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# 17147 Vol. 4 No. 3

Regionalism boosts agricultural trade

Oil prices fall—finally

Coffee prices surge

Metals prices rebound



Energy prices fell 9.5% largely because of mild weather and supply increases from both OPEC and non-OPEC suppliers.

Nonenergy prices rose 7.8% in a broad-based increase.

CHANGE IN QUARTERLY AVERAGES, 4Q96 to 1Q97

rercent	
Energy	<del>-9</del> .5
Nonenergy	+7.8
Total agriculture	+7.7
Beverages	+21.5
Total food	+4.9
Fats and oils	+4.5
Grains	+3.8
Other	+6.4
Raw materials	+0.7
Timber	+0.1
Fertilizer	+1.0
Metals and minerals	+8.7

#### SUMMARY

Page 4

#### SPECIAL FEATURE

■ REGIONALISM AND AGRICULTURAL

RADE PAGE 6

Regionalism is on the rise, and agricultural trade is affected more dramatically than manufactures trade. When Greece, Portugal, and Spain joined the EC, agricultural trade increased. If Eastern European countries are admitted to the EU, their agricultural exports are likely to increase more than manufactures.

# MANAGING COMMODITY PRICE RISK

■ WAREHOUSE RECEIPTS-BASED LENDING

IN VENEZUELA PAGE 8

Warehouse receipts-based lending has been used in Venezuela since the 1930s, but recent market reforms have given new life to this type of inventory-based collateral.

#### **ENERGY**

■ Coal Page 9

US prices weaken because of mild weather and high utility stocks. Real prices are expected to decline over the longer term as several low-cost suppliers increase production and force other producers to boost productivity.

■ Natural gas Page 9

US gas prices fall because of mild winter weather and an improved supply-demand balance. Demand for storage injections and for power generation should keep prices firm this summer. In Europe gas prices hold because of lags in contract price indexation with oil products.

■ PETROLEUM PAGE 10

Mild weather and increased supply cause a sharp price drop. Large increases in non-OPEC supplies are expected to outstrip growth in demand this year, leading to lower prices. Though inventories should rise, the industry will be reluctant to build stocks without a financial incentive.

#### **BEVERAGES**

■ Cocoa Page 14

Despite improved forecasts for the main crop

in Côte d'Ivoire, a sizable deficit is still projected for 1996/97. Prices are responding to the deficit forecast, though large stocks will prevent prices from rising too rapidly.

■ Coffee

Page 14

Coffee prices are up—36% for arabica and 8% for robusta. Fueling the rise are low levels of stocks, expected low production in Brazil and Colombia, and futures purchases by speculative funds.

■ TEA PAGE 1

Prices increase sharply in response to tight supply and strong demand. Extremely dry weather in Africa hurts production in most tea growing countries, particularly Kenya. Demand continues strong in major importing countries.

#### **FOOD**

**FATS AND OILS** 

FATS AND OILS

PAGE 16

Improved crop prospects for soybeans and rapeseed lead to an upward adjustment in the USDA estimate of world oilseed production. An even greater increase in demand is expected to reduce oilseed ending stocks to 28 days of use.

■ Coconut oil Page 16

Production is expected to return to normal after plunging some 430,000 tons last year. Prices should return to 1996 levels.

■ Palm oil Page 17

Despite an 8% increase in production over last year, stocks decline an unexpected 16%, reflecting strong demand from China. Good prospects for continued growth will keep Malaysia the leading palm oil producer.

■ SOYBEAN OIL PAGE 17
Improved yields—especially in South
America—boost world soybean production
to almost 144 million tons. Demand is
expected to grow even faster, depressing

stocks to their lowest levels in 20 years.

#### **GRAINS**

■ GRAINS

PAGE 18

Prices increase on higher than expected consumption and concerns for next year. Some rebuilding of stocks reduces prospects for higher prices.

#### ■ Maize Page 18

Prices recover from their harvest lows, but further increases will depend on the US crop. If US farmers' planting intentions are realized and yields are normal, prices could be heading lower by early summer.

#### ■ RICE PAGE 19

World import demand is expected to fall to 17.4 million tons in 1997 from the high of 21.0 million tons in calendar 1995. The resultant weakening of world prices could make exports from India and some other countries uncompetitive.

#### ■ WHEAT PAGE 19

Prices are strong, but record or near-record crops in Argentina and Australia should cap price increases. Major exporting countries have rebuilt stocks, which should further limit price increases.

#### **OTHER FOOD**

#### ■ Bananas

Prices continue to climb. WTO panel rules against the EU banana regime, according to press reports.

PAGE 20

#### ■ SHRIMP PAGE 21

Prices stay high as supplies from Asia remain low. Many Asian suppliers have been hurt by the US embargo and by disease on shrimp farms.

#### ■ SUGAR PAGE 21

Prices hold as the market receives offsetting news. Russia and Ukraine pursue protective policies. US legislators propose important reforms to the US sugar program.

# AGRICULTURAL RAW MATERIALS

#### ■ COTTON PAGE 22

Prices rise a modest 4% over the last quarter. Unexpectedly high cotton shipments to China boosted its imports last season by 2 million tons. China now holds almost half of world stocks. Developing countries are increasingly using futures and options as risk management tools.

#### ■ RUBBER

Page 23

INRA III comes into force. Thailand boosts its intervention price. An Indonesian group takes over rubber plantations in Cameroon.

#### ■ TIMBER

PAGE 24

Prices of tropical hardwood logs are on the skids because of sluggish demand. Nontropical timbers are taking over more of the market from tropical timbers.

#### **FERTILIZERS**

#### **■ FERTILIZERS**

PAGE 24

A new IFPRI report concludes that the world will have the capacity to produce between 147 and 163 million tons of fertilizer nutrients in 2000 but will need to increase capacity by an additional 51 million tons between 2000 and 2020 to meet projected effective demand.

#### ■ Potassium Chloride

Page 25

Negotiations on contract prices between major exporters and importers for the first half of 1997 end with prices unchanged from those in the second half of 1996. Lower world potash production and weak imports by China and India in 1996 account for the weak prices. Producers expect better sales in 1997.

#### ■ TSP PAGE 25

TSP and DAP prices fall slightly, but recent increases in grain prices should support phosphate use. Prices for phosphate rock were up about \$3/ton in 1996, and further increases are expected.

#### ■ UREA PAGE 26

Prices weaken during the quarter on prospects of sharply lower imports by China. The Chinese government raises import taxes and duties in an apparent effort to lower imports to accommodate increased domestic production.

#### **METALS AND MINERALS**

#### ■ ALUMINUM

PAGE 26

Improved consumption in the US, Europe, and Japan and interest from funds and speculators are pushing up prices. Stocks have been drawn down despite rising production, provoking bullish sentiments in the market.

#### **■** COPPER

Page 27

Cash prices settle around \$2,400–\$2,500/ton. Backwardation narrows, and stocks tighten.

#### **■** Gold

Page 28

Prices fall to \$351/toz for the quarter, from \$376/toz the previous quarter, as the market faces a stream of bad news. European central bank selling increases as countries try to lower their debt to GDP ratios in preparation for European monetary union. Demand also falls in most of Asia and the Middle East.

#### ■ IRON ORE AND STEEL

Page 28

Australian and Brazilian producers receive a 1.1% increase in iron ore prices. US demand continues strong. Prices increase modestly in US, Europe, and Asia for some steel products.

#### **COMMODITY PRICES**

■ Commodity price indices

PAGE 5

■ COMMODITY PRICE OUTLOOK

Page 29

#### **SUMMARY**

Energy prices fell in response to mild weather and supply increases from both OPEC and non-OPEC suppliers. Nonenergy prices rose 7.8% in a broad-based increase to which all major components of the price index contributed. Agricultural prices were up 7.7%, led by a 21.5% upturn in beverages as supply disruptions occurred in Brazil and Colombia. Metals and minerals prices were up 8.7%, driven by sharp increases for aluminum and copper.

Energy prices may finally be heading down as a mild winter ended the tight supply-demand balance that had persisted for many months. Inventories have been partly rebuilt, and both OPEC and non-OPEC supplies are projected to grow. Non-OPEC supplies should increase strongly throughout the year, reducing prices and building up stock levels. OPEC production rose during the quarter in all member countries, averaging 2 mb/d above quota; higher production from Iraq under the UN's six-month oil-for-food program accounted for much of the increase. Non-OPEC production rose 0.32 mb/d dur-

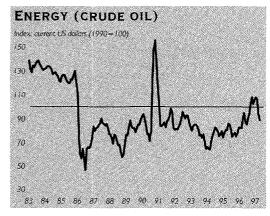
ing the quarter, with much of the increase coming from Norway and Mexico and other Latin American countries. Although it was up, non–OPEC production was up less than expected because of bad weather and technical delays. Warm weather in OECD countries kept world crude oil demand increases below expectations. Demand grew more rapidly in non–OECD countries.

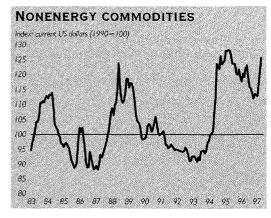
Agricultural prices rose 7.7% for the quarter after falling an equal amount the two previous quarters. Nearly all agricultural sectors joined in the upswing. Arabica coffee experienced the largest price boost, soaring 35.0% following lower production in Brazil and Colombia. Rising demand in Brazil is also leaving less coffee for export. Colombia experienced a sharp decline in production because of low world prices and an appreciating currency caused by rising oil export revenues.

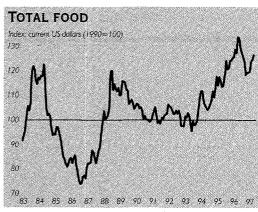
Food prices were also higher, with the index up 5.0%. Reasons for the increase are unclear. Prices were up 3.8% for grains, 4.5% for fats and oils, and 6.4% for other foods. Much of the increase in grain prices reflected a rebound from the sharp declines over the previous several months. The increase in fats and oils prices was driven by rising soybean prices and tight stocks, while other food prices were led by sharply higher banana prices. Food prices should decline over the coming months as supplies of the new northern hemisphere crops begin to reach the market. A poor harvest, however, would almost certainly drive prices higher.

Metals and minerals prices rose 8.7%, continuing the rally that began in the fourth quarter of 1996. Prices were 11.7% higher for aluminum, 12.4% for copper, and 14.1% for zinc. Higher demand in Europe, Japan, and the US helped drive up prices, with an assist from rising residential construction and industrial output. European demand appears strong, leading to sharply higher prices in local currency. Demand has shown less strength in Asia than in Europe or the US and is expected to weaken.

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







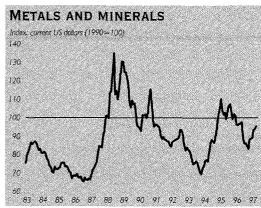


TABLE 1. WEIGHTED INDEX OF PRIMARY COMMODITY PRICES FOR LOW- AND MIDDLE-INCOME ECONOMIES IN CURRENT DOLLARS

1990=100

						Agric	culture					
		Nonenergy				F	ood		Raw m	aterials	-	Metals
	Energy (100)º	commod- ities (100)	Total agri culture (69.1)	- Beverages (16.9)	Total food (29.4)	Fats and oils (10.1)	Grains (6.9)	Other food (12.4)	Total raw materials (22.8)	Timber (9.3)	Fertilizers (2.7)	and minerals (28.2)
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	140.6	95.0	127.1	139.5	119.8	89.1
Quarterly												
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	116.8	147.8	118.4	90.5	123.3	139.9	123.0	85.1
1997Q1	91.8	119.3	130.0	150.6	122.6	154.5	122.9	96.3	124.2	140.0	124.2	92.5
Monthly												
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	124.2	141.6	123.0	86.6
1996 Dec	103.2	110.7	119.7	120.1	117.4	150.2	117.9	90.3	122.4	135.8	123.0	87.4
1997 Jan	101.5	115.0	124.2	129.4	121.4	152.0	123.7	95.1	123.8	139.0	124.5	91.6
1997 Feb	89.3	119.1	130.0	151.3	122.2	153.9	122.6	96.0	124.2	140.2	124.1	92. I
1997 Mar	84.5	123.6	135.8	171.1	124.1	157.5	122.4	97.7	124.7	140.9	124.1	93.7

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.

# REGIONALISM AND AGRICULTURAL TRADE

Since the late 1980s a reinvigorated regionalism has emerged in many parts of the world. Integration within Europe intensified in the early 1990s when EC countries removed many of the obstacles to the movement of goods and services within the region. Recently, the renamed European Union admitted Austria, Finland, and Sweden and began moving toward monetary integration. Under the North American Free Trade Agreement (NAFTA) signed in December 1992, Canada, Mexico, and the US agreed to abolish tariffs and nontariff barriers by 2009.

Asia's attempts to form free trade areas and other economic unions have been gaining momentum as well. In 1990 Premier Mahathir of Malaysia recommended that Asian countries form their own economic bloc, to counter possibly adverse effects of economic integration outside of Asia. In the Bogor Declaration of 1994 members of Asia-Pacific Economic Cooperation (APEC) agreed to make trade and investment free and open for industrial countries by 2010 and for developing countries by 2020.

#### EC EXPANSION AND AGRICULTURAL TRADE

To see what happens to trade flows when a regional economic union expands, we examined the accession of Greece to the EC in 1981 and that of Spain and Portugal in 1986. Sufficient time has now elapsed to show the full impact of that regional integration.

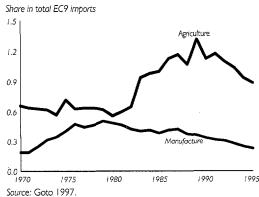
A brief look at the data reveals that agricultural trade is affected more dramatically than trade in manufactured goods. Before Greece joined the EC in 1981, its share in EC9 agricultural imports had been around 0.6% for more than a decade (figure 2). But once Greece was admitted to the EC, its share began to increase sharply. By the end of the 1980s Greece's share was more than double its pre-accession level. Manufactures trade showed no such remarkable increase in its share of intraregional trade.

The impact on EC9 exports to Greece is similar (figure 3). The share of EC9 agricultural products in Greece's agricultural imports jumped from 31% in 1980 to 56% in 1981. The share continued to rise, reaching more than 70% by the 1990s. Once again, the picture was quite different for manufactures. The EC9's share in Greece's manufacturing imports remained unchanged at around 60%. Trade patterns following the accession of Spain and Portugal in 1986 reveal similar trends.

To see how regional integration affects agriculture and manufacturing trade, we used a simple computable general equilibrium (CGE) model to test two propositions: the impact of regional integration is stronger when the initial degree of protection is higher and when the initial degree of product differentiation is lower. Taken together, the two propositions predict that the impact of regionalism will be larger on agricultural trade than on manufacturing trade because the initial level of protection is greater and the degree of product differentiation is smaller for agricultural products.

What is the intuition behind these propositions? Suppose that EC9 countries have imposed high tariffs on commodity A and low tariffs on commodity B. Before Greece is admitted to the EC, Greece's exports of commodity A, like those from the rest of the world, are subject to the high tariff. But when Greece is admitted, the high tariff is lifted. Greece then has a big advantage over the rest

FIGURE 2. GREEK EXPORTS TO EC9

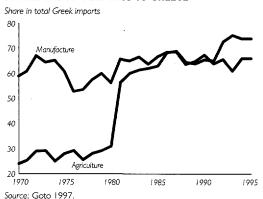


of the world. For commodity B, however, lifting the tariff does not give Greece much of an advantage because the rate is very low to start with. Since trade barriers imposed on agricultural products are generally higher than those imposed on manufacturing products, the impact of regionalism on agricultural trade should be stronger.

What about the impact of product differentiation? Consider a highly differentiated product like automobiles. Small price differences may not affect a consumer's decision about which car to buy. A price decline following a tariff reduction would not increase demand for the exported product very much. But if the product is nearly homogeneous (and therefore consumers care only about price), the impact of a price decline is tremendous. Because agricultural products are generally less differentiated than manufactures, the impact of regionalism on agricultural trade should be stronger.

Further, regional integration has different impacts on different agricultural products, depending on the degree of product differentiation (figure 4). Plotting the trade shares of old members (EC9 countries) and those of Greece before and after integration reveals that less differentiated goods, such as cereals and fats and oils, are less affected by integration than more differentiated products, such as fruits and vegetables and beverages and tobacco.

FIGURE 3. EC9'S EXPORTS TO GREECE

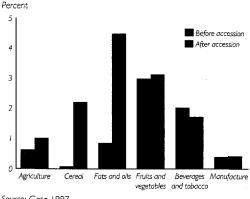


#### A PREDICTION

Having established the mechanisms underlying trade flows after integration, we can speculate on the impact of future regional integration. For example, if Eastern European countries are admitted to the EU their exports of agricultural products would likely increase more than their exports of manufactured goods. Similarly, if APEC countries free up their trade regimes, agricultural trade among members is likely to increase substantially. But such an increase in agricultural trade within the region can result from a shifting of trade volume in favor of member countries (trade diversion) as well as from a genuine increase in trade volume (trade creation). In fact, recent increases in intra-EU agricultural trade were achieved at the expense of imports from North America and Africa.

Certain highly differentiated agricultural commodities are less likely to be affected by the progress of regional integration. For example, rice in the Japanese market is highly differentiated. In fact, contrary to the popular belief in Japan that domestic rice production will be wiped out when the Japanese rice market is liberalized, our simulations suggest that partial liberalization of the Japanese rice market under the APEC free trade agreement will have a relatively small impact. Total liberalization, however, will profoundly affect Japanese rice production.

FIGURE 4. CHANGE IN SHARES OF EC9'S IMPORTS FROM GREECE, BY COMMODITY



Source: Goto 1997.

For more detail on this article and the CGE model, see J. Goto, 1997, "Regional Economic Integration and Agricultural Trade," World Bank, International Economics Department, Washington, D.C.

#### WAREHOUSE RECEIPTS-BASED LENDING IN VENEZUELA

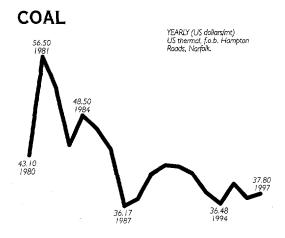
In the last issue of Commodity Markets and the Developing Countries, we discussed how warehouse receipts can facilitate the use of inventories when financing commodity trade and production. When domestic markets for commodities and for storage work well, and when they are backed by appropriate laws and regulations, stored commodity inventories can provide secure and easily liquidated collateral for financial institutions. In turn, the reduced risks for the lender can lead to better access and cheaper credit for the industry and lower costs. In this issue, we look at how inventory financing works in Venezuela.

In Venezuela the legal basis for lending against warehouse receipts dates to 1936. Two documents, the certificado de deposito and the bono de prenda, together provide an effective way of collateralizing inventories, performing the same economic function as US-style warehouse receipts. The certificado is a claim identifying the quantity and quality of goods stored, while the bono reassigns ownership. Once ownership has been reassigned, creditors who present the warehouse manager with a valid certificado de deposito can take possession of the inventory with two days notice. The original depositor of the inventories—the person to whom the certificado was issued-has those two business days to challenge the claim. When commodity markets are liquid, the cost—in time and money—of recovering collateral against bad debt is minimal. Further, when participants have access to futures and options markets, the value of the collateral can be guaranteed by hedging the underlying price.

Despite the long history and strong legal basis for inventory-based collateral in Venezuela, however, government interventions and monopolies in cocoa and coffee displaced incentives for storage, so the method fell into disuse. With the reforms in coffee and other agricultural markets initiated at the beginning of the decade, warehouse-receipt lending in Venezuela has staged a comeback.

In the coffee industry, inventory-based lending is becoming an increasingly attractive alternative to letter-ofcredit-based financing. Venezuela produces about 1.5 million bags of high-quality arabica coffee and exports about 30% of it. FonCafe, until 1991 a government monopoly, now markets about 8% of the crop but will soon withdraw from marketing altogether. (It will, however, stay in the hulling business, where it retains an 82% share of the market.) Although seven firms control nearly 80% of the market, some 123 firms now compete in the domestic market. About 18 firms, including cooperatives and large farmers, operate in the export market.

Although both domestic and international trade are financed using letters of credit, inventory-financing (pignoracion) is becoming increasingly popular for domestic trade. Coffee is placed into storage, and certificados and bonos are issued. Banks then lend directly against the documents at 80–90% of the market value of the inventories. The inventories are stored with producers and processors as well as in third-party warehouses. Two domestic Banks, Banco Provencial and Banco Caribbean, provide most of the inventory-based lending.



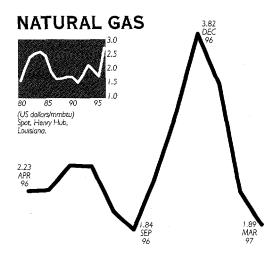
#### HIGHER UTILITY STOCKS WEAKEN US PRICES

US coal prices softened in the first quarter as mild winter weather reduced consumption. Electric utilities ended the winter with unusually large stockpiles and so will defer spring purchases for the summer air conditioning season. Thus prices could soften further in the second quarter, particularly for low-sulfur coals.

For the past year low-sulfur coal has been more available than high-sulfur grades, partly because low-priced emission credits have enabled power companies to offset the burning of high-sulfur fuel. As a result, expected boiler modifications or scrubber retrofits have been delayed. Companies are showing some reluctance to invest in new capital equipment in the face of increased competition arising from deregulation of the electric power industry.

US coal demand is expected to increase modestly this year and next, mainly for power generation, which accounts for 83% of US domestic coal consumption. Production is expected to outstrip supply, with all the gains coming in the western regions as output continues to decline in Appalachia and the interior. Exports are expected to edge higher, but prices should soften.

Steam coal negotiations for 1997 between Japanese utilities and Australian, Canadian, and Indonesian suppliers were settled at around \$2/ton discount to last year's prices. US west coast shippers were holding out for better deals, given strong domestic demand for western coal.



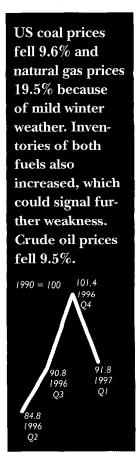
#### MILD WEATHER LOWERS PRESSURE ON INVENTORIES

US natural gas prices fell sharply from their highs in mid-January as mild winter weather reduced consumption and removed much of the pressure on inventories. A late winter cold spell firmed prices only slightly, evidence of a much-improved gas supply-demand balance. While lower gas prices stimulated some fuel-switching to gas from residual fuel oil, the net effect on demand was downward.

The winter weather reprieve improved gas inventories. Low stores last year had kept prices high throughout much of 1996. Because of weak demand this winter, storage levels ended the first quarter some 25% higher than the depleted level of 755 billion cubic feet (Bcf) a year earlier. Storage levels are also higher than they were at the same time in 1993 and 1994.

The improved inventory situation will have a moderating influence on prices, giving operators more flexibility during the injection season. Nevertheless, inventory levels are still low by historical standards, so the demand for storage injections should support prices this spring. During the summer months demand for power generation and for further storage injections should provide a floor for prices at around \$1.85 per million Btus (mmbtu). By the onset of winter storage levels are expected to up near 3,000 Bcf, their normal level in recent years with the exception of 1996.

With gas deliverability in the US improving, only modest increases in prices are



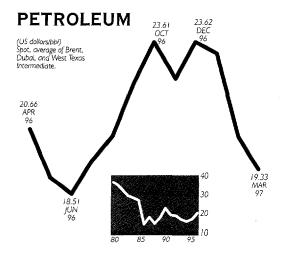
expected heading into winter. Barring unforeseen circumstances and assuming normal weather, prices should remain relatively low next winter and into the medium term. Bottlenecks for western gas moving eastward are being gradually removed, and increased pipeline capacity from Canada will be completed next year. The resurgence last year in offshore gas exploration and development in the Gulf of Mexico is expected to lead to new supplies in 1997 and 1998, allowing US gas production to climb steadily over the period.

The use of salt cavern storage and marketing hubs along major pipeline systems has enabled storage owners to maintain lower stocks than in the past. In the gas-producing regions, in particular, salt cavern storage allows increased turnover of gas inventories, effectively reducing required levels of storage.

In Europe gas prices have changed little despite lower oil prices because of price indexation lags with petroleum products for long-term gas contracts. By summer the effects of lower oil prices should start to show up in European border prices for gas. Thus sellers benefited from high prices this winter, when seasonal demand is highest.

Gas demand has continued to grow strongly in Europe. Cold weather, rising demand for power generation, and continued conversion of residential heating systems are all contributing to the rising share of gas in the European energy balance. Germany had 800,000 conversions to gas in 1996, the highest number in Europe.

Gas began flowing into Europe last year from several new projects—from Russia's "Yamal" project, from Algeria via the Maghreb pipeline, and from Norway's Troll field. Gas from these three countries will constitute 45% of the European gas market in 1997. In late 1998, when the Interconnector pipeline is completed, spot gas from the liberalized UK market will begin flowing into the heart of Europe. This will be the initial penetration of competitively priced gas.



PRICES FALL SHARPLY AND FURTHER DECLINES ARE EXPECTED

Oil prices fell sharply during the first quarter due largely to mild weather and supply increases from both OPEC and non-OPEC sources. The year opened with high prices, tight supplies, and low stocks, but the mild winter quickly improved the supply-demand balance. Non-OPEC supplies are projected to increase strongly throughout the year, tilting the balance into surplus and bringing down prices—a contrast with last year's "failure of expectations" of supplies (from non-OPEC sources and from Iraq).

OPEC production rose 0.8 million barrels a day (mb/d) during the first quarter. More than half the increase was from Iraq under the UN's six-month \$2 billion oil-for-food program (table 2). Iraq's output averaged 1.1 mb/d in the first quarter, slightly below its OPEC quota level of 1.2 mb/d. Production rose in all OPEC countries, and total crude oil production averaged 2 mb/d above quota. All OPEC members but Iraq were above quota, including Saudi Arabia and Kuwait (including their half shares of Neutral Zone production and deducting 0.15 mb/d of Saudi offshore Abu Safa production, whose proceeds go to Bahrain). Venezuela was the largest over-producer, at nearly 0.8 mb/d above its agreed ceiling. Nigeria was 0.4 mb/d above quota, followed by Saudi Arabia at 0.1 mb/d (excluding its production for Bahrain).

The large increase in OPEC production prompted speculation about whether the organization will adjust quotas at its June meeting. The adjustment would have to be more than a simple upward adjustment for each country because Venezuela and Nigeria are already disproportionately above quota, and Venezuela's output is expected to rise steadily in the near term. Production from the Gulf countries (excluding the resumption of output from Iraq and Kuwait) has risen only slightly since the Gulf war despite an 8.6 mb/d increase in world demand outside the former Soviet Union (FSU) between 1991 and 1996. Prices have nonetheless remained reasonably firm-particularly last year—and there has been some net increase in demand for OPEC output (mainly for Kuwait, Iraq, and Venezuela). Thus there has been little financial pressure on the group as a whole to deal with quota adjustments or violations.

A key question is how long Saudi Arabia and other Gulf producers will leave production at current levels in the face of rising world demand and production gains by other OPEC members, notably Venezuela. Uncertainty about Iraq's production is a further complication. If the UN sanctions are lifted, OPEC would have to significantly realign quotas to prevent a steep drop in

TABLE 2. OPEC CRUDE OIL PRODUCTION AND QUOTAS

Millions of barrels per day

Trimeris of Buricis	per day				
	1994	1995	4Q96	1Q97	Quotas
Algeria	0.75	0.76	0.85	0.86	0.750
Indonesia	1.32	1.34	1.40	1.42	1.330
iran	3.61	3.65	3.66	3.70	3.600
Iraq	0.53	0.55	0.65	1.11	1.200
Kuwait	1.84	1.84	1.81	1.83	2.000ª
Libya	1.38	1.41	1.40	1.41	1.390
Neutral Zone	0.39	0.43	0.52	0.53	
Nigeria	1.90	1.93	2.23	2.27	1.865
Qatar	0.41	0.45	0.51	0.56	0.378
Saudi Arabia	7.90	7.94	7.90	7.98	8.000ª
UAE	2.22	2.20	2.27	2.28	2.161
Venezuela	2.44	2.58	3.03	3.12	2.359
Total Crude	24.67	25.07	26.24	27.05	25.033
NGLs <sup>b</sup>	2.38	2.42	2.66	2.83	
Total OPEC	27.05	27.48	28.90	29.88	

a. Ouota includes share of Neutral Zone.

prices. This uncertainty has likely been the main reason why adjustments to quotas have been continually deferred. A strong market last year allowed OPEC to set aside the quota issue, but it is unclear whether this year's potentially weak market will prompt action on quotas. The uncertainty about Iraq could lead to continued avoidance of any actions on quotas.

Non-OPEC production rose 0.32 mb/d in the first quarter, with much of the increase originating in Norway and Latin America (table 3); Mexico had the largest increase in Latin America (0.11 mb/d). The non-OPEC increase, although notable, was about 0.9 mb/d below initial estimates by the International Energy Agency (IEA), mainly because of the effects of bad weather and technical delays in new field production. Most of the shortfall was in the OECD, particularly in the UK, but also in Norway, the US, and Australia. Non-OPEC production is expected to record significant gains through the remainder of the year.

World oil demand rose an estimated 1.5% in the first quarter, which is below the 2% plus rates of the past three years. Warm weather in the northern OECD countries resulted in fairly flat oil demand in the three main regions (table 4). Non-OECD oil demand grew an estimated 5%, with the strongest growth continuing to occur in Asia. The Republic of Korea registered little

TABLE 3. NON-OPEC OIL SUPPLY

Millions of barrels per day

<u>'</u>	,				
<del>-</del>	1994	1995	4Q96	1Q97	Change 4Q96 to 1Q97
United States	8.64	8.61	8.70	8.59	-0.11
Canada	2.28	2.40	2.53	2.55	0.02
United Kingdom	2.71	2.79	3.00	2.97	-0.03
Norway	2.69	2.91	3.28	3.37	0.09
Other OECD	1.32	1.28	1.29	1.38	0.09
Latin America	5.94	6.08	6.57	6.75	0.18
Africa	2.43	2.58	2.82	2.84	0.02
Middle East	1.79	1.87	1.99	1.98	-0.01
China	2.84	2.99	3.15	3.23	0.08
Other Asia	1.94	2.07	2.04	2.03	-0.01
FSU	7.27	7.12	7.06	7.01	-0.05
East Europe	0.28	0.27	0.28	0.28	0.00
Processing Gain	1.43	1.46	1.55	1.57	0.02
Total non-OPEC	41.56	42.43	44.25	44.57	0.32

Note: Includes NGLs, nonconventional, and other supply sources.

Source: International Energy Agency,

b. Natural gas liquids (NGLs).

Source: International Energy Agency and OPECNA.

demand growth during January and February, especially when compared with its robust growth during the past decade. Higher prices, a more sluggish economy, and high demand in the corresponding period last year contributed to the flat demand. It will be interesting to see whether this trend continues or whether it is merely an aberration in an otherwise upward trend. At some point there will be a saturation effect from the extremely rapid growth in oil demand in Korea and elsewhere in Asia, but its timing is uncertain.

In the countries of the FSU, production and export data show a continuing decline in apparent oil demand. The first-quarter level of 4.2 mb/d represents less than half the recent peak of 9.0 mb/d in the late 1980s. Oil demand began to show a bottoming trend last year. Although demand could still slip further, the long and steep decline is clearly almost over.

Oil inventories, a key feature of last year's tight market, have improved because of weak weather-related demand and increases in oil production from OPEC and non-OPEC sources. OECD oil inventories were drawn down about 0.1 mb/d in the first quarter; a year earlier the drawdown was 1.5 mb/d. OECD inventories would thus be some 3% higher than last year, when end-of-winter

inventories were unusually low. Stock levels are still low by historical standards, however, because of just-in-time inventory practices introduced in mid-1995.

In the critical US market crude oil and middle distillate stocks ended the quarter above last year's levels. Low demand for heating oil took some of the pressure off refiners to maximize distillate output at the expense of gasoline. Nevertheless, gasoline stocks were below last year's levels heading into the spring and summer driving season, which may strengthen demand in the near term, although the US gasoline market did not get off to a strong start this year. In Europe and the Pacific crude and product stocks were at comfortable levels at the end of the first quarter and above levels a year ago.

A large seasonal build of inventories is projected for the second and third quarters, implying a further decline in prices (table 5). Current supply and demand projections suggest a stockbuild of more than 2.5 mb/d for both quarters, assuming OPEC crude oil production continues at recent levels and output of natural gas liquids rises moderately as expected. These stockbuilds are about 1 mb/d above typical gains for this time of year.

The forward price curve for crude oil moved from steep backwardation at the

TABLE 4. OIL CONSUMPTION

		Millions of bar	rels per day			Percentag	ge 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	<b>-</b> 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 <i>.</i> 5	0.5	-16.1	6.7	0.3
1994	40.0	6.2	22.7	68.9	2.5	-11.4	5.8	2.1
1995	40.4	6.1	23.8	70.3	1.0	-1.6	4.8	2.0
1996	41.1	5.7	25.1	71.9	1.7	-6.6	5.5	2.3
IQ95	41.1	6.5	23.9	71.5	1.0	-3.0	6.6	2.4
2Q95	39.2	5.8	23.5	68.5	1.1	1.8	6.2	2.9
3Q95	39.9	5.8	23.4	69.0	0.4	-1.7	4.8	1.6
4Q95	41.4	6.3	24.4	72.1	1.3	0.0	4.5	2.3
1Q96	42.1	6.1	24.9	73.I	2.4	-6.2	4.2	2.2
2Q96	39.6	5.6	24.7	69.9	1.1	-3.4	4.9	2.0
3Q96	40.6	5.6	24.8	71.0	2.0	-3.4	6.1	2.9
4Q96	42.2	5.6	25.8	73.6	1.9	-11.1	5.7	2.1
1Q97	42.2	5.8	26.2	74.2	0.2	-4.9	5.2	1.5

Source: International Energy Agency and World Bank.

beginning of the year to an essentially flat profile at the end of the first quarter (with slight contango beginning to appear), reflective of the turn from acute prompt demand to a more balanced market. Given the implied large stockbuild over the next two quarters, prices are expected to fall and move further into contango.

That prices have not moved more quickly into contango, especially given the mild winter, suggests that the market is more in balance than is generally depicted. Clearly, a number of factors have helped stabilize prices, including a shortfall in non-OPEC supplies and the late winter cold weather. Further support could come from unavoidable delays in new supplies or other possible disruptions—political unrest in Nigeria, which is threatening crude output there, and uncertainty about whether Iraq's oil-for-food program will continue after the first sixmonth period. Moreover, stocks remain relatively low, especially US gasoline stocks, so spring buying could provide some strength on the demand side.

Despite these factors, if supply and demand projections are reasonably accurate, new supplies are likely to significantly outweigh the growth in demand, implying rising inventories and lower prices—even allowing for lower-than-expected non-OPEC output. The industry remains reluctant to raise inventories without financial incentive to do so, and lower prices and greater contango are expected.

For the fourth quarter the IEA is projecting a large increase in non-OPEC supplies—nearly 2 million mb/d higher than during the third quarter and 3 mb/d over the fourth quarter of last year. The implied stockdraw of 1.3 mb/d is not atypical, but it assumes no further increase in OPEC output. Should some OPEC members continue to edge production higher, prices could remain weak well into the fourth quarter.

A number of uncertainties remain, explaining the lack of consensus among analysts on the direction of oil prices this year. Last year's expectations of oil supplies from Iraq and from non-OPEC sources fell short and, combined with low stocks, contributed to the sharp rise in prices last fall. Oil stocks, though still low, have improved since then, and only a significant shortfall in crude supplies is likely to stem the projected decline in prices this year.

TABLE 5. 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	40.4	42.1	39.6	40.6	42.2	41.1	42.2	40.3	41.3	43.0	41.7
FSU	4.9	4.7	4.6	4.2	4.3	4.2	4.3	4.2	4.0	4.2	4.6	4.2
Other	24.0	25.2	26.4	26.1	26.1	27.2	26.5	27.8	27.5	27.2	28.5	27.8
Total	68.9	70.3	73.1	69.9	71.0	73.6	71.9	74.2	71.8	72.7	76.1	73.7
Supply												
OECD	17.6	18.0	18.3	18.2	18.2	18.8	18.4	18.9	18.8	19.1	20.4	19.3
FSU	7.3	7.1	7.0	7.0	7.1	7.1	7.0	7.0	7.0	7.1	7.3	7.1
Other <sup>a</sup>	16.7	17.3	18.0	18.0	18.1	18.4	18.1	18.6	18.8	19.1	19.5	18.9
OPEC <sup>b</sup>	27.0	27.5	28.2	28.2	28.6	28.9	28.5	29.9	30.0	30.1	30.2	30.1
Total	68.6	69.9	71.5	71.4	72.0	73.2	72.0	74.4	74.6	75.4	77.4	75.1
Stock change and miscellaneous												
OECD	0.2	-0.3	-1.3	1.1	0.4	-0.5	-0.1	-0. I				
Floating/transit	-0.I	0.1	-0.3	0.1	0.0	-0.1	'0. I	0.2				
Other/miscellaneous	-0.3	-0.2	-0. I	0.3	0.6	0.2	0.3	0.2				
Total	-0.2	-0.4	-1.6	1.5	1.0	-0.5	0.1	0.3				

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

a. Includes processing gains (1.5 mb/d in 1996).

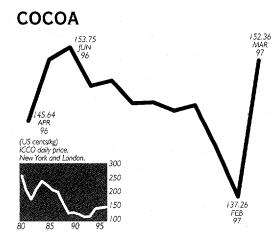
b. Includes NGLs (2.6 mb/d in 1996).

Source: International Energy Agency and World Bank.

Beverage prices rose 21.5%—
paced by higher arabica coffee prices due to supply problems in Brazil and Colombia. Cocoa and tea prices also rose on tight supplies and strong demand.

1990 = 100 150.6 1997 Q1

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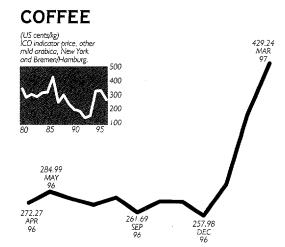


#### PRICES IMPROVE WITH DEFICIT PROJECTIONS

After starting the year on a downward path, cocoa prices rallied in March. Prices fell 4% between January and February before posting a 11% gain in March. Higher main crop forecasts for Côte d'Ivoire led to the decline. Revised forecasts were up by 50,000 tons, bringing the main crop to around 1 million tons. Preliminary projections put the mid-crop at 150,000 tons, for a 1996/97 Ivorian crop total of 1.15 million tons—close to the 1.2 million tons in 1995/96. In addition, more than 1 million tons of cocoa are held at warehouses in Western Europe and the US, and some sources estimate that an additional 400,000 tons are held in warehouses in Côte d'Ivoire.

Despite these improved forecasts most analysts project a sizable deficit for 1996/97; our forecast is for a 120,000 ton shortfall. As the main crop season in West Africa comes to a close at the end of April, reductions in inventories to meet the projected deficit will have an impact on the market. The key question is whether shipments from producing countries will be sufficient to meet demand before the first 1997/98 crop arrivals. In addition, the large concentration of stocks-more than 500,000 tons-of one major trading house greatly concerns market participants. The 1996/97 deficit, together with expectations of another sizable deficit in 1997/98, is pressuring prices.

Plans are underway in Côte d'Ivoire to increase processing capacity for cocoa beans from 180,000 tons to 350,000 tons by 1998.



#### ARABICA PRICES SHOOT UP

Arabica prices rose sharply during the quarter, while robusta prices rose modestly. In recent months robusta prices have been less than half those of arabicas, possibly the widest price differential in history. Differences in the world supplies of arabica and robusta account for most of this large price disparity. While robusta production from Uganda and Vietnam has increased substantially in recent years, arabica supply has declined mainly because of low output in Brazil and Colombia.

Vietnam's coffee production continues to rise. Vietnam exported about 3.5 million bags in 1996, making it the world's seventh largest coffee exporter. Because prices are usually considerably higher for arabica than for robusta, Vietnam plans to begin arabica production as well.

Uganda's production has increased sharply since it liberalized its market in the early 1990s. With the liberalization came higher producer prices and increased availability of the seedlings of high-yielding varieties. Coffee growers planted a large number of these varieties in the last few years, and production shot up from about 3 million bags to 4 million bags. Production is expected to reach 5 million bags within a few years. Ten million new robusta plants and four million arabica seedlings are to be available to farmers every year, implying annual replanting rates of 2% for robustas and 5% for arabicas. The new varieties are reported to yield

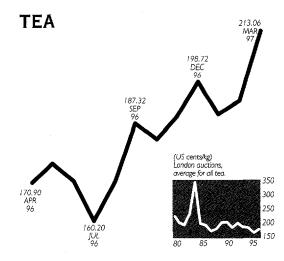
3,000 kg of dry cherry per hectare, more than double the average yield of 1,200 kg for most of the old varieties.

Colombia appears to be experiencing a sharp decline in output. Production dropped from 14 million bags a few years ago, to 12.9 million bags in 1995/96 and to an estimated 8.3–10.5 million bags for the current crop. Low real producer prices caused by low world prices and the appreciating currency are behind the decline. The booming energy sector has caused other exportable sectors to decline victims of the "Dutch disease." Colombia Coffee Federation staff say that Colombia will not be able to supply adequate amounts of coffee unless prices at the New York Exchange are at least 140¢/lb.

There is quite a bit of speculation about Brazil's 1997/98 crop. Forecasts range between 20 and 27 million bags—the 1996/97 crop was about 28 million bags. The main reason for the decline is the biannual cycle of coffee trees and the cold winter. However, exports for the coming year could be substantially lower than this year for another reason as well: booming domestic consumption. Rising incomes and much lower inflation have increased Brazil's domestic consumption from about 9 million bags in 1994 to about 11 million bags in 1996, with some analysts expecting it to rise as high as 15 million bags in 1997. The implications of an increase of this size are significant. A 4 million bag increase in consumption corresponds to more than 4% of world consumption, an increase that could boost world coffee prices by as much as 15% to 20% in the short to medium term.

The recent sharp increases in coffee prices are at least in part supported by speculative fund activities. The big price difference between the two types of coffee reflects this.

Because of very low stocks, uncertainty about the outputs of Brazil and Colombia, and the approaching frost season in Brazil, coffee prices will be extremely volatile and high in the coming months.



TIGHT SUPPLY AND STRONG DEMAND BOOST PRICES

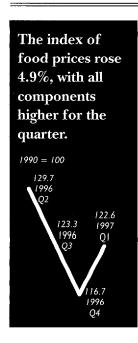
Tea prices at major auctions rose each week during the first three months of the year in response to tight supplies and increased demand. Mombasa prices were especially strong, up 25% in real terms over the same quarter last year as African output fell. London prices reached 213¢/kg in March, 32% above the 169¢/kg of the same month last year in real terms.

Extremely dry weather in East Africa hurt production in Kenya, northern Tanzania, and Uganda. Kenya's production this March was reported to be half that of last March. The shortage of African tea kept Mombasa prices high.

Seasonal production lows in India and Sri Lanka, in addition to Africa's low output, meant that tea was scarce on world markets during the first quarter. Unusually cold weather in India caused delays in production.

Increased consumption in major tea consuming countries pushed world tea demand to very high levels. Russia and countries in Central Asia and the Middle East continued to increase their tea imports. The increased imports by Russia and increased domestic consumption in India raised tea prices in India after a year of low prices. Also, Iraq's return to the market contributed to strong demand in the world market.

In coming months tea prices will depend on how the drought affects African output. In the near term the strong demand of recent months is likely to keep prices firm.



#### **FATS AND OILS**

STOCKS OF OILSEED AND VEGETABLE OIL WEAKEN

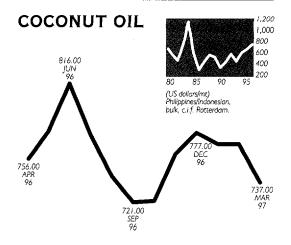
Improved crop prospects for soybeans in Brazil, Paraguay, and China and for rapeseed in India and China led to a 1.8 million ton upward adjustment (to 259.1 million tons) in the US Department of Agriculture's estimate of world oilseed production for 1996/97. An even greater increase in demand (mainly by China and India) is expected to reduce oilseed ending stocks to 28 days of use. Soybean prices should experience some upward pressure.

Vegetable oil output is expected to follow suit. While the gains in output by Argentina, Chile, India, and the Philippines were partly offset by reduced crushing in Brazil and the EU, strong demand is likely to reduce total oil ending stocks to 33 days.

China again has the world's highest demand growth in both meals and fats and oils this season, owing mainly to its high real GNP growth (expected to be 10% this year), large population, and still low per capita use of fats and oils and livestock products. India's vegetable oil imports are also booming, despite record oilseed production. Consumption should continue to outstrip production since a dramatic increase in domestic production is unlikely over the next few years, and imports are expected to expand considerably. At current growth rates the production-consumption gap will put India in the same imports league as China.

Poland's import requirements for oilseeds, oils, and oilmeals will again be high in 1997/98. Poland will remain a large importer of rapeseed, although part of the rapeseed demand may again be met by soybeans.

For more than a year the EU has been debating whether to allow genetically modified oilseeds into its markets. Despite heavy pressure from environmental groups and stiff opposition from some member states, the EU parliament approved the novel-foods regulations in mid-January. This measure paves the way for the arrival of genetically modified oilseeds.



#### EXPORTS ARE RECOVERING

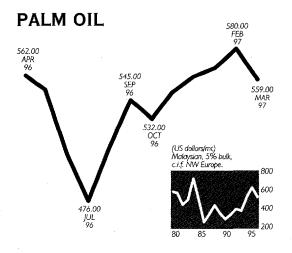
At \$758/ton coconut oil prices are almost unchanged from last quarter, but they remain considerably higher than a year ago (\$724/ton). This year's high prices reflect mainly reduced exports from the Philippines following a sizable decline in 1995/96 output.

World production of coconut oil plunged by 430,000 tons during 1995/96, including a sharp decline in stocks to a five-year low of 368,000 tons. The reduction was much stronger than had been anticipated and has been the main force behind this year's high prices. Exports of coconut oil to the EU and the US have been substantially curtailed.

Combined 1996/97 net exports of coconut oil from the Philippines, Indonesia, and Malaysia (the three dominant world producers) are forecast at 1.86 million tons, or 8% higher than a year earlier. Indonesia is expected to more than double its exports from 148,000 tons last year to 390,000 tons this year. A moderate increase in Philippine exports is also expected, from 899,000 tons to 957,000 tons.

Oil World reports that if the expected 300,000 ton increase in world output materializes, coconut oil prices will come under heavy pressure in the months ahead and will probably return to 1996 levels.

Despite lower price prospects, US use of coconut oil is forecast at only 563,000 tons—9% above last year's level. US imports could exceed use levels, however, if prices become attractive for rebuilding stocks.



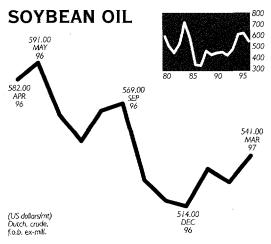


Despite an accelerated expansion in output to 8.4 million tons (8% above last year), Malaysian palm oil stocks were down 16% from last year, a reflection mainly of the strong recovery in China's imports. Dwindling stocks put upward pressure on palm oil prices, which rose to \$569/ton in the first quarter of 1997, up 9% from a year earlier and 4% from the previous quarter.

China, the world's leading vegetable oil importer, is expected to import 1.5 million tons of palm oil to make up for reduced domestic output of rapeseed, cottonseed, and peanut oil. How much China will need and when it may decide to import cannot be predicted, however, in the absence of stock data.

After the successful expansion of soybean, rapeseed, and sunflower seed areas in India, policymakers remain hopeful that palm oil cultivation can be substantially expanded. Disease and water supply problems have hampered palm oil production, however, despite the government's determination and the concerted efforts of some Indian agribusiness firms. The USDA reports that even under the most optimistic scenario India's palm oil production is unlikely to meet domestic demand in the near future.

Malaysia's palm oil production (which accounts for more than two-thirds of world production) is expected to reach 8.8 million tons by 2000, up from 7.7 million tons in 1995.

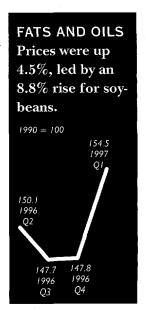


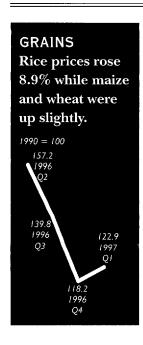
#### SUPPLIES ARE TIGHT

Soybean prices averaged \$534/ton in the first quarter, almost 3% higher than in the previous quarter. The price boost reflects a 4.5 million ton increase in US soybean disappearance (crushings plus exports) during the past four months, most of it exported to fill the 4.1 million ton shortfall in oilseed supplies in other countries. The shortfalls were a consequence of the increase in grain plantings at the expense of oilseeds in 1995/96 in response to strong grain prices.

World soybean production for 1996/97 is forecast at 134 million tons (up 7% from a year ago), reflecting record yields in South America (mainly Brazil and Paraguay) and China. The South American crop is expected to be 11.5% larger than last year's harvest and 6% larger than the previous record crop of 1995. US soybean production is forecast at 64.84 million tons, up from 59.24 last year.

Even though soybean production is higher, the increase in livestock production and the shortfall in the production of other oilseeds, which was down 6% over 1996, are expected to increase demand for soybeans even more. The soybean meal trade will also grow, though US exports may slow because of South America's large crops and Brazil's lifting of its export tax on soybeans. South America's soybean meal will be directed mostly to the EU, where demand for feedgrain is higher than normal following the mad cow disease outbreak. Soybean stock to use ratios are expected to fall to historic lows.





#### **GRAINS**

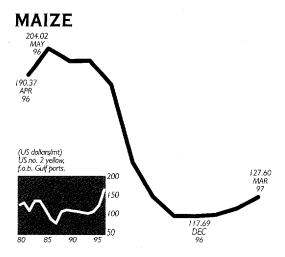
PRICES RISE ON INCREASED CONSUMPTION AND CONCERNS FOR NEXT YEAR

Wheat and maize prices strengthened during the past few months as consumption proved stronger than expected, while rice prices drifted lower on weak demand. Flooding in the upper midwest of the US has raised concern about next year's wheat and coarse grains crop, leading to higher market prices. However, stocks have been rebuilt to levels that should discourage further price increases so long as yields are roughly normal during the coming planting season.

The southern hemisphere grain crop has been excellent, providing a buffer against a poor crop next year. Both Argentina and Australia had record or near-record grain crops, and Brazil had a good crop as well. Argentina's grain production in 1996 was up more than 40% over 1995, and much of this increase will be available for export. Canada and the EU, the other major exporters, also had large crops.

Imports look stronger than had been expected, but at 198 million tons they will still fall about 1% short of last year's level and well below world trade of 220 million tons in 1991. Ending stocks are expected to rise about 10%, to 270 million tons, and stocks in the five largest grain exporting countries are expected to reach 100 million tons, up nearly 40 million tons. World grain consumption rose 3.3% in 1996/97 (July–June) over the previous year, but consumption growth has averaged only 0.7% a year since 1990, and much of the sharp increase in 1996/97 was due to a recovery from the high prices of 1995.

Next year's crop prospects appear favorable, with some exceptions. The International Grains Council reports good wheat crop prospects for China, the EU, and Ukraine. In India favorable planting conditions and high domestic prices are expected to result in a large wheat crop. A wet spring and heavy flooding in the US have raised concerns about the spring crops, but it is still too early to know the full consequences.

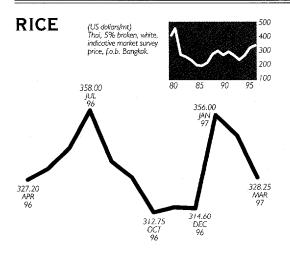


PRICES RISE, BUT FURTHER INCREASES DEPEND ON CROP PROSPECTS

Maize export prices recovered from their \$118/ton level of November 1996 to \$127.6/ton in March. Further price increases depend primarily on prospects for the next crop, now being planted in the northern hemisphere. World stock levels are low enough that a poor crop in a major producer would lead to higher prices. Prospects appear good for the US, the main exporter, with 76% of exports in 1996/97. US farmers' planting intentions are for a 2.4% increase in maize area. Canadian barley plantings are likely to increase at the expense of wheat in response to current price trends.

World coarse grain stocks are expected to rebuild slightly from 93 million tons (11% of consumption in the previous year) to 109 million tons—still only 12.5% of consumption. More significant for prices than the global stock level, however, are stocks held by major exporters, which have increased by 22 million tons to 49 million tons. Further easing the price situation is the slow pace of exports, which are expected to remain at 88 million tons for the second consecutive year.

China has reversed direction again and is now a maize exporter after two years as an importer. China's net exports of all coarse grains are expected to total 1 million tons following a record maize crop. Exports have gone mostly to feed producers in neighboring countries. Prices of Chinese exports have been above US and Argentine prices.

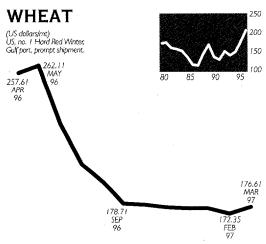


# PRICES DROP AS IMPORTS WEAKEN AND PRODUCTION PROBLEMS ARE OVERCOME

Rice prices increased sharply in January on news of flooding in Vietnam, delayed harvests in Thailand, lower production and export estimates for Australia, and lower imports by China. Since then, prices have drifted lower as import demand weakened and production delays in Thailand and Vietnam were overcome. Pakistan took advantage of delayed exports from other countries to increase its exports and to discount prices. The spread between high- and low-quality rice widened as Pakistan increased exports of low-quality rice.

Total world imports are expected to fall to 17.4 million tons in calendar 1997 according to the USDA's March estimates. That would be the lowest level since 1994, when Japan surprised the market by importing 2.4 million tons of rice following a cool growing season and poor harvest. The largest importers in 1997 are expected to be Brazil at 1.5 million tons and Indonesia and Iran at 1.0 million tons each. The Philippines is also expected to be a large importer since consumption has grown more rapidly than production during the past several years. Bangladesh, a large importer in 1995 and 1996, is expected to be nearly self-sufficient.

India's rice exports in calendar 1997 are expected to fall to 1.5 million tons, well below the 3.25 million tons in 1996 and 4.2 million tons in 1995. The effect of lower world market prices on India's competitiveness accounts for much of this reduction.



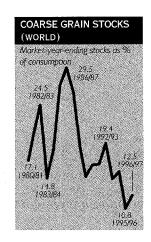
# RECORD SOUTHERN HEMISPHERE CROPS SHOULD CAP PRICE INCREASES

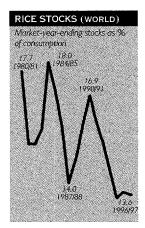
Both Argentina and Australia have harvested record or near-record wheat crops and have been exporting aggressively. Import demand is not expected to increase enough to absorb the increased production, however, and stocks in the five largest exporting countries are expected to increase by at least 15 million tons. Despite the record wheat crop in the southern hemisphere and increasing stock levels, prices have remained strong.

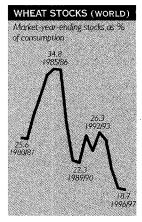
Prospects for the 1997/98 crop are good, according to the International Grains Council's early April report. The council projects a slight increase over the 1996/97 crop and reports favorable growing conditions in the EU, China, India, and most of Central and Eastern Europe. Wheat plantings are expected to fall in Canada and the US because of higher soybean and maize prices.

Import demand should total about 92 million tons during 1996/97, the lowest level in ten years. The drop reflects the collapse of imports to 2.9 million tons in Russia and the other former Soviet republics. The region had net imports of 14.6 million tons as recently as 1990/91. Importers in the Middle East, Asia, and elsewhere have not increased imports enough to offset these declines.

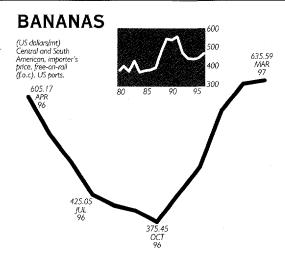
India, a net exporter last year, is expected to import nearly 2 million tons in 1996/97 in an effort to keep government stocks above minimum targets.







Note: Data for 1996/97 are estimated. Source: USDA, FAS.



INTERNATIONAL MARKET POSTS STRONG SEASONAL GAINS

Prices for freely traded bananas posted gains during the first quarter. The first quarter has historically been a time of seasonally strong prices, but prices were especially strong this year. For the first time since 1992 prices stayed above the \$600/ton mark for two consecutive months.

In October 1994, following the announcement of the Framework Agreement and in response to a petition filed under Section 301 of US trade law, the US Trade Representative's office initiated a unilateral investigation into the EU banana import regime. The investigation evolved into a World Trade Organization (WTO) panel request in April 1996. In March 1997 the panel released its confidential report to the disputing participants. According to recent press reports, the panel found against quota allocations under the Framework Agreement and the practice of allocating 30% of marketing licenses to traditional importers of African, Caribbean, and Pacific bananas. The panel said that the EU acted unreasonably in setting ACP quotas well above historical export levels. At the same time the panel did not explicitly find against the ACP quota, challenge the two-year waiver of key GATT provisions for Lomé Convention (ACP) countries, or rule against the tariff preference for ACP countries.

The preliminary report is supposed to remain confidential so that participants can

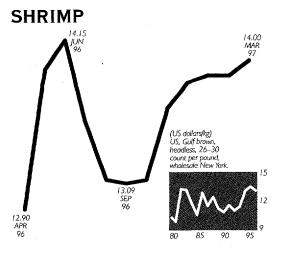
challenge any factual errors in the document before it becomes public and so that participants can try again to negotiate a settlement independent of WTO authority but with the knowledge of the likely outcome of the WTO case. If both sides cannot reach a negotiated settlement, the document will become public. The losing party can adopt the panel's recommendations, appeal the matter to a board of judges (which rules only on the panel's legal interpretation of GATT rules), or offer compensation.

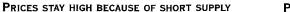
If the press reports are factual, and barring a reversal on appeal, the WTO ruling will most likely force a change in the regime within 18 months. Modification of the tariff-quota to provide greater access to all producers is likely to increase competition, further eroding the difference between international and EU domestic prices. Reforms should benefit EU consumers and competitive banana producers but are likely to bring additional hardships to ACP producers.

For Caribbean producers modification of the licensing arrangements is likely to lower the value of the licenses currently held by the Windward Island Banana Development and Exporting Company (WIBDECO)—which is owned by the Windward banana industries in partnership with Fyffes. Debt backing the purchase of the Windward banana business from Geest is guaranteed by the governments of Dominica, Grenada, St. Lucia, and St. Vincent.

Following news of the ruling, the European Banana Producers Association announced its support for ACP-producing countries. The association urged its members in France, Portugal, and Spain to call on their governments to act to prevent a potential increase in Latin American bananas into the EU.

In related news Panama's banana exports fell nearly 10% during the first quarter over the same period in 1996, a downward trend that is expected to continue. Government officials blamed the decline on EU import quotas. At the same time Ecuador announced substantial gains from bananas during the quarter because of higher prices and volumes.



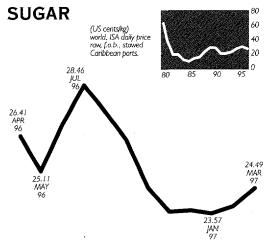


Shrimp prices stayed high into the second quarter, reflecting reduced exports from several Asian countries. China reduced exports substantially—its exports to the US in 1996 were just half those in 1995, and its exports to Japan have been down sharply in recent months. The US embargo and disease among farm shrimp have led to lower exports. Vietnam's shrimp production has also been hurt by disease, which sent prices soaring in Vietnam. Supplies from Ecuador and Mexico have also been low.

Another factor affecting the world shrimp market in recent months has been the yendollar exchange rate. The yen has depreciated 18% against the US dollar in the past 12 months. Because shrimp prices in the world market are quoted in US dollars, yen prices have soared more than 30 percent in the past 12 months, weakening demand in Japan.

Trade figures show a significant shift among suppliers. Exports from East Asian suppliers such as China and Thailand are down, while those from South Asian suppliers such as Bangladesh and India are sharply higher. Response to the recent Indian Seafood Fair suggested that buyers from Taiwan (China), the Republic of Korea, and China are interested in importing shrimp if prices are right.

The shrimp season begins in April in Bangladesh and in Calcutta, India, but supplies appear uncertain. With inventories depleted, shrimp prices are likely to stay firm.



#### PRICES REMAIN STEADY

Prices in the first quarter were practically unchanged from the fourth quarter of 1996, averaging 24¢/kg. With anticipated purchases from China failing to materialize, the market stayed put, despite a downward revision of the Thai crop following lower sugar recovery at the mill. Estimates now put the crop near last year's 6.3 million tons. Low soil moisture is a concern in Europe, where a warm spring has accelerated planting schedules. Offsetting these developments was news of better recovery rates in northern and northeastern Brazil, where the current crop is nearly crushed. Analysts revised estimates of this year's cane crop upward to 287 million tons.

Starting on May 15, Russia will impose a 25% duty on most refined sugar imports. Sugar from Belarus, Kazakstan, and Kyrgyz Republic will be exempted under an existing customs agreement. The plan replaces an earlier strategy of restricting imports through a 1.5 million ton quota, including a maximum import of 1.15 million tons from Ukraine. Last year Russia imported 1.7 million tons of raw sugar and 1.44 million tons of white sugar, primarily of Ukrainian origin.

Meanwhile, Ukraine announced plans to dramatically increase domestic sugar prices to nearly double world averages. The government will impose quotas of 1.5 million tons for domestic use. Last year Ukraine produced 3.29 million tons (white equivalent). The plan calls for continued government intervention in agriculture since sugar pro-

ducers will have to acquire their quotas from local authorities.

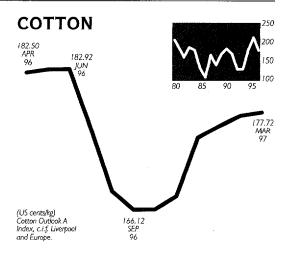
In the US Congress, Representatives Daniel Miller and Richard Schumer announced plans to introduce a bill to reform US sugar policy. The proposed bill would reduce the sugar loan rate over six years, from \$0.18 to \$0.14 a pound; convert loans from nonrecourse to recourse; remove regional adjustments to create a single national loan rate; and terminate the loan program in 2003. The current quota system would remain in place, with import levels regulated to protect the \$0.14 a pound floor.

Venezuela has agreed to drop its temporary ban on sugar imports from neighboring countries and to allow 387,000 tons of imports from Colombia and other neighbors.

The Mexican industry continues to consolidate. Grupo Santos bought three mills in Veracruz and San Louis Potosi, while Grupo Azucarero Mexico bought two mills in Veracruz. Despite mounting debt stemming from leveraged buyouts and devaluation of the peso, the industry has attracted substantial investment. Sugar recovery rates continue to improve, rising from last year's 10.61% to 10.74%. Confusion surrounds announced price hikes, however. The industry agreed to raise the price paid for cane, based on a suggested government formula. The hike would require an increase in consumer prices, but prices are deregulated. Boosting domestic prices would thus require collective action by the industry to dump sugar outside Mexico's protected domestic market into lower-priced international markets. Without clear enforcement mechanisms, individual mills have incentives to avoid "voluntary" exports.

In the Philippines the government has purchased nearly 1.63 million 50-kilo bags of sugar to prop up domestic prices. Sugar output from September to March increased nearly 11% over the same period a year ago.

In other news, the government of Peru plans to sell off minority stakes in 20 sugar mills. In Turkey the government raised import taxes on sugar from 100% to 135% following a better-than-expected harvest.



#### PRODUCTION-CONSUMPTION GAP IS CLOSING

While New York futures moved in a relatively narrow range during the first quarter, the medium staple cotton indicator price (Cotlook A index) rose to 177 //kg, still below the 187 //kg average for the same quarter of 1996, but up from last quarter's 170 //kg. Prices are expected to remain steady, according to the International Cotton Advisory Committee (ICAC).

The ICAC adjusted its forecast of world production for 1996/97 up a notch, from 18.7 to 19.1 million tons, primarily because of higher than expected output in Pakistan and Australia. The outbreak of the leaf curl virus seems to have damaged Pakistani cotton less than originally expected. Australia's cotton production registered a 29% increase over 1995/96, reflecting an expansion in dryland plantings and higher yields. The increase is expected to continue through the next few years, boosting Australia's production to an expected 700,000 tons from its current 400,000 tons. In East Africa, notably in Tanzania, Uganda, and Zimbabwe, policy reforms appear to have contributed to substantial increases in cotton production, with even larger payoffs expected in the future.

US cotton production is estimated at 4 million tons for 1997/98, 3% lower than the previous year's crop. The decline is attributed to the decoupling of support from production levels, a result of the 1996 Farm Bill. Analysts at the Beltwide Cotton Conferences of 1997 observed that genetically engineered (Bt)

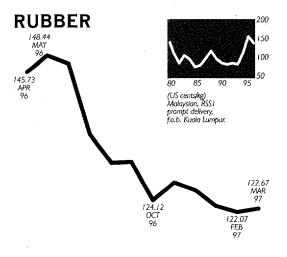
cotton looks promising in terms of higher yield potential. In 1996/97 about 12% of US cotton was of the Bt type, and 30,000 hectares of Bt cotton were planted in Australia. Cotton area declined in Mexico, which is expected to cut production by a quarter in 1997/98, to 190,000 tons. Higher production is expected in China, where the government seems to be devoting more attention to the cotton sector. Currently, the outlook for 1997/98 is 19.5 million tons.

World cotton consumption is currently estimated at 19 million tons, which would leave world stocks practically unchanged. Unexpectedly high shipments in China (close to 300,000 tons more than the previously estimated 200,000 tons) combined with better than expected yields boosted China's ending stocks by some 2 million tons. Estimates put China's stocks at almost half of world stocks.

The gradual withdrawal of government enterprises from cotton marketing and trade in many developing countries has prompted farmers associations and cotton traders and exporters to reconsider risk management tools. India has announced policy changes to allow trading in cotton futures contracts in Bombay. Turkey is also considering opening a cotton futures exchange. Brazil launched a cotton futures contract at the Bolsa de Mercadorias in San Paulo last year. Mexico has made options available to cotton farmers through the New York Cotton Exchange for the past few years. This trend is expected to spread to other developing countries.

There is widespread concern about the decline in cotton's share in fibers. The share fell from 50% in 1985 to 45% in 1995. In a plenary session in Tashkent last October, the ICAC decided to examine the issue and to identify steps to reverse the trend.

Cotton Outlook reported that the European Commission intends to seek confirmation of the provisional antidumping duties imposed last November on imports of yarn from six suppliers—China, Egypt, India, Indonesia, Pakistan, and Turkey. If confirmed, the duties will remain in place for five years.



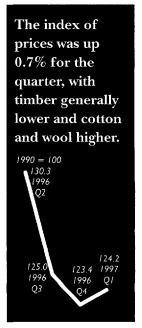
#### SUPPLIES OUTPACE DEMAND

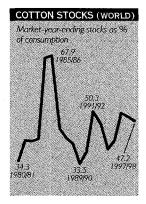
Prices for Malaysian rubber averaged 123¢/kg for the quarter, down about 3¢ from the previous quarter. Year-end stocks continue to grow, with supplies outpacing demand for the third consecutive year. The International Rubber Studies Group estimates 1996 natural rubber production at 6.29 million tons, up from 5.96 million tons in 1995. Consumption grew as well, but at a slower pace, from 5.93 million tons in 1995 to 6.24 million tons in 1996.

In February the third International Natural Rubber Agreement (INRA III) came into force when China ratified the 1995 agreement. The INRA Council met in March and approved the appointments of Ahmad Zubeir Haji Noordin of Malaysia as executive director and James F. Hegarty of the US as buffer stock manager. The council named RSS1, RSS3, TSR10, and TSR20 for inclusion in the buffer stock.

Also in February the Thai government revised its domestic market intervention price upward by 2.5 baht to 27.5 baht/kg (roughly  $105 \slashed{e}/kg$ ) for unsmoked sheet 3. If international prices fall much below current levels, the government would be required to purchase domestic production.

In Liberia, Bridgestone Corp., parent company of Firestone tires, has resumed rubber exports, shipping 370,000 gallons of latex to France in February. Before the seven-year civil war, Firestone's plantations in Liberia were producing 90–100 tons of dried rubber daily.





Source: International Cotton Advisory

# TIMBER LOGS 263.48 AUG 96 261.65 96 255.85 252.48 JUN APR 96 (US dollars/m³) Malaysian, meranti, sales price by importers, Tokyo. 400 97 200 235.18 FEB 97

#### PRICES DECLINE ON SLUGGISH DEMAND

Malaysian log prices in the Japanese market fell 3.6% in the first quarter because of moderate demand and competition from softwoods and logs from Papua New Guinea and Africa. Softwood logs are increasingly displacing hardwood logs in plywood manufacturing, reducing demand for tropical hardwood logs.

Demand for tropical timber (logs and lumber) is expected to decline from 7.4 million cubic meters in 1996 to 7.1 million cubic meters in 1997. Softwood timber is expected to make up the difference. The decision by Sabah (Malaysia) to lift the 1991 export ban on logs has also contributed to the price decline. Following a 6.4 decline in 1995, housing starts in Japan rose 11.2% in 1996 promising improved demand conditions.

In Europe both log and sawnwood prices declined during the first quarter, mainly because of sluggish demand. In France declines in housing starts are holding down demand. Imports were down substantially for 1996: down 12% over 1995 for tropical logs and 60% for sawntimber.

In the UK a gradual recovery in demand is expected, with reports of a continuing recovery in the housing market. The use of tropical hardwoods has been declining in the UK, however. Imports of tropical timber fell by nearly half between 1992 and 1996, while imports of nontropical timber almost doubled.

#### **FERTILIZERS**

MANUFACTURING CAPACITY MUST RISE IN THE LONG RUN

The outlook for fertilizer demand and supply through 2020 was examined in a September 1996 report from the International Food Policy Research Institute (IFPRI) in Washington, D.C. (Balu L. Bumb and Carlos A. Baanante, "The Role of Fertilizer in Sustaining Food Security and Protecting the Environment to 2020," IFPRI Discussion Paper 17.) While 2020 exceeds the planning horizon for most companies, such a broad perspective provides new insights.

The report concludes that the world will have the capacity to produce between 147 and 163 million tons of fertilizer nutrients in 2000 but will need to increase capacity by an additional 51 million tons between 2000 and 2020 to meet projected effective demand in 2020. The increase in fertilizer nutrients will consist of about 29 million tons of nitrogen, 15 million tons of phosphate, and 8 million tons of potash. Asia, which will account for more than 90% of the global fertilizer deficit, will need to invest in manufacturing capacity and raise imports. North America and Eurasia will maintain surplus positions in total fertilizer supply, although North America will have a deficit of nitrogen fertilizer and Eurasia of phosphate. Most other regions will have a deficit of two or more nutrients.

Fertilizer production will need to grow by 1.4% a year from 2000 to 2020, well below the 5.7% growth during 1960-90. But raw materials, capital investment, technology, and prices could all constrain the increases in production needed by 2020. According to the report, raw materials for production are not likely to be major constraints, nor are funds for investment. Technological improvements have increased energy efficiency, allowing economical, smaller-scale plants. The constraint most likely to bind is low prices resulting from overcapacity in some countries. But this constraint would be self-correcting, since underinvestment would lead to higher prices. In this respect the future looks somewhat like the past.

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#### PRICES HOLD AS PRODUCTION FALLS

Potassium chloride prices remained nearly unchanged during the quarter at \$116.6/ton (spot f.o.b. Vancouver) compared with \$116.9/ton for all of 1996 and \$117.0/ton for the fourth quarter. Preliminary estimates of 1996 world potash production show a significant drop, as producers tried to keep pace with falling demand—lower imports by China and India and lower US demand.

Negotiations for 1997 contract prices started in January between Canpotex, the Canadian potash export association, and major buyers with a proposed \$5/ton increase by Canpotex. But lower prices in December and surplus product in the market made such an increase unlikely. Negotiations on contracts for the first half of 1997 ended with a compromise between Canpotex and the Japanese buyers and an agreement to leave prices unchanged in light of recent price weakness. Other Asian buyers followed the lead of the Japanese buyers, and prices remained unchanged from the second half of 1996.

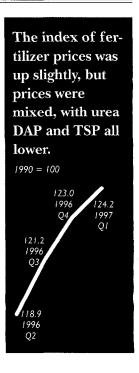
The market received some good news when India announced plans to lower potash prices to improve the potash to nitrogen application rate. This announcement was consistent with recent large sales of potash to India. Recent tenders for sales to India have been at levels above the agreed contract price between Canpotex and major buyers, which may signal some price strength during negotiations in the second half of 1997. China has also been a recent buyer for spring planting.

#### PRICES WEAKEN, THOUGH DEMAND SHOULD HOLD

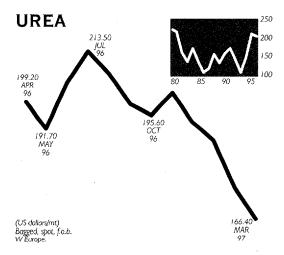
TSP and DAP prices fell slightly during the quarter, but recent increases in grain prices should support usage as farmers anticipate another year of profitable grain production. Global grain area planted rose 2.6% in 1996, and further increases are expected in 1997. Firm prices for phosphate rock should prevent phosphate fertilizer prices from falling significantly in the near term.

World : phosphate rock production increased an estimated 2.7% in 1996 and production capacity 3.4%. The global capacity utilization rate declined slightly to 80%, while the US and some other markets operated near full capacity. Demand for phosphate rock increased 2.8% in 1996 largely because the area planted to grain crops expanded, increasing fertilizer demand. Prices for phosphate rock rose about \$3/ton in 1996, and additional increases are expected in 1997 as the industry restructures and limits exports. Stronger import demand is also expected as new phosphoric acid capacity comes on stream in some countries.

Import demand for phosphate fertilizers grew less than total global utilization in 1996 because of large carryover reserves in India and other major consuming countries. India should return to the market as a large buyer in 1997, and China is expected to remain a strong buyer in 1997. China was a large importer in 1996, as it strove to improve its fertilizer balance.



May 1997

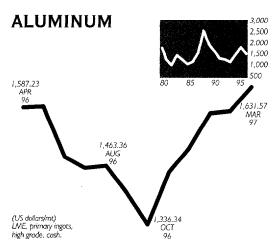




Urea prices dropped sharply during the quarter as demand weakened and market uncertainties increased. By March prices had fallen to \$166.4/ton (f.o.b. Western Europe) for bagged urea, down from \$193.6/ton in December. Buyers began to delay purchases as prices fell in December, hoping that prices would weaken further. Uncertainties about higher import taxes on fertilizer in China added to the cautious sentiment among buyers. An announcement by the Indian government that imports were likely to fall in 1997 further undermined the market.

China began to collect higher import duties (5%) and value-added taxes (13%) on imports in January, although official debate continues over whether the taxes will remain. Imports had previously faced a 3% import duty. The higher taxes seem consistent with efforts by the Chinese government to limit imports following the introduction of five new urea plants with a joint capacity of 3 million tons. Since Chinese imports account for nearly 30% of world urea trade, the new plants could be a significant blow to market prospects for urea. The Chinese government is reportedly planning to reduce urea imports in 1997 by as much as 2 million tons.

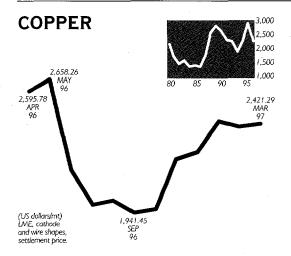
India increased urea prices by 10% in February and announced plans to increase subsidies on phosphate and potash fertilizers. The higher urea prices and lower phosphate and potash prices should help to improve the fertilizer balance, which currently favors nitrogen.



# IMPROVED DEMAND AND FUND BUYING ARE PUSHING UP PRICES

Prices rose 11.7% during the first quarter, reflecting improved demand from consumers and attracting fund and speculative buying. Bullish sentiments have also been fueled by reductions in stocks held by the London Metal Exchange (LME) and the International Primary Aluminium Institute (IPAI). At 890,000 tons in February, LME stocks were well down from December's 951,000 tons. Production was up during the first quarter, with most of the growth coming in Asia. With some Western capacity still idle and adequate new projects in the short term, the industry is likely to meet demand.

Aluminum consumption is rising in Japan with increases in housing starts and commercial building. In addition, the depreciation of the yen relative to the dollar has benefited car exports. Despite the negative impact of Japan's sales tax increase, aluminum consumption is projected to grow around 3% in 1997, up from 2% in 1996. In Europe increased construction activity, particularly in Germany and the UK, has boosted aluminum consumption. Car sales fell in early 1997, a reflection mainly of strong 1996 sales in response to incentive programs. European consumption prospects look even stronger for 1998, when industrial output is projected to rise. In the US consumption growth is supported by strong demand for consumer durables and even stronger orders.



# Unanticipated consumption helps keep prices strong

After a volatile second half of 1996, copper markets were comparatively stable in the first quarter of 1997. Cash copper prices at the LME rose to nearly \$2,600/ton in mid-January, then settled in the \$2,400-\$2,500/ton range through March. In contrast, three-month prices rallied throughout February before settling into a tighter range of \$2,370-\$2,440 during March.

Backwardation narrowed from more than \$300/ton in late January to below \$50/ton in March. The large backwardation was initiated by dealers trying to squeeze the market by selling at cash settlement prices with the intention of buying back stocks in three months at a profit. However, as more dealers put their copper on the market, the backwardation narrowed to within the \$30-\$50/ton range.

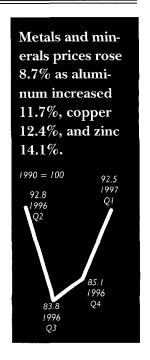
There was also a change in cross-Atlantic arbitrage during the first quarter. During January the LME cash price was at an average premium to the Comex first position of 2.1¢/lb, but by the beginning of March Comex held a 4¢/lb premium over the LME—a 6¢ switch. The growing strength of the US dollar on international currency markets has raised LME prices in many countries in local currency terms, especially in Germany and Japan. Thus developments in currency markets have probably contributed to the strength of copper prices.

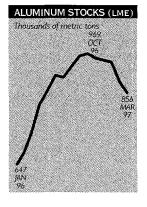
A look at copper stocks indicates that the market may not be as healthy as these price developments suggest. LME and Comex stocks reached a low point in mid-December 1996 of about 120,000 tons. By March exchange stocks had doubled to 240,000 tons. They have been gradually decreasing since then as a sufficient level of backwardation was reached. However, the rate at which stocks were entering the exchanges earlier in the quarter (5,000 tons a month) has not historically produced the price resilience that copper markets have recently exhibited. A possible explanation for the strong prices is that consumption has been better than predicted. Consumption of global refined copper is estimated to have increased 4.6% through the first quarter on a year-on-year basis.

First-quarter copper consumption in the US was about 5% above last year's, although consumption will likely cool as the recent rise in US interest rates dampens construction activity and purchases of consumer durables slow. In Western Europe consumption started slowly in 1997 but picked up briskly in February, partly reflecting delayed business after January's poor weather. Apart from the catch-up effect there appears to be genuine improvement in European market conditions, with prices for copper and other raw materials sharply higher in local currency terms.

The Asian market offers much less cause for optimism. The recent upturn in the Japanese economy has helped consumption, but any resurgence in demand will be short-lived as the recent construction boom comes to an end. The Republic of Korea's industrial and construction sectors are beginning a predicted downturn, as demonstrated by March's substantial drop in consumption. Also, it remains to be seen whether China will be as active a buyer as it was last year.

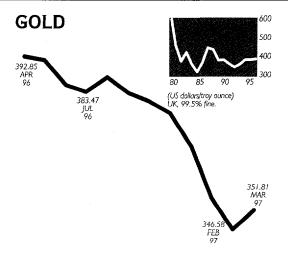
Market fundamentals suggest the continuation of a virtually balanced global market until mid-1997. Conditions in the physical market suggest little reason for prices to fall significantly below \$2,400/ton. Prices should retreat for the third quarter as a large market surplus develops.







Source: Metal Bulletin



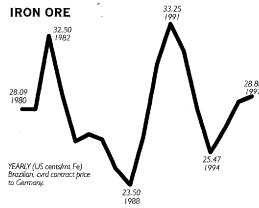
#### GOLD SUFFERS A BARRAGE OF BAD NEWS

Gold prices averaged \$351.2/toz during the first quarter, down from \$376.0 in the previous quarter, as gold markets suffered a series of blows. A proposal by a Swiss law-maker to sell gold to raise money to compensate Holocaust survivors sent prices reeling even though the sales might not occur for years. According to gold traders, European central bank selling has been depressing gold prices for months as countries prepare for the European monetary union by trying to lower their debt to GDP ratios. Fund trading has also been on the short side, driven by trend traders.

As though this were not enough bad news, the market was taken in by the Busang gold mine discovery in Indonesia. Reports of the largest gold discovery in history turned to dust as an audit report finally ended speculation about just how much gold was in the Borneo rainforest. The answer appears to be "not much." Share prices of the Canadian company Bre-X Minerals fell back to earth.

In a glimmer of good news, demand started to rise again as gold fell below \$350/toz. India had a 6% increase in offtake in 1996 as its strong economy fueled demand. In most of the rest of Asia demand has been weak, with demand down 13% in China and 8–9% in Thailand. Partly offsetting the lower demand in much of the rest of East Asia was higher demand in Indonesia and the Republic of Korea. Demand has been weak in Middle East markets as well.

#### **IRON ORE AND STEEL**



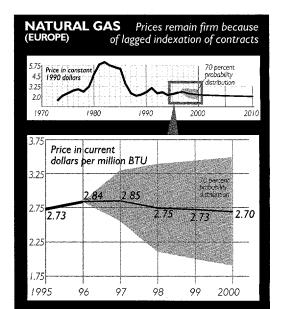
#### PRICES SET FOR IRON ORE; STEEL PRICES VARY

Japanese buyers and Australian sellers reached agreement on prices for deliveries of fines and lump. Fines increased 1.1% for Hamersley, which set its price at 29.1¢ per dry metric ton unit (f.o.b.). Lump ore prices were rolled over at 37.7¢/dmtu (f.o.b.). The Brazilian ore producer CVRD and German buyers also agreed to a 1.1% rise in fines to 28.88¢/mtu (f.o.b.) for Tubarao. Carajas fines were increased 0.5% to 31.15¢/mtu (f.o.b.) Ponta da Madeira. Carajas lump was rolled over at 35.25¢/mtu (f.o.b.). Pig iron prices continued to advance on a global basis for most of the quarter.

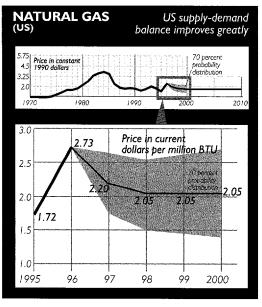
Steel prices were unchanged or slightly weaker during the first quarter. The outlook for world spot prices looks mixed for the upcoming quarter. There are expectations of increasing demand in Europe and Asia, and although there is some danger of oversupply, the US economy remains strong. Increased imports at low prices from Russian and Ukrainian mills continue to hamper attempts to raise prices in North America and Europe.

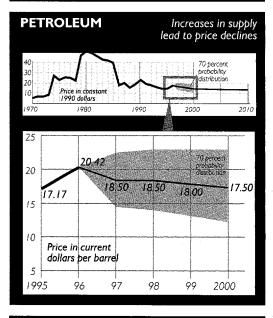
In Europe a 5–6% recovery in production is expected for 1997. January production in Western Europe was up 5.6% over January 1996. Prices should follow upward, especially for hot rolled coils and coated sheet, but thus far attempts to raise prices have failed. Hot rolled band (f.o.b.) is currently at \$315/mt, significantly below the US spot price of \$395/mt for hot-rolled band.

#### COAL Rising low-cost production will weaken prices 70 percent probability 60 distribution 40 Price in constant 1990 dollars 1970 2000 1980 1990 2010 Price in current dollars per metric ton 40 39.19 38.50 37 21 37 00 37 00 37 75 30 20 1995 96 97 98 99 2000

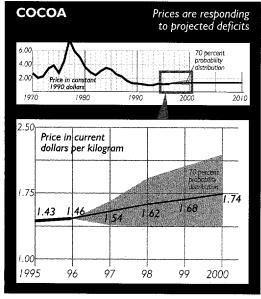


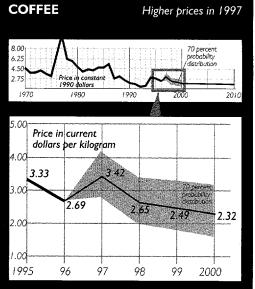


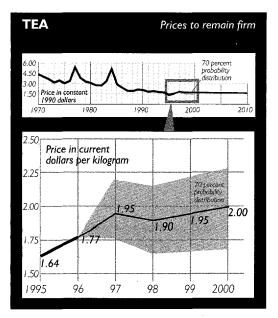


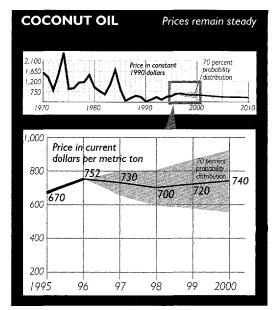




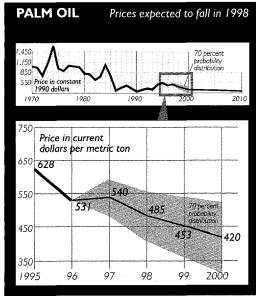


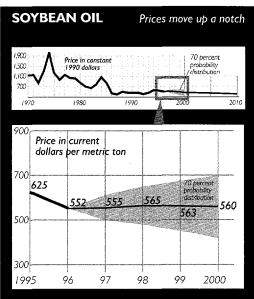




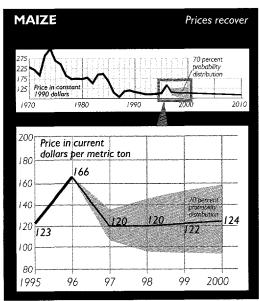


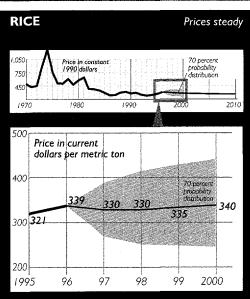
FOOD FATS AND OILS



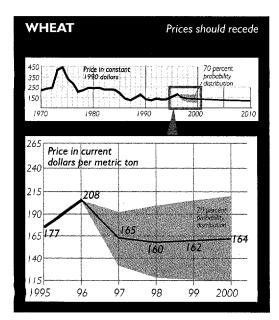


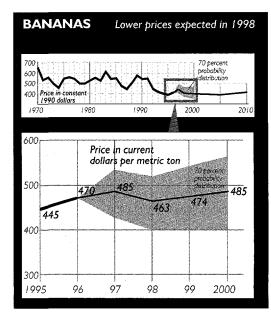
**GRAINS** 

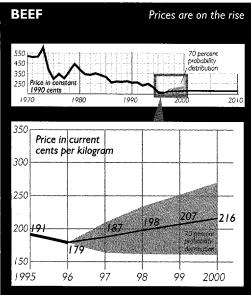


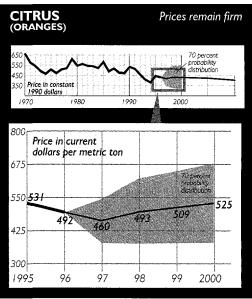


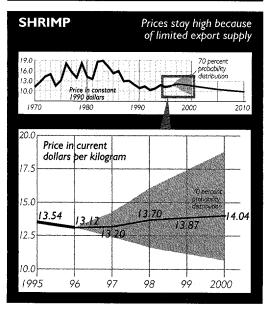
#### OTHER FOOD

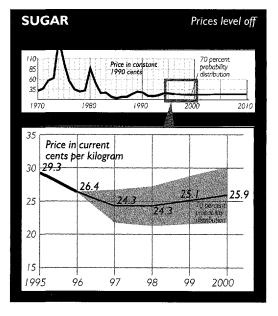




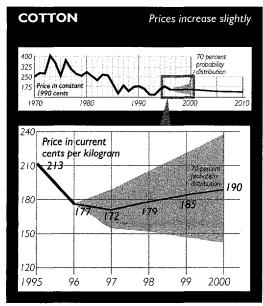


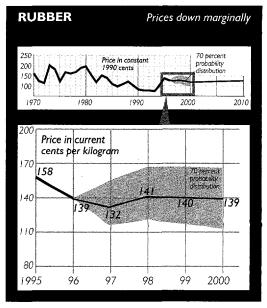


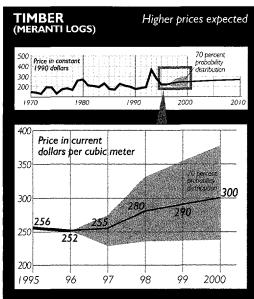


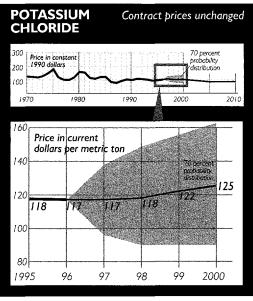


#### AGRICUL-TURAL RAW MATERIALS

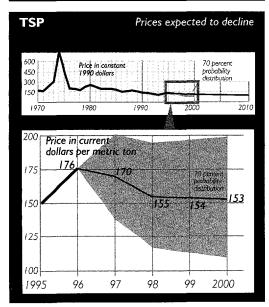


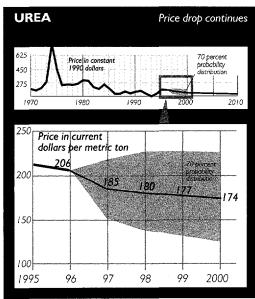


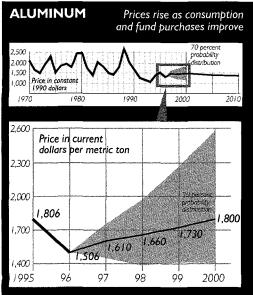


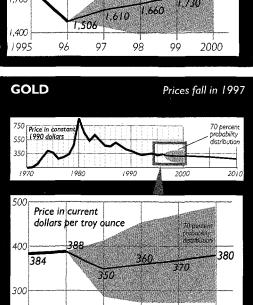


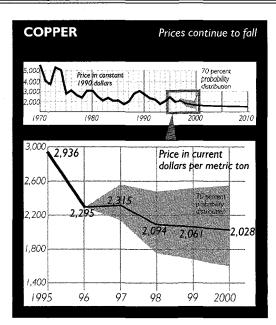
#### **FERTILIZERS**

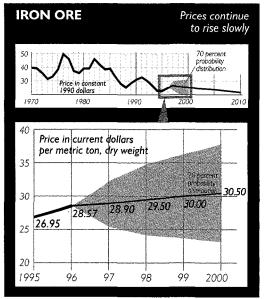












# METALS AND MINERALS

May 1997

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

					Ac	tual					Short-ten projection			r-term ections
Commodity	Unit	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	32.88	32.59	33.73	32.24	31.58	30.55	29.39
Crude oil, avg, spot	\$/bbl	4.82	51.22	39.62	22.88	15.84	4.41	14.41	17.88	16.86	16.12	14.35	13.74	13.42
Natural gas, Europe	\$/mmbtu	**	4.72	5.39	2.55	2.51	2.22	2.29	2.49	2.60	2.40	2.21	2.10	2.01
Natural gas, US	\$/mmbtu	0.68	2.15	3.57	1.70	1.99	1.74	1.45	2.39	2.01	1.79	1.68	1.68	1.69
Beverages														
Cocoa	¢/kg	269.1	361.7	328.6	126.7	105.0	126.7	120.2	127.5	140.4	141.1	142.7	144.6	144.9
Coffee, other milds	¢/kg	457.2	481.6	470.9	197.2	146.7	300.1	279.6	235.9	311.8	230.9	190.3	183.7	175.7
Coffee, robusta	¢/kg	362.8	450.6	386.0	118.2	108.9	237.7	232.4	158.1	164.1	148.1	143.6	130.2	124.6
Tea, auctions, avg	¢/kg	358.8	250.4	263.5	205.1	157.7	143.1	128.1	147.9	159.5	149.0	146.8	140.3	136.1
Tea, London, all	¢/kg	436.4	310.0	289.0	203.2	175.3	166.2	137.8	155.3	177.8	165.5	164.1	159.1	156.6
Food														
Fats and oils		. 500		0400	22.5				/EQ :					
Coconut oil	\$/mt	1,583	936.1	860.2	336.5	423.5	551.2	561.7	658.1	665.5	609.9	607.0	519.2	499.0
Copra	\$/mt	896.5	629.0	562.6	230.7	277.8	378.7	367.9	428.1	433.0	396.4	340.4	332.6	308.6
Groundnut meal	\$/mt	407.4	333.9	211.7	184.8	58.I	152.7	141.4	186.3	163.2	150.7	174.7	166.3	164.9
Groundnut oil	\$/mt	1,509	1,193	1,319	963.7	695.I	928.0	831.3	785.7	802.2	697.0	631.6	519.2	463.3
Palm oil	\$/mt	1,037	810.9	729.6	289.8	355.3	479.5	527.1	464.9	492.3	422.6	344.5	332.6	308.6
Soybean meal	\$/mt	409.0	364.6	229.1	200.2	195.8	174.6	165.2	234.2	246.1	196.0	205.1	197.4	195.5
Soybean oil	\$/mt	1,142	830.2	833.7	<del>44</del> 7.3	451.8	558.6	524.4	482.9	505.9	492.3	459.4	437.5	411.5
Soybeans	\$/mt	466.2	411.5	327.1	246.8	239.9	228.5	217.5	266.9	282.6	243.9	246.1	238.6	236.4
Grains				1.45.4	1000	*	07.50	100 /		100.4			0.4.00	
Maize	\$/mt	232.9	174.0	163.6	109.3	96.01	97.59	103.6	145.2	109.4	104.6	101.7	96.90	92.01
Rice, Thai, 5%	\$/mt	503.6	570.6	287.0	270.9	221.4	242.8	269.3	296.7	300.8	287.5	278.9	266.8	262.0
Sorghum	\$/mt	206.5	179.0	150.1	103.9	93.13	94.25	99.81	131.4	106.1	101.4	98.68	94.01	89.27
Wheat, US, HRW	\$/mt	218.9	240.0	198.0	135.5	131.9	135.9	1 <del>4</del> 8.5	181.8	150.4	139.4	134.5	124.4	118.2
Other food	Ф7.		5241	FF 1 0	540 O	4127	200.1	: 272.4	411.0	442.1	102.4	207.0	207.2	410.4
Bananas	\$/mt	662.2	524.1	551.0	540.9	416.7	399.1	373.4	411.2	442.1	403.4	397.8	386.2	413.4
Beef, US	⊄/kg	520.1	383.4	314.0	256.3	246.2	211.7	160.0	156.3	170.8	172.9 429.5	177.3 430.7	177.2 423.8	175.1 402.6
Oranges	\$/mt	670.0	556.0 1,421	580.7 1,529	531. <b>1</b> 1,079	406.8 1,071	373.2 1,186	445.9 1,136	430.5 1,149	419.3 1,203	1,194	1,151	1,051	985.3
Shrimp Sugar, world	¢/kg ¢/kg	1,108 32.79	87.75	1,329	27.67	20.78	2 <del>4</del> .22	24.56	23.08	22.11	21.13	21.25	22.49	22.49
•	· ·	32.77	07.75	15.01	27.07	20.70	21.22	21.50	23.00	22.11	21.13	21125	22.17	22.17
Agricultural raw ma Timber	terials													
Logs, Malaysia	\$/m³	172.0	271.6	177.4	177.2	366.6	279.1	214.5	220.8	232.5	243.9	246.1	260.3	269.7
Logs, Cameroon	\$/m <sup>3</sup>	171.5	349.7	253.4	343.5	291.9	299.7	284.8	237.8	259.8	265.7	287.1	310.9	334.8
Sawnwood, Malaysia	\$/m <sup>3</sup>	697.8	550.2	447.5	533.0	713.1	745.0	620.8	649.2	697.4	688.3	697.2	723.I	729.
Other raw materials														
Cotton	¢/kg	269.7	286.5	192.1	181.9	120.4	160.0	178.5	155.3	156.8	156.0	155.9	143.2	139.3
Rubber, RSS1, Malaysia	¢/kg	162.4	197.9	110.6	86.47	78.18	102.2	132.6	122.1	120.6	122.9	112.2	117.0	121.3
Tobacco	\$/mt	4,290	3,162	3,807	3,392	2,535	2,395	2,214	2,671	2,871	2,753	2,641	2,444	2,268
Fertilizers														
DAP	\$/mt	215.3	308.7	246.3	171.4	121.4	156.8	181.7	186.7	191.4	183.0	162.4	151.1	134.2
Phosphate rock	\$/mt	43.86	64.89	49.43	40.50	31.04	29.94	29.36	34.15	37.37	36.07	34.45	31.82	29.39
Potassium chloride <sup>a</sup>	\$/mt	127.6	160.8	122.4	98.13	101.0	95.93	98.79	102.4	106.7	102.8	102.5	86.77	87.54
TSP	\$/mt	171.5	250.4	176.9	131.8	105.3	119.9	125.5	154.0	155.0	135.0	125.5	114.3	103.5
Urea	\$/mt	191.4	308.6	198.7	157.0	100.4	134.2	177.4	179.9	168.6	156.8	142.7	135.2	127.8
Metals and minerals														
Aluminum	\$/mt	2,217	2,023	1,517	1,639	1,071	1,340	1,515	1,318	1,468	1,446	1,477	1,388	1,356
Copper	\$/mt	5,645	3,032	2,066	2,661	1,799	2,094	2,463	2,010	2,110	1,824	1,664	1,592	1,548
Gold	\$/toz	143.5	844.7	463.4	383.5	338.4	348.4	322.3	339.5	319.1	313.6	311.7	296.5	268.4
Iron ore	¢/dmtu	39.23	39.02	38.71	30.80	26.46	23.11	22.61	25.02	26.34	25.70	25.02	23.72	21.73
Lead	¢/kg	120.8	125.8	56.97	81.05	38.22	49.70	52.93	67.80	61.99	60.12	55.37	49.24	44.73
Nickel	\$/mt	11,348	9,056	7,140	8,864	4,978	5,752	6,903	6,568	6,563	6,447	6,562	5,930	5,367
Silver	¢/toz	705.7	2,867	895.2	482.0	404.3	479.5	435.5	453.8	455.8	453.0	434.8	397.7	364.2
Tin	¢/kg	1,465	2,330	1,682	608.5	485.4	495.8	521.3	539.8	528.2	510.5	498.8	453.4	413.4
Zinc	¢/kg	118.0	105.8	114.2	151.4	90.47	90.53	86.50	89.77	108.5	101.9	92.69	85.33	81.15

<sup>..</sup> Not available.

Note: Computed from unrounded data and deflated by MUV (1990=100). Forecast as of April 22, 1997.

a. Also known as muriate of potash.

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

TABLE A2. COMMODITY PRICES AND PRICE PROJECTIONS IN CURRENT DOLLARS

					Ac	ctual					Short-terr projection		-	-term ctions
Commodity	Unit	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	18.50	18.50	17.50	19.00	21.00
Natural gas, Europe	\$/mmbtu	0.17	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	2.20	2.05	2.05	2.33	2.65
Beverages		(7.50	2121	20= 4	=		120 /			15.0				
Cocoa	¢/kg	67.50	260.4	225.4	126.7	111.7	139.6	143.2	145.6	154.0	162.0	174.0	200.0	226.7
Coffee, other milds Coffee, robusta	¢/kg	114.7	346.6	323.1	197.2	156.0 115.7	330.8 262.0	333.2 277.1	269.4	342.0	265.0	232.0	254.0	275.0
Tea, auctions, avg	¢/kg ¢/kg	91.00 89.99	324.3 180.2	264.9 180.8	118.2 205.1	167.7	157.7	152.7	180.6 168.9	180.0 175.0	170.0 171.0	175.0 179.0	180.0 194.0	195.0 213.0
Tea, London, all	¢/kg	109.5	223.1	198.3	203.1	186.4	183.2	164.3	177.4	195.0	190.0	200.0	220.0	245.0
Food														
Fats and oils														
Coconut oil	\$/mt	397.2	673.8	590.2	336.5	450.3	607.5	669.6	751.6	730.0	700.0	740.0	718.0	781.0
Copra	\$/mt	224.8	452.7	386.0	230.7	295.4	417.3	438.5	488.9	475.0	455.0	415.0	460.0	483.0
Groundnut meal	\$/mt	102.2	240.3	145.3	184.8	168.1	168.3	168.6	212.8	179.0	173.0	213.0	230.0	258.0
Groundnut oil	\$/mt	378.6	858.8	904.9	963.7	739.1	1022.8	990.9	897.3	0.088	800.0	770.0	718.0	725.0
Palm oil	\$/mt	260.1	583.7	500.6	289.8	377.8	528.4	628.3	530.9	540.0	485.0	420.0	460.0	483.0
Soybean meal	\$/mt	102.6	262.4	157.2	200.2	208.2	192.4	196.9	267.5	270.0	225.0	250.0	273.0	306.0
Soybean oil	\$/mt	286.3	597.6	572.0	447.3	480.4	615.6	625.1	551.5	555.0	565.0	560.0	605.0	644.0
Soybeans	\$/mt	116.9	296.2	224.4	246.8	255. <b>I</b>	251.8	259.3	304.8	310.0	280.0	300.0	330.0	370.0
Grains	<b>A</b> .	50.40	1050		1000	100.1	107.6	100.5						
Maize	\$/mt	58.40	125.3	112.2	109.3	102.1	107.6	123.5	165.8	120.0	120.0	124.0	134.0	144.0
Rice, Thai, 5% Sorghum	\$/mt \$/mt	126.3 51.80	410.7 128.9	196.9 103.0	270.9 103.9	235.4 99.0	267.6 103.9	321.0 119.0	338.9 150.0	330.0 116.4	330.0 116.4	340.0 120.3	369.0	410.0
Wheat, US, HRW	\$/mt	54.90	172.7	135.8	135.5	140.2	149.7	177.0	207.6	165.0	160.0	164.0	130.0 172.0	139.7 185.0
Other food	17								257.10				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10010
Bananas	\$/mt	166.1	377.3	378.1	540.9	443.0	439.8	445.1	469.6	485.0	463.0	485.0	534.0	647.0
Beef, US	⊄/kg	130.4	276.0	215.4	256.3	261.8	233.3	190.7	178.5	187.4	198.4	216.1	245.0	274.0
Oranges	\$/mt	168.0	400.2	398.4	531.1	432.5	411.3	531.5	491.7	460.0	493.0	525.0	586.0	630.0
Shrimp	¢/kg	278.0	1,023	1,049	1,079	1,139	1,308	1,354	1,312	1,320	1,370	1,404	1,453	1,542
Sugar, world	¢/kg	8.22	63.16	8.95	27.67	22.10	26.70	29.28	26.36	24.25	24.25	25.91	31.10	35.19
Agricultural raw ma	terials													
Timber	\$/m³	43.13	105.5	1317	177 3	389.8	307.6	2557	252.1	255.0	200.0	200.0	2/0.0	422.0
Logs, Malaysia Logs, Cameroon	\$/m³	43.00	195.5 251.7	121.7 173.9	177.2 343.5	310.3	330.3	255.6 339.5	252.1 271.6	255.0 285.0	280.0 305.0	300.0 350.0	360.0 430.0	422.0 524.0
Sawnwood, Malaysia	\$/m³	175.0	396.0	307.0	533.0	758.3	821.0	740.0	741.4	765.0	790.0	850.0	1,000	1,141
Other raw materials														
Cotton	¢/kg	67.63	206.2	131.8	181.9	128.0	176.3	212.8	177.3	172.0	179.0	190.0	198.0	218.0
Rubber, RSS1, Malaysia	¢/kg	40.72	142.5	75.9	86.5	83.1	112.6	158.0	139.4	132.3	141.1	136.8	161.8	189.8
Tobacco	\$/mt	1,076	2,276	2,612	3,392	2,695	2,639	2,639	3,051	3,150	3,160	3,220	3,380	3,550
Fertilizers														
DAP	\$/mt	54.00	222.2	169.0	171.4	129.1	172.8	216.6	213.2	210.0	210.0	198.0	209.0	210.0
Phosphate rock	\$/mt	11.00	46.71	33.92	40.50	33.00	33.00	35.00	39.00	41.00	41.40	42.00	44.00	46.00
Potassium chloride <sup>a</sup>	\$/mt	32.00	115.7	83.96	98.13	107.4	105.7	117.8	116.9	117.0	118.0	125.0	120.0	137.0
TSP Urea	\$/mt \$/mt	43.00	180.3	121.4	131.8	111.9	132.1	149.6	175.8	170.0	155.0	153.0	158.0	162.0
		48.00	222.1	136.3	157.0	106.8	147.9	211.5	205.5	185.0	0.081	174.0	187.0	200.0
Metals and minerals  Aluminum	\$/mt	556.0	1,456	1,041	1,639	1,139	1,477	1,806	1.50/	1.410	1.770	1 000	1.000	2 122
Copper	\$/mt	1,416	2,182	1,041	2,661	1,137	2,307	2,936	1,506 2,295	1,610 2,315	1,660 2,094	1,800 2,028	1,920 2,201	2,122 2,423
Gold	\$/toz	36.00	608.0	317.9	383.5	359.8	384.0	384.2	387.7	350.0	360.0	380.0	410.0	420.0
Iron ore	¢/dmtu	9.84	28.09	26.56	30.80	28.14	25.47	26.95	28.57	28.90	29.50	30.50	32.80	34.00
Lead	¢/kg	30.29	90.58	39.09	81.05	40.64	54.78	63.10	77 <b>.4</b> 3	68.00	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	7,200	7,400	8,000	8,200	8,400
Silver	⊄/toz	177.0	2,064	614.2	482.0	429.8	528.4	519.1	518.3	500.0	520.0	530.0	550.0	570.0
Tin Zinc	¢/kg	367.3	1,677	1,154	608.5	516.1	546.4	621.4	616.5	579.4	586.0	608.1	627.0	647.0
Not available	c/kg	29.58	76.12	78.34	151.4	96.20	99.8	103.1	102.5	119.0	117.0	113.0	0.811	127.0

<sup>..</sup> Not available,

May 1997

Note: Computed from unrounded data. Forecast as of April 22, 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

						Agricult	ure					
		Nonenergy				Fo	od		Raw m	aterials		Metals
Year	Energy (100)	commod- ities (100)º	Total agriculture (69.1)°	Beverages (16.9)°	Total food (29.4)ª	Fats and oils (10.1)°	Grains (6.9)°	Other foods (12.4)°	Total raw materials (22.8)°	Timber (9.3)°	Fertilizers (2.7)°	and minerals (28.2)°
						Curren	t dollars					
1980	161.2	125.9	138.3	182.4	139.3	148.7	134.3	134.3	104.6	79.02	128.9	95.11
1985	118.8	91.44	100.2	-164.1	86.31	113.0	89.23	62.80	70.84	59.06	89.03	70.17
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	84.67	95.30	97.63	92.94	99.15	104.5	101.7	93.35	99.15	104.2	102.4	88.90
1992	83.13	91.80	93.95	77.46	100.0	111.7	101.7	89.53	98.34	114.5	95.80	86.14
1993 1994 1995 1996	73.62 69.43 75.06 89.25	91.38 111.6 122.2 115.1	98.78 123.3 131.3 125.5	83.62 148.8 151.2 126.5	98.57 106.8 116.9 123.6	111.5 125.9 136.6 147.0	93.65 102.1 120.4 140.6	90.72 93.87 98.84 94.97	110.3 125.8 135.2	152.4 156.6 139.5	83.66 93.36 103.6	73.94 84.61 101.6
997   998	80.86 80.86	117.5 113.0	123.3 128.2 122.6	147.9 127.4	118.0 112.3	147.0 148.3 131.9	140.6 118.4 117.3	94.97 93.07 93.49	127.1 126.6 132.2	139.5 143.6 149.5	119.8 118.8 112.0	89.11 91.04 89.72
2000	76.49	115.0	124.3	21.7	115.5	134.1	120.8	97.26	137.5	60.7	111.5	92.51
2005	83.04	126.2	137.8	33.8	125.1	144.6	129.7	106.6	157.1	89.6	11 <b>5.</b> 8	98.65
2010	91.79	139.0	153.1	46.9	136.9	158.3	141.5	116.7	178.6	217.2	119.5	106.3
					Con	stant 1990 dolla	ars					
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	91.53	103.2	86.08	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	82.82	93.22	95.50	90.91	96.98	102.2	99.47	91.31	96.99	101.9	100.2	86.96
1992	77.96	86.09	88.10	72.63	93.78	104.7	95.37	83.96	92.21	107.3	89.84	80.78
1993	69.24	85.94	92.90	78.64	92.70	104.9	88.08	85.32	103.7	143.3	78.68	69.54
1994	63.00	101.3	111.9	135.0	96.94	114.3	92.63	85.17	114.1	42.1	84.71	76.77
1995	62.97	102.5	110.2	126.8	98.07	114.6	01.0	82.92	113.4	17.1	86.91	85.24
1996	78.15	100.8	109.9	110.7	108.3	128.7	23.1	83.16	111.3	122.1	104.9	78.03
1997	73.71	107.1	116.8	134.8	107.6	35.2	107.9	84.84	115.5	130.9	108.3	82.99
1998	70.45	98.5	106.8	111.0	97.84	14.9	102.2	81.45	115.2	130.2	97.54	78.17
2000	62.74	94.32	101.9	99.84	94.73	110.0	99.08	79.78	112.8	131.8	91.50	75.88
2005	60.05	91.24	99.64	96.75	90.48	104.6	93.78	77.08	113.6	137.1	83.70	71.34
2010	58.65	88.83	97.83	93.88	87.46	101.2	90.40	74.59	114.1	138.8	76.35	67.92

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 April 22, 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

	G-5 MI	JV index <sup>a</sup>	US GDP deflator				
Year	1990=100	% change	1990=100	% change			
1980	71.98		64.54				
1985	68.61	0.95	83.77	5.66			
1990	100.0	7.83	100.0	3.61			
1991	102.2	2.23	104.0	3.95			
1992	106.6	4.31	106.8	2.78			
1993	106.3	-0.29	109.6	2.60			
1994	110.2	3.65	112.2	2.34			
1995	119.2	8.15	115.0	2.48			
1996	114.2	4.19	117.2	1.95			
1997	109.7	_3.94	119.7	2.10			
1998	114.8	4.63	122.2	2.10			
2000	121.9	3.06	127.1	2.00			
2005	138.3	2.55	141.7	2.20			
2010	156.5	2.50	158.0	2.20			

Note: Figures for 1996–2010 are projections, except 1996 US GDP deflator is a preliminary estimate. Forecast as of April 22, 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.

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

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.

TABLE A5. COMMODITY PRICE PROBABILITY DISTRIBUTIONS IN CONSTANT 1990 DOLLARS

			70% probabi	ity distribution	
Commodity	Unit	1997	1998	2000	2005
nergy					
Coal, US	\$/mt	28.26-39.20	25.27-39.21	22.97-40.19	18.44-42.66
Crude oil, avg. spot	\$/bbl	13.22-20.51	12.20-20.04	10.0518.87	7.95-19.52
Vatural gas, Europe	\$/mmbtu	2.32-3.01	1.83-2.96	1.56-2.87	1.34-2.86
Natural gas, US	\$/mmbtu	1.60-2.42	1.31-2.22	1.15-2.21	1.01-2.36
Beverages					
Cocoa	¢/kg	126.2-151.5	119.1-167.3	113.4-179.6	107.1-195.2
Coffee, other milds	¢/kg	255.2-380.1	173.4-295.3	132.9–260.8	122.9-261.0
Coffee, robusta	⊄/kg	124.9-209.7	108.0-192.5	100.9-196.9	86.77-184.4
ea, auctions, avg.	¢/kg	143.6-177.1	129.7-168.5	123.3-167.3	109.6-168.6
ea, London, all	¢/kg	160.0-200.9	144.0-187.1	137.8-187.0	124.1-190.9
ood					
ats and oils					
Coconut oil	\$/mt	598.9-732.0	518.4-701.3	455.3-758.8	363.7-674.7
Copra ·	\$/mt	390.2-476.8	337.2-455.7	255.1-425.7	232.8-432.4
Groundnut meal	\$/mt	146.8-179.6	128.1-173.4	131.2-218.2	116.4-216.2
Groundnut oil	\$/mt	722.0-882.4	592.4-801.5	474.1–789.9	363.7–674.7
alm oil	\$/mt	443.0–541.5	358.9–486.1	258.4–430.6	232.8–432.4
ioybean meal	\$/mt	221.5–270.7	166.4–225.6	154.2–256.7	138.1–256.7
ioybean oil	\$/mt	455.8–557.0	418.2–566.3	344.5–574.2	306.6–569.1
oybeans	\$/mt	254.3–310.8	207.4-280.5	184.6–307.6	167.0–310.2
- Grains					
1aize	\$/mt	96.26-122.5	83.64-125.5	77.27128.1	62.98-135.7
Rice, Thai, 5%	\$/mt	246.7–355.0	218.5-362.3	200.8–362.6	160.1–400.2
orghum	\$/mt	93.35–118.9	81.11-121.7	74.97-124.4	61.10-131.6
Vheat, US, HRW	\$/mt	123.3–177.5	105.9–175.6	96.87–174.9	74.63–177.9
Other food					
bananas	\$/mt	389.2-486.8	346.8-452.2	326.5-461.8	239.4–509.1
Beef, US	¢/kg	150.3-191.3	141.7-204.0	133.0-221.6	118.7-235.7
Dranges	\$/mt	343.8-494.8	326.5-541.2	310.1-555.6	283.9-563.6
Shrimp	¢/kg	1,135-1,294	1,015-1,397	875.2-1,543	772.3-1,524
ugar, world	¢/kg	19.90-24.32	18.59–23.66	17.85–24.65	15.29–29.68
Agricultural raw mat	erials				
Timber	*. 3				
ogs, Malaysia	\$/m³	208.9–250.8	205.8–289.2	195.5–309.7	192.8–351.4
.ogs, Cameroon	\$/m³	233.9–280.8	224.2–315.0	228.1–361.3	230.3–419.7
iawnwood, Malaysia	\$/m³	635.0–760.8	580.7–815.8	554.0–877.5	535.7–976.1
Other raw materials					
Cotton	¢/kg	141.3–172.3	132.4–178.6	116.5-194.4	100.5–186.6
Rubber, RSS1, Malaysia	¢/kg	106.1-141.1	105.7–145.5	92.04–135.8	76.07-175.5
obacco	\$/mt	2,527–3,216	2,257–3,249	1,981–3,302	1,638–3,250
ertilizers					
DAP	\$/mt	157.0-225.9	139.0–230.5	117.0-211.1	98.27-204.1
hosphate rock	\$/mt	30.63-44.12	27.44-45.48	24.77-44.79	20.68-42.95
otassium chloride <sup>a</sup>	\$/mt	87.42-125.9	78.   5-  29.6	73.82-133.3	52.06-121.5
ΓSP	\$/mt	127.1-182.9	102.6-170.2	90.39-163.2	68.55-160.0
Jrea	\$/mt	138.3–199.0	119.2–197.6	102.8-185.5	81.13–189.3
detals and minerals					
Numinum	\$/mt	1,340-1,605	1,220-1,714	1,173-1,858	1,029-1,874
Copper	\$/mt	1,955–2,336	1,539–2,163	1,321–2,094	1,179–2,148
Gold	\$/toz	261.6-376.5	238.4–395.2	224.4-402.1	177.9-429.9
ron ore	¢/dmtu	23.15–29.44	21.08-30.32	19.03-31.01	16.63-31.53
.ead	⊄/kg	50.87-73.11	45.65-75.71	39.87 <b>–</b> 71. <b>4</b> 5	32.76-66.45
Nickel	\$/mt	5,382–7,745	4,900-8,123	4,725–8,465	3,558-8,301
ilver	¢/toz	373.7–537.8	344.3–570.8	313.0-560.8	238.6-576.7
Γin	¢:/kg	433.1-623.2	388.0-643.3	359.1643.4	272.0-589.4
Zinc	⊄/kg	88.97-128.0	77.45-128.4	66.77-119.6	56.84-113.7

Note: Forecast as of April 22, 1997.
a. Also known as muriate of potash.
Source: World Bank, International Economics Department, Commodity Policy and Analysis Unit.

May 1997 37

TABLE A6. COMMODITY PRICE PROBABILITY DISTRIBUTIONS IN CURRENT DOLLARS

			70% probabil	ity distribution	
Commodity	Unit	1997	1998	2000	2005
nergy					
Coal, US	\$/mt	31.00-43.00	29.00-45.00	28.00-49.00	25.50-59.00
Crude oil, avg. spot	\$/bbl	14.50-22.50	14.00-23.00	12.25-23.00	11.00-27.00
Natural gas, Europe	\$/mmbtu	2.55–3.30	2.10–3.40	1.90-3.50	1.85–3.95
Natural gas, US	\$/mmbtu	1.75–2.65	1.50-2.55	1.40–2.70	1.40–3.26
_	φ/πιποια	1.75-2.05	1.50-2.55	1.40-2.70	1.40-3.20
Beverages					
Cocoa	¢/kg	138.5–166.3	136.7–192.0	138.3–219.0	148.2–270.0
Coffee, other milds	¢/kg	280.0–417.0	199.0–339.0	162.0–318.0	170.0–361.0
Coffee, robusta	¢/kg	137.0-230.0	124.0221.0	123.0-240.0	120.0-255.0
Fea, auctions, avg.	¢/kg	157.5-194.3	148.9-193.4	150.3-203.9	151.5-233.1
Геа, London, all	¢/kg	175.5–220.4	165.3–214.7	168.0-228.0	171.6-264.0
ood					
ats and oils				•	
Coconut oil	\$/mt	657.0-803.0	595.0-805.0	555.0-925.0	503.0-933.0
Copra	\$/mt	428.0–523.0	387.0–523.0	311.0-519.0	322.0–598.0
•		428.0–323.0 161.0–197.0		160.0–266.0	
Groundnut meal	\$/mt		147.0-199.0		161.0–299.0
Groundnut oil	\$/mt	792.0–968.0	680.0–920.0	578.0–963.0	503.0–933.0
Palm oil	\$/mt	486.0–594.0	412.0–558.0	315.0–525.0	322.0–598.0
Soybean meal	\$/mt	243.0–297.0	191.0–259.0	188.0313.0	191.0-355.0
Soybean oil	\$/mt	500.0-611.0	480.0–650.0	420.0–700.0	424.0–787.0
Soybeans	\$/mt	279.0–341.0	238.0–322.0	225.0–375.0	231.0–429.0
Grains					
Maize	\$/mt	105.6-134.4	96.00-144.0	94.20-156.2	87.10-187.6
Rice, Thai, 5%	\$/mt	270.6-389.4	250.8-415.8	244.8-442.0	221.4-553.5
Sorghum	\$/mt	102.4-130.4	93.10~139.7	91.40-151.6	84.50-182.0
Wheat, US, HRW	\$/mt	135.3–194.7	121.6-201.6	118.1-213.2	103.2-246.0
	,,,,,,,				
<b>Other food</b> Bananas	\$/mt	427.0-534.0	398.0–519.0	398.0–563.0	331.0-704.0
		164.9-209.9	162.7–234.1	162.1–270.1	164.2–325.9
Beef, US	¢/kg				
Oranges	\$/mt	377.2–542.8	374.7–621.2	378.0–677.3	392.6–779.4
Shrimp	¢/kg	1,245–1,420	1,165–1,603	1,0671,881	1,068–2,107
Sugar, world	¢/kg	21.83–26.68	21.34–27.16	21.76–30.05	21.15–41.05
Agricultural raw mat	erials				
Timber	A / 2	220   275	2242 2210	220 4 277 /	2// 7 /0/ 0
_ogs, Malaysia	\$/m³	229.1-275.1	236.2–331.9	238.4–377.6	266.7–486.0
ogs, Cameroon	\$/m³	256.6–308.0	257.3–361.5	278.1–440.5	318.6–580.4
Sawnwood, Malaysia	\$/m <sup>3</sup>	696.6–834.7	666.5–936.4	675.41,070	740.8–1,350
Other raw materials					
Cotton	⊄/kg	155.0–189.0	152.0-205.0	142.0–237.0	139.0–258.0
Rubber, RSS I, Malaysia	¢/kg	116.4-154.8	121.3-167.0	112.2–165.5	105.2–242.7
Горассо	\$/mt	2,772–3,528	2,591–3,729	2,415–4,025	2,265-4,495
Fertilizers					
DAP	\$/mt	172.2-247.8	159.6-264.6	142.6-257.4	135.9-282.2
hosphate rock	\$/mt	33.60-48.40	31.50-52.20	30.20-54.60	28.60-59.40
Potassium chloride <sup>a</sup>	\$/mt	95.90-138.I	89.70-148.7	90.00-162.5	72.00-168.0
TSP	\$/mt	139.4–200.6	117.8–195.3	110.2-198.9	94.80-221.2
Jrea Jrea	\$/mt	151.7-218.3	136.8–226.8	125.3–226.2	112.2–261.8
Metals and minerals					
Auminum	\$/mt	1,470-1,760	1,400-1,968	1,430–2,265	1,422–2,592
Copper	\$/mt	2,145-2,563	1,767–2,482	1,611–2,553	1,631–2,971
* *					
Gold	\$/toz	287.0-413.0	273.6–453.6	273.6–490.2	246.0–594.5
ron ore	¢/dmtu	25.40–32.30	24.20–34.80	23.20–37.80	23.00–43.60
_ead	¢/kg	55.80–80.20	52.40–86.90	48.60–87.10	45.30–91.90
Vickel	\$/mt	5,904-8,496	5,624–9,324	5,760–10,320	4,920-11,480
Silver	¢/toz	410.0–590.0	395.2–655.2	381.6–683.7	330.0–797.5
Tin	¢/kg	475.1683.7	445.4-738.4	437.8-784.4	376.2-815.1
Zinc	¢/kg	97.60-140.4	88.90-147.4	81.40-145.8	78.60-157.2

Note: Forecast as of April 22, 1997.

a. Also known as muriate of potash.

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

TABLE A7. RECENT COMMODITY PRICES

		Annual averages				Monthly averages						
Commodity	Unit	Jan-Dec 1995	Jan-Dec 1996	Jan–Mar 1997	jan–Mar 1996	Apr–Jun 1996	Jul-Sep 1996	Oct–Dec 1996	Jan–Mar 1997	Jan 1997	Feb 1997	Mar 1997
nergy			*****************			,						
Coal												
Australia	\$/mt	39.37	38.07	36.91	39.22	38.58	38.28	36.22	36.91	35.23	38.58	
US	\$/mt	39.19	37.21	37.80	36.77	37.10	37.60	37.38	37.80	37.80	37.80	37.80
Crude oil, avg., spot <sup>a</sup>	\$/bbl	17.17	20.42	20.99	18.30	19.41	20.76	23.21	20.99	23.23	20.42	19.33
Brent <sup>a</sup>	\$/bbl	17.07	20.65	21.17	18.63	19.47	20.93	23.57	21.17	23.47	20.83	19.21
Dubai <sup>a</sup>	\$/bbl	16.11	18.54	19.32	16.56	17.25	18.94	21.41	19.32	21.28	18.60	18.09
West Texas Int.ª	\$/bbl	18.34	22.07	22.48	19.71	21.52	22.42	24.64	22.48	24.93	21.83	20.69
	\$/001	10.57	22.07	22.70	, 1277	21.32	22,72	27.07	22,-10	21.75	21.03	20.07
Vatural gas	\$/mmbtu	2.73	2.84	2.89	2.73	2.91	2.79	2.95	2.89	2.89	2.89	2.89
Europe US	**	1.72	2.73	2.69	3.43	2.32	2.12	3.07	2.69 2. <b>4</b> 7	3.31	2.22	1.89
US	\$/mmbtu	1.72	2.73	2.47	3.43	2.32	2.12	3.07	2.4/	3.31	2.22	1.07
everages												
Cocoab	¢/kg	143.2	145.6	144.1	135.3	150.6	149.1	147.3	144.1	142.8	137.3	152.4
Coffee	F/110											
Other milds <sup>b</sup>	¢/kg	333.2	269.4	364.5	261.3	278.0	270.0	268.4	364.5	292.9	371.2	429.2
Robusta <sup>b</sup>	¢/kg	277.1	180.6	163.8	204.2	196.9	169.8	151.5	163.8	148.1	166.2	176.9
ea	14118	41/11	100.0	100.0	201.2	17017	107.0	,51.5	105.0	1 10.1	. 50.2	., .,
Auctions (4) , average <sup>b</sup>	¢/kg	152.7	168.9	175.5	158.7	170.4	175.0	171.7	175.5	171.4	174.1	181.
London auction <sup>b</sup>	¢/kg ¢/kg	164.3	177.4	173.3	173.6	170.7	173.0	190.2	173.3	189.7	193.5	213.
LOTIGOTI AUCUOTI	*/ <b>^</b> 8	L.TUI	1//.T	170.0	1/3.0	1/4./	1/2.7	170.2	170.0	107.7	1/3.3	ا، ل ا ک
ood												
ats and oils												
Coconut oil <sup>b</sup>	\$/mt	669.6	751.6	757.7	724.0	783.3	746.0	753.0	757.7	768.0	768.0	737.0
opra	\$/mt	438.5	488.9	<b>4</b> 97.0	464.0	510.7	501.3	479.7	497.0	506.0	496.0	489.0
roundnut meal	\$/mt	168.6	212.8	239.0	186.3	217.7	215.0	232.0	239.0	236.0	230.0	251.0
iroundnut oil <sup>b</sup>	\$/mt	990.9	897.3	885.3	931.7	898.7	888.7	870.0	885.3	874.0	886.0	896.0
alm oil <sup>b</sup>	\$/mt	628.3	530.9	568.7	52 <del>4</del> .0	5 <del>4</del> 0.7	511.3	547.7	568.7	567.0	580.0	559.0
oybean meal <sup>b</sup>	\$/mt	196.9	267.5	287.3	253.0	269.0	273.7	274.3	287.3	280.0	282.0	300.0
oybean oil <sup>b</sup>	\$/mt	625.1	551.5	534.0	5 <del>4</del> 6.7	578.7	561.0	519.7	534.0	534.0	527.0	541.0
oybeans <sup>b</sup>	\$/mt	259.3	304.8	313.7	299.7	315.3	316.0	288.3	313.7	301.0	308.0	332.0
Dybeans	Φ/ΠΙ	237.3	304.0	313.7	277.1	313.3	310.0	200.3	313.7	301.0	300.0	332.
rains												
1aize <sup>b</sup>	\$/mt	123.5	165.8	122.5	168.6	197.3	176.2	121.1	122.5	118.4	121.7	127.6
ice												
Thai, 5% <sup>b</sup>	\$/mt	321.0	338.9	343.8	365.6	333.7	340.6	315.7	343.8	356.0	347.0	328.3
Thai, 35%	\$/mt	290.2	275.8	269.3	311.7	272.7	269.2	249.8	269.3	276.8	270.3	260.8
Thai, Al.Special	\$/mt	262.8	232.7	224.8	262.5	243.2	218.9	206.3	224.8	217.5	225.8	231.3
orghum <sup>b</sup>	\$/mt	119.0	150.0	112.2	160.0	183.1	148.8	108.2	112.2	105.7	111.2	119.7
Vheat	******											
Canada	\$/mt	207.1	230.8	186.9	232.6	277.2	220.2	193.3	186.9	188.7	183.5	188.5
US, HRW <sup>b</sup>	\$/mt	177.0	207.6	174.9	213.7	249.0	191.0	176.7	174.9	175.7	172.4	176.6
US, SRW	\$/mt	167.4	187.4	150.5	202.2	213.9	175.3	158.4	150.5	154.0	143.6	153.8
05, 51(44	Ψ/1110	107.1	107.1	150.5	202.2	213.7	175.5	150.7	150.5	154.0	175.0	155.0
ther food												
ananas <sup>b</sup>	\$/mt	445.1	469.6	615.0	501.4	541.8	409.0	426.1	615.0	580.4	629.0	635.6
eef <sup>b</sup>	¢/kg	190.7	178.5	191.2	182.8	176.2	173.9	181.2	191.2	179.6	188.1	205.8
shmeal	\$/mt	495.0	586.0	562.7	635.3	570.0	550.7	588.0	562.7	576.0	558.0	554.0
amb	¢/kg	262.1	329.5	365.5	262.6	332.3	351.0	371.9	365.5	379.3	367.4	349.9
Dranges <sup>b</sup>	\$/mt	531.5	491.7	417.0	442.1	536.0	527.7	460.9	417.0	424.6	406.7	419.
nrimp	¢/kg	1,354	1,312	1,393	1,203	1,366	1,326	1,353	1,393	1,389	1,389	1,400
ugar	0			-= - =		,	.,	,	.,-:-	.,- • ,	.,,	.,
EU, domestic <sup>b</sup>	¢/kg	68.8	68.3	66.3	68.7	68.0	68.5	68.1	66.3	69.0	65.4	64.6
US, domestic <sup>b</sup>	¢/kg	50.8	49.3	48.2	49.6	49.7	48.9	48.9	48.2	48.2	48.2	48.
World <sup>b</sup>	¢/kg	29.3	26.4	24.0	28.1	26.1	27.3	23.9	24.0	23.6	23.8	24.5
, , on id	*/ <b>^</b> 6	۷,٠	20.7	2 60	20,1	ZQ. I	21.3	∠3.7	47.0	23.0	∠3.0	24.3
<b>gricultural raw ma</b> mber ogs	nterials							•				
Malaysia <sup>b</sup>	\$/m <sup>3</sup>	255.6	252.	237.7	244.6	256.7	260.6	246.6	237.7	240.6	235.2	237.
Cameroon	\$/m³	339.5	271.6	268.1	278.1	254.0	267.4	286.8	237.7 268.1	276.9		
											265.3	262.3
ywood	¢/sheet	584.4	529.5	<del>4</del> 91.8	535.6	526.7	532.4	523.3	491.8	499.9	487.8	487.8
wnwood	<b></b> 2	7.00	<b>-</b>	75.5								
1alaysia <sup>b</sup>	\$/m <sup>3</sup>	740.0	741.4	751.3	720.6	750.8	747.6	746.5	751.3	743.8	753.3	756.
Ghana	\$/m³	632.5	540.8	548.9	530.8	524.8	531.5	576.1	548.9	551.2	551.2	544.2
Voodpulp	\$/mt	853.5	574. I	532.7	678.7	499.2	545.5	573.0	532.7	546.2	526.0	526.0

May 1997 39

TABLE A7. RECENT COMMODITY PRICES (CONTINUED)

		Annual averages				Monthly averages						
Commodity	Unit	Jan-Dec 1995	Jan-Dec 1996	Jan–Mar 1997	Jan–Mar 1996	Apr–Jun 1996	Jul–Sep 1996	Oct–Dec 1996	Jan-Mar 1997	jan 1997	Feb 1997	Mar 1997
Other raw materials												
Cotton <sup>b</sup>	¢/kg	212.8	177.3	177.0	187.0	182.8	170.1	169.5	177.0	176.1	177.3	177.7
lute	\$/mt	368.0	457.5	364.8	525.4	502.3	403.3	399.2	364.8	372.0	350.0	372.5
Rubber	******											
Malaysia <sup>b</sup>	¢/kg	158.0	139.4	122.6	152.8	147.1	132.0	125.6	122.6	123.1	122.1	122.7
NY	¢/kg	181.4	160.7	139.7	176.2	166.9	153.4	146.1	139.7	143.5	142.9	132.8
Singapore	¢/kg	160.0	140.9	121.3	156.9	148.7	131.8	126.2	121.3	122.0	120.9	120.9
Sisal	\$/mt	709.7	868.3	809.0	843.3	860.0	890.0	880.0	809.0	822.0	832.5	772.5
		488.3		424.4	430.0	410.8	412.4	412.0	424.4	417.2	421.5	434.5
Wool	¢/kg	400.3	416.3	424.4	430.0	410.0	412.4	412.0	424.4	417.2	421.3	434.3
Fertilizers												
DAP	\$/mt	216.6	213.2	200.6	231.7	204.5	206.9	209.5	200.6	206.2	200.8	194.8
Phosphate rock <sup>b</sup>	\$/mt	35.0	39.0	41.0	39.0	39.0	39.0	39.0	41.0	41.0	41.0	41.0
Potassium chloride	\$/mt	117.8	116.9	116.6	116.7	117.0	117.0	117.0	116.6	116.8	116.5	116.5
TSP <sup>b</sup>	\$/mt	149.6	175.8	181.3	168. <del>4</del>	173.9	178.6	182.5	181.3	181.9	181.0	181.0
Urea	\$/mt	211.5	205.5	176.7	220.0	198.5	206.4	197.0	176.7	188.5	175.3	166.4
Metals and minerals	;											
Aluminum <sup>6</sup>	\$/mt	1,806	1,506	1,596	1,598	1.553	1,443	1,429	1,596	1,576	1,580	1.632
Copper <sup>b</sup>	\$/mt	2,936	2,295	2,421	2,572	2,476	1,979	2,153	2,421	2,435	2,406	2,421
Gold	\$/toz	384.2	387.7	351.2	400. I	390.0	384.7	376.0	351.2	355.1	3 <del>4</del> 6.6	351.8
Iron ore <sup>b</sup>	φ/ισ2 ¢/dmtu	26.95	28.57	28.88	28.57	28.57	28.57	28.57	28.88	28.88	28.88	28.88
Lead <sup>b</sup>		63.1	77.4	68.2	76.6	81.7	79.9	71.6	68.2	69.2	66.0	69.5
Nickel <sup>o</sup>	⊄/kg ⊄/+	8,228	7,501	7,567	8,033	7,926	7,192	6,852	7.567	7,072	7,735	7,896
Silver	\$/mt	519.1	518.3	7,367 501.7	553.7	529.9	504.8	484.9	501.7	476.4	508.8	519.9
	¢/toz 1990=100	106.7	96.3	90.I	101.6	96.4	95.1	92.1	90.I	90.0	89.1	91.2
Steel products (8) index <sup>c</sup> Steel	1990=100	106.7	76.3	90.1	101.6	70,4	73.1	72.1	90.1	70.0	07.1	71.2
Cold rolled coilsheet	⊄/mt	554.2	483.9	440.0	523.3	500.0	474.0	438.3	440.0	440.0	430.0	450.0
Hot rolled coilsheet	¢/mt	440.8	365.6	331.7	390.0	373.3	367.3	331.7	331,7	330.0	330.0	335.0
Rebar	¢/mt	381.7	360.2	330.0	370.0	353.3	360.7	356.7	330.0	330.0	330.0	330.0
Wire rod	¢/mt	420.8	438.5	393.3	463.3	443.3	437.3	410.0	393.3	390.0	390.0	400.0
Tin <sup>b</sup>	¢/kg	621.4	616.5	589.0	622.1	636.2	615.4	592.3	589.0	587.8	588.3	590.9
Zinc <sup>b</sup>	¢/kg	103.1	102.5	117.4	104.0	103.0	100.2	102.9	117.4	108.7	117.9	125.5
	•											
<mark>World Bank commo</mark> Petroleum	aity price ii	75.1	1 <b>0w- and</b> 1 89.3	miaale-incom 86.9	e countries 80.0	84.8	90.8	101.4	91.8	101.5	89.3	84.5
retroleum Nonenergy commoditie	ie.	122.2	115.1	112.2	117.1	119.4	113.1	110.7	119.3	115.0	119.1	123.6
G,	3	131.3	125.5	121.6	126.2	130.3	124.7	120.7	130.0	113.0	130.0	135.8
Agriculture		151.3		121.6	120.2	131.3	124.7	120.7	150.6	127.2	151.3	171.1
Beverages			126.5		124.0	131.3	128.6		122.6	125.4	122.2	124.1
Food		116.9	123.6	117.1				116.8				
Fats and oils		136.6	147.0	143.2	142.6	150.1	147.7	147.8	154.5	152.0	153.9	157.5
Grains		120.4	140.6	119.5	147.1	157.2	139.6	118.4	122.9	123.7	122.6	122.4
Other food		98.8	95.0	94.5	97.8	97.6	94.0	90.5	96.3	95.1	96.0	97.7
Raw materials		135.2	127.1	126.4	129.7	130.3	125.2	123.3	124.2	123.8	124.2	124.7
Timber		139.5	139.5	143.2	135.5	141.4	141.1	139.9	140.0	139.0	140.2	140.9
Other raw materials		132.3	118.7	114.9	125.6	122.8	114.3	112.0	113.4	113.4	113.3	113.6
Fertilizers		103.6	119.8	117.2	116.2	118.9	121.1	123.0	124.2	124.5	124.1	124.1
Metals and minerals		101.6	89.1	88.6	94.7	92.8	83.8	85.1	92.5	91.6	92.1	93.7

Note: Prices as of April 4, 1997. Monthly updates of commodity prices are available on the internet at http://www.worldbank.org/html/ieccp/ieccp.html

Note: Prices as of April 4, 1997. Monthly updates of commodity prices are available on the internal. Included in the petroleum index.

b. Included in the nonenergy index.

c. Not included in the nonenergy index.

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

#### **COMMODITY DESCRIPTIONS**

#### Energ

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

#### Foods

#### 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

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.1 Special, broken kernel obtained from the milling of WR 15%, 20%, and 25%, indicative survey price, government standard, f.o.b. Bangkok

Sorghum (US), no. 2 milo yellow, f.o.b. Gulf ports

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 foods

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,

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 Conventions c.i.f. European ports

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

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

#### 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 m<sup>3</sup> x 182 m<sup>3</sup> 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; kiln 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

 ${\it Gold}$  (UK), 99.5% fine, London afternoon fixing, average of daily rates

Iron ore (Brazilian), CVRD Southern System standard sinter fines (SSF), 64.2% Fe (iron) content (dry weight) ores, moisture content 6.5%, contract price to Europe, f.o.b. Tubarao. Dry metric ton unit (dmtu) stands for mt 1% Fe-unit. To convert price in cents/dmtu to \$/dmt ssf (dry ore), multiply by percent Fe content. For example, 28.88 cents/dmtu is \$18.54/dmt ssf. To convert to wet mt ssf (natural or wet ore), multiply by percent Fe content by (1 minus percent moisture content). 28.88 cents/dmtu is \$17.34/Wet mt ssf. Iron ore in most countries is traded in terms of dry mt, and shipped in wet mt. For 1989–96, Fe content was 64.3% and moisture content 6.9%

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), hot rolled coil/sheet, cold rolled coil/sheet, and galvanized iron sheet

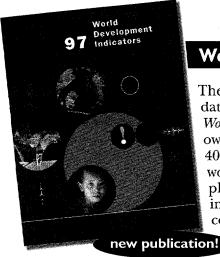
Tin (LME), refined, 99.85% purity, settlement price

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

May 1997

<sup>\*</sup> The price series forecast in tables A1 and A2.

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