OPEC category in mid-1996; OPEC production in 1996 is assumed at the volume necessary to yield zero stock change. For January 1997 *Oil Market Report* data OPEC production in 1997 is assumed to be at the December 1996 level. Source: IEA, *Oil Market Report*, January 1996 and January 1997.

But if the global balance had shown a small excess of demand over supply for 1996, it is highly unlikely that this would have led to a consensus forecast of sharply higher prices. The IEA balances for 1991 to 1995 show small excesses of demand over supply, yet prices did not rise sharply nor were there wide expectations they would do so. Moreover, demand and supply (including stock changes) should essentially add up, if the data are reasonably complete—as the IEA's arguably are. A residual of 0.4 mb/d out of a world market of 72 mb/d is very small, and given the nature of some of the data, a commendable effort by IEA. It might be the case that annual global balances that consistently show small residuals may not be good indicators of price changes. Other factors are involved, and a closer look at the data is required.

SUPPLY SHORTFALLS

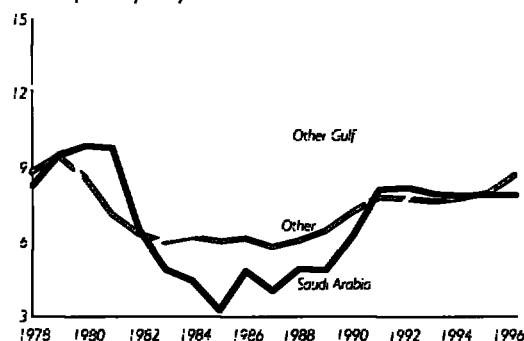
Non-OPEC supplies fell 0.8 mb/d short of expectations (see table 2), a combined result of delayed start-up of new fields or unforeseen disruptions and of lower than expected output in some areas. Much of the shortfall was concentrated in the OECD (North Sea and Australia) and India. OPEC responded with higher overall production, although some of the main OPEC producers held firmly to their production quotas—particularly Gulf producers with surplus capacity—despite the market's demand for greater vol-

umes of crude. Saudi Arabia, which has the largest surplus capacity, has not raised production in six years (figure 3). It may not have been the intention of OPEC to engineer a sharp price increase in 1996—quite likely the market surprised OPEC producers as much as it did everyone else. Nevertheless, their production restraint in the face of much higher demand for their crude contributed greatly to the rise in prices.

According to IEA projections at the start of 1996, the demand for OPEC crude was about 24.3 mb/d (0.7 mb/d less than its 1995 production), assuming no change in stocks (see table 2). This total represents OPEC's present 11 members (the original data showed 12 OPEC members but Gabon was shifted into the non-OPEC category at mid-year). OPEC wound up producing 25.9 mb/d (which is 1.6 mb/d higher than pro-

FIGURE 3. OPEC CRUDE PRODUCTION, 1978-96

Millions of barrels per day



Note: Data include 11 OPEC members.

Source: IEA, OPEC.

jections suggested at the start of the year, again assuming no change in stocks). The incremental gain in OPEC output in 1996 over 1995 was 0.8 mb/d, half of it supplied by Venezuela. Important for prices was that the net gain from the OPEC Gulf countries was only slightly more than 0.1 mb/d.

Iraq's oil exports were set to return to the market in September under UN resolution 986, which allows \$2 billion of oil to be sold over a six-month period. The agreement was halted abruptly in early September, however, because of political actions by the Iraqi government. The oil-for-food program got back on track in early December, and oil exports were flowing by year-end.

DEMAND AND STOCKS

Although world oil consumption is rising at a relatively strong 2.5% a year, the price increases have not been led by any unusual strength in product markets. Although refining utilization rates are high and product stocks have been low, refining margins have generally been poor, and there has been no strong surge of product prices relative to crude (figure 4). Rather the tightness has been in crude oil.

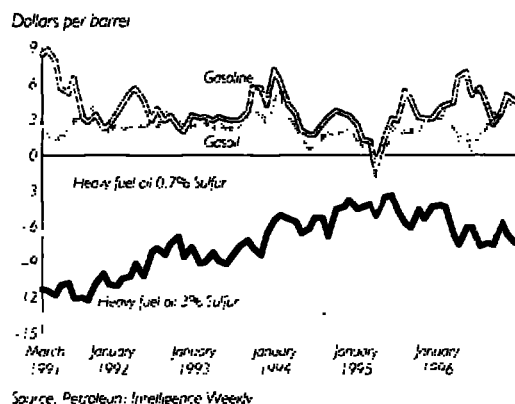
The petroleum industry has significantly reduced its stocks of crude and products since mid-1995 (figure 5), which had a strong influence on prices last year. It has been widely reported that the industry has

adopted just-in-time inventory practices to reduce costs and free up working capital. While undoubtedly true, the lower availability of crude supplies and strong seasonal demand for transport and heating fuels have also contributed to lower stocks of both crude and products. The steep backwardation in futures prices also provided no incentive to build stocks last year (see figure 2). Expectations of higher non-OPEC supplies and the return of Iraqi oil in 1996 caused buyers to keep inventories lean because of the threat of lower prices. With the suspension of the agreement for the imminent return of Iraqi oil in early September and the continuing shortfall of non-OPEC supplies, buyers were forced into the market just when seasonal demand was rising. Philip K. Verleger, oil market specialist at Charles River Associates, concludes that "low inventories *explain* the behavior of prices over the last year" (his emphasis).¹

Low inventories put great pressure on refiners to produce prompt products not only in the peak-demand winter season but also during the summer driving season. Maximizing heating oil production in the winter reduces gasoline production and can lead to a tight gasoline market at winter's end—and vice versa at the end of the summer driving season. While just-in-time inventory management now appears to be the norm, stocks could be built up again should there be a financial incentive to do so, such as contango in futures prices. This situation could develop quickly if the projected supply imbalance materializes.

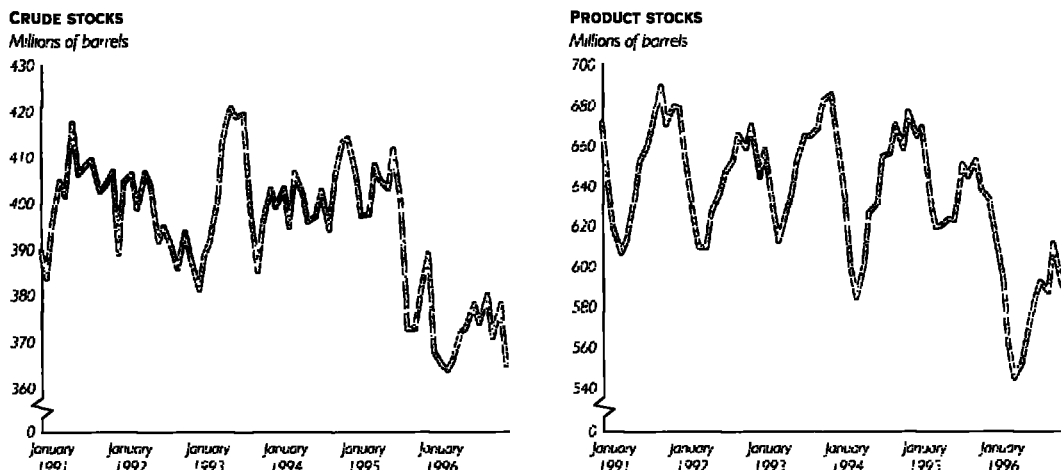
Nevertheless, low inventories significantly reduce the cushion to cover periods of peak product demand or tightness in crude supplies. Greater volatility in prices is the result. Coupled with rigid production levels by key OPEC producers for periods of six months or more, that leaves little else but prices to equilibrate markets. Moreover, inventories that are prudently lean need not lead to persistently high prices for this or any other commodity.

FIGURE 4. U.S. GULF DIFFERENTIALS RELATIVE TO WEST TEXAS INTERMEDIATE, MARCH 1991—DECEMBER 1996



Source: Petroleum Intelligence Weekly

FIGURE 5. NORTH AMERICA STOCKS, DECEMBER 1990 TO NOVEMBER 1996



Source: IEA

SURPLUS OIL SUPPLIES PROJECTED FOR 1997

The IEA projects a greatly oversupplied market for 1997 in the January 1997 *Oil Market Report* (see table 2); so do several other forecasts. Non-OPEC oil supplies are expected to rise 2.0 mb/d, slightly more than demand. Assuming no change in stocks, under these projections the market would require 0.8 mb/d less crude from OPEC—the same as projected a year ago. Barring unforeseen circumstances, it is thought unlikely that OPEC will produce less oil in 1997 than in 1996. Should OPEC continue producing at its December level of 26.6 mb/d, supply would exceed demand by 1.5 mb/d for the year (again, assuming no changes in stocks). Given general expectations of higher output from Iraq and Venezuela, the implied supply surplus would be even greater, at some 2 mb/d.

Some forecasters disagree with the large IEA projections of non-OPEC supplies of 2.0 mb/d, especially given the delays and unforeseen circumstances of 1996. However, last year's delays seem unlikely to be repeated in 1997. While a number of unexpected incidents could result in a shortfall of a few hundred thousand barrels a day, growth in total world oil supplies still seems likely to exceed growth in demand this year. The result would be much lower prices.

What can go wrong with market assessments this year? The market began 1997 with

extremely tight balances and relatively high prices—not an indication of impending oversupply. Although futures prices began the year in steep backwardation, this was a reflection more of the current market than of futures prices. Observe the flat forward price curve in January 1996 (see figure 2); the path of actual prices in 1996 was very different.

It may be necessary to revisit the overall oil balance for 1996, particularly the demand levels in non-OECD countries. If demand ends up having exceeded supply in 1996 by, say, 0.2 mb/d, and supply turns out to be some 0.5 mb/d lower than IEA projects for 1997, the overall balance for this year would be much tighter than currently projected. Assuming that OPEC produces at December 1996 levels and some slight stock build occurs, the difference between supply and demand would be much smaller, at less than 0.5 mb/d. But with OPEC production expected to rise, if only because of higher exports from Iraq, incremental supplies should still exceed expected growth in demand by a sizable amount. Thus prices are still expected to drop from the highs at the beginning of the year. Preventing this would require a large amount of supply being kept off the market.

Supply and demand data (including stock changes) for 1997 will come into better balance as the year progresses (as happened in

1996). Given recent prices and events, it is uncertain how developments will unfold this year, but it appears likely that oil prices will decline as a result of the anticipated build-up of supply. However, OPEC production policies could again figure strongly. A major risk is that the oil market balance could remain tighter than the underlying data suggest.

GRADUALLY TIGHTENING MARKET SINCE THE MID-1980s

The world petroleum market has been gradually tightening over the past decade, and today's tight market is in part a culmination of these developments. Since the price spikes of 1979-80, the petroleum market has endured surplus capacity in oil production and refining. Demand started to rebound in the mid-1980s, enhanced by a large decline in oil prices. Between 1985 and 1996 oil demand outside countries of the former Soviet Union rose about 2.5% a year or 16.3 mb/d, 10 m/d of it in developing countries.

OPEC production also rebounded, capturing much of the growth in demand through 1990 as production declines in the US and UK largely offset increases elsewhere. Since 1990 growth in OPEC production has slowed considerably, despite rising demand, because of large increases in non-OPEC output (figure 6). Significant advances in technology contributed to a 5.6 mb/d increase in non-OPEC production outside the former

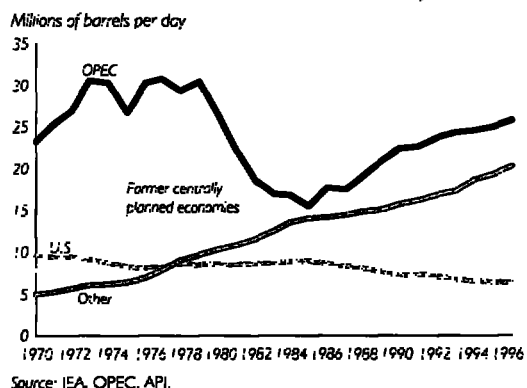
Soviet states between 1990 and 1996, about 2.5 mb/d of it from the North Sea. OPEC crude oil production (for the present 11 members) increased 3.4 mb/d for the period.

OPEC's vast surplus capacity has been gradually reduced as a result of rising production, mothballing of idle capacity, the effects of the Iran-Iraq war and the Gulf war, and (temporarily) the UN sanctions against Iraq. Still, surplus capacity remains high, estimated at near 3 mb/d (excluding Iraq), with at least 2 mb/d in Saudi Arabia.

OPEC production was redistributed as a result of the Gulf war. Between 1989 and 1991, 3.95 mb/d of Kuwaiti and Iraqi crude was lost. While total OPEC production (13 countries) rose by 1.56 mb/d, Saudi Arabia's production rose 3.28 mb/d, making up much of the loss. Since 1991 Saudi Arabia's output (including its half of Neutral Zone production) has fallen slightly while production in the rest of OPEC has risen by 3.1 mb/d. Of this, Kuwaiti output (including its half of Neutral Zone production) has recovered by 1.9 mb/d and Venezuelan production has risen more than 0.6 mb/d. While some OPEC countries—particularly Saudi Arabia—have not (or barely) raised production over the past six years, other elements have served to tighten the market in favor of higher prices. The persistent rise in demand has been captured mainly by non-OPEC producers and a few OPEC producers (Kuwait as its output recovered, and Venezuela and Nigeria).

Future prices will depend critically on the willingness and capability of key OPEC producers to add supply to a market with growing demand or to manage supplies in periods of no net growth or when Iraq fully returns to the world oil market. Resource constraints are not thought to be an impediment to supply into the distant future.

FIGURE 6. WORLD CRUDE OIL PRODUCTION, 1970-96



1. Philip K. Verleger Jr., *CRA Petroleum Economics Monthly*, January 1997.

WAREHOUSE RECEIPTS HELP COMMODITY TRADING AND FINANCING

In many developing countries years of government interventions in commodity markets have reduced the economic returns to private storage and stunted the growth of private credit markets. But with the liberalization of trade and the opening of markets, warehouse receipts and other financial instruments are becoming important in the transition to well-functioning markets.

WHAT THEY CAN DO

Warehouse receipts have a long history in industrial countries—a short one in developing countries. Also called warrants, warehouse receipts document ownership of a specific amount of a commodity or good with specific characteristics stored in a specific warehouse for a specific fee. When backed by provisions that enhance their value as collateral, warehouse receipts can be traded, sold, swapped, or used for delivery against a derivative instrument, such as a futures contract.

This ability to convert agricultural products into tradable devices greatly improves the overall efficiency of agricultural markets by:

- Providing an instrument that enables farmers to spread sales throughout the crop year, thereby improving farm income and smoothing domestic prices.
- Mobilizing credit for agriculture by creating a secure collateral for banks.
- Helping create cash and forward markets, thereby enhancing price discovery and competition.
- Providing a way to ease government out of direct involvement in agricultural production and trade.
- Predetermining the cost of future purchases when combined with price hedging instruments.

WHAT IT TAKES

There are several preconditions for an efficient warehouse receipt system.

A viable storage industry. Returns to storing commodities should be market-determined so that farmers and traders store in expectation of higher prices or rush goods to market when spot markets are especially tight (and prices high). Sometimes a storage industry fails to

develop because the high cost of financing makes it unattractive for farmers, traders, and speculators to store or because government interventions reduce incentives for private storage. This can happen when, for example, the government offers a fixed price during the crop year or sets prices within a narrow band.

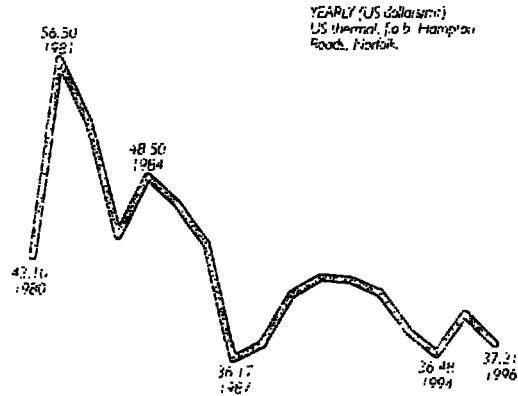
An appropriate legal environment. Warehouse receipts must be functionally equivalent to stored commodities. They must specify the quality and quantity of the goods stored and clearly define the rights, liabilities, and duties of each party (producer, bank, warehouse, and others). Receipts must be freely transferable. Holders of receipts must have the right to receive stored goods or their equivalent if the warehouse defaults or its business is liquidated. And a lender should be able to determine, before granting the loan, whether there is a competing claim.

Performance guarantees. Traders and banks require a guarantee that the goods stored exist in the quantities and quality specified by the receipt. Without such performance guarantees farmers and traders will be reluctant to store crops and banks will be unwilling to accept receipts as collateral for financing agricultural inventories.

Performance guarantees usually take the form of insurance bonds or letters of credit. These are sometimes supplemented by an indemnity fund, created through contributions from private warehouses, based on fees charged to their customers. Indemnity funds, by reducing the cost of insurance bonds or letters of credit, make guarantees accessible to smaller warehouses, broaden the market for warehouse services, and increase competition in storage.

Inspection and licensing. Warehouse facilities need to meet basic financial and physical standards. For that reason governments may need to develop a system of warehouse licensing and inspection. Warehouse and commodity inspections are typically performed by private inspectors under license to the ministry of agriculture. Quality determination, grading, and independent verification of stored commodities can also be performed by local or international companies.

COAL



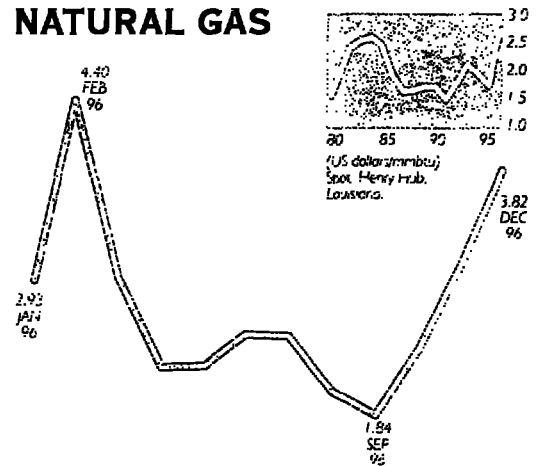
PRICES REMAIN WEAK

International steam coal prices weakened in the fourth quarter as supplies continued to grow. The Australia benchmark spot price slipped 5% in the quarter, and Australia exported a record 141.5 million tons last year. Coking coal prices continued to move upward because of supply tightness in these markets, with prices up about \$1 per ton in contract negotiations for 1997. Steam coal prices will have difficulty staying even with last year's prices, although negotiations in Europe seem to be concluding at roll-over prices on average. It looks as though it will be more difficult to achieve the same terms on steam coal in Asia.

In the US, coal demand rose 3% with virtually all of the growth in the electric power sector. Growth in electricity demand is expected to moderate in 1997, and coal use is expected to rise only slightly. Production increases will all be in the western region, with output in Appalachia and the interior projected to decline. Exports should be higher, although international prices are expected to be soft.

Longer term, real prices are expected to decline, partly because most of the growth in production will come from western coalfields, which have large reserves of low-cost, low-sulfur coal—particularly the Powder River basin in Wyoming and Montana. In addition, most of the demand growth will be for power generation. Deregulation of the electricity sector and increased competition among generators will put additional pressure on the coal industry to supply a lower-cost product.

NATURAL GAS



PRICES SPIKE AGAIN THIS WINTER

Tight storage and production supplies in the US natural gas market pushed prices sharply higher in the fourth quarter. In addition, extreme weather fluctuations across the country have dramatically affected regional prices. December prices averaged around \$3.80 per million Btus (mmbtu), more than double September prices, but warm weather in the last weeks of December brought some relief and prices continued to fall into early 1997.

Cold weather in November led to record withdrawals from storage, and prices spiked to well over \$4/mmbtu in mid-December. Later milder weather slowed storage withdrawals, and working inventories closed the year not too far below last year's level.

Several factors set this winter off from last. This year's storage deficit is in the western producing region rather than in the eastern consuming states. Unlike last winter's mild weather in the west and upper midwest, cold weather came early to the area, and strong demand pulled gas supplies from Texas and other western basins. That helped alleviate pipeline capacity bottlenecks in moving gas west to east and has allowed western gas to be priced in direct competition with eastern gas. Last winter eastern gas prices soared high above western prices because of weak demand in the west and pipeline constraints in moving badly needed gas to eastern markets.

Prices have risen sharply in Canada because of extremely cold weather from

November to January and full utilization of all pipeline capacity out of Alberta. Canadian gas markets in the west remain largely disconnected from those in the east because export capacity out of western Canada is fully utilized. Once winter demand falls off, the pipeline constraints mean that Canadian gas will once again be competing with itself and prices will decline, regardless of what happens in export markets.

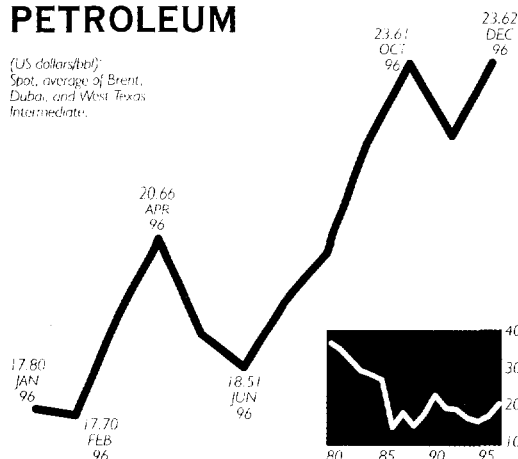
As temperatures rise, US gas prices are expected to plunge to \$2/mmbtu or lower. If storage levels are not depleted as they were last winter, the pressure on spring and summer injections will be less severe. Several new pipeline projects are expected to help ease the eastward movement of western gas. New capacity out of Canada might also be ready by the end of this year, which will greatly improve deliverability. And high gas prices caused an upturn in drilling activity last year, which will also have a positive effect on supply. Consequently, prices are expected to remain moderate in the second half of the year, avoiding the spikes and wild fluctuations of the past two winters.

In Europe cold weather is keeping gas demand firm. New sources of supply from Russia (Yamal project), Algeria (Maghreb pipeline from Spain), and Norway (Troll field) will help feed the growing market. Gas prices, which are partly indexed to crude and petroleum product prices but with lags, have risen this year though the increases still trail well behind those for oil prices.

The gas industry in Europe is undergoing structural changes that are replacing its monopolistic traditions with more competitive markets. Liberalization is well advanced in the UK, which is having an impact in the rest of Europe. In the UK prices have fallen significantly, spot markets have developed, and a gas futures contract is being launched by the International Petroleum Exchange in London. Deregulated gas will begin to flow into continental Europe in 1998, when the Interconnector Pipeline between the UK and Belgium is completed.

PETROLEUM

(US dollars/bbl)
Spot, average of Brent,
Dubai, and West Texas
Intermediate.



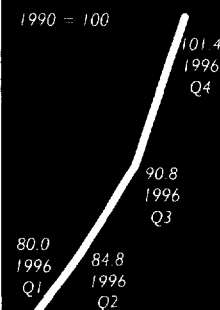
TIGHTNESS CONTINUES IN WORLD MARKETS

World oil prices continued to rise in the fourth quarter. The World Bank benchmark averaged \$23.62 a barrel in December, more than 30% higher than a year ago and the highest monthly price since the Gulf crisis in 1990. The average price for the year, at \$20.40 a barrel, is nearly 20% higher than 1995's average.

Low stocks and a shortfall in expected supplies caused prices to rise sharply. Stocks had been kept low in 1996, partly in anticipation of higher supplies from non-OPEC countries and Iraq, which could have depressed prices. When the Iraq export program was abruptly halted in September and non-OPEC output continued to come up short, buyers were forced into the market just as seasonal demand was rising. The market clearly needed more crude oil, but OPEC countries with spare capacity—mainly in the Gulf—held firm to agreed production quotas. In addition, higher than estimated demand levels and investment fund activity contributed to the higher prices. (See the special feature, "Why have oil prices risen?", for an in-depth discussion.)

OPEC production edged up in the fourth quarter, but not enough to prevent prices from rising. Production increased slightly in all OPEC countries except Iran, where output fell by 0.05 million barrels per day (mb/d) (table 3). Of the overall increase of 0.35 mb/d, 0.10 mb/d was from Iraq, which

Crude oil prices rose 11.7% this quarter because of continuing tight supplies and low inventories. In December the World Bank benchmark price reached its highest monthly price since the 1990 Gulf crisis.



resumed limited exports in late December under the UN-sponsored oil-for-food program. Nigerian output continued to rise above quota by a further 0.09 mb/d.

Production from the OPEC Gulf countries (excluding Iraq) rose by only 0.08 mb/d in the quarter, as the group continued to restrain output. This restraint helped push prices higher in the face of stronger than expected demand. But not all OPEC countries are sticking to their assigned quotas. Members (excluding Iraq) are above quota by a combined 1.8 mb/d. The biggest over-producers are Venezuela (0.76 mb/d) and Nigeria (0.38 mb/d). All other countries are somewhat above quota, including Saudi Arabia and Kuwait (when their equal shares of Neutral Zone production are included). Of particular importance to prices is the fact that Saudi production has not risen in six years (see figure 3 in the special feature). In November OPEC rolled over its quotas for the first six months of 1997.

Non-OPEC supply was plagued by a number of delayed start-ups and other problems this past year. Still, supply managed to rise a respectable 1.2 mb/d for the year and a healthy 1.3 mb/d in the fourth quarter. Two-thirds of the increase came from OECD countries, with the largest gain in the UK sector of the North Sea (table 4). In December

North Sea output topped 7 mb/d for the first time—3.5 mb/d from Norway, 3.0 from the UK, and 0.3 mb/d from Denmark, the Netherlands, and Germany. The US and Canada also had notable increases.

In the other non-OPEC regions oil production rose 0.4 mb/d in the quarter, with increases in all the main producing regions. Brazil and China had the largest increases at 0.1 mb/d each. Output declines appeared to have finally bottomed out in the former Soviet Union, where output rose slowly by 0.1 mb/d during the past year.

World oil demand continued to grow strongly in 1996, rising 2.5%, or 1.6 mb/d (table 5). OECD demand was up 2%, or 0.8 mb/d. The largest growth continues to be in the developing countries, where demand was up 4.5%, or 1.1 mb/d. Apparent oil consumption continued to fall in the countries of the former Soviet Union, where it was down about 0.4 mb/d. Consumption is rising moderately in Eastern and Central Europe.

There was no unusual surge in oil product consumption in the fourth quarter that would have led to the much higher prices. Poor refining margins and close tracking of prices for products and crude confirm that the tightness in the market was not a consequence of unusual strength in product markets but rather of crude oil supply conditions. OECD oil consumption continued its moder-

TABLE 3. OPEC CRUDE OIL PRODUCTION AND QUOTAS

Millions of barrels per day

	1994	1995	3Q96	4Q96	Quotas
Algeria	0.75	0.76	0.83	0.85	0.750
Indonesia	1.32	1.34	1.38	1.40	1.330
Iran	3.61	3.65	3.71	3.66	3.600
Iraq	0.53	0.55	0.55	0.65	.200
Kuwait	1.84	1.84	1.80	1.81	2.000
Libya	1.38	1.41	1.40	1.40	1.390
Neutral Zone	0.39	0.43	0.48	0.52	0.040
Nigeria	1.90	1.93	2.15	2.24	1.865
Qatar	0.41	0.45	0.49	0.51	0.378
Saudi Arabia	7.90	7.94	7.93	7.97	8.000 ^a
UAE	2.22	2.20	2.22	2.24	2.161
Venezuela	2.44	2.58	3.02	3.03	2.359
Total crude	24.67	25.07	25.94	26.28	25.033
NGLs ^b	2.38	2.42	2.66	2.68	0.020
Total OPEC	27.05	27.49	28.60	28.95	0.350

a. Quota includes share of Neutral Zone.

b. Natural gas liquids (NGLs).

Source: International Energy Agency and OPECNA.

TABLE 4. NON-OPEC OIL SUPPLY

Millions of barrels per day

	1994	1995	3Q96	4Q96	Change 4Q96-3Q96
United States	8.64	8.61	8.55	8.72	0.17
Canada	2.28	2.40	2.43	2.55	0.12
United Kingdom	2.71	2.79	2.68	3.09	0.41
Norway	2.69	2.91	3.23	3.33	0.10
Other OECD	1.32	1.28	1.35	1.41	0.06
Latin America	5.94	6.06	6.45	6.60	0.15
Africa	2.43	2.59	2.70	2.79	0.09
Middle East	1.79	1.87	1.91	1.93	0.02
China	2.84	2.99	3.10	3.20	0.10
Other Asia	1.94	2.07	2.01	2.02	0.01
FSU	7.27	7.12	7.09	7.10	0.01
East Europe	0.28	0.27	0.27	0.28	0.01
Processing gain	1.43	.46	1.50	1.55	0.05
Total non-OPEC	41.56	42.41	43.27	44.56	1.29

Note: Includes NGLs, nonconventional and other supply sources

Source: International Energy Agency.

ate growth in the fourth quarter at around 2%. The limited demand data available for the non-OECD countries together with other demand indicators suggest that there was no surge in consumption in these countries either in the fourth quarter. However, oil demand may be understated for developing countries, so higher demand could be contributing to the tight market.

Just-in-time inventory practices and tightness in crude and product markets kept stocks in the OECD at seasonally low levels in the fourth quarter (see figure 5 in the special feature). Since mid-1995 the petroleum industry has been running on lower inventories to reduce costs. As noted above, expectations of higher supplies and lower prices also kept inventories lean during the year—and steep backwardation in futures prices offered no incentive to build stocks. Low stocks contributed significantly to higher prices in the fall, when crude supplies fell short of expectations.

For 1997 the International Energy Agency (IEA) is projecting that supply will outstrip demand by a large margin, assuming further increases in OPEC production and no change to stocks. Non-OPEC supplies are projected to rise 2.0 mb/d, split nearly equally between

OECD and non-OECD regions. The North Sea is expected to add over 0.8 mb/d, about 0.5 mb/d from the UK and 0.3 mb/d from Norway. Smaller increases are expected for Australia and Canada, and a small decline for the US. Many of the difficulties that kept production lower than expected in 1996 are thought to be temporary and are unlikely to be repeated, although some forecasters are projecting smaller increases this year.

Half the expected 1.0 mb/d increase in non-OECD countries will originate in Latin America. Nearly half of this amount is to come from Brazil, where several large offshore developments are due to begin. Mexico is expected to add more than 0.1 mb/d, and Colombia's output should be up by nearly 0.1 mb/d when the new pipeline from the Cusiana-Cupiagua area is completed in mid-year. A sizable gain of 0.6 mb/d from Argentina is expected to follow a similar increase last year. Africa is expected to add 0.25 mb/d to production, with Angola raising its output by 0.1 mb/d. China should see production rise more than 0.1 mb/d, and smaller increases are expected from a number of other countries.

IEA projections of global supply and demand suggest that the oil market will

TABLE 5. 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	38.1	10.1	18.2	66.4	0.3	-5.0	4.1	0.5
1991	38.2	9.7	18.9	66.8	0.4	-4.1	3.7	0.6
1992	38.8	8.3	20.1	67.3	1.7	-13.8	6.4	0.8
1993	39.0	7.0	21.5	67.6	0.5	-16.1	6.7	0.4
1994	40.0	6.2	22.7	68.9	2.5	-11.4	5.8	2.0
1995	40.3	6.0	23.8	70.1	0.7	-3.2	4.8	1.7
1996	41.1	5.7	24.9	71.7	2.0	-5.0	4.6	2.3
1Q94	40.7	6.7	22.4	69.8	2.7	-13.0	5.2	1.9
2Q94	38.7	5.7	22.2	66.6	3.0	-18.6	4.1	1.1
3Q94	39.7	5.9	22.3	67.9	2.9	-7.8	4.5	2.4
4Q94	40.9	6.3	23.4	70.5	0.9	-10.0	5.4	1.3
1Q95	41.1	6.5	23.7	71.3	1.0	-3.0	5.8	2.1
2Q95	39.2	5.8	23.3	68.3	1.1	1.8	5.1	2.6
3Q95	39.8	5.8	23.2	68.8	0.2	-1.7	3.9	1.3
4Q95	41.3	6.3	24.3	71.9	1.2	0.0	3.9	2.0
1Q96	42.1	6.1	24.7	72.9	2.4	-6.2	4.2	2.2
2Q96	39.6	5.6	24.5	69.7	1.1	-3.4	5.2	2.0
3Q96	40.6	5.6	24.4	70.6	1.9	-3.4	5.3	2.6
4Q96	42.2	5.7	25.7	73.6	2.1	-9.5	5.9	2.4

Source: International Energy Agency and World Bank.

require about 0.8 mb/d less crude from OPEC in 1997, assuming no change in stocks (table 6). If OPEC production rises this year because of resumed Iraqi exports and higher Venezuelan production—both seem likely—supply will exceed demand by some 2 mb/d, assuming no change to stocks. This implies sharply lower prices this year.

Projections of reduced demand for OPEC crude are nearly identical to those forecast at the beginning of 1996. But this year has started out with much different market conditions than last year did, with high prices and a tight market. These conditions do not suggest an imminent decline in prices, despite backwardation in futures prices.

It looks as though the IEA is underestimating world oil demand by several hundred thousand barrels a day. The supply surplus of 0.4 mb/d that IEA data show for 1996 should more likely be a small deficit, meaning that the market balance is at least 0.5 mb/d tighter. Some forecasters project that non-OPEC supplies will be several hundred thousand barrels per day less than the IEA projections, because of further delays and other unanticipated problems; experiences in 1996 may be influencing these forecasts.

However, even if demand is 0.5 mb/d higher and non-OPEC supplies turn out to

be lower than projected by the same amount, it is likely that OPEC output will be higher this year because of increased exports from Iraq and rising output from Venezuela. Incremental supplies will still exceed projected growth in demand by a large amount. Consequently, prices should fall from their highs at the beginning of the year. A major risk is that the market remains tighter far longer than the underlying data suggest.

Some forecasters are saying that the market has moved permanently into a higher trading range, though it seems far too soon to say for sure. If the projected supply imbalance materializes this year, prices could trade a lot lower than last year. The limited evidence to date offers little to substantiate such a claim.

Of course, OPEC can greatly influence prices one way or another through its production policies. Higher supplies are expected from Iraq and Venezuela at a minimum, though it is extremely difficult to know whether quota levels would be amended. OPEC's quotas are currently set for six months, and under this arrangement market participants do not expect any sudden changes in production policies. OPEC producers were probably as surprised as everyone else by the events in 1996.

TABLE 6. WORLD PETROLEUM DEMAND AND SUPPLY

Millions of barrels per day

	1994	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997
Demand												
OECD	40.0	40.3	42.1	39.6	40.6	42.2	41.1	42.5	40.3	41.2	42.8	41.7
FSU	4.9	4.7	4.6	4.2	4.3	4.3	4.3	4.5	4.1	4.2	4.6	4.3
Other ^a	24.0	25.1	26.2	25.9	25.7	27.1	26.3	27.5	27.2	27.0	28.4	27.6
Total	68.9	70.1	72.9	69.7	70.6	73.6	71.7	74.5	71.6	72.4	75.8	73.6
Supply												
OECD	17.6	18.0	18.3	18.2	18.2	19.1	18.5	19.7	18.7	19.1	20.3	19.5
FSU	7.3	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.0	7.1	7.3	7.1
Other ^a	16.7	17.3	18.0	18.0	18.0	18.4	18.1	18.9	19.0	19.0	19.4	19.0
OPEC ^b	27.0	27.5	28.2	28.2	28.6	29.0	28.5	29.4	29.4	29.5	29.6	29.5
Total	68.6	69.9	71.5	71.4	71.9	73.5	72.1	75.0	74.1	74.7	76.6	75.1
Stock change and miscellaneous												
OECD	0.2	-0.3	-1.3	1.1	0.4	-0.6	-0.1					
Floating/transit	-0.1	0.1	-0.3	0.1	0.1	0.1	0.0					
Other/miscellaneous	-0.5	0.0	-0.2	0.7	0.9	0.6	0.5					
Total	-0.3	-0.2	-1.5	1.7	1.3	0.0	0.4					

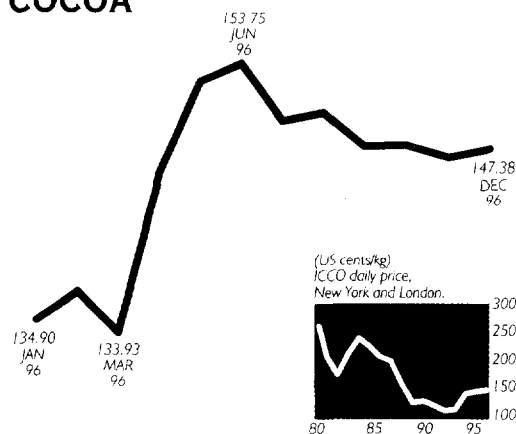
Note: Includes natural gas liquids (NGLs), non-conventional, and other supply sources. FSU comprises countries of the former Soviet Union.

a. Includes processing gains (.52 mb/d in 1996).

b. Includes NGLs (2.6 mb/d in 1996).

Source: International Energy Agency and World Bank.

COCOA



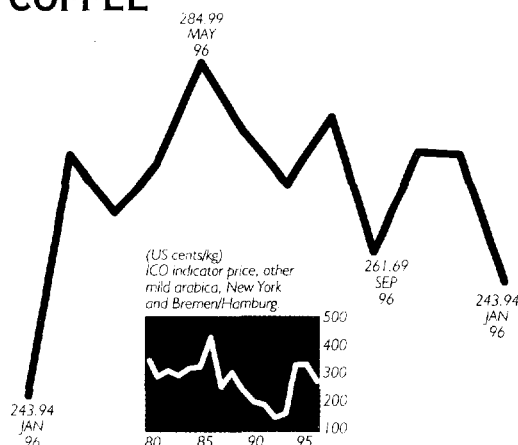
PRICES REMAIN WEAK DESPITE DEFICIT FORECASTS

Cocoa prices remained flat during the fourth quarter despite forecasts of a sizable production deficit in 1996/97. The price weakness was attributed mainly to the strength of the British pound and reports of scattered rains in Côte d'Ivoire's growing areas. The strength of the pound widened the arbitrage between London and New York, influencing the selling of London futures contracts. Reports also indicate a slackening of demand for cocoa by several European manufacturers because of the year-end holidays. Major consumers also may be delaying purchases in the hope of lower prices.

Prices are set to rise during 1997 in response to a sizable projected deficit in production of some 150,000 to 250,000 tons for 1996/97. Our forecast is for a deficit of around 150,000 tons. A deficit of this size would bring the stock-to-consumption ratio down to about 35%, its lowest level since 1986/87, when prices were around \$2,000 a ton.

Deficit forecasts are based on lower arrivals in Côte d'Ivoire and Ghana than a year ago. By mid-December arrivals in Côte d'Ivoire were estimated at 430,000 tons below the 545,000 at the same time last year. Based on these arrivals, the main crop is estimated at around 900,000 tons, some 100,000 tons lower than a year ago. In Ghana the 1996/97 main crop is estimated at 300,000 tons, or 50,000 tons below last year's levels.

COFFEE



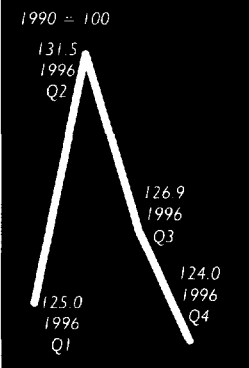
ARABICAS REMAIN STEADY WHILE ROBUSTAS FALL

Fourth-quarter arabica prices were barely changed from the third quarter, while robusta prices were down more than 10%. Differences in supply conditions accounted for the widening price differential. Self-imposed export quotas of the Association of Coffee Producing Countries are holding down arabica supplies, whereas supplies are plentiful from major robusta producing countries—Indonesia, Vietnam, and Uganda. Prices of both types of coffee are likely to fluctuate widely in the next few months because of very low stocks in consuming countries and uncertainty about Brazil's 1997/98 crop, to be harvested between May and September 1997.

Vietnam achieved another large increase in production. Output in 1996/97 (October to September) is estimated at 4.5 million bags, an increase of 29% over the previous year. Good weather and berry production on recent new plantings explain the rise. Vietnam looks ready to move into third place among the world's robusta producers, after Indonesia and Brazil.

Uganda's coffee production is also roaring ahead. Market liberalization policies that have boosted the producer's share in the export price have given production a jolt. Coffee farmers responded by expanding plantings of new high-yielding varieties. The rise in exports suggests that production shot up 30% in 1996/97 over levels in the previous season.

Beverage prices fell 2.1%— coffee and cocoa were lower and tea prices were generally higher. Robusta production was up, while arabica supplies were limited by export quotas.



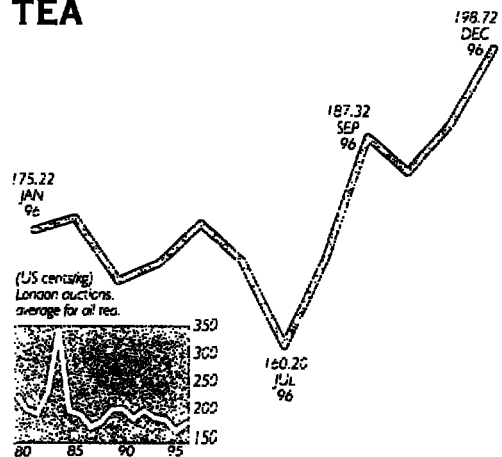
Indonesia's production is estimated to have bounced back to 8 million bags following drought-plagued seasons of about 6.5 million bags each. Prospects are uncertain, however, because Indonesian coffee farmers are strongly responsive to prices. If the recent low robusta prices persist, Indonesia's production could stagnate or even decline.

Colombia's production has been declining for the past three seasons, a victim of borer worms and the recent appreciation of the peso, as well as declining coffee prices. The peso has appreciated about 5% against the US dollar over the past nine months, but the appreciation has been much larger in real terms because of Colombia's 20% inflation rate. As a result, coffee export revenues in real peso terms have deteriorated substantially in recent months. To avoid depleting the Coffee Fund, the National Federation of Coffee Growers cut the internal coffee price 5.9% in nominal terms. The sharp decline in the real producer price of coffee could result in production declines in Colombia next year of 1 million to 1.5 million bags, according to federation estimates.

Liberalization of coffee markets is proceeding in a few producing countries. India's Coffee Board is expected to end its auctions in December and to limit its activities to research. Kenya's Coffee Board is transforming the Central Auction into a coffee exchange to enable farmers to fix reserve prices and allow balloting for floor auctions. Brokers appointed by farmers will operate the exchange and fix reserve prices as directed by the farmers. These steps should improve producers' income from coffee.

World coffee prices for the next few months will be affected by forecasts of Brazil's 1997/98 crop. Recent reports suggest that it could be as low as 20 million bags, well down from the last season's 27 million bags. The cyclical nature of Brazil's production and a failure of coffee bushes to flower are at fault. Other analysts expect the crop to be about 25 million bags.

TEA



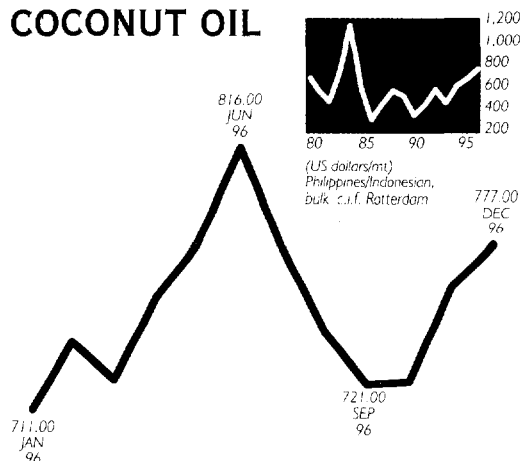
PRICES UP ON DEMAND FROM FORMER SOVIET STATES

Average prices at the four major auctions were up 7% over the same quarter last year, reflecting stronger import demand. Colombo prices were especially strong, buoyed by heavy demand from countries of the former Soviet Union. Calcutta prices fell (in US dollar terms) because of Russia's withdrawal from the Indian tea market and depreciation of the rupee relative to the dollar. Favorable financial arrangements offered by Sri Lanka to Russian importers in 1996 also contributed to the switch from Indian to Sri Lankan tea.

World tea production continued to increase in response to good weather and greater use of agricultural inputs. This enabled Kenya, India, Indonesia, and Sri Lanka to increase their exports to meet strong demand. However, exports of black tea from China declined following its switch from black tea to green tea production to meet increasing domestic demand for green tea. Imports by the major tea importing countries were higher during the first 10 months of 1996 than during the same period last year. Demand was especially strong in countries of the former Soviet Union.

Quality difference in tea and increasing competition among exporting countries will continue to contribute to divergences in price movements in auction markets. The short-term outlook for prices depends on demand from countries of the former Soviet Union and India.

COCONUT OIL



TIGHT SUPPLIES KEEP PRICES RISING

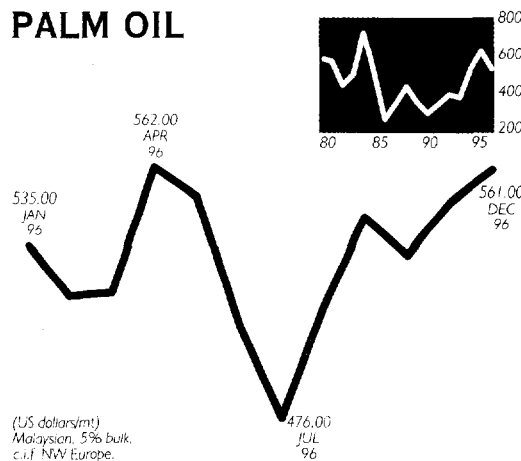
Recovery in copra production in the Philippines was weaker than expected during the fourth quarter. Production in 1997 (January–December) is expected to improve by no more than about 0.4 million tons over 1996, to 2.19 million tons, still short of 1995's 2.5 million tons. Widespread and severe typhoon damage to a significant portion of the coconut area in late 1995 slowed the recovery.

Philippine copra output declined in 1996/97, and production and exports are not likely to increase much in 1997. Copra crushing is projected to increase, bringing coconut oil exports up from 850,000 tons for 1996 to 1.05 million tons for 1997 and coconut meal exports up from 510,000 tons to 640,000 tons. With supplies tight, prices should remain high in the near to medium term.

In Indonesia copra output is up an estimated 2%, to 1.25 million tons for 1996/97 over 1995/96. Indian copra production is also up some 3.7%, to 503,000 tons for 1996/97. The shift in production from coconut oil to palm kernel oil is expected to continue.

Coconut oil production is dominated by the Philippines, Indonesia, and Malaysia. The Philippines produces about 42% of the world's coconut oil and Indonesia about 23%. Malaysia is a significant palm kernel oil producer, accounting for more than half of world production.

PALM OIL



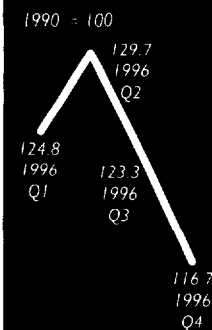
EXPANDING STOCKS PRESSURE PRICES

Palm oil production in Malaysia entered its low production phase and is projected to remain at seasonal lows in the short term. Compared with the favorable productivity demonstrated during April–October 1996, the year-on-year increase will slow in the months ahead as the biological yield cycle turns downward and yields per hectare decline in the Peninsula and East Malaysia. Expected strong export demand will cause palm oil stocks to fall. Europe, China, Pakistan, and several other countries are expected to step up their palm oil imports. Malaysian palm oil stocks dipped from 956,000 tons at the end of November 1996 to 920,000 tons at the end of December and are expected to plunge to 600,000 tons at the end of March 1997.

Following the short-term decline, palm oil output growth may accelerate in 1997/98, if the sharp increase in Malaysia's production projected by the Palm Oil Registration and Licensing Association is realized. Stepped up plantings of new oil palm plantations is expected. In many areas, especially in Indonesia, large additional areas are available for planting tropical crops.

Global exports of vegetable oils are dominated by palm oil, which accounts for almost half the total. Malaysia accounts for more than 70% of world exports and Indonesia for more than 25%. However, growth in palm oil output has been slowing, due mainly to shortages of land and labor in west Malaysia.

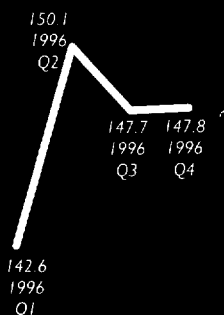
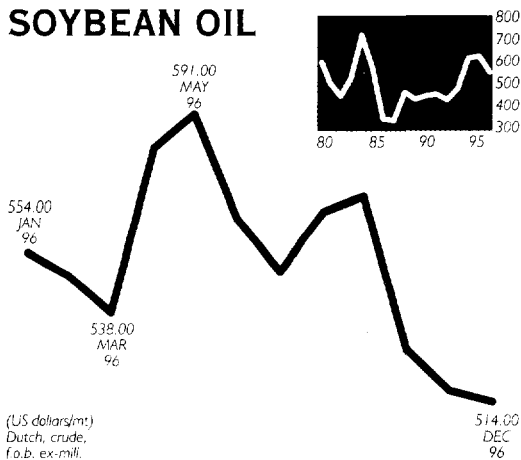
Food prices were down 5.3% mainly because of a sharp drop in grain prices.



FATS AND OILS

Prices were nearly unchanged—coconut oil and palm oil were higher while soybean oil was sharply lower.

1990 = 100

**SOYBEAN OIL****EXPECTATIONS ARE BULLISH FOR BEANS AND MEAL**

Demand for soybean meal is rising in countries where livestock industries are developing rapidly, such as Brazil, China, the Republic of Korea, and Thailand. In the US and the EU, however, demand is likely to be limited by lower feedgrain prices. Overall, steady growth in global demand for soybean meal is expected in 1997/98. Demand for soybean oil is also expected to rise, mainly because of China's increasing import demand. Demand for soybeans will reflect the underlying demand for soybean meal and oil, while demand for soybeans for crushing will be influenced mainly by the rate of growth in soybean meal consumption, which is projected to accelerate in 1997/98.

Soybean meal prices may come under downward pressure in the medium term as livestock producers substitute cheaper feedgrain for oilseed meal. The large size of the soybean crop will also weaken meal prices.

Soybeans dominate the oilseed trade, with over an 80% share. Though the trading environment for soybean complex is more liberal than that for most agricultural commodities, several countries still impose import duties. Many of these tariffs are being reduced under the GATT. In South America, a system of differential export taxes (higher on exports of soybeans than of soybean oil and meal) has been dismantled. As a result, domestic soybean prices have risen, and a major boost in soybean planting in South America is projected.

GRAINS**PRODUCTION INCREASES DRAMATICALLY**

World grain production rose 7.5% for the 1996/97 crop year (July–June), surpassing the previous record set in 1992 by more than 3.0%. Yields reached record levels, while area planted rose to a 10-year high, though remaining well below the record levels of the early 1980s.

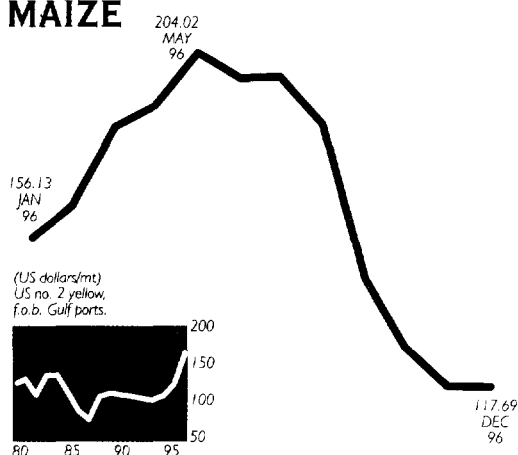
Prices dropped sharply during the fourth quarter as the extent of the production increase became apparent. Consumption is expected to increase 3.0% in the current year, to reach a record high of its own. Higher prices and generally favorable production in the major importing countries are expected to bring the volume of grain trade down to a six-year low.

Ending stocks will be higher than they were last year but still low by historical standards. The stock-to-use rate, a common measure of grain supplies, is expected to be 15.0% by the end of June 1997, up from 13.9% at the end of the previous year but still well below the 19.7% average of the past 10 years.

Despite the low world stock levels major exporters were able to rebuild their stocks substantially. Stocks now appear adequate to stabilize prices, given the low demand for world trade. Grain stocks in the five largest exporting countries are expected to swell from 60 million tons at the end of the 1995/96 crop year to 99 million tons by the end of the 1996/97 crop year. World stocks are expected to rise from 245 to 272 million tons over the same period.

According to recent reports by the US Department of Agriculture, grain production rose 20% in the five largest grain exporters—US (41.4% of exports in 1980–90), EU (21.7%), Canada (10.7%), Australia (6.9%), and Argentina (6.1%). This brought production in these countries to one-third of global production, a total of 666 million tons of grain. The increases ranged from 16% in Australia and the EU to 38% in Argentina.

MAIZE



WORLD PRODUCTION UP 11%

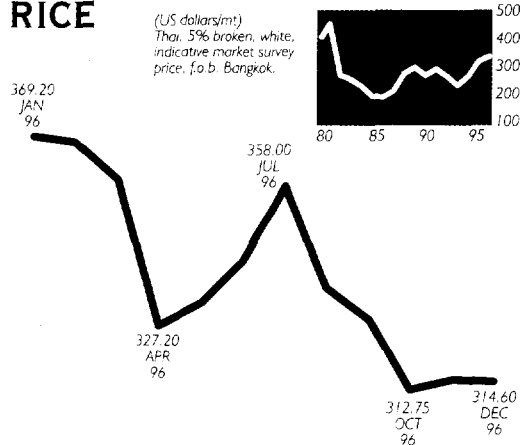
World maize production rebounded from a poor 1995 harvest to a record high, causing prices to plummet. Maize prices peaked at \$204/ton in May and then fell to \$117.7/ton in December. In the US, which accounts for roughly 40% of world maize production and more than 70% of trade, production was up 26% in 1996 following a poor harvest in 1995. US ending stocks are likely to be more than double the low levels of the 1995/96 crop year (October–September), jumping from 10.8 million tons to 24.4 million tons. World maize trade is expected to fall to 62 million tons, down from 66 million tons the previous year.

World production of coarse grains (feed grains such as barley, sorghum, oats, and rye) rose by the same percentage as maize. US exports should account for about 62% of world coarse grain exports of 88 million tons in 1996/97. US stocks are expected to double, from 14.4 million tons in 1995/96 to 29 million tons in 1996/97, which still puts them below the 37.5 million ton average for 1992/93 to 1995/96.

Although stocks remain low by historical standards, US stock rebuilding will probably keep prices from rising significantly during 1997. What happens to the US crop will be critical to price movements in 1997, and if poor weather threatens price volatility could return.

Japan and the Republic of Korea should remain the world's top importers in 1996/97.

RICE



PRICES DRIFT LOWER

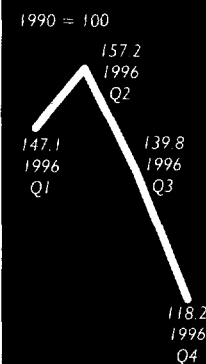
The price of Thai 5% broken rice fell from \$341/ton in the third quarter to \$314/ton in the fourth quarter in large part because of weak import demand. The sharp drop in wheat prices may also have affected rice prices. The rice market appears to be closely balanced, however, and prices could return to \$340/ton as the year progresses. Price changes for Thai 35% broken rice were similar to those for the higher-quality rice, with prices down \$20/ton for the fourth quarter, to \$248.8/ton.

World production is expected to reach a record 558.8 million tons of paddy in 1996/97, up from 550 million tons last year, which should allow some rebuilding of stocks. China and India, the two largest producers, both have record crops, while other major exporters have adequate though not record production. World exports of 18 million tons are expected for calendar year 1997, down from 19.0 million tons in 1996. Ending stocks are expected to remain nearly unchanged from 1995/96, at 51 million tons.

Thailand should remain the world's largest exporter, accounting for 30% of total exports—at 5.5 million tons. India, Vietnam, and the US are expected to have nearly equal market shares of 2.2 to 2.7 million tons of exports each. India's exports are likely to be below last year's 3.25 million tons because lower world prices reduce its export competitiveness and stocks are low. Vietnam has relaxed the state's monopoly on rice trade.

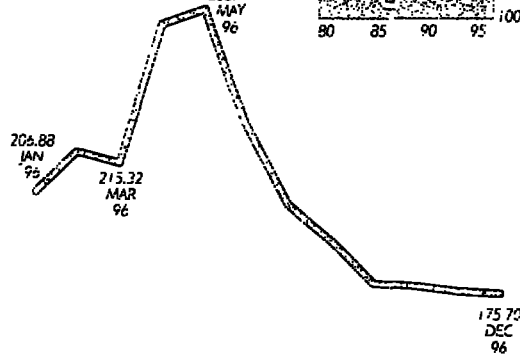
GRAINS

Prices fell on a 7.5% increase in world production. Maize prices plunged 31.3% for the quarter.



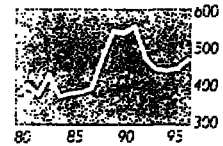
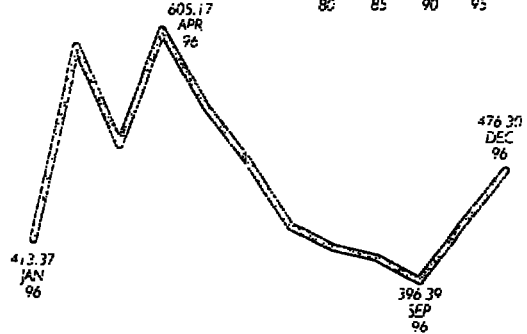
WHEAT

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



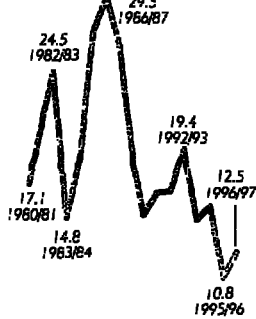
BANANAS

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



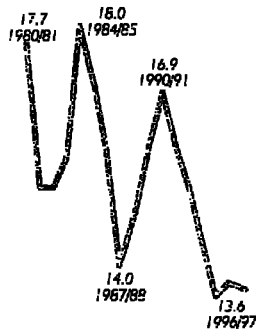
COARSE GRAIN STOCKS (WORLD)

Market-year-ending stocks as %
of consumption



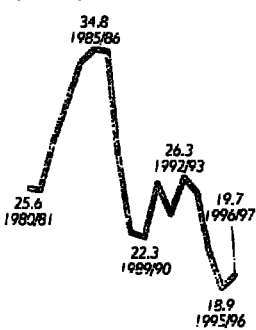
RICE STOCKS (WORLD)

Market-year-ending stocks as %
of consumption



WHEAT STOCKS (WORLD)

Market-year-ending stocks as %
of consumption



Note: Data for 1994/95 and 1995/96
are estimated.
Source: USDA, FAS.

PRODUCTION OF MAJOR EXPORTERS REBOUNDS

Global wheat production is up an estimated 8.1% for the 1996/97 crop year (July-June), while production among major exporters is up 16.3%. This distinction is important because the five major wheat exporters account for 88% of world exports (for 1991-95 the shares were US 33%, Canada 20.0%, EU 18.7%, Australia 9.8%, and Argentina 5.9%). This very large supply response among the major exporters explains why wheat prices dropped so sharply in the third and fourth quarters—from \$249/ton in the second quarter to \$176.7/ton in the fourth quarter.

Stocks in the major exporters are expected to rise 57% by the end of the current crop year, to reach 47.8 million tons. In contrast, world stocks are expected to end the year just 7.4% higher, at 112.5 million tons. Good harvests in the major importing countries will likely depress import demand to 89 million tons for 1996/97. World trade has declined for five years in a row, from a high of 112.7 million tons in 1992/93. Stock rebuilding by major wheat exporters should keep prices from rising over the next year unless production in a major trading country is severely damaged.

Of the major exporters Argentina had the largest increase in wheat production—up 68% from 1995/96. Production was up 26.6% in Australia, 21.8% in Canada, 15.3% in the EU, and 4.5% in the US. The low US supply response was the result of drought.

MARKETS POST STRONG PRICE GAINS

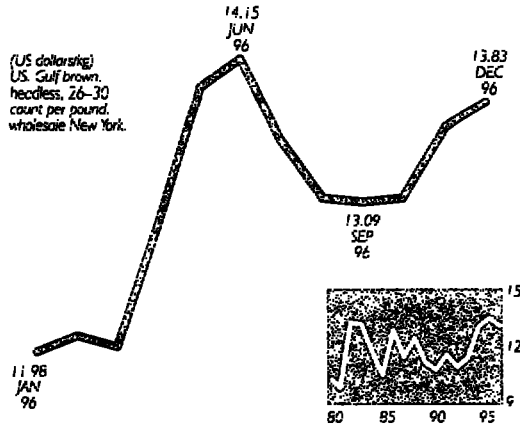
The seasonal upswing in banana prices appears to have started early, as prices rose sharply in the final quarter of 1996. Prices dropped to \$375/ton in October and then jumped to \$476 in December.

Following unification of the European agricultural markets and modification of the banana protocol for EU imports, Caribbean exporters witnessed sharply lower and more volatile prices during the last half of 1996. Quality problems in St. Lucia and Dominica compounded the difficulties facing the industry in the Windward Islands as it attempts to reorganize. In both countries, the government intervened—at least temporarily—to prop up domestic prices.

A World Trade Organization (WTO) panel requested in April 1996 by Ecuador, Guatemala, Honduras, Mexico, and the US to challenge the EU banana regime is scheduled to report its findings in early 1997. The regime protects the European market through a system of tariffs and import and marketing quotas; it also grants preferential access to certain African, Caribbean, and Pacific (ACP) and Latin American countries. The WTO granted the EU a waiver on nondiscrimination rules for Lomé Convention preferential treatment, so a panel is unlikely to find against the quota-tariff portion of the regime. However, industry analysts expect the panel to recommend changes to the marketing licenses.

SHRIMP

(US dollars/kg)
US Gulf brown,
headless, 26-30
count per pound,
wholesale New York.



TIGHT SUPPLIES HOLD PRICES FIRM

Following a weakening in US shrimp markets in October, supplies tightened in the wake of the ruling on the US embargo in late October and November. Prices rose in December and remained firm into February 1997. US demand for headless black tiger remains strong despite the higher prices.

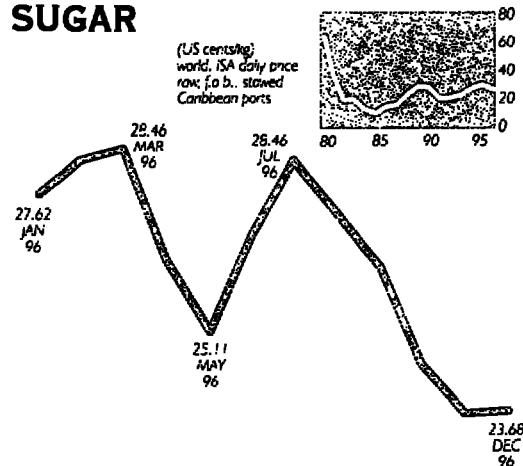
Supplies of headless black tiger shrimp from Asian countries have been plentiful in recent months. Prices have remained firm, however, because importers' demand, particularly for Indonesian pink headless shrimp, remained strong. In contrast, peeled shrimps were in short supply, as bad weather and news of the tightening of the US embargo led to a decline in Indian production. Supplies from other countries were also on the decline.

US production of Gulf shrimp is estimated to be below current demand, although supplies of large shrimp are rising. Supplies of imported shrimp of all sizes declined in recent months. Imports from China, Ecuador, India, and Thailand were down because of problems ranging from lower landings and disease to stormy weather and higher European prices. In contrast, US imports of cooked shrimp increased over last year's volume. US supplies of shrimp will remain tight as domestic production declines from the previous year.

In Asian countries shrimp farms have been hit by floods and cyclones, and supplies are low in India, Indonesia, and Thailand.

SUGAR

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



PRICES CONTINUE TO SKID

Prices slipped from 27.3¢/kg in the third quarter to 23.9¢/kg in the last quarter of 1996. In general, analysts expect growing supplies over the next few months, and New York futures contracts remain in slight backwardation. For the year prices are expected to hold at near-current levels of about 24¢/kg. The International Sugar Organization expects production to reach 123.5 million tons and inventories to grow by an additional 3 million tons for the current crop year.

In Brazil the government has set sugar exports at 5.2 million tons. But with the 1996/97 crop running well ahead of expectations, analysts expect another 500,000 tons to be added to the export quota.

In Europe gains in production from Western Europe and Poland are expected to be partially offset by declines in Russia and Ukraine. In Western Europe a steady increase in the EU (from 17.0 to 17.4 million tons), combined with strong production from Turkey, is expected to boost the region's production to 20 million tons, up from last year's 18.8 million tons. Poland is expected to produce nearly 2.4 million tons—a record for recent years. However, in Ukraine a prolonged drought has sharply lowered expectations for the 1996/96 beet crop. Production is expected to shrink to less than 3 million tons, down from an estimated 3.8 million tons in 1995/96. Russian production is expected to drop back to 1.8 million tons, following last year's 2.2 million tons.

In a measure designed to boost the domestic industry, Russia's Foreign Trade Ministry set a 1.5 million ton limit on white sugar imports, with 1.15 million tons allocated to Ukraine. Since October all sugar deliveries from Ukraine have also been subject to a 10% value added tax, and the head of Russia's State Customs Committee recently urged another hike in duties on food imports. Imports of sugar, particularly refined white sugar from Ukraine, have risen steadily, reaching 1.2 million tons during the first 11 months of 1996. A portion of the sugar is believed to be tolled Cuban sugar; Ukraine imported 175,000 tons of raw sugar from Cuba during the first seven months of 1996.

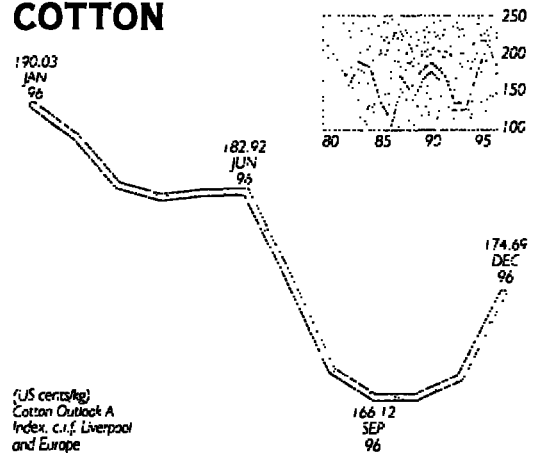
In December and January the government of India took steps to allow private companies to export sugar, subject to overall quota restrictions. Quota requests for sugar exports must be registered with the Agriculture and Process Food Export Development Association. Of the 1.269 million tons allocated for export since August, 44,000 tons entered preferential markets in the US and the EU. Exports are expected to shrink, however, as production drops an estimated 2 million tons.

In Mexico cane milling continues to run ahead of last year's pace. So far 7.34 million tons of the 1996/97 cane crop has been crushed, up from 6.49 tons at this time last year. El Grupo Azucarero Mexico, which runs 6 of Mexico's 61 mills, expects its production to increase by 53%. Mexican authorities announced a 14.1% increase in the reference price for sugar on January 15.

In Mauritius the government has accelerated its program for switching land from tea to sugar cane. The switch is designed to raise sugar production to meet an extra annual export quota to the EU of 85,000 tons, obtained under the Special Preferential Sugar agreement.

Vietnam has decided to suspend sugar imports during 1997 as domestic production increases. Imports have declined steadily.

COTTON



PRICES MOVE UP A NOTCH

Following the release of the USDA's upward revision of its cotton production forecast, New York futures prices exhibited some instability. Markets were quieter for the medium staple cotton indicator price (Cotlook A index), whose 170 ¢/kg average for October–December was almost unchanged from July–September though far below the 197¢/kg average in the same period of 1995. The price is expected to remain steady, according to the International Cotton Advisory Committee (ICAC).

The ICAC lowered its earlier forecasts of world production for 1996/97 from 19 million tons to 18.7 million tons. Low yields and low prices both seem to have held back production. The average world cotton yield fell to an estimated 555 kg/hectare for 1996/97, 7% below the record yield in 1991/92 and 2% lower than the previous year. Resistance to pesticides in eastern China, the spread of the leaf curl virus in Pakistan, and economic difficulties in Central Asia are the main reasons for the drop in yield.

The outlook for 1997/98 is more optimistic, however, at 19.6 million tons. Large increases in production are expected in the francophone countries of West Africa, where the area planted to cotton will reach an estimated 1.7 million hectares this season and even more the next. Increased production is also expected in the southern hemisphere, especially in Australia, South Africa, and Zimbabwe. Syria is becoming an important

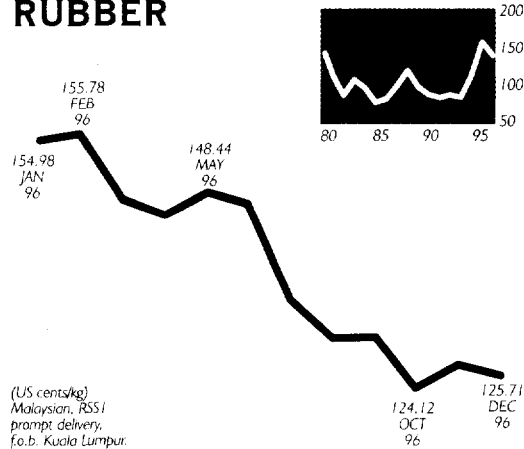
cotton producer, with estimated 1996/97 production at a record 1.12 million bales; its production is expected to increase further in 1997/98. Most of Syria's cotton is exported to European mills and to Russia, China, and Poland.

World cotton consumption is now estimated at 18.9 million tons for 1996/97—short of the 19 million tons estimated earlier—reducing the consumption-production gap to 100,000 tons. China's estimated 1996/97 production is 1 million tons below last season's, but no increase in its imports is expected because of large stock carryovers. Brazil may be the largest importer this season, accounting for more than 500,000 tons, because of lower production (a result of high production costs and difficulty obtaining financing).

Low production is also expected to drive Pakistan to import 65,000 tons this season; it exported 325,000 tons last season. Because of fears that more mills will close, the government of Pakistan withdrew the 5% duty on cotton imports; it has been allowing free exports of cotton since January 1995. Production in Turkey is at the second highest level ever and is likely to rise even more over the next several years if the irrigation project in the east gets under way. Because of its large domestic textile industry and its recent membership in the EU's customs union, Turkey is expected to import nearly 300,000 tons of cotton. In Greece production is expected to decline following a reduction in the income subsidy from the EU.

At the 1996 Singapore Ministerial Conference, as reported by Cotton Outlook, a number of Asian countries contended that industrial countries have not lived up to the liberalizing spirit of the WTO. Agreements call for phasing out most quotas on textile and clothing over a 10-year period. Some industrial countries countered by complaining about the high tariff restrictions imposed by some developing countries and about attempts by some exporters to circumvent quotas.

RUBBER



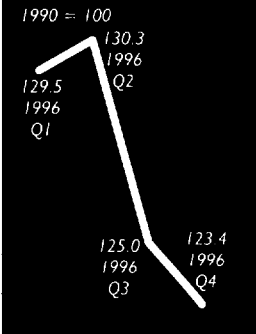
PRICES FOR 1996 LOWER AND LESS VOLATILE

Natural rubber prices continued their gradual decline during the final quarter of 1996. For the year prices averaged about 12% lower than in 1995. Volatility declined as well. The coefficient of variation for Malaysian RSS1 fell from 12% in 1995 to 8% in 1996. Stocks continued to climb during the quarter and reached 1.78 million tons, roughly equivalent to ending 1994 stocks and 130,000 tons above closing 1995 stocks. Still, prices remain about 67% higher than 1990-93 averages and are expected to decline only slightly during 1997.

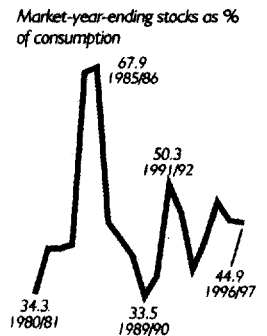
For the year the market experienced a combination of small offsetting adjustments. Sluggish but positive growth in tire production offset supply increases in natural and synthetic rubber. Increases in Thai and Indonesian production were partially offset by the long-run decline in Malaysian production. Prospects are for more of the same in 1997. Slow industrial expansion is forecast for OECD countries, with faster growth forecast for developing Asia.

Ratification of the most recent International Natural Rubber Agreement (INRA III) appears to be moving ahead slowly but steadily. Both Malaysia and Indonesia ratified INRA III in December, signaling an end to a divisive fight over Malaysia's bid for the executive director position at the International Natural Rubber Organization (INRO), a group representing both consuming and producing developing countries. Votes are

Agricultural raw materials prices were down 1.4% for the quarter. Natural rubber prices were down 5%, while cotton and timber prices were down slightly.



COTTON STOCKS (WORLD)



Source: International Cotton Advisory Committee.

based on market share (consumption or production), and 75% of the votes for both consuming and producing members must be cast in support of the treaty. A sufficient number of producing countries have announced their support to ensure ratification of the treaty at the March INRO meeting. Currently, the consuming country vote is about 1.6% short of the required 75% majority. However, either China or Italy is expected to signal formal support before the March meeting and thereby ensure passage.

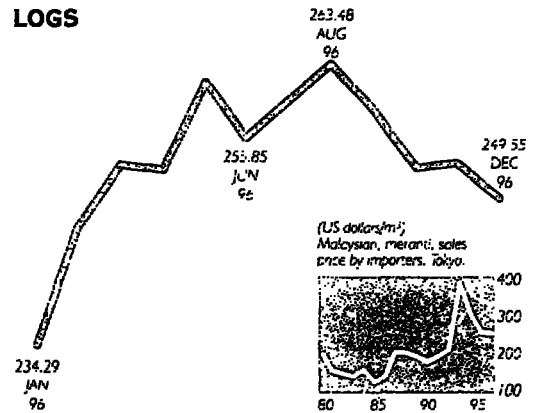
Ratification of INRA III would reactivate a price stabilization scheme based on buffer stock operations. Under the scheme stocks are accumulated when prices fall below predefined moving averages and are released when prices climb above a similarly calculated ceiling. Ratification is not likely to have any immediate effect on market prices since there are no stocks in the buffer and prices remain well above the buy-trigger.

Prices in China fell during the first half of 1996, according to statistics released by the China Goods and Materials Information Center. Increases in domestic production of synthetic and natural rubber and increased imports led to a 1.4% decline in natural rubber prices in June. June inventories were up 50% over the same time last year.

Car and truck use in Poland has risen steadily, from 5.3 million vehicles in 1990 to 7.2 million in 1995, and tire production has grown along with it, from 4.7 to 9.5 million. Before 1989 the tire industry consisted of a single government-owned monopoly, Stomil, with three production facilities. Olsztyn in the northeast specialized in truck and tractor tires, Debica in the southeast in car tires, and Poznan in the west in specialty tires. According to a review by the Economist Intelligence Unit, in 1989 the industry was reorganized into two joint-stock companies, Stomil-Olsztyn and Stomil-Debica, with the government retaining ownership until 1995. In that year Michelin purchased 52.1% of Stomil-Olsztyn and Goodyear purchased 50.8% of Debica.

TIMBER

LOGS



PLENTIFUL SUPPLIES DEPRESS PRICES

Prices for Malaysian logs in the Japanese market fell to \$250 a cubic meter during the fourth quarter of 1996, a 3.4% decline from the third quarter. Prices were affected mainly by an adequate supply of logs from the tropical log producing regions. The decision of Sabah (Malaysia) to lift the 1991 ban on log exports will likely put some further downward pressure on prices. Greater use of softwoods for plywood and higher imports of processed timber products have led to a weakening of the market for tropical logs in Japan. One of the largest plywood makers in Japan is reportedly ready to shift from 50% softwood to 100% over the next four years. Log prices were prevented from sinking further, however, by the steady growth in housing starts, reflecting low interest rates on housing loans and continuing reconstruction following the 1995 earthquake.

Timber prices rose slightly in the European market because of improvements in demand in the UK, low inventories, and supply restrictions and problems in Africa. With felling restrictions in Côte d'Ivoire likely to hold down supplies of hardwood, prices are rising. Adding to concern about supplies of African hardwoods are problems in Zaire. Reports also indicate transport problems in Africa during the rainy season. While there are signs that demand for timber is improving in the UK, the market continues to be sluggish in France, although with some increases in the building sector.

FERTILIZERS

PRICES STABILIZE AFTER RISING FOR SEVERAL YEARS

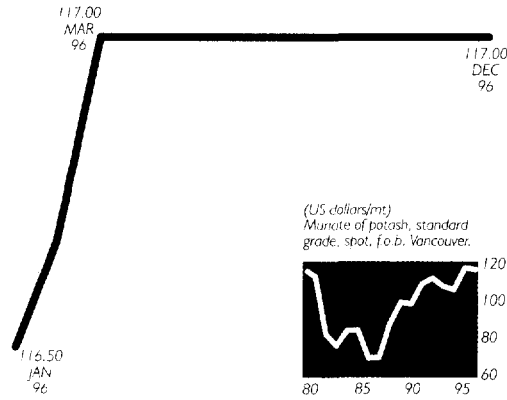
The collapse in grain prices in the last quarter does not bode well for fertilizer demand in the coming year as farmers try to match their fertilizer use to market conditions. US wheat prices (f.o.b. US Gulf) slid from \$249/ton in the second quarter to \$191/ton in the third quarter and \$176.7/ton in the fourth quarter. Maize prices fell even faster, from \$197.3/ton (f.o.b. US Gulf) to \$176.2/ton and then to \$121.1/ton.

Maize production accounts for a significant share of fertilizer demand and is an especially heavy user of nitrogen fertilizer. With fertilizer prices still higher than in recent past years, farmers will likely cut back on application rates following the drop in grain prices. Rice prices have shown less dramatic declines, though Thai 5% broken rice (f.o.b. Bangkok) was down from \$365.6/ton in the first quarter of 1996 to \$314.1/ton in the fourth quarter. Since rice is a large user of nitrogen fertilizer, this will further weaken the demand for nitrogen.

World grain area increased 8.1% from the 1995/96 crop year to the 1996/97 crop year. The increase was 29 million hectares above 1995/96, but still well below the record 732 million hectares of grain harvested in 1981. The five largest grain exporters (US, EU, Canada, Australia, and Argentina) increased grain area 14 million hectares.

Fertilizer prices bottomed in 1993 and 1994 and have risen as much as twofold on a year-over-year basis. On an annual average basis urea prices rose 92% from 1992 to 1996, DAP prices 65%, and TSP prices 57%. Potassium chloride prices were up just 10.5% in 1996 from their annual average low in 1993. The price increases have occurred over four years, and production capacity is beginning to expand. Given the weakness in grain prices and several years of rising fertilizer prices, it seems likely that prices will not rise further; our forecasts reflect this for most fertilizer types.

POTASSIUM CHLORIDE



LITTLE INCREASE IN PRICES EXPECTED

Prices were stable at \$117/ton (spot f.o.b. Vancouver) for the second consecutive quarter and nearly identical to 1996's average of \$116.9/ton. While prices were substantially higher than in 1994, they were slightly lower than in 1995. Efforts to raise prices have not been successful, and the market appears to face overcapacity in the short term. The last price increases were in 1995, and prospects for a 1997 increase are not favorable.

Negotiations on contracts for the first half of 1997 between the Canadian potash export association, Canpotex, and Japanese buyers have ended with no price change from last year. Lower prices in Asian markets, especially in India, made a price increase difficult, while large shipments of potash to China and India prevented a price cut. The Japanese market often sets the tone for other Asian contract negotiations.

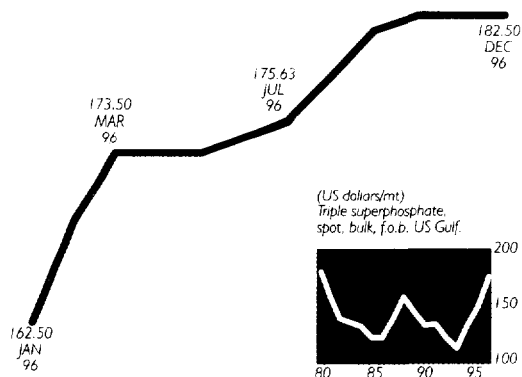
Excess capacity remains in the industry, with most of it in Canada and the countries of the former Soviet Union. While many of the smaller Canadian and Middle Eastern producers operate near full capacity, the large Canadian producers are well below capacity. Russian sales to Asian markets have continued strong despite the generally weak market. Prices are reportedly \$6-7/ton below last year's on selected sales.

Potash Corp of Saskatchewan (PCS) has agreed to buy 51% of the German potash producer Kali and Salz (K&S), the sole potash producer in Germany.

The index of fertilizer prices was higher, while several individual fertilizers not included in the index were lower.

Year/Quarter	Index (1990 = 100)
1990	100
1996 Q2	118.9
1996 Q3	121.2
1996 Q4	123.0

TSP



PRICES SHOULD REMAIN FIRM TO END OF SPRING

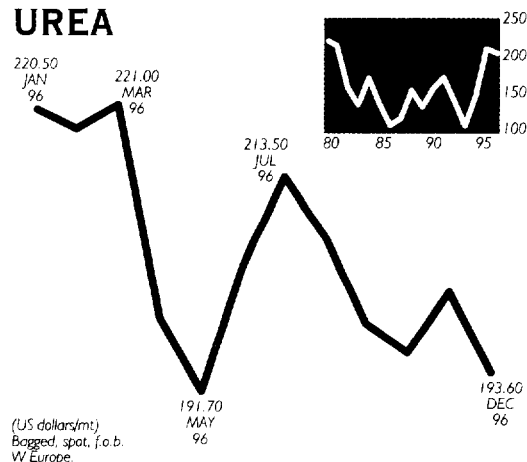
TSP prices were unchanged at \$182.5/ton (f.o.b. US Gulf) for the quarter. The average for 1996 was \$175.8/ton, up from \$149.6/ton in 1995. DAP prices continued to rise, averaging \$209.5/ton for the fourth quarter (f.o.b. US Gulf), up slightly from \$206.9/ton for the third quarter. DAP averaged \$213.2/ton for the year, below 1995's \$216.6/ton average but well above 1994's \$172.8/ton. Prices are expected to continue strong at least until the end of the spring planting season.

The supply of DAP in the US market could be tight because of strong export demand and lower than expected domestic production. Chinese import demand is still strong, and US exporters have been anxious to meet demand in time for the spring planting. Once this demand hump passes, the market should slow. Indian buyers have been much less aggressive and are expecting discounts before they buy.

Moroccan exporters have negotiated higher prices on sales of phosphoric acid to the European market. And phosphate rock prices have edged up by as much as \$5 a ton for Moroccan exports. Moroccan TSP exports were higher for 1996, while DAP exports were lower.

High prices for DAP and phosphate rock helped Jordan Phosphate Mines Company (JPMC) post a 9% increase in revenues in 1996 over 1995. JPMC expects to increase sales in 1997 as two new ventures come on-stream.

UREA



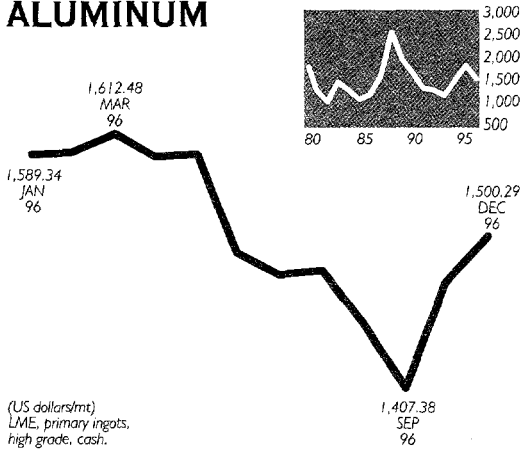
MARKET DRIFTS WHILE TRADERS WAIT

Urea prices showed some strength during the quarter, but ended lower to average \$197.0/ton (f.o.b. West Europe) for the fourth quarter, down from \$206.4/ton for the third quarter. For the year urea prices averaged \$205.5/ton, slightly below last year's \$211.5/ton but well above the \$147.9/ton in 1994. The market has been very inactive, with China considering a new import policy and few other large buyers in the market. India has not yet settled on its import requirements for the year, and Indonesian exporters are still awaiting export licenses. All in all, the market is adrift, with no clear direction.

China is reportedly considering an 18% tax on urea imports, to offset the 13% value-added tax paid by domestic producers. Although it appears that no final decision has been reached, urea imports are at a standstill until the issue is resolved. Increased domestic supplies are expected to lower urea imports in 1997. Prices traditionally increase during the winter in anticipation of strong spring demand for planting.

Vietnam is reportedly considering a new policy requiring fertilizer exporters to the country to have domestic joint venture partners. The ministry of agriculture, in an effort to increase rice production and exports, is targeting urea imports of 1.5–1.6 million tons for 1997. However, with the recent drop in rice prices from \$358/ton in July to \$314.6/ton in December (for Thai 5% broken rice), farmers may not be eager to increase production.

ALUMINUM

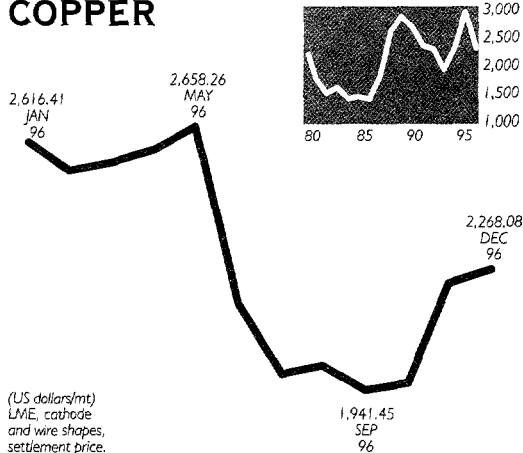


PRICES MOVE UP WITH HIGHER CONSUMPTION AND LOWER STOCKS

Aluminum prices recovered in the fourth quarter, lifted by renewed purchasing for consumption and stock building. According to the International Primary Aluminum Institute (IPAI), stocks were drawn down steadily between July and October 1996. Increased construction activities gave a slight boost to aluminum consumption in the US. In Japan construction and auto sales moved up on expectations of an across-the-board consumption tax in April 1997. Shipments and consumption of cans are also higher in Japan, up 5% over 1995. Although construction is likely to slow after April, aluminum orders by construction firms should remain high. European aluminum producers and consumers report an improvement in orders. Analysts expect consumption growth to continue.

Aluminum production was higher in the fourth quarter than in the third quarter and in the same quarter a year ago, with the increases coming mainly from the US and Canada. Production is expected to increase well into 1997 as idle capacity slowly returns to production and new capacity in South Africa, the Middle East, Australia, and New Zealand moves into full production. Supply and demand will be nearly balanced during the first half of 1997, while the level of consumption growth will determine whether the aluminum market moves into surplus in the second half of the year.

COPPER



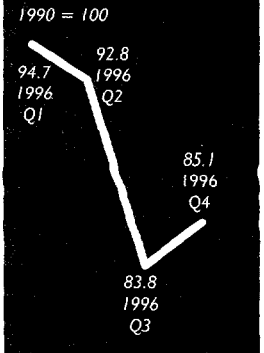
PRICES SOAR TO CLOSE 1996; TIGHT MARKETS CONTINUE INTO 1997

Copper markets experienced sharp price increases during November and December. Cash prices for copper reached as high as \$2,580/ton by the end of November, up \$600/ton from October. Cash prices dropped somewhat in December, but remained near the \$2,200-\$2,250 range into the first week of 1997. Institutional hedging practices (purchases of futures contracts to cover call options) probably account for some of the price increases. So does late-year buying to cover physical stock requirements. Analysts predict lower average prices in 1997.

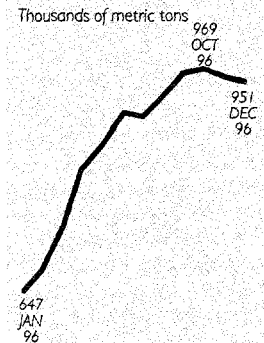
Combined Comex and London Metal Exchange stocks settled at 125,000 tons in the fourth quarter, the lowest level in six years. Mine production was down in 1996 in Western Europe, Africa, and Russia. Russian production was at its lowest level in five years (472,000 tons) largely because of Norilsk Nickel's poor financial state. Production grew to 523,000 tons in Australia and 3.11 million tons in Chile, a 20% increase from 1995 for both countries.

North American markets led consumption increases in 1996. Demand growth for copper in the US has continued longer than most analysts had expected following the 8.7% decrease in October housing starts. Growth in US copper consumption is projected to slow to about 1.0% in 1997, down from 7% in 1996. Consumption is expected to grow 1.7% in Europe and 3.5% in East Asia.

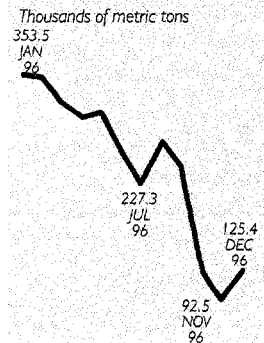
Metals and minerals prices were up 1.6%, with higher copper and zinc prices offset by lower aluminum, lead, nickel, and tin prices.



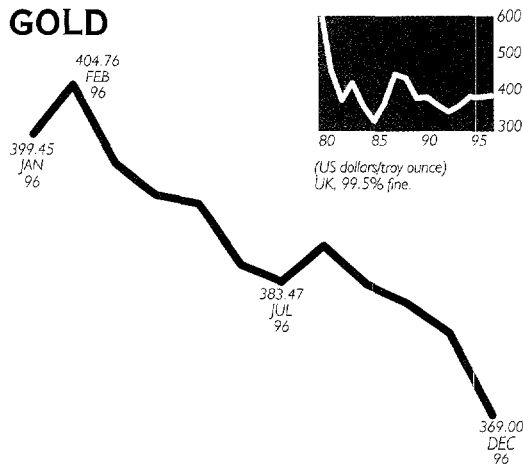
ALUMINUM STOCKS (LME)



COPPER STOCKS (LME)



Source: Metal Bulletin.



PRICES FALL SHARPLY

Gold prices fell sharply during the fourth quarter, to an average of \$369.0/toz in December, well below October's \$381.1/toz. Central bank selling seems to account for most of the decline, although low inflation, rising US equity prices, and the strong US dollar took their toll as well.

Supply and demand balances tightened in 1996, with world gold supply down 4.7% from 1995 according to Gold Fields Mineral Services, a London consulting firm and recognized expert on the gold market. Mine production was up 2.9% in 1996, but other sources of supply shrank enough to more than offset the increase. Demand for physical gold was firm in 1996, but not strong enough to pressure prices. Fabrication demand, particularly for jewelry, was weak during the first half of 1996 but recovered in the second half to post an increase of nearly 1.0% for the year. Demand for gold bars and gold loans declined, dragging down overall demand.

Since gold is a store of wealth as well as an industrial commodity, changes in central bank reserves, inflation expectations, and returns on alternative investments can often dominate production and consumption balances. During the second half of 1996 large sales by European central banks pressured prices, while strong competition from a thriving US stock market reduced gold's attractiveness to many US investors.

The Bank of Netherlands confirmed the sale of 300 metric tons of gold in early

January, following persistent rumors that such a sale was likely. Many central banks are reportedly under pressure to lower debt by switching from gold reserves to foreign currencies and interest-bearing accounts. Central banks typically do not announce gold sales until after they have been completed. European central banks may be under especially strong pressure to sell gold in order to meet the budget deficit requirements set for entry to the European Monetary Union, which is scheduled to begin in 1999. In 1995 the National Bank of Belgium sold off a large amount of gold, announcing that the sale was intended to facilitate participation in the European Monetary Union by reducing the share of gold in total reserves.

The fall in gold prices is expected to hit some countries' export earnings hard. South Africa is the largest gold producer. Other large producers are the US, Australia, and Canada among industrial countries, and Indonesia, Brazil, Papua New Guinea, Ghana, and Peru among developing countries (see table). The Ashanti mine in Obuasi, Ghana, is a major source of export revenue for Ghana. Papua New Guinea's Porgera mine is one of the largest gold producers in the world. Some of these countries may have hedged gold prices using futures, options, or other financial instruments to protect export earnings from declining prices.

New mining techniques, privatizations, and improved management have brought down gold mining costs, but many mines will become unprofitable at current gold prices. According to Gold Fields Mineral Services, the average cash operating cost of gold mining is \$257/toz—when capital expenditures are included the total cost is \$315/toz. Companies that operate more than one mine will be looking to close high-cost mines. Some mines, such as Casa Berardi in Quebec, are already slated for shutdown, and others will follow unless gold prices rise significantly. Five of the largest US mines have cash costs above current prices, according to industry sources.

MAJOR GOLD PRODUCERS

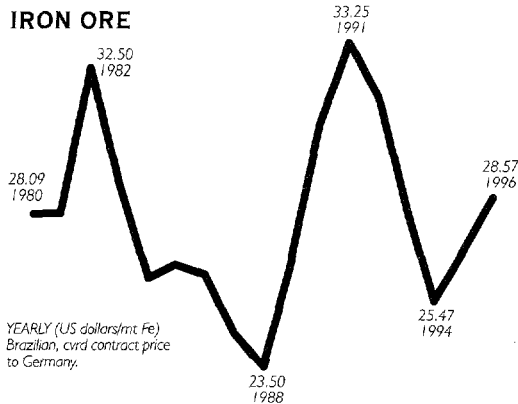
Thousands of troy ounces

South Africa	16,795
United States	10,587
Australia	8,118
Canada	4,790
Indonesia	2,382
Brazil	2,167
Papua New Guinea	1,762
Ghana	1,678
Peru	1,656
Chile	1,433
Philippines	913
Zimbabwe	839
Colombia	710
Mexico	653
Venezuela	550

Source: The Gold Institute, 1996.

IRON ORE AND STEEL

IRON ORE



SIGNS ARE MIXED FOR IRON ORE AND STEEL SHEET

In an atmosphere of conflicting price objectives, Japanese ore buyers have begun negotiations with Brazilian and Australian miners on the 1997 iron ore contract. While prices are improving worldwide for flat steel products, particularly for hot-dipped galvanized sheet (HDG), long product markets are slowing with the seasonal downturn in construction activity in the northern hemisphere.

Japanese buyers are looking to reduce the base price for fines as well as the premiums for lump and pellets because of current poor prices for pig iron and steel products. Suppliers hope to get a 6–8% increase, arguing that the increase is needed to support investment in modernization and capacity expansion and to offset currency fluctuations in financial markets.

World pig iron production as of October was 1.7% lower than for the first 10 months of 1995, with output down in all regions. Western Europe is the weakest market, with output falling consistently over the past 12 months. Asia is the only region registering any output growth. Despite the region's overall growth, Japanese pig iron production fell 1.2% in 1996, ignoring signs that output may be ready to improve.

US steel imports have increased 40% since 1993, to 28 million tons in 1996. Steel firms are responding to this increased supply on the US market by shipping more sheet steel abroad. Overseas demand for US steel totaled 100 million tons in 1996, almost 3%

over 1995. Price wars could erupt within the industry during 1997.

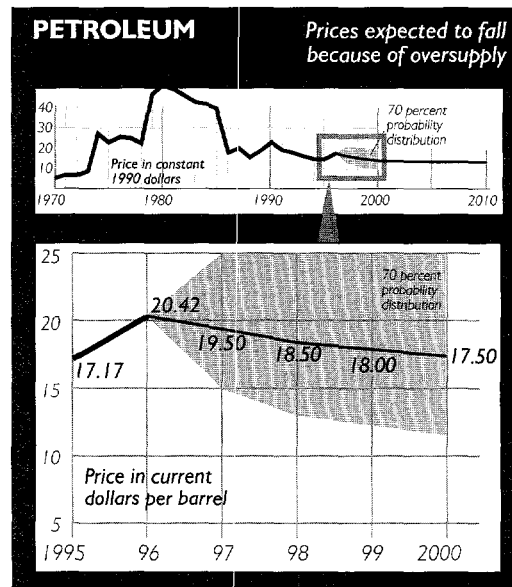
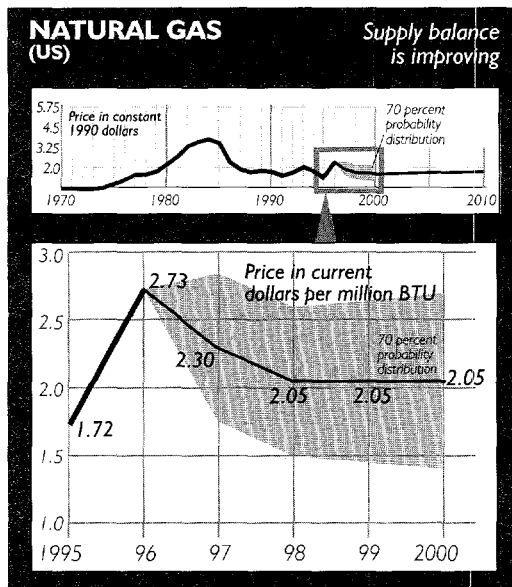
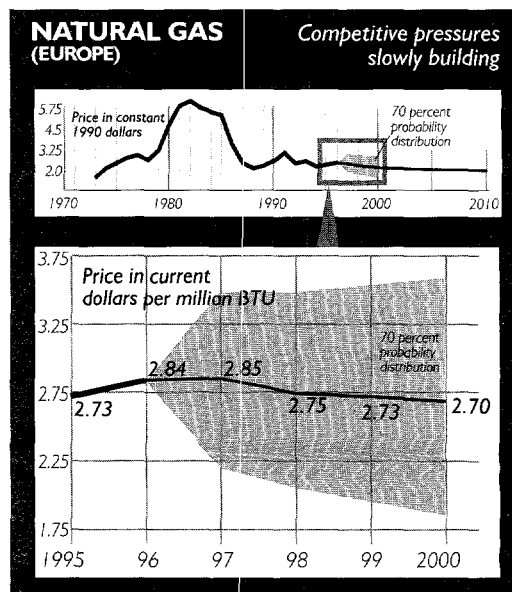
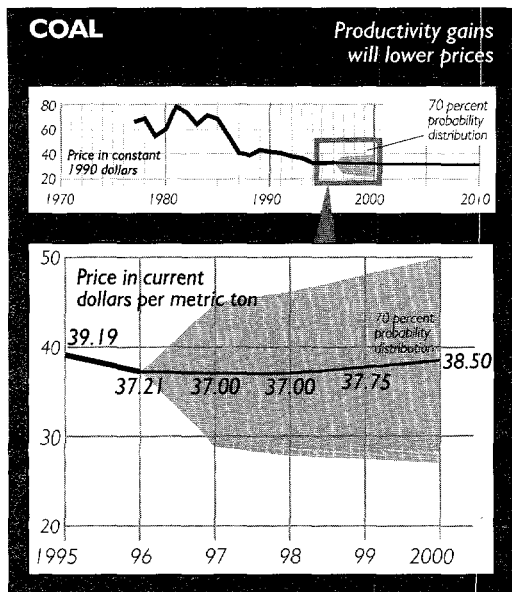
Prices for sheet products other than HDG stabilized in Asia and Europe, and no price increases are expected in the short term. US and Asian sheet markets are oversupplied, and capacity additions are unlikely. High demand in Europe is boosting international prices for HDG. Europe's export prices rose more than \$100/ton in November and are expected to rise another \$40/ton. In Asia increasing local demand combined with high European demand caused HDG prices to rise \$10/ton. In the US prices can be expected to increase about \$25/ton in 1997. Conditions in Japanese steel markets are improving thanks to a weak yen and rising automobile exports.

US structural markets continue to soften as construction activities slow. European bar prices are unlikely to increase for the same reason. Asian long product markets are improving because of a reduction in exports from the former Soviet states and a slight improvement in Chinese demand. Nevertheless, stock levels are still high in some places, especially in the Republic of Korea and Taiwan, China.

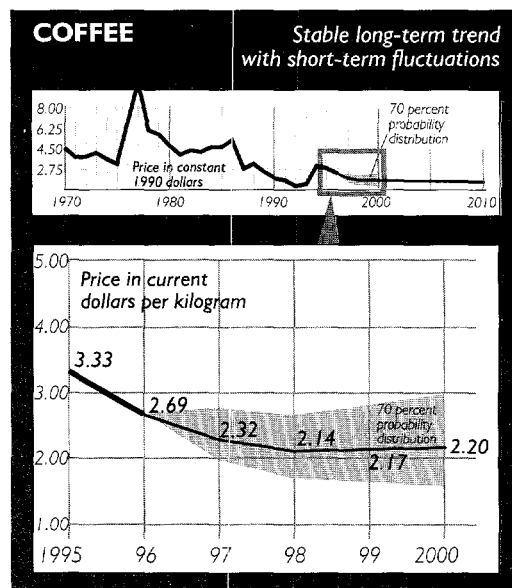
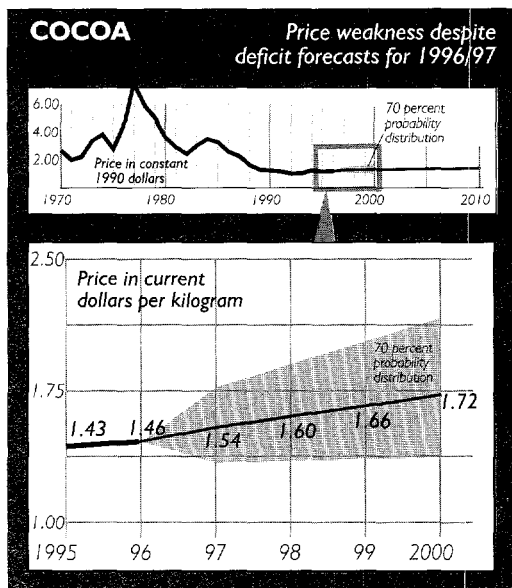
In China, following three years of inventory liquidation, steel purchases rose in 1996 to 20 million tons. China's net imports were about 35 million metric tons in 1993, but fell to 22 million tons in 1994. Analysts project that net imports will be about 10 million tons for 1996. Steelmaking capacity is increasing at a slightly slower rate than is underlying steel demand in the country.

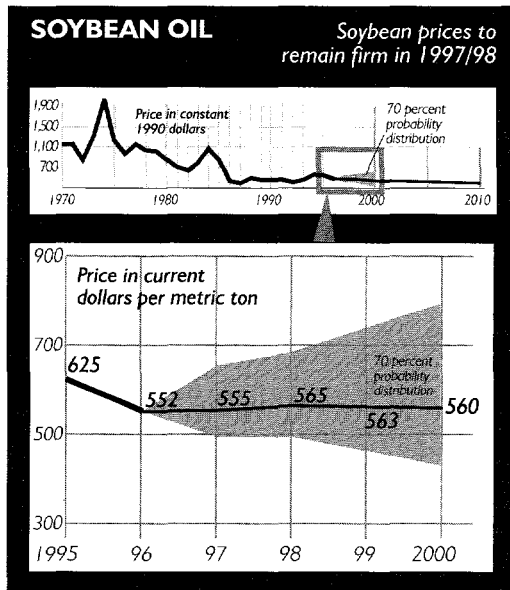
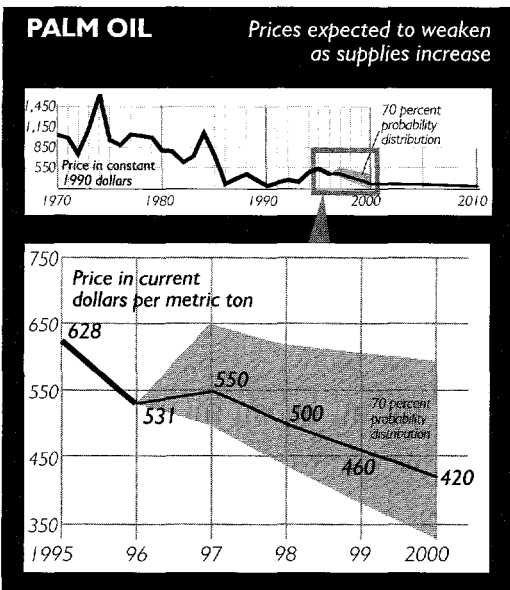
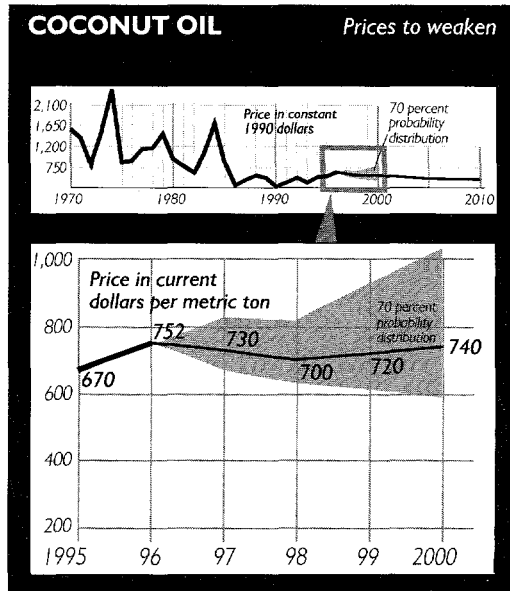
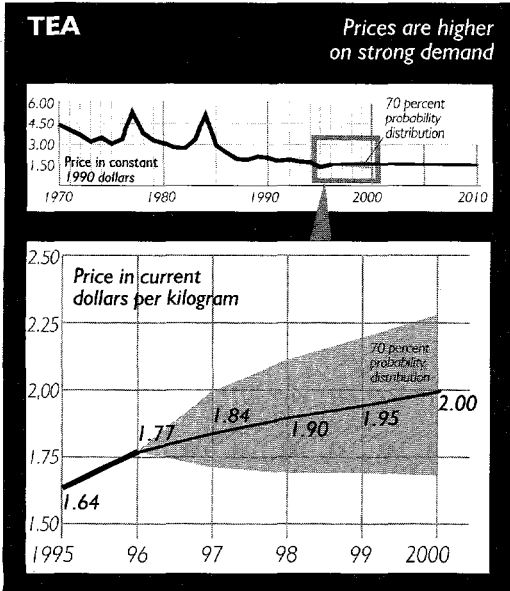
Despite weak demand in world steel markets, the International Iron and Steel Institute expects a 1.8% increase in global steel consumption for 1996 and a 3.4% increase in 1997. An increase of that size would certainly boost steel export prices in 1997. Demand is expected to rise 5% or more in the EU, Eastern Europe, Latin America, Mexico, and China and other parts of Asia (except Japan) and 4% in Australia and the Middle East. Production is not expected to increase in the former Soviet states, Japan, the US, and Africa and may even fall slightly.

ENERGY

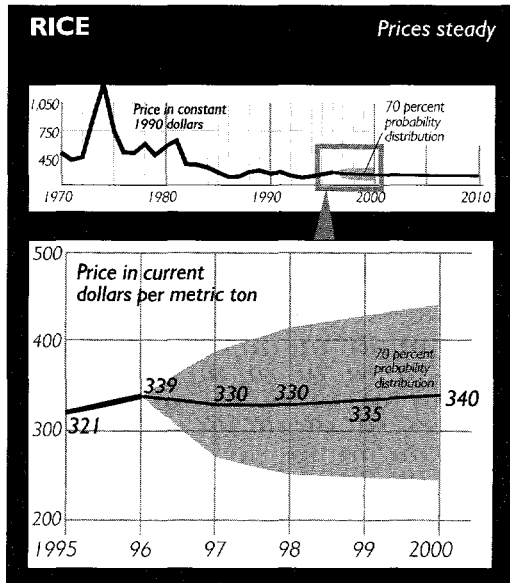
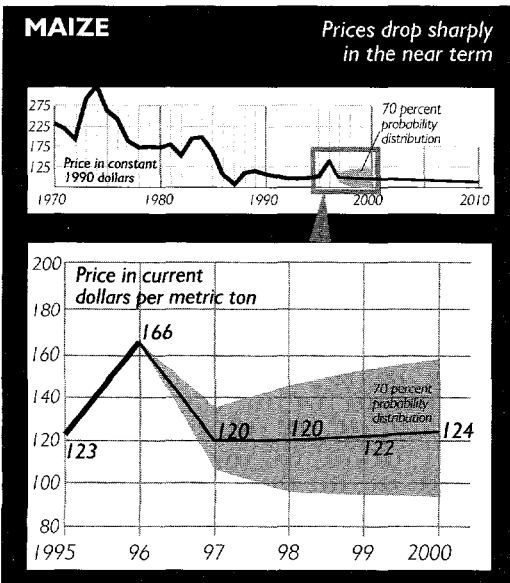


BEVERAGES



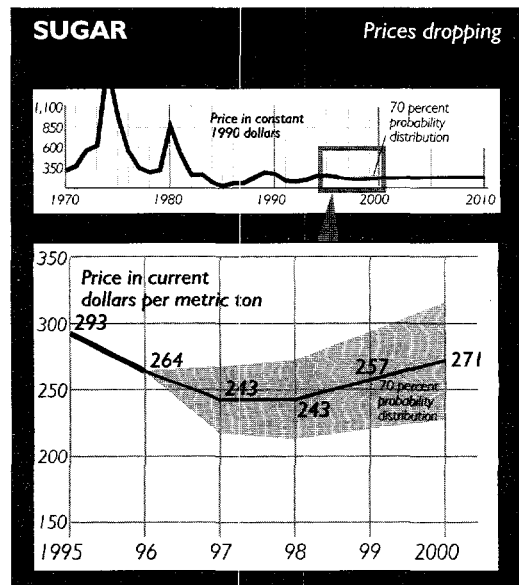
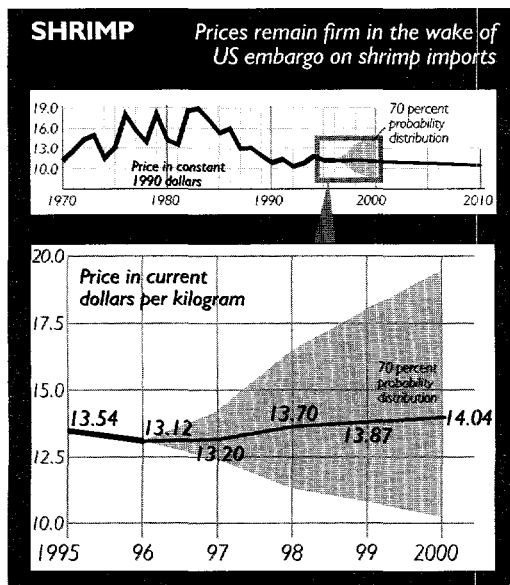
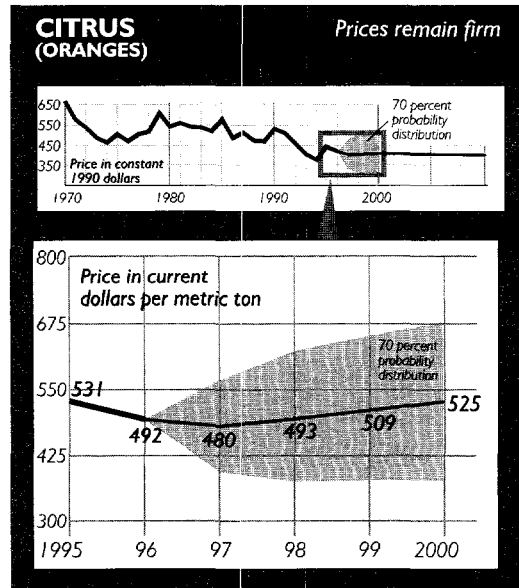
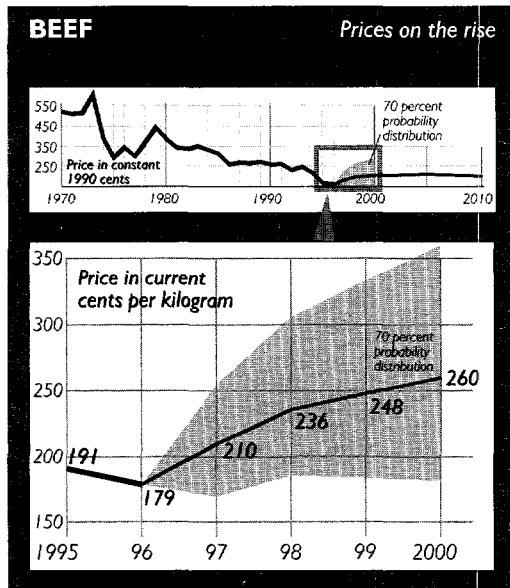
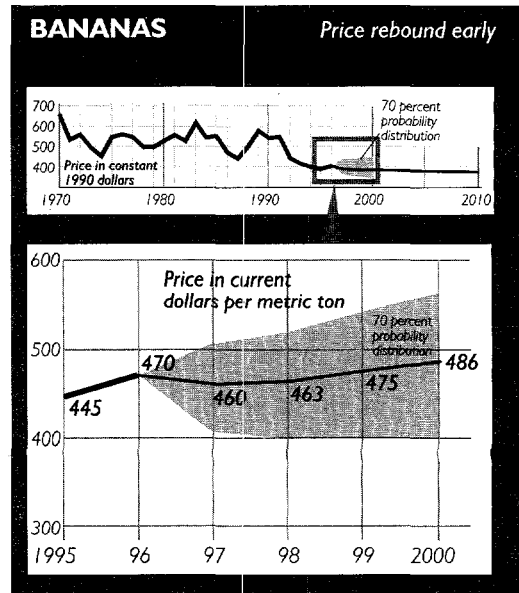
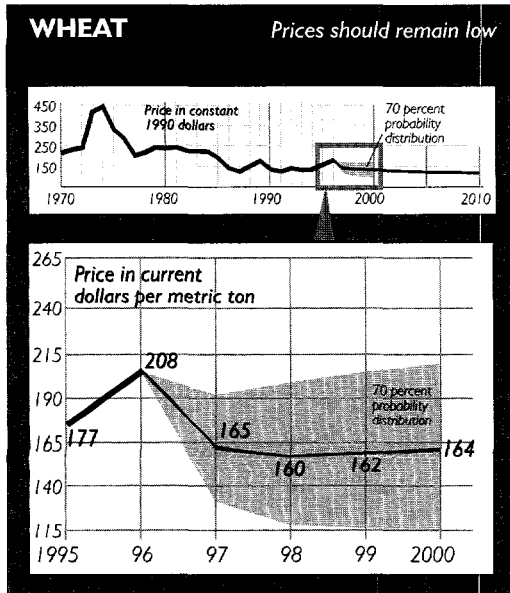


**FOOD
FATS AND OILS**

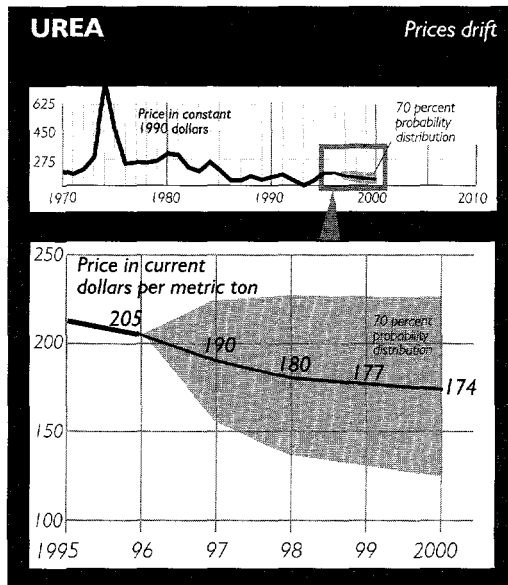
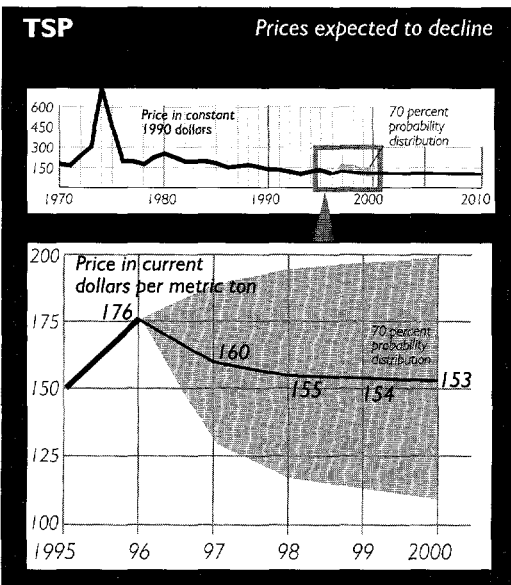
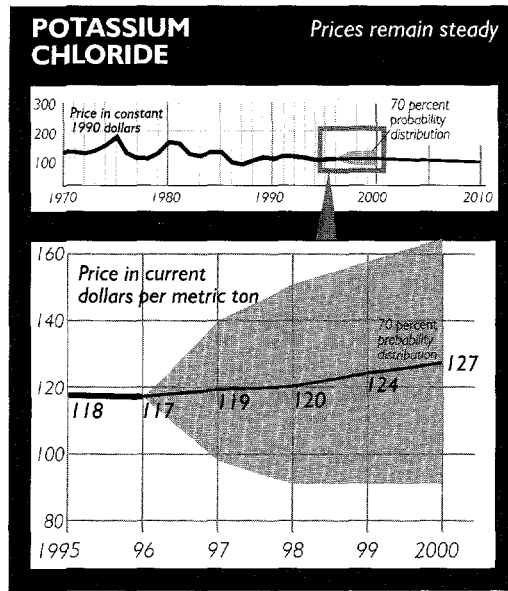
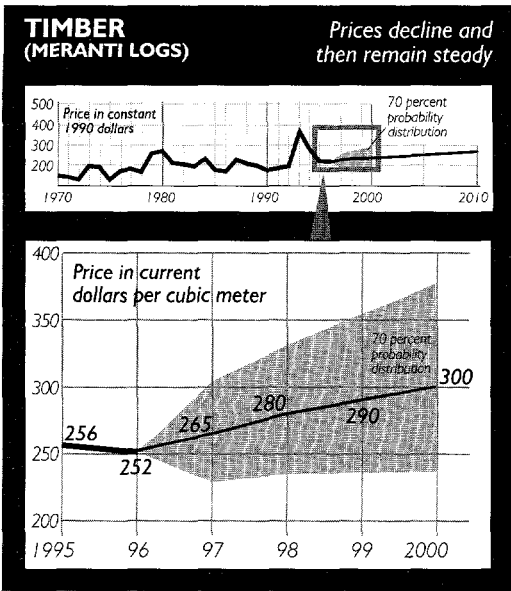
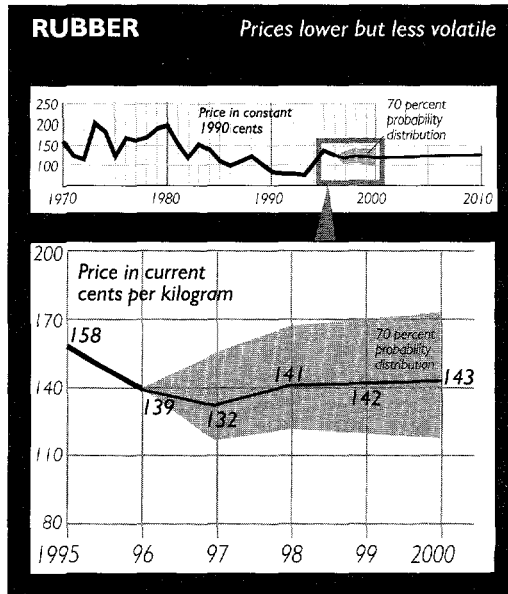
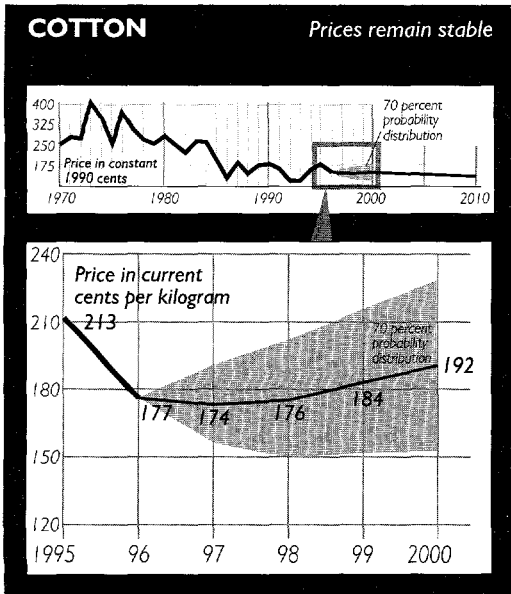


GRAINS

OTHER FOOD



AGRICULTURAL RAW MATERIALS



FERTILIZERS

METALS AND MINERALS

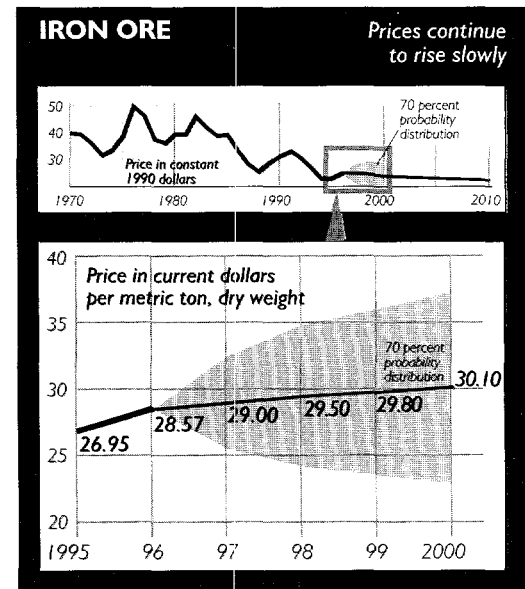
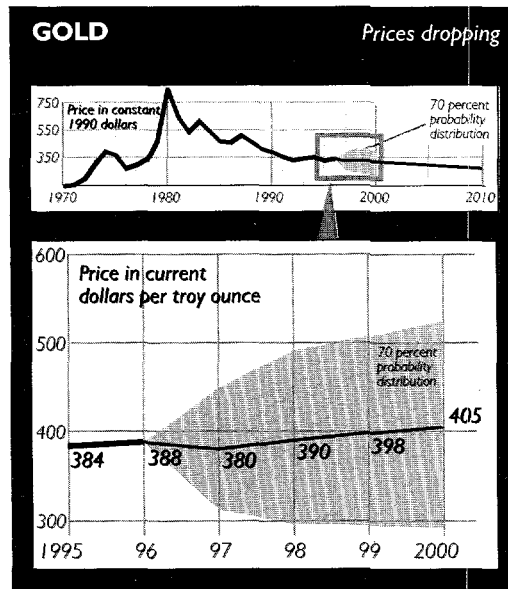
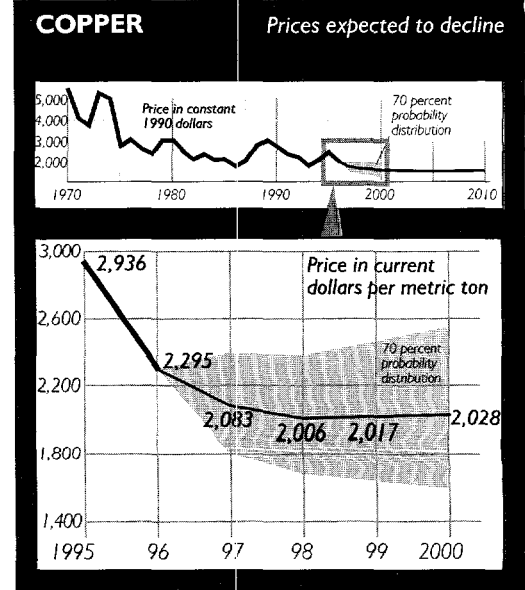
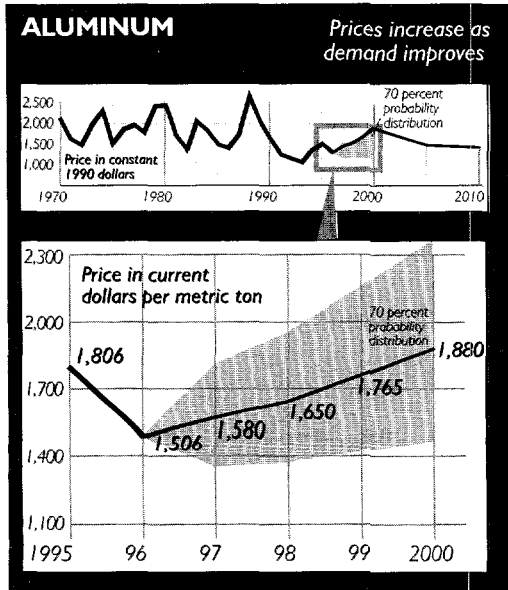


TABLE A1. COMMODITY PRICES AND PRICE PROJECTIONS IN CONSTANT 1990 DOLLARS

Commodity	Unit	Actual								Short-term projections			Long-term projections	
		1970	1980	1985	1990	1993	1994	1995	1996	1997	1998	2000	2005	2010
Energy														
Coal, US	\$/mt	—	59.88	67.96	41.75	35.74	33.10	32.82	31.97	31.24	30.57	30.17	29.41	28.56
Crude oil, avg, spot	\$/bbl	4.82	51.22	39.62	22.88	15.84	14.41	14.38	17.54	16.47	15.29	13.71	13.23	13.04
Natural gas, Europe	\$/mmbtu	—	4.72	5.39	2.55	2.51	2.22	2.28	2.44	2.41	2.27	2.12	2.02	1.96
Natural gas, US	\$/mmbtu	0.68	2.15	3.57	1.70	1.99	1.74	1.44	2.35	1.94	1.69	1.61	1.69	1.74
Beverages														
Cocoa	¢/kg	269	362	329	127	105	127	120	125	130	132	135	139	145
Coffee, other milds	¢/kg	457	482	471	197	147	300	279	231	196	177	172	167	161
Coffee, robusta	¢/kg	363	451	386	118	109	238	232	155	112	121	137	134	127
Tea, auctions, avg	¢/kg	359	250	264	205	158	143	128	145	140	141	140	135	132
Tea, London, all	¢/kg	436	310	289	203	175	166	138	152	155	157	157	153	152
Food														
Fats and oils														
Coconut oil	\$/mt	1,584	936	860	337	423	551	561	646	616	578	580	500	485
Copra	\$/mt	897	629	563	231	278	379	367	420	401	376	325	320	300
Groundnut meal	\$/mt	407	334	212	185	158	153	141	183	151	143	167	160	160
Groundnut oil	\$/mt	1,509	1,193	1,319	964	695	928	830	771	726	644	603	500	450
Palm oil	\$/mt	1,037	811	730	290	355	479	526	456	464	413	329	320	300
Soybean meal	\$/mt	409	365	229	200	196	175	165	230	197	186	196	190	190
Soybean oil	\$/mt	1,142	830	834	447	452	559	524	474	469	467	439	420	400
Soybeans	\$/mt	466	412	327	247	240	229	217	262	241	231	235	230	230
Grains														
Maize	\$/mt	233	174	164	109	96	98	103	142	101	99	97	93	89
Rice, Thai, 5%	\$/mt	504	571	287	271	221	243	269	291	279	273	266	257	255
Sorghum	\$/mt	207	179	150	104	93	94	100	129	98	96	94	91	87
Wheat, US, HRW	\$/mt	219	240	198	136	132	136	148	178	139	132	129	120	115
Other food														
Bananas	\$/mt	662	524	551	541	417	399	373	403	388	383	381	375	369
Beef, US	¢/kg	520	383	314	256	246	212	160	153	177	195	203	212	200
Oranges	\$/mt	670	556	581	531	407	373	445	422	405	407	411	408	404
Shrimp	¢/kg	1,108	1,421	1,529	1,079	1,071	1,186	1,134	1,127	1,115	1,132	1,100	1,051	985
Sugar, world	¢/kg	32.79	87.75	13.04	27.67	20.78	24.22	24.52	22.64	20.48	20.04	21.25	22.49	22.49
Agricultural raw materials														
Timber														
Logs, Malaysia	\$/cum	172	272	177	177	367	279	214	217	224	231	235	251	270
Logs, Cameroon	\$/cum	171	350	253	343	292	300	284	233	253	264	290	313	335
Sawnwood, Malaysia	\$/cum	698	550	447	533	713	745	620	637	646	653	666	696	730
Other raw materials														
Cotton	¢/kg	270	286	192	182	120	160	178	152	147	145	150	143	137
Rubber, RSS1, Malaysia	¢/kg	162	198	111	86	78	102	132	120	112	117	112	117	121
Tobacco	\$/mt	4,290	3,162	3,807	3,392	2,535	2,395	2,211	2,621	2,643	2,611	2,523	2,353	2,204
Fertilizers														
DAP	\$/mt	215	309	246	171	121	157	181	183	177	174	155	146	130
Phosphate rock	\$/mt	44	65	49	41	31	30	29	34	35	35	33	31	29
Potassium chloride ^a	\$/mt	128	161	122	98	101	96	99	100	100	99	100	94	89
TSP	\$/mt	171	250	177	132	105	120	125	151	135	128	120	110	101
Urea	\$/mt	191	309	199	157	100	134	177	177	160	149	136	130	124
Metals and minerals														
Aluminum	\$/mt	2,217	2,023	1,517	1,639	1,071	1,340	1,512	1,293	1,334	1,363	1,473	1,358	1,332
Copper	\$/mt	5,645	3,032	2,066	2,661	1,799	2,094	2,459	1,971	1,759	1,657	1,589	1,532	1,550
Gold	\$/toz	144	845	463	383	338	348	322	333	321	322	317	292	267
Iron ore	¢/dmtu	39.23	39.02	38.71	30.80	26.46	23.11	22.57	24.54	24.49	24.37	23.59	22.83	22.17
Lead	¢/kg	121	126	57	81	38	50	53	67	61	57	53	47	43
Nickel	\$/mt	11,348	9,056	7,140	8,864	4,978	5,752	6,891	6,443	5,742	6,114	6,269	5,709	5,216
Silver	¢/toz	706	2,867	895	482	404	479	435	445	422	430	415	383	354
Tin	¢/kg	1,465	2,330	1,682	609	485	496	520	530	503	501	492	450	414
Zinc	¢/kg	118	106	114	151	90	91	86	88	92	92	89	85	81

— Not available.

Note: Computed from unrounded data and deflated by MUV (1990=100). Forecast as of February 5, 1997.

a. Also known as muriate of potash.

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

COMMODITY PRICE OUTLOOK
TABLE A2. COMMODITY PRICES AND PRICE PROJECTIONS IN CURRENT DOLLARS

Commodity	Unit	Actual								Short-term projections			Long-term projections	
		1970	1980	1985	1990	1993	1994	1995	1996	1997	1998	2000	2005	2010
Energy														
Coal, US	\$/mt	—	43.10	46.63	41.75	38.00	36.48	39.19	37.21	37.00	37.00	38.50	42.25	46.00
Crude oil, avg. spot	\$/bbl	1.21	36.87	27.18	22.88	16.84	15.89	17.17	20.42	19.50	18.50	17.50	19.00	21.00
Natural gas, Europe	\$/mmbtu	—	3.40	3.70	2.55	2.67	2.44	2.73	2.84	2.85	2.75	2.70	2.90	3.15
Natural gas, US	\$/mmbtu	0.17	1.55	2.45	1.70	2.12	1.92	1.72	2.73	2.30	2.05	2.05	2.43	2.80
Beverages														
Cocoa	¢/kg	68	260	225	127	112	140	143	146	154	160	172	200	234
Coffee, other milds	¢/kg	115	347	323	197	156	331	333	269	232	214	220	240	260
Coffee, robusta	¢/kg	91	324	265	118	116	262	277	181	133	146	175	193	205
Tea, auctions, avg	¢/kg	90	180	181	205	168	158	153	169	166	171	179	194	213
Tea, London, all	¢/kg	109	223	198	203	186	183	164	177	184	190	200	220	245
Food														
<i>Fats and oils</i>														
Coconut oil	\$/mt	397	674	590	337	450	608	670	752	730	700	740	718	781
Copra	\$/mt	225	453	386	231	295	417	439	489	475	455	415	460	483
Groundnut meal	\$/mt	102	240	145	185	168	168	169	213	179	173	213	230	258
Groundnut oil	\$/mt	379	859	905	964	739	1,023	991	897	860	780	770	718	725
Palm oil	\$/mt	260	584	501	290	378	528	628	531	550	500	420	460	483
Soybean meal	\$/mt	103	262	157	200	208	192	197	268	233	225	250	273	306
Soybean oil	\$/mt	286	598	572	447	480	616	625	552	555	565	560	603	644
Soybeans	\$/mt	117	296	224	247	255	252	259	305	285	280	300	330	370
<i>Grains</i>														
Maize	\$/mt	58	125	112	109	102	108	123	166	120	120	124	134	144
Rice, Thai, 5%	\$/mt	126	411	197	271	235	268	321	339	330	330	340	369	410
Grain sorghum	\$/mt	52	129	103	104	99	104	119	150	116	116	120	130	140
Wheat, US, HRW	\$/mt	55	173	136	136	140	150	177	208	165	160	164	172	185
<i>Other food</i>														
Bananas	\$/mt	166	377	378	541	443	440	445	470	460	463	486	538	595
Beef, US	¢/kg	130	276	215	256	262	233	191	179	210	236	260	305	322
Oranges	\$/mt	168	400	398	531	432	411	531	492	480	493	525	586	650
Shrimp	¢/kg	278	1,023	1,049	1,079	1,139	1,308	1,354	1,312	1,320	1,370	1,404	1,510	1,586
Sugar, world	¢/kg	8.22	63.16	8.95	27.67	22.10	26.70	29.28	26.36	24.25	24.25	27.12	32.30	36.21
Agricultural raw materials														
<i>Timber</i>														
Logs, Malaysia	\$/cum	43	196	122	177	390	308	256	252	265	280	300	360	435
Logs, Cameroon	\$/cum	43	252	174	343	310	330	340	272	300	320	370	450	540
Sawnwood, Malaysia	\$/cum	175	396	307	533	758	821	740	741	765	790	850	1,000	1,175
<i>Other raw materials</i>														
Cotton	¢/kg	68	206	132	182	128	176	213	177	174	176	192	205	221
Rubber, RSS1, Malaysia	¢/kg	41	142	76	86	83	113	158	139	132	141	143	168	195
Tobacco	\$/mt	1,076	2,276	2,612	3,392	2,695	2,639	2,639	3,051	3,130	3,160	3,220	3,380	3,550
Fertilizers														
DAP	\$/mt	54	222	169	171	129	173	217	213	210	210	198	209	210
Phosphate rock	\$/mt	11.00	46.71	33.92	40.50	33.00	33.00	35.00	39.00	42.00	42.00	42.00	44.00	46.00
Potassium chloride ^a	\$/mt	32	116	84	98	107	106	118	117	119	120	127	135	143
TSP	\$/mt	43	180	121	132	112	132	150	176	160	155	153	158	162
Urea	\$/mt	48	222	136	157	107	148	212	205	190	180	174	187	200
Metals and minerals														
Aluminum	\$/mt	556	1,456	1,041	1,639	1,139	1,477	1,806	1,506	1,580	1,650	1,880	1,950	2,145
Copper	\$/mt	1,416	2,182	1,417	2,661	1,913	2,307	2,936	2,295	2,083	2,006	2,028	2,201	2,496
Gold	\$/toz	36	608	318	383	360	384	384	388	380	390	405	420	430
Iron ore	¢/dmtu	9.84	28.09	26.56	30.80	28.14	25.47	26.95	28.57	29.00	29.50	30.10	32.80	35.70
Lead	¢/kg	30.29	90.58	39.09	81.05	40.64	54.78	63.10	77.43	72.00	69.00	67.50	68.10	70.00
Nickel	\$/mt	2,846	6,519	4,899	8,864	5,293	6,340	8,228	7,501	6,800	7,400	8,000	8,200	8,400
Silver	¢/toz	177	2,064	614	482	430	528	519	518	500	520	530	550	570
Tin	¢/kg	367	1,677	1,154	609	516	546	621	617	595	606	628	647	667
Zinc	¢/kg	30	76	78	151	96	100	103	103	109	111	113	122	131

— Not available.

Note: Computed from unrounded data and deflated by MUV (1990=100). Forecast as of February 5, 1997.

a. Also known as muriate of potash.

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

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

1990=100

Year	Agriculture											
	Energy (100)	Nonenergy commod- ities (100) ^a	Total agriculture (69.1) ^a		Food				Raw materials			Metals and minerals (28.2) ^a
			Beverages (16.9) ^a	Total food (29.4) ^a	Fats and oils (10.1) ^a	Grains (6.9) ^a	Other foods (12.4) ^a	Total raw materials (22.8) ^a	Timber (9.3) ^a	Fertilizers (2.7) ^a		
Current dollars												
1980	161.2	125.9	138.3	182.4	139.3	148.7	134.3	134.3	104.6	79.0	128.9	95.1
1985	118.8	91.4	100.2	164.1	86.3	113.0	89.2	62.8	70.8	59.1	89.0	70.2
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	95.3	97.6	92.9	99.2	104.5	101.7	93.4	99.2	104.2	102.4	88.9
1992	83.1	91.8	94.0	77.5	100.0	111.7	101.7	89.5	98.3	114.5	95.8	86.1
1993	73.6	91.4	98.8	83.6	98.6	111.5	93.7	90.7	110.3	152.4	83.7	73.9
1994	69.4	111.6	123.3	148.8	106.8	125.9	102.1	93.9	125.8	156.6	93.4	84.6
1995	75.1	122.2	131.3	151.2	116.9	136.6	120.4	98.8	135.2	139.5	103.6	101.6
1996	89.3	115.1	125.5	126.5	123.6	147.0	140.6	95.0	127.1	139.5	119.8	89.1
1997	85.2	109.8	118.8	113.3	115.3	139.5	118.4	93.9	127.2	144.3	114.9	87.3
1998	80.9	110.2	119.0	111.1	113.6	133.0	117.3	95.6	131.8	149.5	112.5	88.5
2000	76.5	115.6	124.7	118.1	117.1	134.1	120.8	101.0	139.4	160.7	111.5	93.8
2005	83.0	127.2	138.9	131.2	127.2	144.6	129.7	111.7	159.6	189.6	115.8	99.5
2010	91.8	140.8	154.5	145.1	137.9	158.3	141.5	119.2	183.0	223.7	119.5	109.0
Constant 1990 dollars												
1980	223.9	174.9	192.2	253.4	193.5	206.6	186.6	186.6	145.3	109.8	179.1	132.1
1985	173.2	133.3	146.0	239.2	125.8	164.7	130.0	91.5	103.2	86.1	129.8	102.3
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	93.2	95.5	90.9	97.0	102.2	99.5	91.3	97.0	101.9	100.2	87.0
1992	78.0	86.1	88.1	72.6	93.8	104.7	95.4	84.0	92.2	107.3	89.8	80.8
1993	69.2	85.9	92.9	78.6	92.7	104.9	88.1	85.3	103.7	143.3	78.7	69.5
1994	63.0	101.3	111.9	135.0	96.9	114.3	92.6	85.2	114.1	142.1	84.7	76.8
1995	62.9	102.3	110.0	126.6	97.9	114.4	100.8	82.8	113.2	116.9	86.8	85.1
1996	76.7	98.9	107.8	108.6	106.2	126.3	120.8	81.6	109.2	119.8	102.9	76.6
1997	72.0	92.7	100.3	95.7	97.4	117.8	100.0	79.3	107.4	121.8	97.0	73.7
1998	66.8	91.1	98.3	91.8	93.9	109.9	96.9	79.0	108.9	123.5	93.0	73.1
2000	59.9	90.6	97.7	92.6	91.7	105.1	94.7	79.2	109.2	126.0	87.4	73.5
2005	57.8	88.5	96.7	91.4	88.6	100.7	90.3	77.7	111.1	132.0	80.6	69.3
2010	57.0	87.4	96.0	90.1	85.6	98.3	87.9	74.0	113.7	138.9	74.2	67.7

Note: Figures for 1997–2010 are projections. Weights used are the average 1987–89 export values for low- and middle-income economies. Forecast as of February 5, 1997.

a. Percentage share of commodity group in nonenergy index.

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

TABLE A4. INFLATION INDICES FOR SELECTED YEARS

Year	G-5 MUV index ^a		US GDP deflator	
	1990=100	% change	1990=100	% change
1980	71.98		64.54	
1985	68.61	-0.95	83.77	5.66
1990	100.00	7.83	100.00	3.61
1991	102.23	2.23	103.95	3.95
1992	106.64	4.31	106.84	2.78
1993	106.33	-0.29	109.62	2.60
1994	110.21	3.65	112.18	2.34
1995	119.40	8.34	114.96	2.48
1996	116.41	-2.51	117.20	1.95
1997	118.42	1.73	120.72	3.00
1998	121.03	2.21	124.10	2.80
2000	127.61	2.68	131.78	3.05
2005	143.64	2.39	153.81	3.14
2010	161.04	2.31	178.31	3.00

Note: Figures for 1996–2010 are projections, except 1996 US GDP deflator is a preliminary estimate. Forecast as of January 14, 1997. Growth rates for years 1985, 1990, 2000, 2005, and 2010 are compound annual rates of change between adjacent end-point years; all others are annual growth rates from the previous year.

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

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			
		1997	1998	2000	2005
Energy					
Coal	\$/mt	24.49–38.00	22.93–38.21	21.16–39.18	17.75–41.07
Crude oil, avg., spot	\$/bbl	12.67–21.11	10.74–20.66	9.01–19.59	7.17–19.15
Natural gas, Europe	\$/mmbtu	1.86–2.96	1.69–2.89	1.45–2.82	1.11–2.92
Natural gas, US	\$/mmbtu	1.48–2.41	1.24–2.15	1.10–2.12	0.97–2.40
Beverages					
Cocoa	¢/kg	113–150	112–157	107–170	103–188
Coffee, other milds	¢/kg	166–233	140–219	124–233	117–237
Coffee, robusta	¢/kg	96–133	97–151	99–185	94–191
Tea, auctions, avg.	¢/kg	131–152	126–157	118–160	106–162
Tea, London, all	¢/kg	144–168	140–174	132–179	120–184
Food					
<i>Fats and oil</i>					
Coconut oil	\$/mt	566–701	521–678	462–811	381–816
Copra	\$/mt	376–486	335–475	259–458	235–505
Groundnut meal	\$/mt	126–193	102–194	129–216	125–269
Groundnut oil	\$/mt	676–811	587–744	486–854	353–757
Palm oil	\$/mt	422–549	364–512	259–466	235–505
Soybean meal	\$/mt	171–239	145–256	153–274	149–320
Soybean oil	\$/mt	418–553	409–566	337–623	314–673
Soybeans	\$/mt	203–308	182–314	184–333	180–387
<i>Grains</i>					
Maize	\$/mt	89–113	79–119	74–122	61–131
Rice, Thai 5%	\$/mt	229–329	207–344	192–346	154–385
Sorghum	\$/mt	86–110	77–115	72–119	59–127
Wheat, US, HRW	\$/mt	114–164	100–167	93–167	72–171
<i>Other food</i>					
Bananas	\$/mt	342–427	329–428	312–442	232–495
Beef, US	¢/kg	144–215	154–253	143–282	157–336
Oranges	\$/mt	332–478	310–513	296–531	273–543
Shrimp	¢/kg	1,051–1,199	938–1,359	803–1,528	773–1,656
Sugar, world	¢/kg	18.43–22.53	17.63–22.44	17.85–24.65	15.29–29.69
Agricultural raw materials					
<i>Timber</i>					
Logs, Malaysia	\$/cm	195–257	195–274	187–296	186–338
Logs, Cameroon	\$/cm	220–291	223–313	230–365	232–423
Sawnwood, Malaysia	\$/cm	562–743	551–774	529–838	515–940
<i>Other raw materials</i>					
Cotton	¢/kg	133–162	124–168	120–180	107–179
Rubber, RSSI, Malaysia	¢/kg	98–131	100–138	92–136	76–176
Tobacco	\$/mt	2,326–2,961	2,141–3,081	1,892–3,154	1,577–3,129
Fertilizers					
DAP	\$/mt	145–209	132–219	112–202	95–196
Phosphate rock	\$/mt	29–42	26–44	24–43	20–41
Potassium chloride ^a	\$/mt	82–119	75–125	72–129	56–132
TSP	\$/mt	111–159	97–161	86–156	66–154
Urea	\$/mt	132–189	113–187	98–177	78–182
Metals and minerals					
Aluminum	\$/mt	1,160–1,535	1,150–1,616	1,171–1,854	1,006–1,833
Copper	\$/mt	1,529–2,024	1,398–1,965	1,263–2,000	1,135–2,068
Gold	\$/toz	263–379	245–406	229–409	175–424
Iron ore	¢/dmtu	21.53–27.44	20.00–28.75	17.95–29.23	16.01–30.35
Lead	¢/kg	49.82–71.78	43.30–71.80	38.08–68.25	31.54–63.98
Nickel	\$/mt	4,709–6,776	4,647–7,704	4,514–8,087	3,425–7,992
Silver	¢/toz	346–498	327–541	299–536	230–555
Tin	¢/kg	412–593	381–631	355–635	270–586
Zinc	¢/kg	75–109	70–116	64–114	57–113

Note: Forecast as of February 5, 1997.

a. Also known as muriate of potash.

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			
		1997	1998	2000	2005
Energy					
Coal	\$/mt	29.00–45.00	27.75–46.25	27.00–50.00	25.50–59.00
Crude oil, avg., spot	\$/bbl	15.00–25.00	13.00–25.00	11.50–25.00	10.30–27.50
Natural gas, Europe	\$/mmbtu	2.20–3.50	2.05–3.50	1.85–3.60	1.60–4.20
Natural gas, US	\$/mmbtu	1.75–2.85	1.50–2.60	1.40–2.70	1.40–3.45
Beverages					
Cocoa	¢/kg	134–177	135–190	137–216	148–270
Coffee, other milds	¢/kg	197–276	169–265	158–297	168–341
Coffee, robusta	¢/kg	114–158	117–183	126–236	135–274
Tea, auctions, avg.	¢/kg	155–180	152–190	150–204	152–233
Tea, London, all	¢/kg	171–199	169–211	168–228	172–264
Food					
<i>Fats and oil</i>					
Coconut oil	\$/mt	670–830	630–820	590–1,035	547–1,172
Copra	\$/mt	445–575	405–575	330–585	338–725
Groundnut meal	\$/mt	149–229	123–235	165–275	180–386
Groundnut oil	\$/mt	800–960	710–900	620–1,090	507–1,087
Palm oil	\$/mt	500–650	440–620	330–595	338–725
Soybean meal	\$/mt	203–283	175–310	195–350	214–459
Soybean oil	\$/mt	495–655	495–685	430–795	451–966
Soybeans	\$/mt	240–365	220–380	235–425	259–556
<i>Grains</i>					
Maize	\$/mt	106–134	96–144	94–156	87–188
Rice, Thai 5%	\$/mt	271–389	251–416	245–442	221–554
Sorghum	\$/mt	102–130	93–140	91–152	85–182
Wheat, US, HRW	\$/mt	135–195	122–202	118–213	103–246
<i>Other food</i>					
Bananas	\$/mt	405–506	398–519	399–564	334–711
Beef, US	¢/kg	170–255	186–306	182–360	225–483
Oranges	\$/mt	394–566	375–621	378–677	393–779
Shrimp	¢/kg	1,245–1,420	1,135–1,645	1,025–1,950	1,110–2,379
Sugar, world	¢/kg	21.83–26.68	21.34–27.16	22.78–31.46	21.96–42.64
Agricultural raw materials					
<i>Timber</i>					
Logs, Malaysia	\$/cm	230–305	236–332	238–378	267–486
Logs, Cameroon	\$/cm	261–345	270–379	294–466	333–607
Sawnwood, Malaysia	\$/cm	665–880	667–936	675–1,070	740–1,350
<i>Other raw materials</i>					
Cotton	¢/kg	157–192	150–203	153–230	154–257
Rubber, RSSI, Malaysia	¢/kg	116–155	121–167	117–173	109–252
Tobacco	\$/mt	2,754–3,506	2,591–3,729	2,415–4,025	2,265–4,495
Fertilizers					
DAP	\$/mt	172–248	160–265	143–257	136–282
Phosphate rock	\$/mt	34–50	32–53	30–55	29–59
Potassium chloride ^a	\$/mt	98–140	91–151	91–165	81–189
TSP	\$/mt	131–189	118–195	110–199	95–221
Urea	\$/mt	156–224	137–227	125–226	112–262
Metals and minerals					
Aluminum	\$/mt	1,374–1,817	1,392–1,956	1,494–2,366	1,445–2,632
Copper	\$/mt	1,811–2,396	1,693–2,378	1,612–2,553	1,631–2,971
Gold	\$/toz	312–448	296–491	292–523	252–609
Iron ore	¢/dmtu	25.50–32.50	24.20–34.80	22.90–37.30	23.00–43.60
Lead	¢/kg	59.00–85.00	52.40–86.90	48.60–87.10	45.30–91.90
Nickel	\$/mt	5,576–8,024	5,624–9,324	5,760–10,320	4,920–11,480
Silver	¢/toz	410–590	395–655	382–684	330–798
Tin	¢/kg	488–702	461–764	452–811	388–841
Zinc	¢/kg	89–129	84–140	81–146	81–163

Note: Forecast as of February 5, 1997.

a. Also known as muriate of potash.

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

COMMODITY PRICE OUTLOOK
TABLE A7. RECENT COMMODITY PRICES

Commodity	Unit	Annual averages			Quarterly averages					Monthly averages		
		Jan-Dec 1994	Jan-Dec 1995	Jan-Dec 1996	Oct-Dec 1995	Jan-Mar 1996	Apr-Jun 1996	Jul-Sep 1996	Oct-Dec 1996	Oct 1996	Nov 1996	Dec 1996
Energy												
Coal												
Australia ^a	\$/mt	32.30	39.37	38.69	40.95	39.97	39.22	38.58	38.28	38.40	38.35	38.10
Australia	\$/mt	32.30	39.37	38.07	39.97	39.22	38.58	38.28	36.22	37.60	35.70	35.35
US	\$/mt	36.48	39.19	37.21	36.50	36.77	37.10	37.60	37.38	36.40	37.90	37.85
Crude oil, avg., spot ^t	\$/bbl	15.89	17.17	20.42	16.91	18.30	19.41	20.76	23.21	23.61	22.39	23.62
Brent ^t	\$/bbl	15.83	17.07	20.65	16.99	18.63	19.47	20.93	23.57	24.18	22.64	23.90
Dubai ^a	\$/bbl	14.67	16.11	18.54	15.76	16.56	17.25	18.94	21.41	21.71	20.87	21.65
West Texas Int. ^a	\$/bbl	17.16	18.34	22.07	17.98	19.71	21.52	22.42	24.64	24.94	23.66	25.32
Natural gas												
Europe	\$/mmbtu	2.44	2.73	2.84	2.74	2.73	2.91	2.79	2.96	2.94	2.96	2.97
US	\$/mmbtu	1.92	1.72	2.73	2.17	3.43	2.32	2.12	3.07	2.37	3.03	3.82
Beverages												
Cocoa ^b	¢/kg	139.6	143.2	145.6	140.3	135.3	150.6	149.1	147.3	147.7	146.8	147.4
Coffee												
Other milds ^b	¢/kg	330.8	333.2	269.4	263.6	261.3	278.0	270.0	268.4	273.8	273.5	258.0
Robusta ^b	¢/kg	262.0	277.1	180.6	232.5	204.2	196.9	169.8	151.5	160.8	154.8	139.0
Tea												
Auctions, average ^b	¢/kg	157.7	152.7	168.9	160.9	158.7	170.4	175.0	171.5	175.1	167.7	171.7
London auction ^b	¢/kg	183.2	164.3	177.4	177.0	173.6	172.7	172.9	190.2	182.7	189.0	198.7
Food												
Fats and oils												
Coconut oil ^b	\$/mt	607.5	669.6	751.6	728.7	724.0	783.3	746.0	753.0	722.0	760.0	777.0
Copra	\$/mt	417.3	438.5	488.9	473.3	464.0	510.7	501.3	479.7	470.0	471.0	498.0
Groundnut meal	\$/mt	168.3	168.6	212.8	184.3	186.3	217.7	215.0	232.0	227.0	234.0	235.0
Groundnut oil ^b	\$/mt	1,022.8	990.9	897.3	991.0	931.7	898.7	888.7	870.0	874.0	868.0	868.0
Palm oil ^b	\$/mt	528.4	628.3	530.9	604.0	524.0	540.7	511.3	547.7	532.0	550.0	561.0
Soybean meal ^b	\$/mt	192.4	196.9	267.5	229.7	253.0	269.0	273.7	274.3	270.0	274.0	279.0
Soybean oil ^b	\$/mt	615.6	625.1	551.5	613.3	546.7	578.7	561.0	519.7	528.0	517.0	514.0
Soybeans ^b	\$/mt	251.8	259.3	304.8	283.0	299.7	315.3	316.0	288.3	290.0	286.0	289.0
Grains												
Maize ^b	\$/mt	107.6	123.5	165.8	144.5	168.6	197.3	176.2	121.1	127.9	117.7	117.7
Rice												
Thai, 5% ^b	\$/mt	267.6	321.0	338.5	354.9	365.6	333.7	340.6	314.1	312.8	315.0	314.6
Thai, 35%	\$/mt	218.5	290.2	275.6	319.3	311.7	272.7	269.2	248.8	249.3	248.3	248.8
Thai, A1 Special	\$/mt	182.3	262.8	232.6	290.1	262.5	243.2	218.9	205.9	208.0	205.8	203.8
Sorghum ^b	\$/mt	103.9	119.0	150.0	144.0	160.0	183.1	148.8	108.2	113.3	105.6	105.8
Wheat												
Canada	\$/mt	198.6	207.1	230.8	232.2	232.6	277.2	220.2	193.3	207.9	187.7	184.3
US, HRW ^b	\$/mt	149.7	177.0	207.6	205.5	213.7	249.0	191.0	176.7	178.0	176.4	175.7
US, SRW	\$/mt	138.6	167.4	187.4	199.2	202.2	213.9	175.3	158.4	158.4	158.2	158.6
Other food												
Bananas ^b	\$/mt	439.8	445.1	469.6	427.3	501.4	541.8	409.0	426.1	375.5	426.6	476.2
Beef ^b	¢/kg	233.3	190.7	178.5	191.8	182.8	176.2	173.9	181.2	179.5	181.2	183.1
Fishmeal	\$/mt	376.3	495.0	586.0	590.3	635.3	570.0	550.7	588.0	581.0	600.0	583.0
Lamb	¢/kg	297.5	262.1	329.5	264.7	262.6	332.3	351.0	371.9	359.3	377.2	379.2
Oranges ^b	\$/mt	411.3	531.5	491.7	517.9	442.1	536.0	527.7	460.9	473.7	475.0	433.9
Shrimp	¢/kg	1,307.5	1,353.7	1,311.9	1,229.1	1,203.0	1,365.9	1,325.5	1,353.3	1,311.8	1,364.7	1,383.4
Sugar												
EU, domestic ^b	c/kg	62.2	68.8	68.3	69.3	68.7	68.0	68.5	68.1	69.2	70.5	64.6
US, domestic ^b	c/kg	48.6	50.8	49.3	50.2	49.6	49.7	48.9	48.9	49.3	48.8	48.7
World ^b	c/kg	26.7	29.3	26.4	26.5	28.1	26.1	27.3	23.9	24.5	23.6	23.7
Agricultural raw materials												
Timber												
Logs												
Malaysia ^b	\$/m ³	307.6	255.6	253.4	235.5	244.6	256.7	260.6	251.8	252.7	253.2	249.6
Cameroon	\$/m ³	330.3	339.5	271.6	328.0	278.1	254.0	267.4	286.8	280.6	293.8	286.1
Plywood	¢/sheet	601.2	584.4	529.5	535.5	535.6	526.7	532.4	523.3	525.1	526.2	518.6
Sawnwood												
Malaysia ^b	\$/m ³	821.0	740.0	741.4	718.5	720.6	750.8	747.6	746.5	758.9	753.7	726.9
Ghana	\$/m ³	618.6	632.5	540.8	589.8	530.8	524.8	531.5	576.1	559.8	580.8	587.8
Woodpulp	\$/mt	552.5	853.5	574.3	942.7	678.7	499.2	545.5	573.8	622.3	549.6	549.6

TABLE A7. RECENT COMMODITY PRICES (CONTINUED)

Commodity	Unit	Annual averages			Quarterly averages					Monthly averages		
		Jan-Dec 1994	Jan-Dec 1995	Jan-Dec 1996	Oct-Dec 1995	Jan-Mar 1996	Apr-Jun 1996	Jul-Sep 1996	Oct-Dec 1996	Oct 1996	Nov 1996	Dec 1996
Other raw materials												
Cotton ^b	¢/kg	176.3	212.8	177.3	197.1	187.0	182.8	170.1	169.5	166.2	167.7	174.7
Jute	\$/mt	298.3	368.0	457.5	466.7	525.4	502.3	403.3	399.2	397.5	400.0	400.0
Rubber												
Malaysia ^b	¢/kg	112.6	158.0	139.4	155.3	152.8	147.1	132.0	125.6	124.1	127.0	125.7
NY	¢/kg	131.6	181.4	160.7	176.5	176.2	166.9	153.4	146.1	146.3	146.2	145.8
Singapore	¢/kg	115.4	160.0	140.9	156.5	156.9	148.7	131.8	126.5	124.8	128.1	125.6
Sisal	\$/mt	605.1	709.7	868.3	735.3	843.3	860.0	890.0	880.0	890.0	890.0	860.0
Wool	¢/kg	384.3	488.3	416.3	443.7	430.0	410.8	412.4	412.0	405.0	413.3	417.8
Fertilizers												
DAP	\$/mt	172.8	216.6	213.2	243.9	231.7	204.5	206.9	209.5	206.1	211.3	211.2
Phosphate rock ^b	\$/mt	33.0	35.0	39.0	35.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
Potassium chloride	\$/mt	105.7	117.8	116.9	118.9	116.7	117.0	117.0	117.0	117.0	117.0	117.0
TSP ^a	\$/mt	132.1	149.6	175.8	157.7	168.4	173.9	178.6	182.5	182.5	182.5	182.5
Urea	\$/mt	147.9	211.5	205.5	229.0	220.0	198.5	206.4	197.0	195.6	201.8	193.6
Metals and minerals												
Aluminum ^b	\$/mt	1,476.8	1,805.7	1,505.7	1,661.7	1,597.8	1,553.0	1,443.2	1,428.7	1,336.3	1,449.5	1,500.3
Copper ^b	\$/mt	2,307.4	2,935.6	2,294.9	2,905.7	2,571.7	2,475.8	1,978.5	2,153.4	1,961.2	2,230.9	2,268.1
Gold	\$/toz	384.0	384.2	387.7	385.3	400.1	390.0	384.7	376.0	381.1	377.9	369.0
Iron ore ^b	¢/dmton	25.47	26.95	28.57	26.95	28.57	28.57	28.57	28.57	28.57	28.57	28.57
Lead ^b	¢/kg	54.8	63.1	77.4	69.5	76.6	81.7	79.9	71.6	74.2	71.7	68.9
Nickel ^b	\$/mt	6,339.8	8,228.0	7,500.8	8,219.5	8,033.1	7,926.3	7,192.0	6,851.8	7,031.4	6,943.4	6,580.8
Silver	¢/toz	528.4	519.1	518.3	526.0	553.7	529.9	504.8	484.9	492.8	482.8	479.2
Steel products (8) index ^c	1990=100	92.7	106.7	96.3	107.2	101.6	96.3	95.1	92.1	92.3	92.1	91.8
Steel												
Cold rolled coil sheet	\$/mt	511.7	554.2	483.9	553.3	523.3	500.0	474.0	438.3	430.0	440.0	445.0
Hot rolled coil sheet	\$/mt	402.9	440.8	365.6	426.7	390.0	373.3	367.3	331.7	330.0	330.0	335.0
Rebar	\$/mt	322.5	381.7	360.2	380.0	370.0	353.3	360.7	356.7	370.0	360.0	340.0
Wire rod	\$/mt	371.7	420.8	438.5	456.7	463.3	443.3	437.3	410.0	420.0	410.0	400.0
Tin ^b	¢/kg	546.4	621.4	616.5	629.9	622.1	636.2	615.4	592.3	594.2	599.2	583.6
Zinc ^b	¢/kg	99.8	103.1	102.5	100.9	104.0	103.0	100.2	102.9	100.3	104.7	103.6
World Bank commodity price indices for low- and middle-income countries (1990 = 100)												
Petroleum		69.4	75.1	89.3	73.9	80.0	84.8	90.8	101.4	103.2	97.9	103.2
Nonenergy commodities		111.6	122.2	115.1	118.2	117.1	119.4	113.1	110.7	109.9	111.6	110.7
Agriculture		123.3	131.3	125.5	126.4	126.2	130.3	124.7	120.7	121.1	121.3	119.7
Beverages		148.8	151.2	126.5	128.3	124.0	131.3	126.6	124.0	126.6	125.3	120.0
Food		106.8	116.9	123.6	122.1	124.8	129.7	123.2	116.7	116.1	116.9	117.2
Fats and oils		125.9	136.6	147.0	144.2	142.6	150.1	147.7	147.8	145.4	147.8	150.2
Grains		102.1	120.4	140.5	137.6	147.1	157.2	139.6	118.2	120.0	117.4	117.1
Other food		93.9	98.8	95.0	95.3	97.8	97.6	94.0	90.5	89.9	91.3	90.3
Raw materials		125.8	135.2	127.1	130.6	129.7	130.3	125.2	123.4	123.4	124.0	122.7
Timber		156.6	139.5	139.6	134.5	135.5	141.4	141.1	140.3	142.4	141.6	136.9
Other raw materials		104.8	132.3	118.6	128.0	125.6	122.8	114.3	111.8	110.4	111.9	113.0
Fertilizers		93.4	103.6	119.8	107.5	116.2	118.9	121.1	123.0	123.0	123.0	123.0
Metals and minerals		84.6	101.6	89.1	98.9	94.7	92.8	83.8	85.1	81.3	86.6	87.4

Note: Prices as of January 7, 1997. Monthly updates of commodity prices are available on the internet at <http://www.worldbank.org/html/ieccp/ieccp.html>

a. Included in the petroleum index.

b. Included in the nonenergy index.

c. Steel not included in the nonenergy index.

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

COMMODITY DESCRIPTIONS

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), UK Brent 38° API, f.o.b. UK ports

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

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

Beverages

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

**Tea (Auctions, average)*, leaf at Calcutta auction, and all tea at Colombo, London, and Nairobi/Mombasa auctions, arithmetic averages of weekly quotes

Tea (London auctions), all tea, arithmetic averages of weekly quotes

Foodstuffs**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, 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. I 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

Other foodstuffs

Bananas (Central and 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

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 unpackaged sugar from African, Caribbean, and Pacific (ACP) countries under Lomé Convention 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

Agricultural raw materials**Other raw materials**

Cotton (Cotlook A index), middling 1-3/32 inch, c.i.f. Europe

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

**Rubber (Malaysian)*, RSS1, in bales, Malaysian Rubber Exchange and Licensing Board, mid-day buyers' asking price for prompt or 30 days' delivery, f.o.b. Kuala Lumpur

Rubber (Asian), RSS1, 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 (any origin), RSS1, in bales, Rubber Traders Association (RTA), spot, New York

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

Tobacco (US) unmanufactured, unit value of general imports, 12-month moving averages

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 m² x 182 m² 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 inches; <1n dry, c&f UK ports

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

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

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 (SSF), 64.3% purity (dry weight) ores from Itabira and other southern mines, contract price to Europe, f.o.b. Tubarao; unit refers to dry metric ton unit (dmtu), or mt 1% Fe-unit; 28.57 g/dmtu is equivalent to \$18.37/dmt SSF, or \$17.10/Wet mt SSF

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

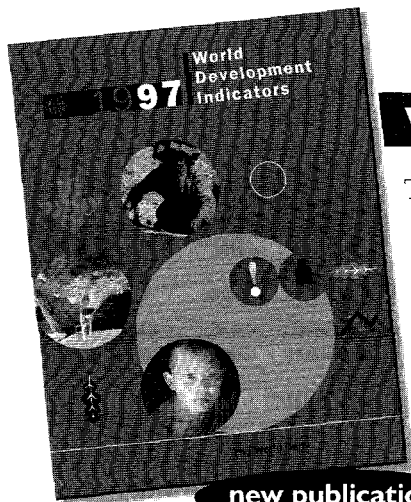
Steel products price index, 1990=100, (Japanese), composite price index for eight selected steel products based on quotations f.o.b. Japan excluding shipments to the US and China, weighted by product shares of apparent combined consumption (volume of deliveries) in Germany, Japan, and the US. The eight products are: rebar (concrete reinforcing bars), merch bar (merchant bars), wire rod, section (H-shape), plate (medium), not rolled coil/sheet, cold rolled coil/sheet, and galvanized iron sheet

Tin (LME), refined, 99.85% purity, 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

* The price series forecast in tables A1 and A2.

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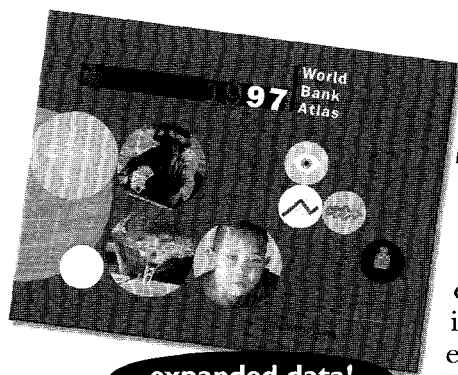
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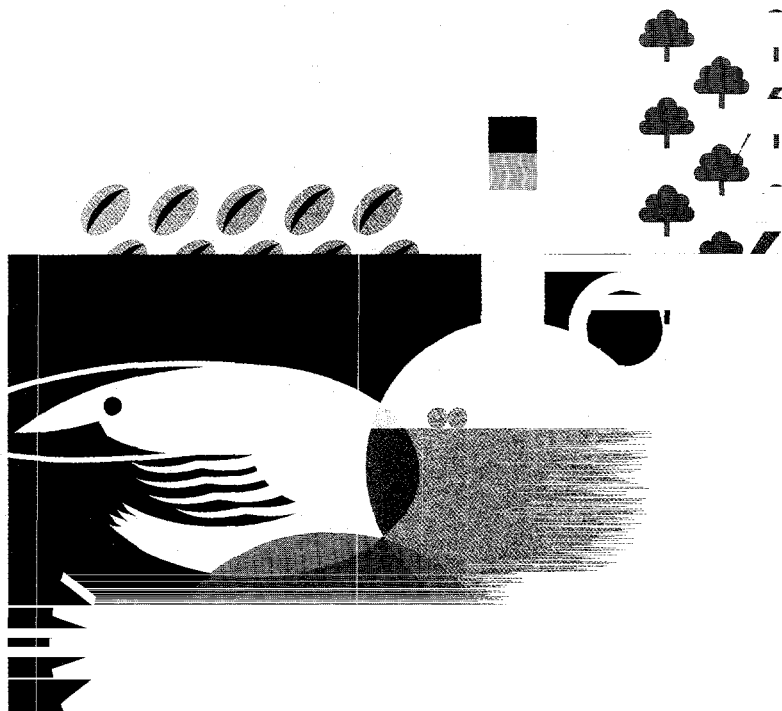
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