JANUARY 2000

Number 1

GLOBAL COMMODITY MARKETS

A COMPREHENSIVE REVIEW AND PRICE FORECAST

THE WORLD BANK
Commodities Team
Development Prospects Group

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This report was prepared by the Commodities Team of the World Bank's Development Prospects Group. The core team includes **Donald Mitchell** (Team Leader), **John Baffes** and **Shane Streifel** (Economists), **Betty Dow** (Senior Information Analyst), **Jean-Charles Le Vallee** (Consultant), and **Katherine Rollins** (Team Assistant). The report was prepared with the assistance of **Margaret Moss** of G.I.Global, Inc.

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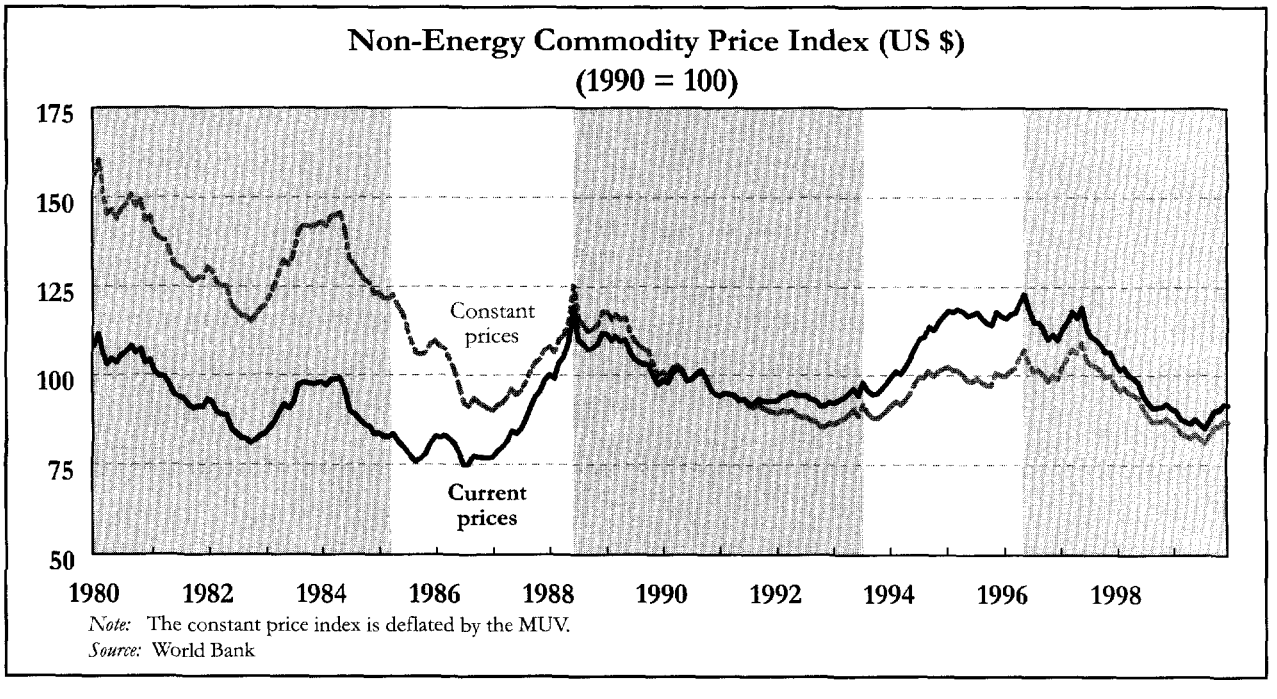
Summary

Commodity prices in 2000 are expected to continue the recovery which began in 1999, due to higher economic growth and reduced surpluses in some markets. Non-energy prices are projected to increase 5.6%, led by metals with an increase of 11.7% while agricultural prices are projected to increase 4.0%. Petroleum prices will likely remain high during the first part of the year, following last year's remarkable recovery, but are anticipated to decline if OPEC increases production. Petroleum prices in 2000 are expected to be 10.7% above 1999 levels.

Most commodity markets continued to feel the effects of the Asia crisis in 1999, with the index of non-energy prices falling an additional 10.9% following a decline of 15.7% in 1998. However, the prices of most commodities also reached lows during the year and began to recover, largely due to production cuts introduced by major commodity producers. Higher demand for some commodities, especially petroleum and metals, also contributed to the commodity price increases. The recovery in commodity prices was led by petroleum which reached a low of $10.4/bbl in December 1998 and then rose to a 9 year high of $25.1/bbl in December 1999. The recovery was sparked by an agreement among OPEC producers in March to reduce production by an additional 1.7 million barrels per day, with OPEC producers maintaining relatively high compliance to their targeted cuts since then. Other commodity markets showed a much smaller recovery in prices, but nearly all commodities appear to have reached lows during 1999 and are expected to recover in 2000 due to the improved economic outlook for both developing and industrial countries.

Metals and minerals prices fell 2.0% in 1999 compared to 1998, but the index of prices reached a low in March and then increased 22.0% during the remainder of the year. The recovery of prices was sparked by production cuts, but was also influenced by the rebound of demand in Asia. However, inventories of a number of metals remain high which has restrained overall price increases. Stocks of some metals and minerals are expected to continue falling in 2000 as demand increases from improved global economic growth. Production will generally increase less rapidly than demand, partly because high cost production which was taken off the market in 1999 is not expected to return unless prices rise significantly.

Agricultural prices had the sharpest decline among major commodity groups in 1999, with the overall index of agricultural prices down 13.6%. The index reached a low in July and then increased about 5.0%. Unlike the case with the metals or petroleum markets, the supply of agricultural commodities did not contract significantly in response to low prices and thus stocks of many commodities remained high. Demand was also slow to respond as



Note: The constant price index is deflated by the MUV.
Source: World Bank

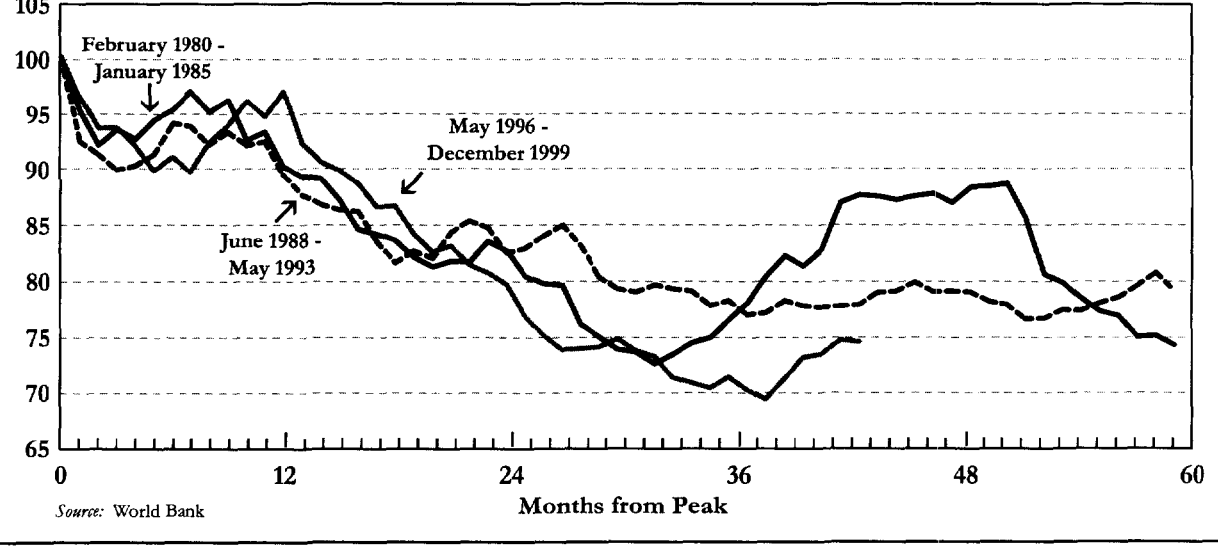
the impact of lower prices was offset by lower incomes in many developing countries. For example, world grain production declined 1.2% from the peak in 1997/98 while consumption grew only 0.8%. Consequently, grain stocks remain near their recent highs and prices of grains fell 13.4% in 1999. Production of major fats and oils rose to record highs despite lower prices, and ending stocks continued to rise causing prices to fall 21.0% for the year. Coffee, cocoa and tea production continued to rise despite lower prices while consumption and imports fell due to the impact of lower incomes which more than offset the added consumption from lower prices.

Global sugar production and exports rose to record levels in 1999 while nominal prices fell to their lowest levels in 13 years. Part of the increase in world sugar production, and the consequent fall in prices, was due to the emergence of Brazil as the dominant exporter. Since 1996/97, Brazil's sugar production has increased 29% and exports have doubled to give Brazil a 27% export market share. The increase was due to both policy changes in Brazil's domestic alcohol fuel program and to the currency devaluation which reduced domestic demand and encouraged exports. Among other agricultural commodities, natural rubber prices fell sharply due to currency devaluation by major exporters and the collapse of the International Natural Rubber Agreement and its buffer stock program. Agricultural prices are expected to continue a gradual recovery, but stocks remain large and price increases will be moderate unless this year's production is affected by adverse growing conditions. Nevertheless, agricultural prices appear to have hit bottom and will likely increase over the next several years.

Last year, commodity prices were forecast to decline and this was generally borne out by the facts, except for petroleum prices which rose sharply from their lowest levels since the mid-1980s. Petroleum prices are expected to decline from recent highs when oil producers decide to raise output. This is expected to occur in the first half of this year. However, recent statements by OPEC members suggest that OPEC may extend quotas beyond March 2000, despite oil prices above $25/bbl. It is unclear whether OPEC producers are targeting a higher price level, or simply waiting for stocks to be sufficiently reduced before raising output. Sustained high prices would dampen demand and stimulate development of competing supplies, making it more difficult for OPEC to raise production in the future. Nevertheless, it is expected OPEC will raise output and that prices will eventually settle back under $20/bbl.

The recovery in non-energy commodity prices, 7.3% since the lows reached in July (chart), along with the rebound in the global economy has been faster than expected. The World Bank projects global economic growth in 2000 to be significantly faster than the previous forecast of 2.4%. The accelerated growth should support a more rapid recovery of commodity prices than previously expected, but not rival the recovery that began in 1983 which was accompanied by 2.7% global economic growth in 1983 and 4.3% growth in 1984. The anticipated recovery in commodity prices could be tempered if the global economy fails to grow as fast as expected or if the agricultural sector generates a year of record production.

Current and Previous Declines of Non-Energy Commodity Price Indices (Peak = 100)



Source: World Bank

Regional Price Indices

The index of non-energy commodity prices of developing countries grew 3.4% this past quarter but is still 5.3% lower than a year ago. Latin America and the East Asia and Pacific regions fared relatively better while South Asia and Sub-Saharan Africa fared relatively worse. The largest price gains were in arabica coffee (22.7%) which benefited Latin American exporters and natural rubber (22.3%) which benefited exporters in the East Asia and Pacific region. While the largest price declines were in cotton (-11.0%) and cocoa (-9.8%) which affected Sub-Saharan African producers.

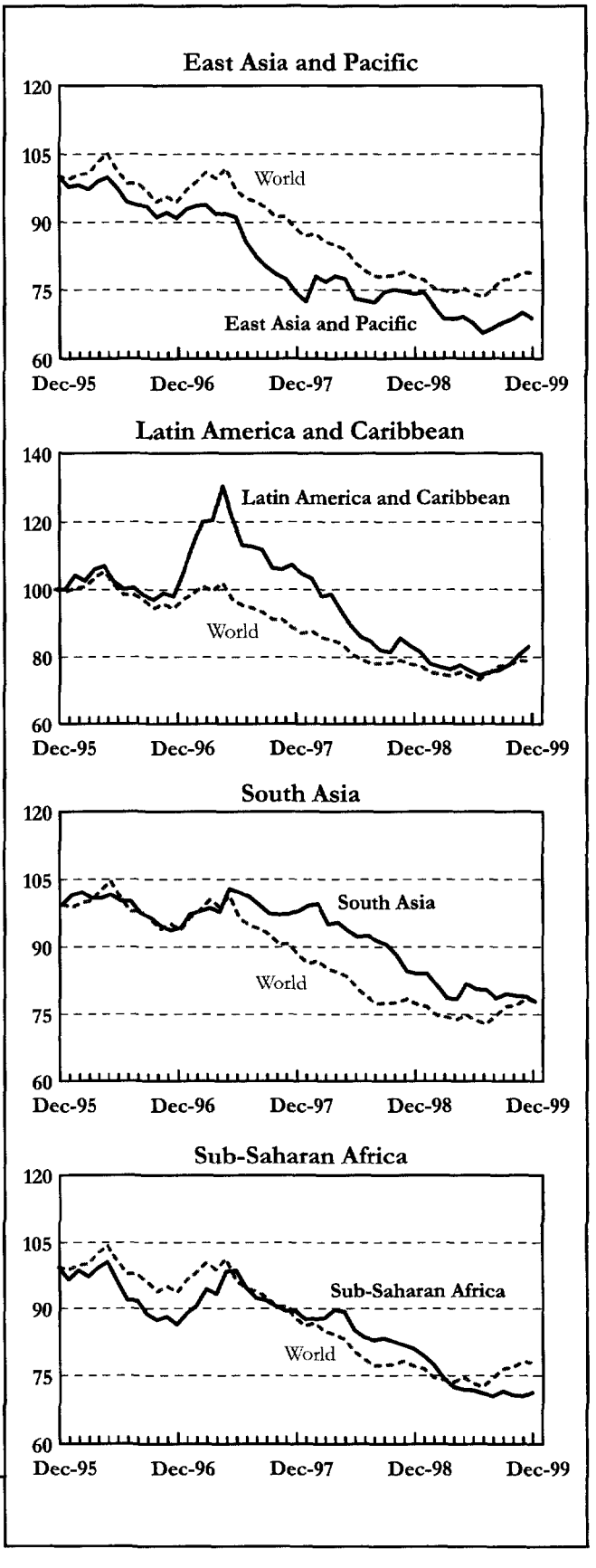
The East Asia and Pacific region's export price index increased 3.7% compared to the 2.7% decline in the third quarter. The price increases of the major exports in the region came from natural rubber (22.3%), tin (7.5%), palm oil (4.1%), copper (3.5%), as well as timber (logs 1.5%, sawn wood 1.7% and plywood 6.5%).

The Latin America and Caribbean region led all regions with the greatest increase (6.8%) in its export price index of non-energy commodities, compared to a –2.0% decline last quarter. The principal contributor to the increase come from arabica coffee prices while the prices of its other major non-energy export commodities also increased: soybean meal (12.0%), sugar (8.3%), aluminum (4.0%) and copper (3.5%).

South Asia had a 1.1% decline in its non-energy commodity price index – the same as last quarter. Cotton prices led the declines among important exports of the region, with a decline of (-11.0%) followed by rice (-7.4%). Another important export of the region is tea, and prices were mixed with an increase of 7.4% in Colombo, and a decline of –3.7% in the Calcutta auction prices.

Among the developing country regions, the non-energy commodity export price index of the Sub-Saharan Africa region had the largest decline of the quarter at –3.0%. Although most major non-energy export commodity prices increased for the region, sugar (8.3%), aluminum (4.0%), copper (3.5%) and robusta coffee (2.3%), contributing to the overall decline for the region is a loss of -9.8% in cocoa prices because of its importance to total exports.

Note: The regional price indices use the US$ non-energy commodity export basket of each region to compute the price index. This index is then compared with the index using global exports.

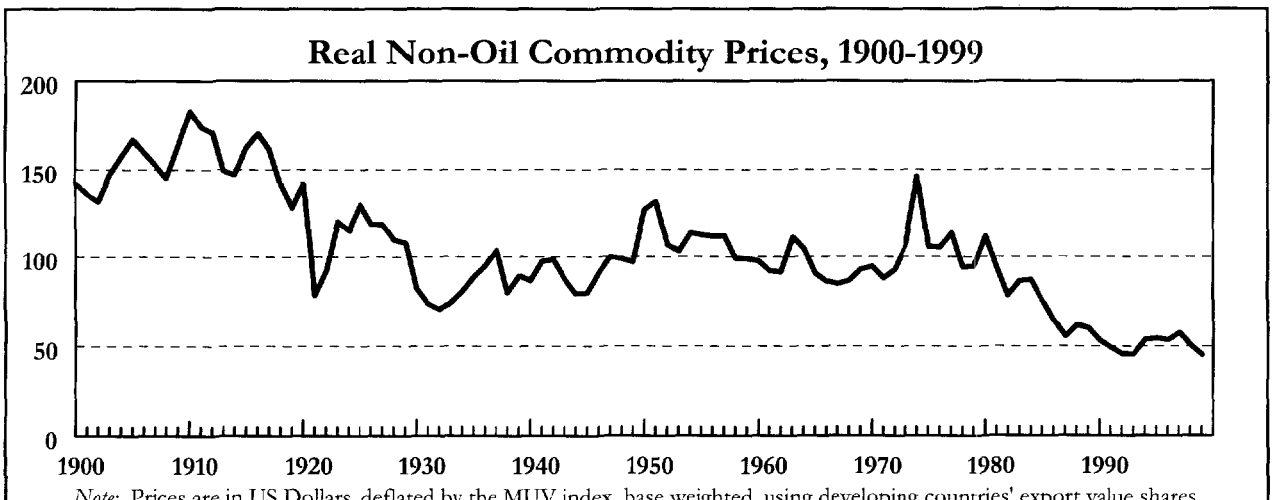


Commodities in the 20th Century

The last century saw significant developments in commodity markets: dramatic increases in production and consumption; falling prices relative to other goods; lower production costs from technical innovation; and a surge in global trade. The large post-World War Two (WWII) economic expansion led to rapid demand in growth for petroleum, metals and other mineral resources and agricultural commodities. While global population increased from 1.7 billion in 1900 to 6.0 billion at the end of the century, the production of commodities to feed, clothe, and support the rising population has in most cases exceeded the growth of population. Expanding production was possible because of improved technology, greater knowledge of the earth's resources, and more extensive and intensive agricultural production.

The century saw new countries emerge as major commodity producers and exporters, and "newer" commodities emerge as major products. Brazil, for example, became a major soybean producer and exporter during the latter half of the century, producing one-fifth of global production in 1999 from near zero in 1950. Oil palm was imported into Indonesia from West Africa in 1948 and became the foundation of the Asian palm oil industry which is dominated by Indonesia and Malaysia. Palm oil is now the most traded vegetable oil. Aluminum became an important and widely used industrial commodity, and captured markets from tin, copper, steel, and other materials in a variety of sectors, e.g., construction, transportation, and packaging. It remained competitively priced and readily available, unlike tin which steadily lost market share. While aluminum became an indispensable material, the luster of gold diminished as its use as a currency and as a store of wealth declined. Crude oil and its products became important industrial, consumer, and military commodities, and its production increased from 0.4 to 65 million barrels per day (mb/d) from 1900 to 1999 – and liquids from natural gas and synthetic oil sands have taken total petroleum production above 75 mb/d.

Despite some expectations to the contrary, the world did not run out of commodities during the century. Food production increased faster than population and most of the world's consumers ended the century with a better diet than they began, due in large part to the Green Revolution. Mineral resource development has greatly expanded due to advances in technology and discovery of resources in new locales. Known reserves of petroleum increased substantially, particularly in the Middle East, and technical advances allowed the industry to replace these known reserves



Note: Prices are in US Dollars, deflated by the MUV index, base weighted, using developing countries' export value shares
For years 1900-86, figures are the Grilli-Yang Commodity Price Index, thereafter the World Bank's Commodity Price Index.
Source: Grilli, Enzo R., and Maw Cheng Yang. 1988. "Primary Commodity Prices, Manufactured Goods Proces, and the Terms of Trade of Developing Countries: What the Long Run Shows." *The World Bank Economic Review*, Vol. 2, No. 1: 1-47.

at a rate that exceeded their use. Metals production became more efficient as technical innovation and improvements in productivity became widespread in mining, smelting, and refining operations. Improved fabrication and new alloys allowed less metal to be used without loss of strength.

Prices of commodities continued to fall through most of the century relative to the prices of other goods. And, many commodity prices ended the century at their lowest levels in real terms. As the chart shows, the index of real commodity prices fell by about two-thirds between 1900 and 1999. The persistent decline in commodity prices, led governments and producers to take measures to try to reverse the trend. Supply control programs, such as those of the agricultural policies of the United States, were used to idle cropland in an effort to reduce supplies and increase prices. Coffee producers, led by Brazil, organized the International Coffee Agreement in 1962 to restrict exports and boost prices. Other commodity producers, such as the Organization of Petroleum Exporting Countries (OPEC), joined together in an attempt to raise prices through supply controls. Most attempts to control prices have been unsuccessful and costly, as the higher prices encouraged production and led to even greater surpluses.

Buffer stocks were used by organizations of commodity producing countries in attempt to stabilize prices. Tin producers, through the International Tin Agreement, purchased for and sold from inventory to maintain prices within a range. An International Cocoa Agreement was formed in 1972 to stabilize world cocoa prices through buffer stocks, but was suspended in 1988. The International Natural Rubber Organization (INRO) was formed to stabilize rubber prices, but major producing countries withdrew from the Organization in 1999 following the Asia crisis of 1997. In the end, most commodity agreements failed, buffer stocks re-entered the market, and prices were further destabilized.

While some efforts were global, other producer groups directed their attention to supporting prices within a country or region. These endeavors were encouraged by commodity producers who lobbied for protection from lower priced imports. Such efforts have been more sustainable than other mechanisms to control world prices and many such programs are still in place, albeit at considerable expense to taxpayers and consumers. One of the longest running programs is the Common Agricultural Policy of the European Community which began in 1957 and has withstood attempts to encourage free trade by successive rounds of international agreements on tariffs and trade.

Commodity producers in developing and centrally planned economies often received very different treatment than their counterparts in industrial countries. Instead of protection from cheap imports, they often faced taxes on their exports, a convenient way for governments to collect revenues. Production was often government controlled and marketing was done by quasi-government organizations or marketing boards.

During the century, the location of commodity production shifted its concentration from industrial to developing countries. For example, in 1900, the US accounted for 58% of global copper and 42% of global petroleum production. By the end of the century, the US accounted for only 17% of global copper and 11% of petroleum production, while the shares of developing countries increased substantially. This shift was supported by reduced transportation costs and improved technology to both find and develop resources in previously unknown areas. Developing countries end the century more dependent on commodities than do industrial countries, with primary commodities accounted for 42 percent of merchandise exports of low- and middle-income countries in 1997 compared to 19 percent for high income countries according to the World Bank's *World Development Indicators.*

This Special Feature presents a brief and selective review of commodities during the twentieth century. We look at agriculture, metals and minerals, petroleum and other sources of energy. We examine the effects of technology, policy, transportation, and information on commodities. Commodity prices reflect, as well as influence history, and the impact of wars and depression are evident in many of the charts. The globalization of petroleum was especially important during the twentieth century to both producing and consuming countries. We look at commodity prices relative to other prices and we note the dramatic changes in certain commodities prices, such as aluminum, which became an important commodity during the twentieth century. Such a broad topic as "Commodities in the 20th Century" cannot be adequately covered in such a short feature, but we try to draw the broad lessons and trends from the last century.

Agriculture

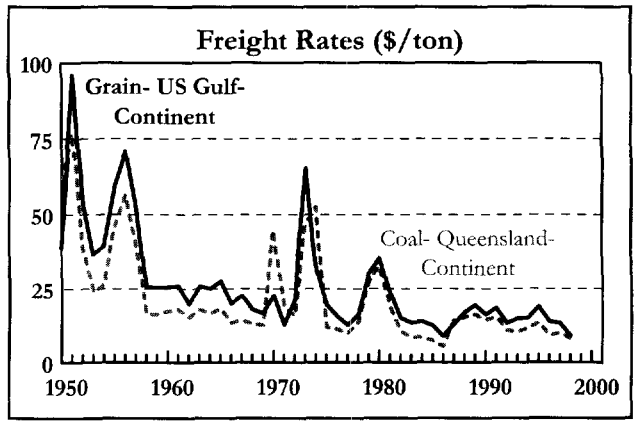
Agricultural ommodities have been traded for centuries, but the trade was mostly in high valued commodities such as spices or coffee. As the cost of transportation declined and communication improved, it became possible to profitably trade more bulky commodities such as grains. This allowed countries to use their comparative advantage to produce and export certain commodities while importing others. Tropical commodities such as cane sugar were imported into Europe and the US and temperate commodities such as grains were exported from countries such as Argentina, Russia and the United States. With specialization came the incentive to improve technology and production practices in order to increase production and exports.

Agricultural commodity markets have been strongly influenced by government policy for most of the century and these policies have had very different effects. Some encouraged higher production through price supports or protective tariffs. Others sought to nationalize agriculture and led to stagnation due to inadequate incentives. Policy interventions in agricultural commodity markets began in the US shortly after WWI when the loss of war-time markets in Europe caused prices to fall and great distress in US agriculture. The US eventually turned to tariff protection and this led to a round of spiraling trade restrictions by other countries. This action was soon followed by direct government intervention in the US through commodity price supports. Western Europe embarked on the Common Agricultural Policy (CAP) in 1957 with the objective of maintaining farm incomes comparable to non-farm workers. At the time of the CAP, the EC was a major net importer of most agricultural commodities, however the high and stable prices of the CAP quickly encouraged higher production and turned the EC into a commodity exporter. Japan's agricultural policies were aimed at maintaining a high level of self-sufficiency and farm incomes comparable to non-farm incomes. However, because of the small size of many Japanese farms, the policies led to a very high cost agriculture. Developing country policies were often aimed at food self-sufficiency and low food prices while taxing export crops such as beverages.

Technology, Transportation and Communications

Improvements in technology throughout the century have boosted both the production and trade of commodities. Earlier methods of transportation included oxen, camels, and sailing vessels, but advances during the 19th century made steamships less costly than sailing ships and opened new opportunities for trade. Railroads lowered transport costs in the 19th and early 20th century compared to roads and together steamships and rail transport shaped the way commodity markets operate. The introduction of the steamship in about 1840 reduced the time to cross the Atlantic from 8 weeks to 1 week and brought greater integration in commodity markets. Prior to the steamship, information on the demand and supply conditions between the Americas and Europe moved with the commodity. But, with the steamship, information could arrive before the actual delivery of the commodity. With the expanded use of the steamships, commodities could also be transported quicker as well as cheaper. A second revolution which affected commodity markets, was the installation of the transatlantic cable in 1866, enabling merchants to transmit information instantaneously across the Atlantic.

A race to build bigger and faster ships occurred during the 1950s, 60s and 70s, which caused the average size of cargo ships to increase by 2.5% per year during this period. This race, partly due to the Suez Canal closing in the 1950s, also helped spur other technological improvements such as the specialization in bulk oil carriers, and allowed for greater economies of scale. The decline in transportation costs contributed to increased commodity trade and lower commodity prices as countries were able to exploit their comparative advantage. Ocean freight rates for bulk cargo such as coal and grain declined by three-quarters in 1999 constant dollar terms over the last fifty years, from $40-60/ton to less than $10/ton on the US to Europe route. Ocean freight rates fluctuations can be seen as four major spikes during the

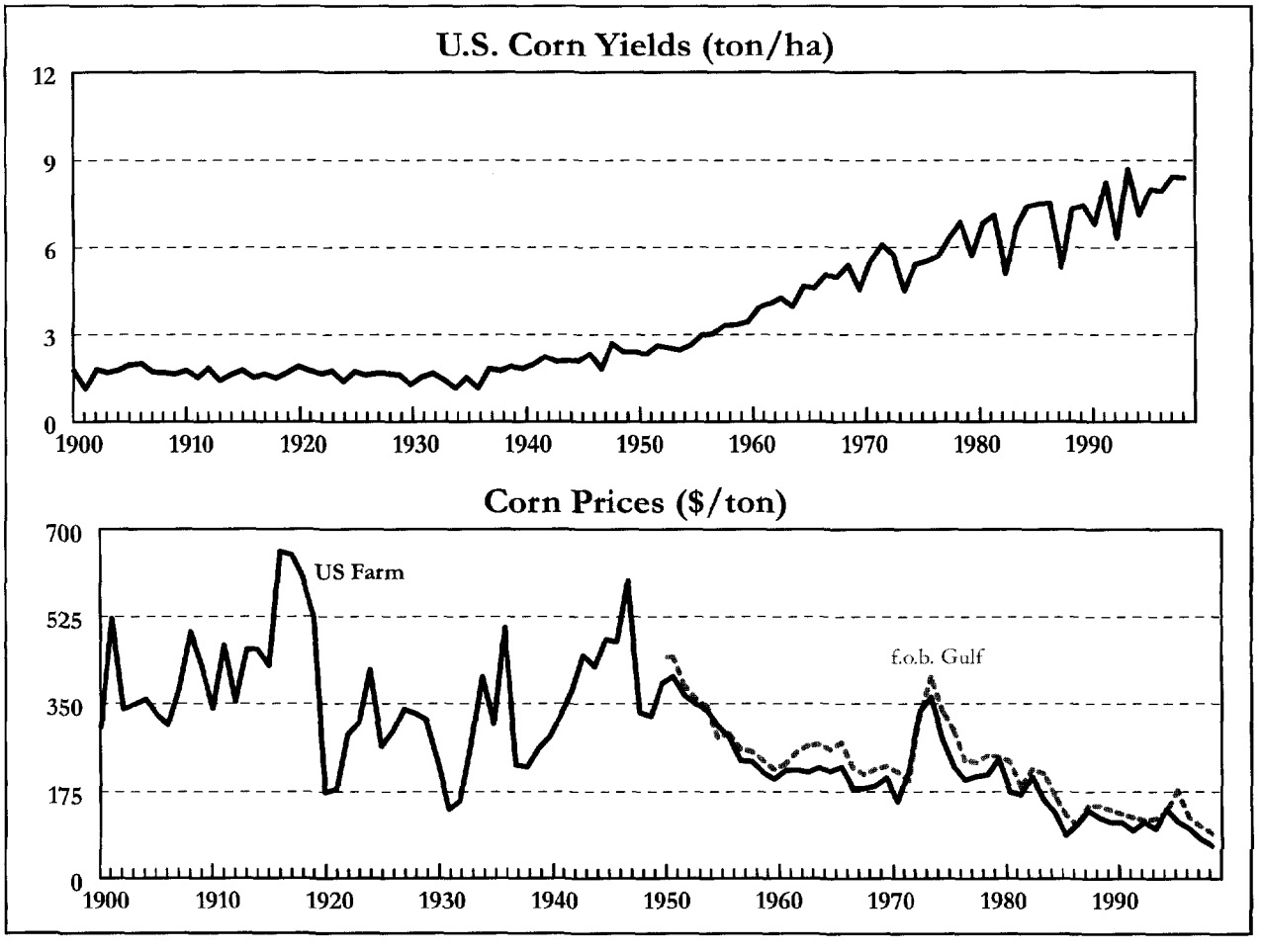


Korean war in the early-1950s, the Suez Canal crisis in the mid-1950s, and the world oil crises in the mid- and late-1970s.

The ratio of transportation costs to grains prices remained relatively constant during the second half of the century suggesting that the cost of ocean freight and grain prices declined at about the same rate. More efficient port handling equipment and methods such as containerization contributed to the decline in shipping costs. By 1980, about three-quarters of US linear tonnage to continental Europe moved via container. Between 1982 and 1995, container use in developing country ports grew by 15.5% per annum, increasing their share of worldwide container traffic from 24 to 50%. Other improvements which helped reduce the cost of maritime shipping included: an open registry shipping; the weakening of shipping cartels and increased competition; improved propulsion methods, electronic equipment for cargo, machinery control, and navigation; better paint coating; lower maintenance costs and a lower manning/cargo ratios; increased utilization of ships, a reduction of time idle in ports and shorter ocean voyages.

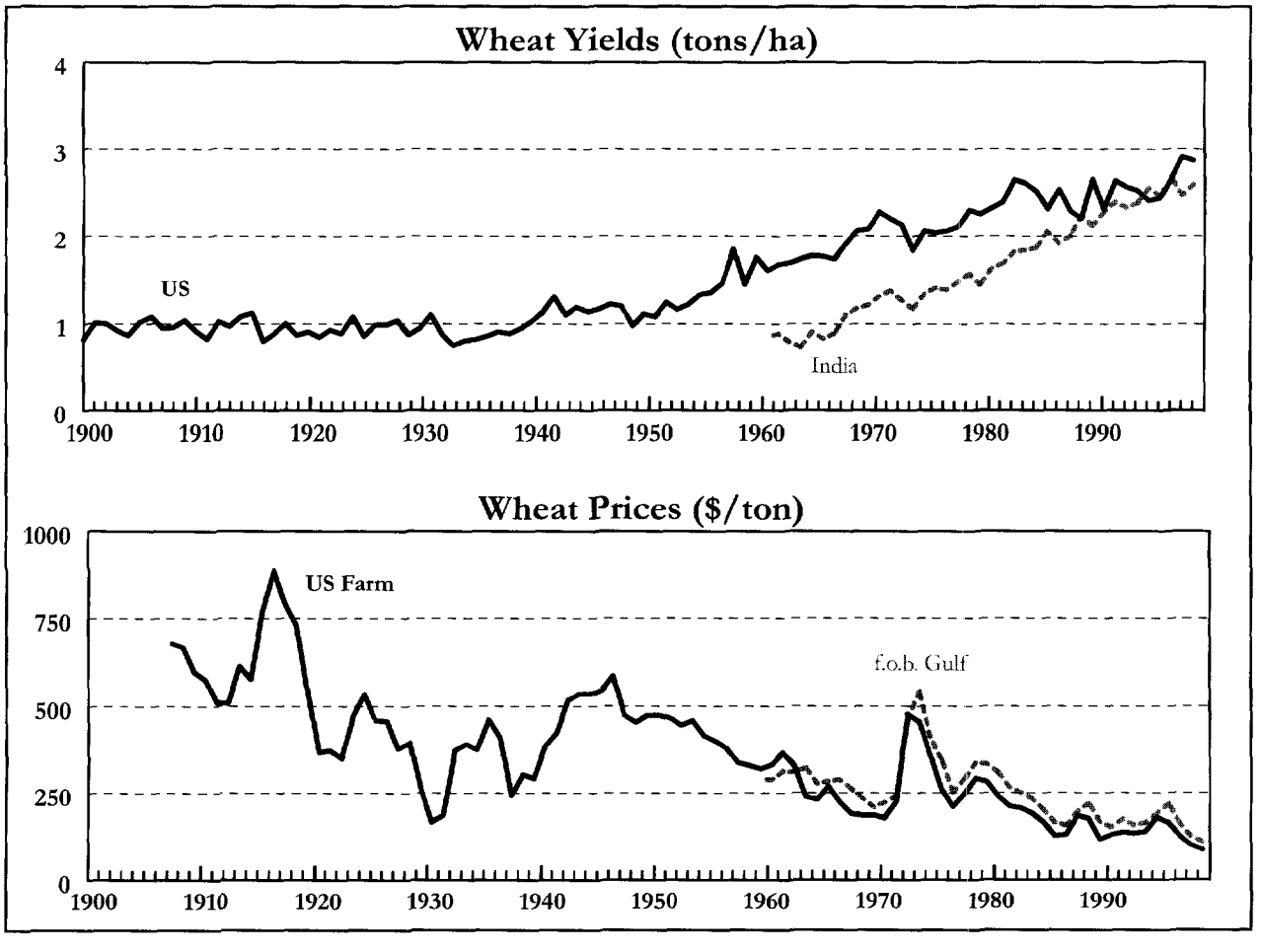
Trading of commodities in organized exchanges expanded rapidly early in the 20th century. By the first World War, organized exchanges were trading the major commodities in virtually all important trading centers of the world enabling not only information on the supply and demand conditions to be available practically everywhere, but also offering hedging instruments to market participants. For example, in the period between the first and second World Wars there were at least 10 futures exchanges trading cotton contracts.

Improvements in technology have also taken place on the production side. A dramatic example of this was the development and spread of hybrid corn in the United States. Hybrid seeds, formed by crossing four inbred lines, became commercially available during the 1920s and were widely adopted in the major corn growing areas of the US by 1940. In the state of Iowa (US), hybrid seeds accounted for 97% of the area planted to corn by 1941 and yields averaged 51 bushels per acre (3.20 tons per hectare) compared to 31 bushels per acre



(1.95 tons per hectare) just 10 years earlier. The development and adoption of hybrid corn marked a turning point in US corn yields from which corn yields grew by an average of 2.7% per annum from 1940 to 1998 and exports increased ten fold. The continuation of yield growth following the initial gains from hybrid seeds relied on improved production practices, higher fertilizer and chemical use, and continued improvements in genotypes. Hybrid corn was not the only technological advance, as total factor productivity in US agriculture increased at 2.0% per year from 1948 to 1994 according to a recent research report. The rate of growth increased during this period, from about 1.5% per year prior to 1980 to more than 3.0% after 1980.

Yield improvements in rice and wheat attained in the industrial countries during the 1940s and 1950s were replicated in developing countries during the 1960s. The high-yielding varieties of rice and wheat used in developing countries were developed at the International Maize and Wheat Improvement Center (CIMMYT) in Mexico and the International Rice Research Institute (IRRI) in the Philippines, adapted to conditions and climates in developing countries and released during the 1960s. This became know as the "Green Revolution" and it included improved genetic potential of seeds, increased fertilizer use and expanded irrigation. The important characteristics of the new varieties were short and sturdy stems, high tilling ability, responsiveness to fertilizer and early maturity. The short and sturdy stems allowed plants to carry the increased grain resulting from heavy fertilizer applications without lodging. Early maturity allowed two and sometimes three crops to be grown each year. The new varieties allowed yields to double in many cases and greatly contributed to the improved diets of millions of people in developing countries. Wheat yield increases, for example, achieved beginning in the 1940s in the US were also achieved in India from the mid-1960s. Today, there is little difference in wheat yields between India and the United States (chart).



Agricultural Policies

The watershed events leading to major interventions in commodity markets came shortly after WWI. The run-up in food commodity prices during the war as a result of the disruption in European agriculture brought a substantial production response from North American agriculture to meet the expanded export opportunities. As production resumed in Europe agricultural commodity prices fell sharply in the face of the expanded output of the major exporters competing in a shrinking market for imports.

The second event that occurred at this time was the Russian Revolution which put in place an ideology that rejected private property and market prices. Over time complete state planning and control was installed over commodity production, distribution, prices, and external trade. After WWII this system was adopted by China, and imposed on the countries of central and eastern Europe as they came under Soviet domination.

United States

The loss of wartime markets in Europe created great distress in US agriculture in the 1920s and there was rising political pressure for direct government intervention. The McNary-Haugen bill to establish a domestic allotment program to bolster US prices via a two-price system passed the US congress twice in the 1920s and was vetoed by the President. However, in 1929 the Federal Farm Board was established which attempted to stabilize prices of agricultural commodities by the purchase and storage of excess supplies. This effort failed due to inadequate financing in the face of the world economic collapse of the Great Depression. Also, in 1929 President Hoover asked for tariff protection for US agriculture and congress passed the Smoot-Hawley tariff sharply raising US tariffs, which he signed into law. These new trade barriers in the face of the depression led to a spiraling round of trade restrictions around the world and tariffs and quotas on agricultural imports.

One of the first priorities of the Roosevelt Administration which came to office in 1933, was to restore the economic health of US agriculture. The effort came in the form of the Agricultural Adjustment Act (AAA), which brought direct government intervention in commodity pricing. It established three policy instruments: (*i*) a price support program; (*ii*) a production adjustment program; and (*iii*) a loan and storage program. Even though the AAA was eventually declared unconstitutional because of the processing taxes used to finance production controls, its key elements reappeared in the Soil Conservation and Domestic Allotment Act of 1938. That legislation is still the basis for much of US agricultral policy.

From the outset it was difficult to separate the issues of price stabilization and price enhancement. US farmers pushed for a concept of parity prices that focused on maintaining the highly favorable farm-nonfarm price ratios of 1910-14, and support prices were set as some function of this ratio until the 1960s. In reality the desired price ratios were never achieved via government programs during the 1930s and were only realized as a result of the wartime boom of WWII.

The production adjustment program of the original AAA was declared illegal by the US Supreme Court, and the production adjustment efforts immediately switched to land use control via soil conservation. This meant that in order for farmers to qualify for commodity price support they had to limit their planting of soil-depleting crops. Thus, land use controls and land retirement became the method of production control for the supported commodities. This system persisted until 1996 when the US congress enacted the Freedom to Farm Act.

Prior to 1996 the price stabilization/improvement was to be achieved largely via the loan and storage program that removed surplus supplies from the market. A system of nonrecourse loans was initiated whereby producers could get a government loan on their crop at the support level and repay the loan by delivering the crop to the government. Thus the government became the buyer of last resort. Of course, it was often impossible to export commodities at the supported domestic price so a system of export subsidies and/or direct sales from government stocks was instituted. This system, buttressed by a series of high tariffs and import quotas attempted to isolate the US agricultural commodity markets from world prices and instability.

The original AAA focused on stabilizing the prices of the basic commodities-wheat, corn, cotton, and rice. In 1934, the Sugar Act of 1934 set up a stabilization program for domestic sugar producers using import quotas to replace the tariffs that had protected the industry over the previous century. The import

quotas were set to produce a stable desired domestic price. Foreign exporters were granted preferential access for their quota sugar into the US market.

During WWII domestic full employment and strong foreign demand again brought booming commodity markets. Domestic price support levels were escalated as demand grew, but the memories of the 1920s remained and legislation was passed that guaranteed high levels of price supports for the major agricultural commodities for several years after the war. Efforts in the late 1940s to institute a more flexible system were thwarted by the opposition of agricultural producers.

Major problems of surpluses were averted by the Korean War boom, but by the mid 1950s the difficulties of high level price stabilization became fully apparent. Stocks of supported commodities began to accumulate in government storage and program costs began to escalate. Despite the inauguration of large-scale land retirement programs the surplus stocks rose, and a major program using surplus food commodities as foreign assistance for developing countries (PL 480) was inaugurated in 1954. At one point in the early 1960s the surplus stocks owned by the US government became so large that moth-balled WWII Liberty ships were used to store surplus grain.

The costs of support programs rose with rising surpluses. By the mid 1960s it was obvious that US attempts to stabilize prices via storage programs was not succeeding and a shift began to lower price supports supplemented by direct government payments to farmers. The shift to target prices and deficiency payments to producers of basic commodities when prices fell below the target price was completed in the 1973 farm bill. However, the Sugar Act persisted until 1974 when rising inflation and global shortages sent world sugar prices skyrocketing above domestic prices so that the old quota system no longer maintained stable domestic prices.

The surplus grain stocks disappeared as the Soviet Union made a surprise entry into world markets in 1973 and made huge purchases of US grains. Coupled with a downturn in world grain production in 1973, a bad monsoon in India, and a sharp rise in world crude oil prices the Russian grain purchases set off an explosion in world agricultural commodity prices. Concerns about commodity surpluses and low prices were quickly replaced by near panic over skyrocketing prices and short supplies.

The rising commodity prices quickly were transmitted into rising US food prices and rising inflation. Price controls were instituted for meat and poultry, and in 1974 soybean exports from the US were embargoed to control rising prices.

Higher prices and rising exports meant that the US government was no longer involved in supporting domestic commodity prices. Since world prices were so strong, there was a tendency for the US congress to push up target prices to keep up with inflation in producer costs, since there was no apparent government program cost in doing so. The 1981 farm bill was the last to escalate price guarantees. In 1982 world agricultural commodity prices collapsed as a result of a world-wide recession, economic difficulties in developing countries, and the rising value of the US dollar. Suddenly the US was back into the problem of price-support loan levels that were so high that huge accumulations of surplus commodities was occurring. Program costs began to spiral again as they had twenty years earlier, and the government embarked on another large land retirement program.

Farm program revisions in 1985 and 1990 were aimed largely at controlling the costs of support programs via limiting price support levels and avoiding surplus stock accumulations. By this point even the most avid believer in price stabilization recognized that the US domestic programs could not stabilize world prices and that attempts to do so largely resulted in loss of world market share in export markets.

By the mid 1990s world agricultural commodity prices were booming again as a result of exuberant growth in developing countries which created rising demand for better diets. By 1995 world prices were so high that no deficiency payments were to be made to US producers of supported crops. That brought forth the 1996 Freedom to Farm Act. It abandoned the half century old production control program of land retirement and the target price/deficiency payment system in favor of fixed declining direct payments based on past production history of supported crops. Price support levels were set low enough to avoid government acquisitions of surplus stocks. It was asserted by the sponsors of the new approach that a new era had arrived. However, the new era was to be short lived. In mid 1997 the booming economies of Asia collapsed and the demand for agricultural commodities fell sharply. Agricultural commodity prices plummeted and the US Congress provided

$8 billion in emergency assistance to agricultural commodity producers in 1998. This was followed by an additional $18 billion in 1999. It remains to be seen what direction US commodity support programs will take in the new century as they are reviewed in 2001.

Western Europe

Countries in Western Europe had substantially different agricultural structures prior to WWII and their policies reflected those differences. France was a relatively efficient surplus producer with an interest in export markets. The UK pursued a liberal trade policy with a heavy dependence on imports. Germany had a protected agriculture with large agricultural estates in the East and small less efficient peasant farms in the West. The Dutch had an efficient export-oriented agriculture.

However, virtually all of the countries suffered from a common problem of food shortages and hunger during WWII as the war disrupted agricultural production, distribution, and trade. At the end of the war western European countries were still heavily agricultural and restoring agricultural prosperity was given high priority.

The Treaty of Rome which launched the European Common Market of six countries in 1957 had the establishment of a Common Agricultural Policy (CAP) as one of its principal objectives. It called for a policy that aimed at maintaining farm incomes comparable to non-farm workers, a common internal price, a common external tariff, and common financing of the CAP. The policy mechanisms to achieve these goals were put into place in the early 1960's. They included a variable levy to insure that imports would not undermine domestic price levels, export subsidies to enable exports to move into foreign markets, export taxes to ensure that in times of high world prices that exports would not create price pressures in the domestic markets, and government intervention to maintain internal prices via purchase and storage programs. The initial internal price levels set in the early 1960s were quite high compared to world markets to maintain incomes on the poorly structured farms in Western Germany and Italy.

At the time the CAP was formulated, the EC was a major net importer of most agricultural commodities. The original CAP was designed for importing countries because it could be financed by import levies, it promised almost perfect internal price stability, and it initially offered little threat to major world exporters. However, the CAP with its high and stable prices produced a substantial incentive to increase agricultural output. In a period of little more than a decade the EC went from being major importer of most commodities to being a major exporter of grains, meats, poultry products, sugar, and dairy products via the use of export subsidies. In the meantime, except for commodities covered by bilateral trade agreements the EC imports of competing products fell as they were unable to compete with products shielded by the variable levy. In the early 1970s, when the entry of the Soviet Union into markets as buyers drove commodity prices sharply higher, the EC applied export taxes to maintain internal price stability for inputs to their meat, poultry, and milk producers.

As economic growth and prosperity swept Western Europe, the attempts to maintain income parity for farm producers meant rising internal commodity prices, greater gaps between internal and external prices, and sharply higher program costs for commodity purchases, storage, and export subsidies. The EC officials became enthused with the concept of international commodity agreements to stabilize world commodity prices, especially to remove the low prices that were causing the CAP to become so expensive. This became the main negotiating objective for the EC in the Tokyo Round of GATT negotiations.

In the 1980s the deteriorating world market situation for agricultural commodities brought the same difficulties to the CAP that the US policies had suffered in the 1960s and again in the 1980s. Surplus stocks rose, export subsidy costs skyrocketed, and farm incomes still lagged. In the mid 1980s milk marketing quotas for individual producers were instituted to reduce the flood of surplus milk production. Finally, the EU turned to land set aside to limit program costs and slow stock accumulation. In 1992, a major reform of the CAP was undertaken. It moved to lower prices for most supported commodities, especially grains and beef, and instituted a system of direct compensatory payments to producers to offset the lower market prices.

The Uruguay Round Agreement on agriculture led to the conversion of all quotas and variable levies to fixed tariffs with tariff quotas to allow minimum imports. However, the EU set its fixed tariffs very high and then instituted a system of variable tariffs

below them to maintain stable internal prices. The reduced internal price levels from the 1992 reforms allowed the EU to export without export subsidies during periods of high world commodity prices, and to meet their international obligations for lower spending on export subsidies even during periods of low world prices.

In 1998, the EU again re-appraised the CAP as they prepared to expand EU membership to several countries in Central Europe. The EU commission proposed further modest reductions in support levels, but these were set aside by the Heads of State for even more modest reductions. Thus, the EU entered the new century with its policies still aiming at internal price stability and internal prices disconnected from world prices.

Japan

Prior to WWII, Japan depended on domestic production and imports from Korea, Taiwan, and China. During WWII, the Japanese suffered severe food shortages as external supplies were cut off. After WWII, Japanese agriculture was substantially restructured, new agricultural laws were written, and the stage was set for the policies of the second half of the century.

The new policies had several objectives. One was to maintain a high level of self-sufficiency in the production of basic food grain. A second was to maintain farmer incomes at levels comparable to nonfarm workers through adequate domestic prices. The policies included building a system of independent family farms supported by an extensive system of farmer cooperatives. However, the purchase, domestic distribution, and imports of the basic commodities was given to various state trading agencies. The government established a monopoly over the imports and distribution of rice, wheat, barley, beef, and dairy products. Internal price levels were protected by a series of import quotas.

Internal prices were set at levels high enough to provide reasonable incomes for the very small family farms established by the land reform. As the nonfarm prosperity flourished the domestic price levels had to be elevated well above world prices. The high domestic prices were maintained by state trading, a web of import quotas on major commodities not controlled by state trading, high tariffs, and numerous hidden trade barriers under the guise of sanitary and phytosanitary precautions. However, for several key agricultural commodities not widely produced in Japan, trade restrictions did not apply. The two major commodities were soybeans and course grains for livestock and poultry feed to meet the booming demand for domestic livestock production.

The price spikes in commodity prices in the early 1970s and the 1974 export embargo on soybeans by the US government sent shock waves through Japanese society and politics. It reinforced their intense desire for self-sufficiency in basic foodstuffs, and it fueled increased Japanese interest in international agreements to stabilize agricultural commodity prices and guarantee reliable supplies of imports.

It should be noted that South Korea and Taiwan which had land reform and new policies after WWII adopted policies similar to those of the Japanese, with a heavy emphasis on high domestic protection and extensive use of state trading.

The Centrally Planned Economies

The Soviet Union nationalized its agricultural production, marketing and processing, and internal distribution system in the 1930s. After WWII, as they gained control over Central Europe the Soviets imposed the same systems of production and distribution on most countries with the exception of Poland, where peasant farmers refused to allow the collectivization of their land. Even in Poland, however, the processing and distribution system was nationalized, and all producer's prices were set by the state.

The centrally planned systems had two goals: low cost food for urban consumers and self-sufficiency or as near self-sufficiency as possible. Where national self-sufficiency was not achievable, trade was to be done with other centrally planned economies if possible. That trade was carried out with artificially determined prices, often involving barter such as Cuban sugar for Soviet oil.

These agricultural policies were less than successful. The inefficient production systems could not produce adequate supplies of meat, milk, and poultry to supply consumer demand at the artificially low prices. Therefore, supplies were rationed, generally by long lines and shortages, and in the early 1970s the Soviet Union and some Central European countries entered the world grain and meat markets to offset inadequate

domestic supplies of feed-grains and protein feeds.

During the 1970s and 1980s, the large and erratic Soviet imports were clearly destabilizing to the international commodity markets. In 1975 the United States signed an agreement with the Soviet Union whereby the Soviets agreed to import a minimum amount (6 million tons) of wheat and corn each year and agreed not to buy above a maximum amount without US government permission. Domestic politics in the US prevented any upper limits ever being enforced on Soviet purchases from the US. In early 1980, in response to the Soviet invasion of Afghanistan, the US embargoed the delivery of grain to the Soviet Union which destabilized world grain markets.

In the late 1970s, other socialist countries in Central Europe also entered world markets to offset inadequate domestic supplies of grains and oilseeds necessary to bolster meat and poultry production.

In the late 1970s, China broke out of its total reliance on domestic production and entered world markets to supplement their domestic supply of grains and oilseeds. In the 1980s, China became an intermittent exported of corn while importing wheat. Of course all imports and exports by China were done through state trading entities.

Developing Countries

The stake of developing countries in world commodity price stabilization was even greater than for most developed countries. A number of developing countries are the major producers and exporters of agricultural products, including coffee, cocoa, tea, and sugar. These countries were frustrated by the extreme fluctuations in the prices of their commodity exports, especially by the periods of low prices that cut their export earnings and created major macro-economic problems.

There also is a group of developing countries that have become increasingly dependant on imported grain and oilseed products needed to underpin rising consumption of meat and poultry products. They were extremely concerned by the sharp rise in prices and import costs in the 1970s.

Many developing countries used state trading entities to control both imports and exports. Parastatals often were used to process and market export crops. Many countries applied taxes on commodity exports. As a result of these various devices commodity producers in developing countries often received low prices even in the best of times, and their incentive to produce was reduced. Food importing developing countries often desired to maintain low internal food prices to satisfy urban consumers, and they did this by import and resale policies that kept prices down. This had the effect of reducing incentives for domestic producers despite the fact that in many developing countries agriculture was the largest source of income and employment.

In addition to the widespread use of state trading many developing countries maintained substantial tariffs on imports of agricultural commodities as a method of raising revenue.

All in all, both importing and exporting developing countries wanted stable commodity prices. Exporters wanted high stable prices to maintain foreign exchange earnings for their export commodities, and food importers wanted low stable import prices to minimize foreign exchange costs and to maintain low food prices. Developing countries do not have either the policies or the resources to unilaterally stabilize the prices of export commodities, and during times of high world commodity prices importing countries could not afford to subsidize domestic consumers and maintain stable domestic prices. These facts led developing countries to seek collective international action to stabilize commodity prices.

Most developing countries can not afford an expensive domestic price policy to stabilize internal prices. One exception is India, which after the great food crisis of the 1960s organized the Food Corporation of India to purchase, store and release foodgrains to the domestic markets to stabilized both prices received by producers and consumer prices for basic foodgrains. This effort was buttressed by import quotas and state controls over foodgrain exports. Despite this significant and sometimes expensive policy, India was one of the developing countries leading the push to stabilize international markets.

The section on agricultural policies is based on a background paper prepared by Professor Dale E. Hathaway, Director of the National Center for Food and Agriculture Policy. The paper is entitled, "Government Intervention and Commodity Price Stabilization: An Overview of the 20th Century."

Metals

Metals and minerals prices have generally declined during the 20th century, with most ending the period at or near their lows of the past 100 years. Prices have been volatile and most markets have been highly cyclical. There have been sharp price peaks due to a variety of supply/demand factors, but these were relatively brief. Longer periods of troughs were far more typical, although this varies by commodity. The largest spikes since WWII were in gold and silver prices in 1980, but the other commodities experienced greater frequency of large fluctuations over the century.

In the first part of the century, the US was a large player in many industries, and US companies had large foreign holdings. Production grew slowly in the pre-WWII period, but then increased substantially with the large post-war expansion of global economic activity. The most rapid rate of growth was in aluminum production because of its price competitiveness with other metals and its ready availability. Aluminum made significant inroads into the construction, transportation and container industries. The slowest rate of growth was in tin, partly because controlled high prices under international tin agreements dampened demand and led to loss of markets to other metals, notably aluminum. End-use demand of metals has continued to shift and substitution opportunities increased, both with other metals and non-metals, such as plastics and ceramics.

Several technological advances in production, e.g., ore leaching, and other improvements in productivity have led to significant reductions in costs for all metals and minerals. Lower costs suggest a loosening of resource constraints, and new entrants have appeared and supplies have steadily increased. Nationalization of foreign assets in Latin America and Africa in the 1960s and 1970s led to greater state ownership but also financial difficulties, especially the lack of sufficient capital to undertake new development. Not all takeovers have proven unsuccessful, e.g., the continued success of Codelco in Chile. The tendency for nationalization has declined and has generally been reversed during the last part of the century, with privatization of some state companies.

Various efforts by producer groups and governments to control prices have met with limited success. Most actions have either ended or have been reduced, and prices for the last quarter century have generally been determined in more competitive markets. Even with intervention, supply/demand forces played a major role in determining price levels for much of the century. The lengthy International Tin Agreement was the most successful international commodity agreement (ICA) until financial difficulties and rising production in Brazil and China led to its dramatic collapse in 1985—effectively ending this approach to international commodity policy. The US government has maintained a stockpile of important industrial metals as a means of preventing war-related supply interruptions for important military commodities. Large purchases were made in the 1950s, with inventories of some commodities exceeding annual world production, e.g., tin and molybdenum. These inventories were reduced significantly during the 1960s (later for tin).

The century ended for many, but not all, industries experiencing low prices, high stocks, surplus capacity, and weak demand in the wake of financial crises. A wave of privatizations and mergers has gripped some industries which is expected to lead to rationalization of assets, but also contribute to improved efficiency, lower costs, and increased profitability and investment. The steel industry continues to face over capacity, which has led to renewed trade tensions among several producing countries and the imposition of anti-dumping actions.

Copper

Copper prices have been declining in recent decades, but price movements have been highly volatile and cyclical. Government interventions have at times had significant impacts on prices, and producer groups have also attempted to intervene by adjusting production and exports. The US government has taken action during periods of war and national emergencies to control prices, impose quotas and tariffs, and buy and sell for the national stockpile. Despite these intrusions, market supply and demand fundamentals have been the principal determinants of prices over time.

Production grew slowly until WWII, and then grew strongly during the large post-war industrial expansion. During the first half of the century, copper production was dominated by a few US companies which also owned operations in foreign countries, but the level of concentration has fallen significantly with new entrants. Nationalization of producing assets in Africa and Latin America in the 1960s and early 1970s increased the volume of production by state companies. In Africa, there

have been severe financial problems and assets are being re-privatized, but Chile's Coldelco continues to thrive. Nevert heless, the level of government ownership has fallen, in part due to privatization in eastern and central Europe.

There have been several technological advances in the mining of copper, beginning with open pit mining techniques in the US in 1906. About the same time the froth flotation process improved recovery rates substantially. Other innovations have improved productivity, reduced costs, and have allowed lower grade ore to be mined profitably.

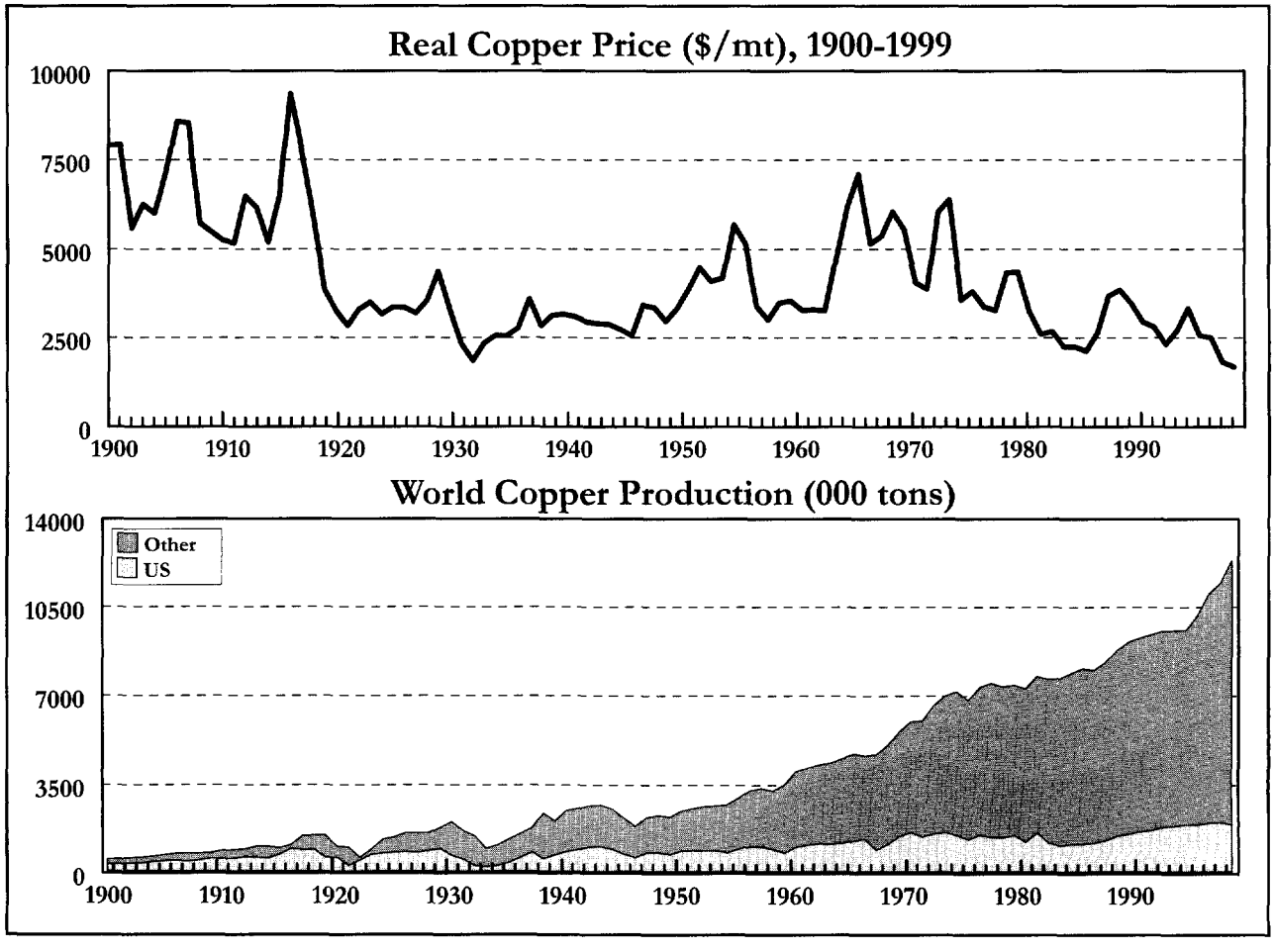
There have also been significant technological advances in smelting and refining operations. One of the most important advances has been the development of solvent extraction/electrowinning (SXEW) process in ore leaching operations. More recently the use of bacterial action has been developed to accelerate leaching when copper sulfides are present. All of which have continued to lower the costs of production over time.

At the turn of the century, the US and Europe consumed virtually all of the world's copper output. Today they still consume half, but Asia has steadily emerged as a major consuming region, absorbing more than one third of refined copper production. The construction and electrical sectors are the largest markets for copper, and increasing copper intensity in these sectors has led to strong growth in the 1990s, although the industry is facing increased competition from fiber optics and aluminum.

Copper prices in 1999 were near their lowest point of the century, despite strong demand, in part because of declining costs and abundant supplies. Heading into 2000 and beyond, prices are poised to launch another cyclical rally as the global economy continues to recover from recent financial crises. This will increase profitability, stimulate new investment, bring forth new supplies, and likely prices will endure only a brief spike, as in the past.

Aluminum

Aluminum prices have declined substantially this century, with a slight downward trend since WWII. Dur-



ing periods of war and other times of intervention, US (and other) prices were fixed by governments. For the last quarter century prices have been market determined by changes in supply and demand.

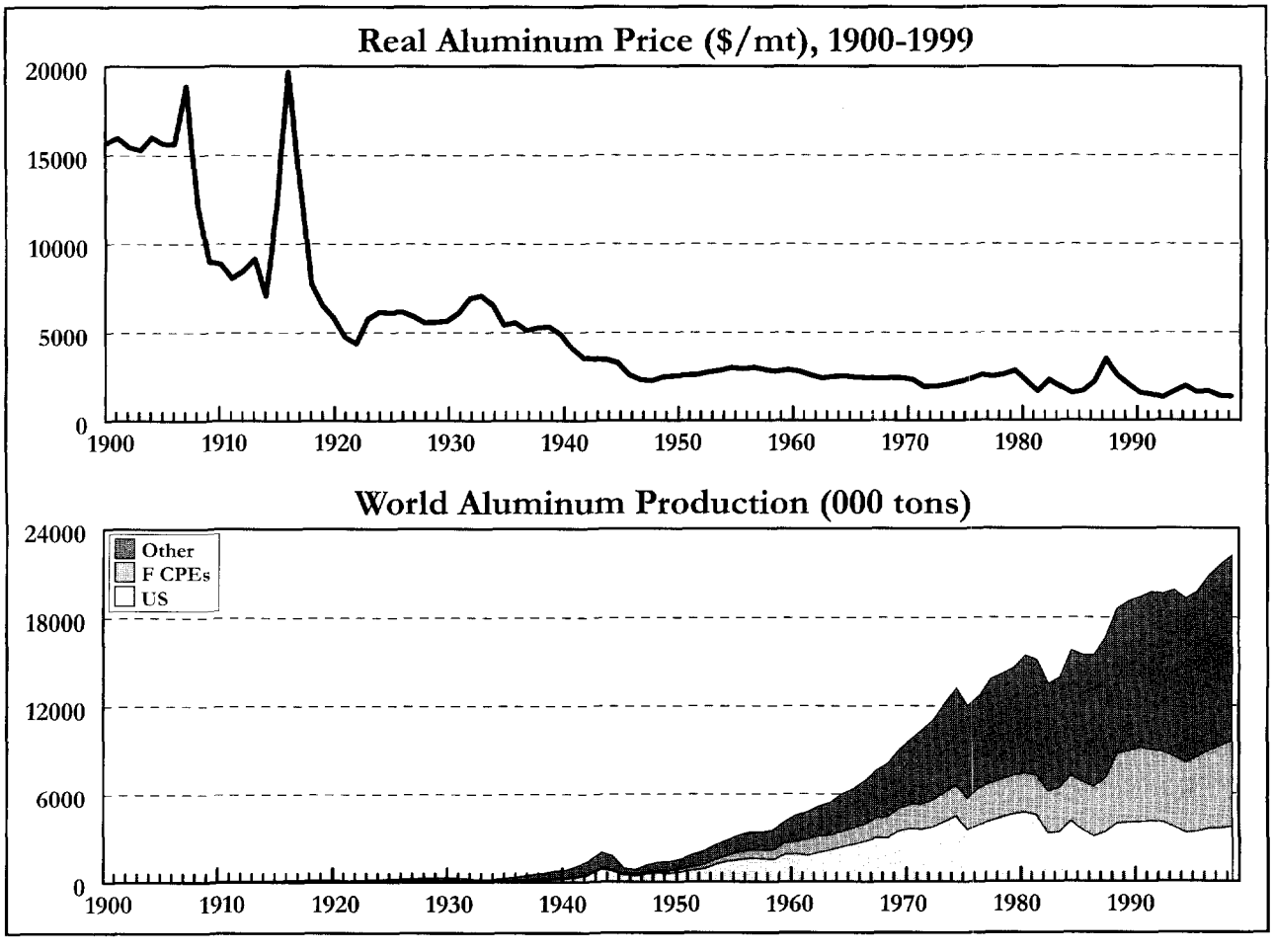
Aluminum production began in the late 19th century, and growth in the early part of this century was small in volume terms. Shortages during WWI caused prices to rise substantially as aluminum demand increased for aviation and munitions manufactures. US controls on prices and allocations were first introduced in 1918. Production grew significantly leading up to, and well into WWII, with most of the growth in US/Canada, Germany, and Japan. US/Canadian production rose substantially for the war effort, increasing 17-fold between 1935 and 1943.

Production grew rapidly in the post-war expansion as the industry benefited from its price competitiveness with copper and other non-ferrous metals, making significant inroads into construction and transportation. In the late 1950s the industry began producing aluminum cans, and today the container sector is the second largest market for aluminum behind transport.

North America produced over half the world's aluminum up until the late 1960s, but that share has fallen towards one-quarter because of a decline in the US (Canadian production has continued to grow strongly). Large new capacity has been developed in Australia, Brazil, China, Norway, Russia, South Africa, and the Middle East.

Because a key input for aluminum smelting is electricity (which in turn is produced from other forms of energy), the aluminum industry was particularly vulnerable to the energy price shocks of the 1970s and 1980s. Japan let its industry fall to a tiny fraction of its former capacity while Europe has chosen to support its industries.

In the early 1980s, the industry suffered from over capacity, but some of the excess was closed permanently and a strong recovery in demand led to high prices in the late 1980s. In the 1990s, new capacity and a flood of material from the collapsing FSU led to declining prices once again. The industry ended the century with large-scale mergers, and anticipates rising demand into the foreseeable future, both from global economic



growth and the capture of markets from other metal producers.

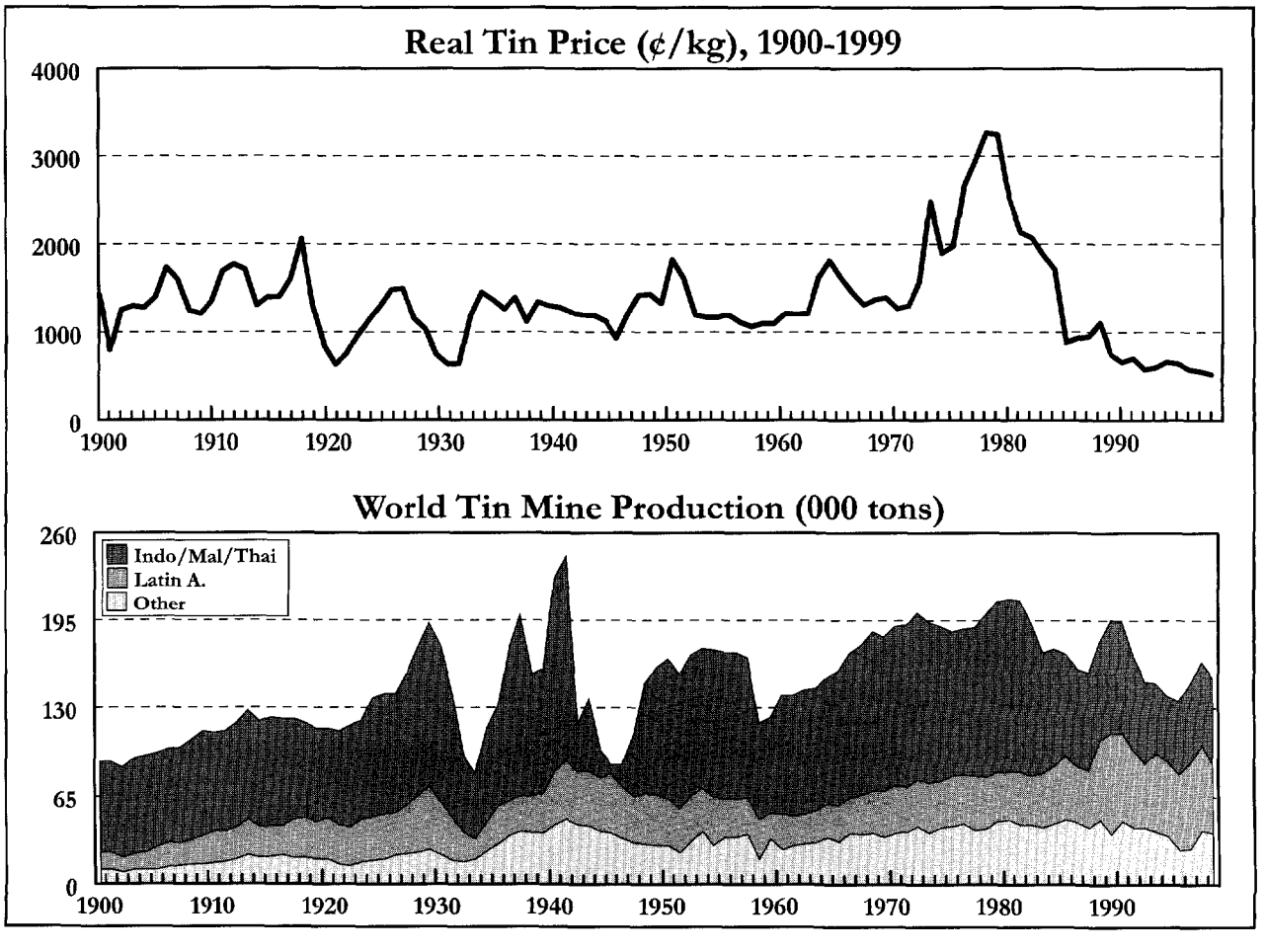
Tin

Contrary to other minerals, tin prices have been rising throughout much of the past century, mainly because of commodity agreements. However this ended in 1985 and prices collapsed, reaching their lowest point of the century in 1999.

Tin is one of the earliest metals known to man, and one of the few minerals for which the bulk of the world's supply is produced in developing countries. Four producers – Bolivia, Indonesia, Malaysia and Thailand – dominated production during most of the century. Bolivia is a high-cost producer and was greatly affected by the price collapse, but the state company was already in financial difficulties prior to the fall in prices. In the 1980s, low-cost production in Brazil grew rapidly, as did output and exports from China, both of which contributed to the market surplus and decline in prices in the 1980s. Today, Asia accounts for two-thirds of world tin production, with Latin America producing nearly one-fourth.

International agreements in the tin market date back to the 1920s, with export controls and buffer stocks used to control price fluctuations. In the post-war period, six International Tin Agreements (ITA) have operated, beginning in 1956. The aim was to control price fluctuations within a specified price floor and ceiling with purchases and sales from the ITA's buffer stock, using export controls if necessary. However, the buffer stock was not sufficiently large to defend the price ceiling and prices often rose. In the early 1980s, the slump in global demand necessitated accelerated buying for the buffer stockpile, beyond that which the stock manager was authorized to absorb. Financial difficulties, compounded by depreciation of the dollar, led to a collapse of the sixth agreement in 1985.

Consumption growth of tin has been significantly affected by high prices which resulted in a loss of markets to substitutes, notably aluminum, but also to plastics, glass and alternative means of food preservation



such as freezing. It has also suffered from technological change in the use of tin in other markets, and the collapse of the FSU greatly reduced import demand for tin. With low prices demand has grown and the industry will endeavor to at least retain market share.

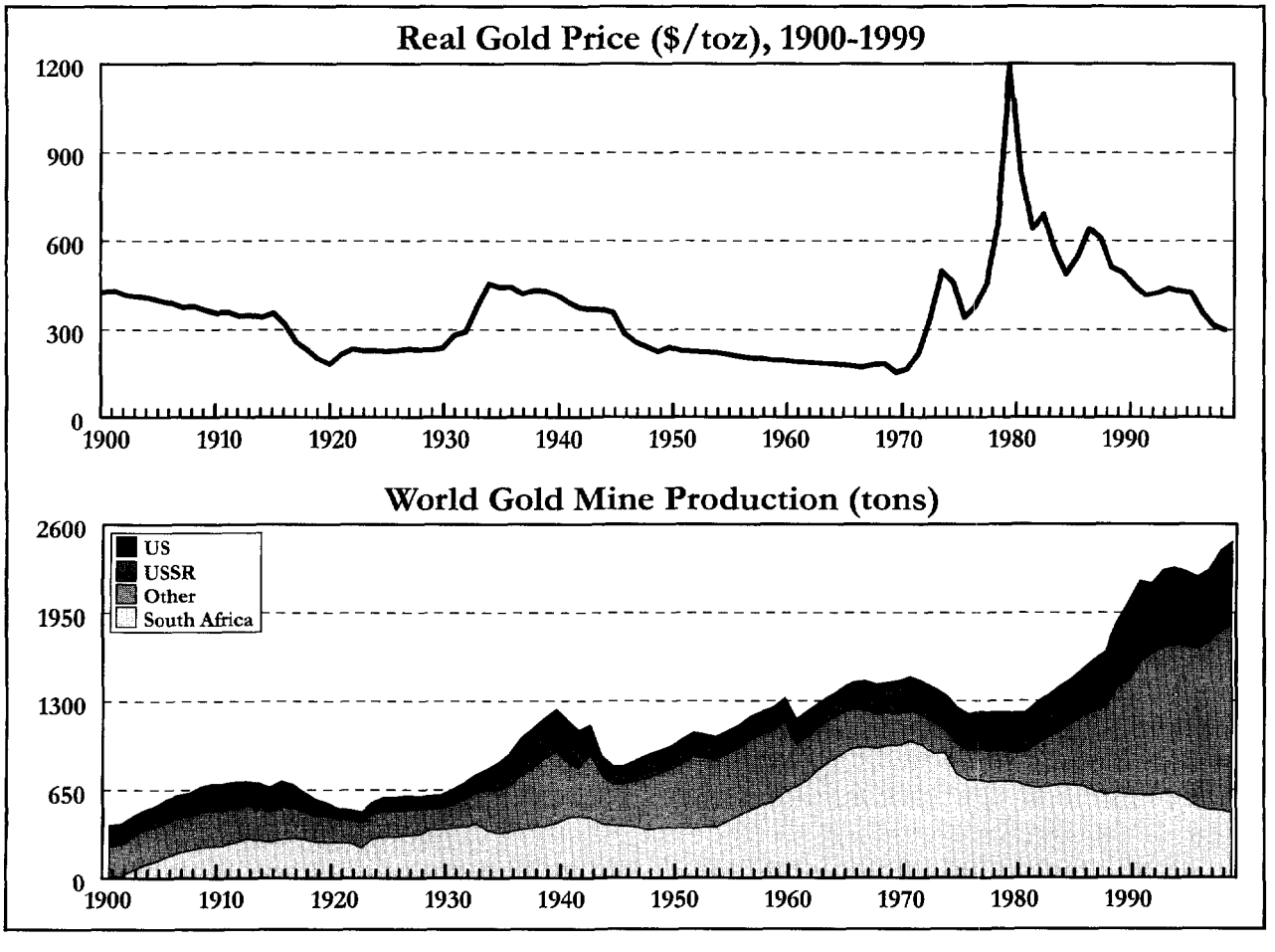
Many state owned enterprises have undergone painful adjustment, and there have been significant efforts to reduce costs and improve efficiency. Nevertheless, high-cost capacity has been forced to close, and new entrants may not appear unless prices rise.

Gold

Gold has long had a dual role as an internationally traded commodity and an accepted store of wealth. It is also unique among commodities in that much of the world's production goes into inventory, and thus most of the gold produced is still in circulation in one form or other.

The official nominal price of gold was steady up until the early 1970s, with only one significant jump in the 1930s. The US passed the Gold Standard Act of 1900 setting the value of the dollar to $20.67/toz, committing the US to maintain fixed exchange rates with other countries then on the gold standard. In 1934, the gold content of the dollar was reduced, increasing the price of gold to $35/toz. In 1968, a two-tiered market for gold was established: a fixed price for monetary transactions and a free market for private transactions. In 1971 the US suspended dollar convertibility to gold, which effectively removed gold's pivotal role in the international monetary system. The official price was raised to $38/toz in 1972, and to $42.22/toz in 1973, before the two-tiered pricing system was terminated in November 1973. At end-1974, private US citizens could again hold gold.

Since the early 1970s a global market for gold as an asset in its own right has developed, along with a large portfolio of derivative instruments. In the 1970s, amid declining production and economic and political concerns, hoarding and speculation propelled gold to an all-time high of $850/toz in January 1980. Gold then declined to under $300/toz in 1985 and, while volatile since then, has been under $300/toz the past



two years.

South Africa is the world' top producer, accounting for two-thirds of world's production in 1970, but output volume has steadily declined, contributing to the tightening of the market in the 1970s – it now accounts for just one-fifth of world production. Since 1980 production in the rest of the world has risen sharply. The largest increases have been in the US, Australia, China, Canada, and Indonesia, plus significant increases in other regions, notably in Latin America. Growth in the Western Hemisphere has been particularly large in the 1980s and 1990s, with its share of world production now more than one-third. Production costs have declined significantly due to technology advances and new low-cost mines continue to come on-stream.

Nearly three-fourths of world demand is in developing countries, and the bulk of consumer demand is for jewelry fabrication. During the Asian financial crisis demand fell – actual dis-hoarding occurred in the crisis countries – but demand is expected to continue its upward trend.

In the last several years, a number of central banks have been selling gold reserves, e.g., Argentina, Australia, Belgium, Canada, and the Netherlands. Further sales are planned and this is expected to put a ceiling on prices for the foreseeable future.

Energy

Petroleum

The world petroleum market in the 20th century can be divided into two distinct periods – 1900-73 and 1973-99. During 1900-73 oil prices declined, particularly after World War I, falling to less than $5/bbl. Oil production and consumption grew by more than 7% per annum, and reserves expanded greatly. The international industry was dominated by the major oil companies. Low-cost production expanded at the expense of higher-cost output, and the desires of producing governments to expand production led to falling prices.

A huge increase in prices began in the 1970s as the Organization of Petroleum Exporting Countries (OPEC) sought to raise oil revenues and prices substantially by reducing production. During 1973-99, oil demand growth slowed to 1%, and high-cost production grew faster than lowest-cost production. Prices soared 1,500% between 1970 and 1980, and then fell by two-thirds. Prices have since remained volatile, as OPEC continues to constrain output to target a price level well above the costs of production. The century ended with prices swinging widely, a reflection of the turbulence that has characterized the post-1973 period.

The pre-1973 period

At the beginning of the century the US and Russia each produced nearly half of the world's crude oil. The US continued to expand, producing two-thirds of the world's output at the end of WWII. It became an importer in 1948, but limited imports until 1971. Its production continued to grow until 1970 and then declined, while its share steadily fell to under 10% today. Mexico was the second largest exporter in the early part of the century but disagreements with the companies caused production to drop after 1921, and foreign oil companies were expelled in 1938.

Production in Russia fell following the 1917 revolution and then grew slowly to the 1950s. It then grew rapidly to become the world's largest producer in the 1980s, but has since fallen to half its peak. Indonesia has been producing oil for more than 100 years and grew significantly before falling to near zero during occupation in the 1940s. Production in the Middle East grew modestly before WWII, beginning in Iran and Iraq, followed by Saudi Arabia which produced its first oil in 1938. After the war production in the region expanded substantially. Production from other large OPEC producers commenced later – Kuwait (1946), Algeria (1958), Nigeria (1958) and Libya (1961).

In the rest of the world production rose slowly in volume terms in the first part of the century, but since the mid-1960s has risen by 6% per annum. Exploration and development in non-OPEC countries accelerated partly because of nationalization of assets in many of the OPEC countries by the 1970s, which diverted significant investment to other areas. The largest growth has been in the North Sea, which has risen to about 9% of world output, but new production also commenced in such areas as Mexico, Alaska, and West Africa. High prices have made conventional development extremely profitable in many parts of the world, and high cost production – e.g., synthetic oil sands plants Canada – continues to expand.

Oil consumption grew by about 7.5% per annum following WWII, much faster than economic growth. Great expansion of motorized transportation, heavy industry, and electric power provided large markets for petroleum products. In the early days of the industry

kerosene was the major product extracted from crude oil, but technical innovation led to the development of new refinery processes and production of new products – mainly gasoline, diesel, and fuel oil, but a multitude of other petroleum based products, including feedstock for petrochemicals. The middle distillate portion of the barrel – for diesel and heating oil – is the largest component of the demand barrel in most regions of the world. In North America, however, gasoline represents about 43% of the refined barrel.

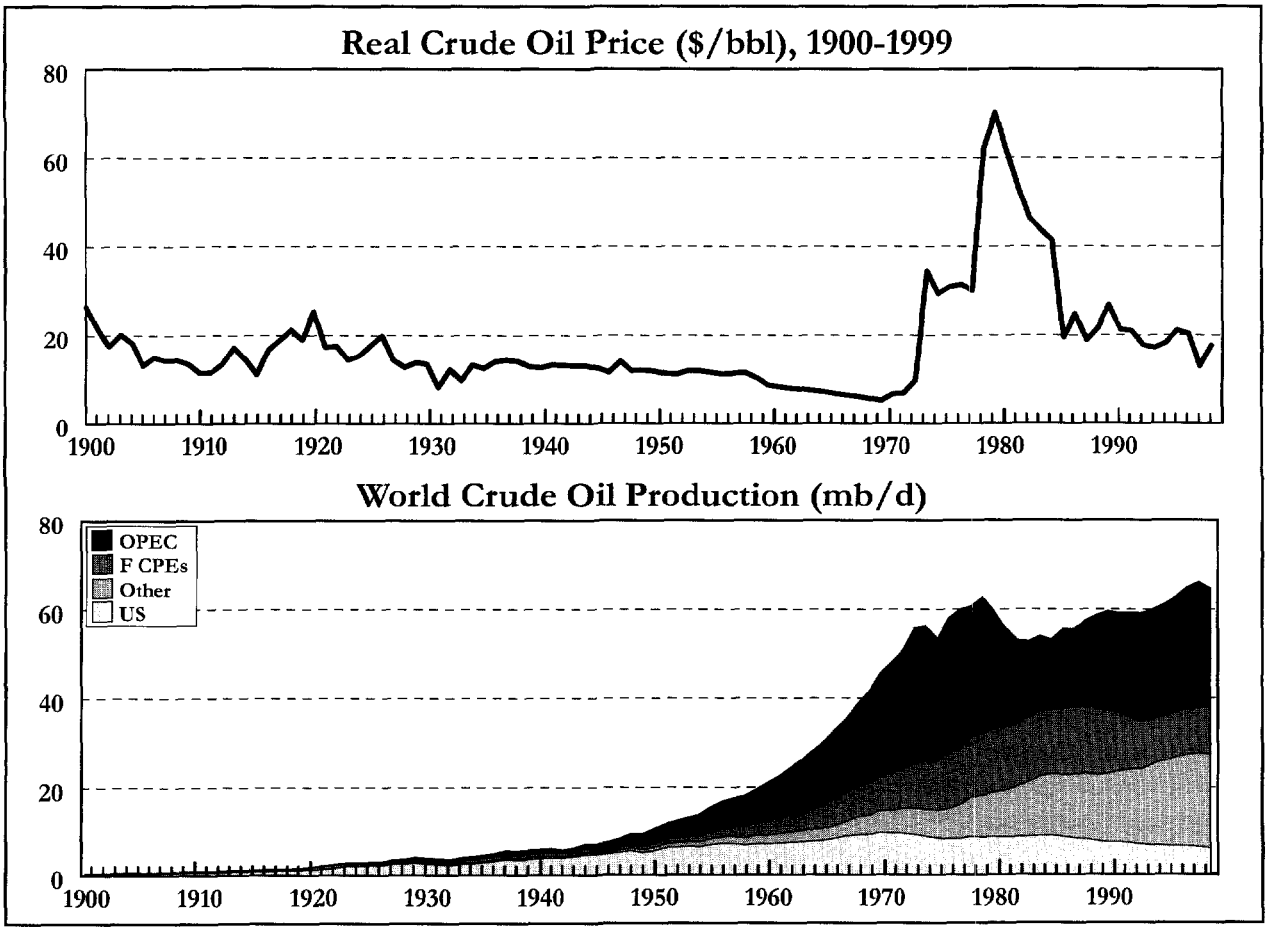
For most of the first part of the century, there was no world price for oil, as much of the industry was in the US. Non-US crude oil was moved within large companies between affiliates. When a world price emerged in the late 1940s, the US price was significantly higher because of restricted imports. Although prices declined until 1970, prices still exceeded finding and development costs, and the rate of return on new investment in the Middle East was several hundred percent. At the beginning of the 1970s, Saudi Arabia had plans to expand production to more than 20 mb/d within a decade, with no indication of rising costs for development. At the time there was no evidence of resource constraints, and probably there was a loosening of constraints due to effects of technical advances and increasing knowledge.

The post-1973 period

OPEC was formed in 1960, and by 1970, five of the countries (Iran, Saudi Arabia, Venezuela, Libya, and Kuwait) each had production between 3.0 and 3.8 mb/d. Production and influence was more balanced than today, as Saudi Arabia only emerged as the largest producer in 1971. For the group, production was growing by 10% per annum.

OPEC countries raised prices several times in the early 1970s, before quadrupling the price in 1973/74. An Arab oil embargo against the US and the Netherlands had limited affect, as it was the reduction in output that kept prices high.

In 1979/80 the Iranian revolution resulted in loss of significant production causing prices to skyrocket.



However, OPEC wanted to keep prices high and reduced output substantially to do so. Between 1979 and 1985 OPEC production fell by nearly half, with Saudi Arabia becoming the swing producer.

The second price shock was more severe to the global economy and oil demand, because of its magnitude and duration. In the industrial countries oil demand fell significantly, unleashing conservation efforts, investment in efficiency improvements, and substitution to other fuels. In the developing countries oil demand stagnated, growing mainly in oil producing countries from sudden wealth and subsidized prices to end-users.

By mid-1985 Saudi Arabia's production had fallen by more than 80% in defense of higher prices. Faced with being driven out of the market, Saudi Arabia sought to regain market share by raising production in 1986, causing prices to collapse.

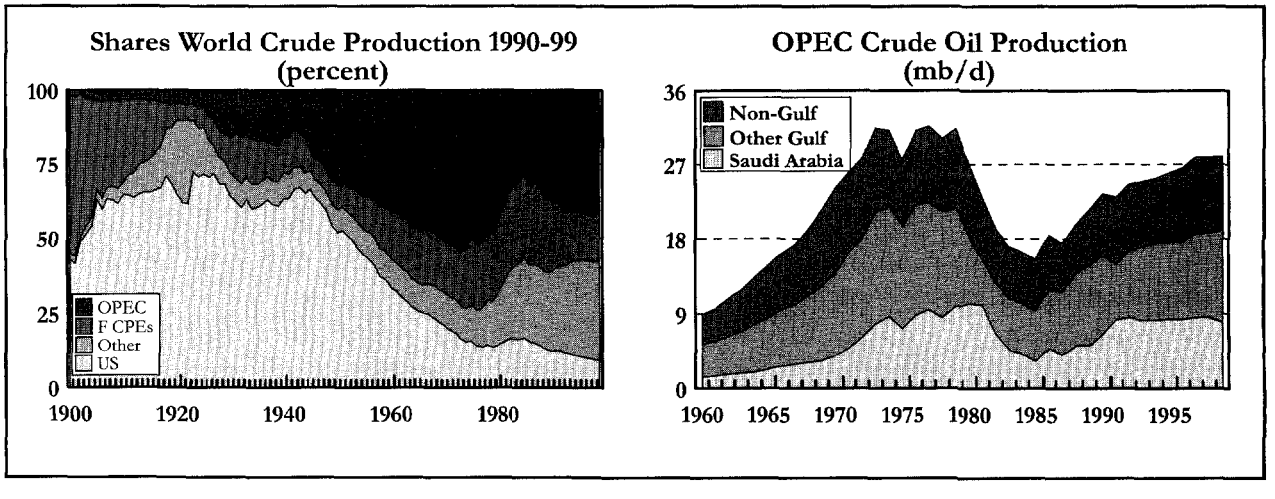
But by then the world oil market had changed greatly. The oil companies, which had been evicted from the producing countries, became buyers of crude searching for the lowest priced oil. This created tension between producing countries, as countries were tempted to produce more oil than allocated, undermining the quota system. Futures markets for crude oil and petroleum products were created, and oil now trades like other commodities. Expectations heavily influence prompt and forward prices of petroleum. Even though much oil moves under term contracts, prices are tied to futures markets.

Since the collapse in prices, demand has increased, but at a much slower rate. The industrial countries took nearly 20 years for demand to return to its former peak in 1978. In the developing countries demand has grown about as fast as income, with much of the growth occurring in Asia. In total, world oil demand outside of the FSU grew by 20 mb/d or 2.4% per annum during 1985-99.

However, OPEC captured little more than half of this increase because non-OPEC supplies steadily increased. The economics of the oil industry have been turned upside down, as OPEC producers shut in low-cost capacity while high-cost output increased. Significant technological advances – horizontal drilling, 3-D computer seismic, unmanned sub-sea well completions, and floating production systems – have reduced development costs. New frontiers are opening up in the deepwater offshore and in countries that provide stable and attractive fiscal terms and conditions. In addition, substantial investment has been diverted away from many OPEC countries into competing areas, although the desire for capital and technical expertise has resulted in recent, limited overtures to invite the companies back.

OPEC's production, while varied, has grown at well below its previous rate, and has not yet returned to its 1973 level, before it substantially raised prices. Saudi Arabia, where potential is greatest and costs are lowest, hasn't been able to meaningfully raise capacity in a decade, and production remains some 25% below its former peak.

As we end the 20th century, OPEC has caused prices to fluctuate greatly once again. The organization, led by Saudi Arabia which was losing market share to Venezuela and others, decided to raise quotas in late 1997, just as the Asian financial crisis was erupting. Prices collapsed toward $10/bbl before OPEC enacted a succession of production cuts, with full sup-



port from the new regime in Venezuela, as well as with support from Mexico and Norway, causing prices to rise by 150%.

Much of the world's production continues to be controlled by governments while OPEC continues to struggle with the trade-off between lower production and higher prices, and will likely continue to do so. As long as they keep prices well above the costs of production, prices will remain volatile and unstable. Small changes in production can have large impacts on prices. How demand will change in unknown, given the potential for new technology, competing fuels – particularly gas – and environmental concerns. High cost output will continue to increase at the expense of low cost production, as long as OPEC allows this to occur.

Coal

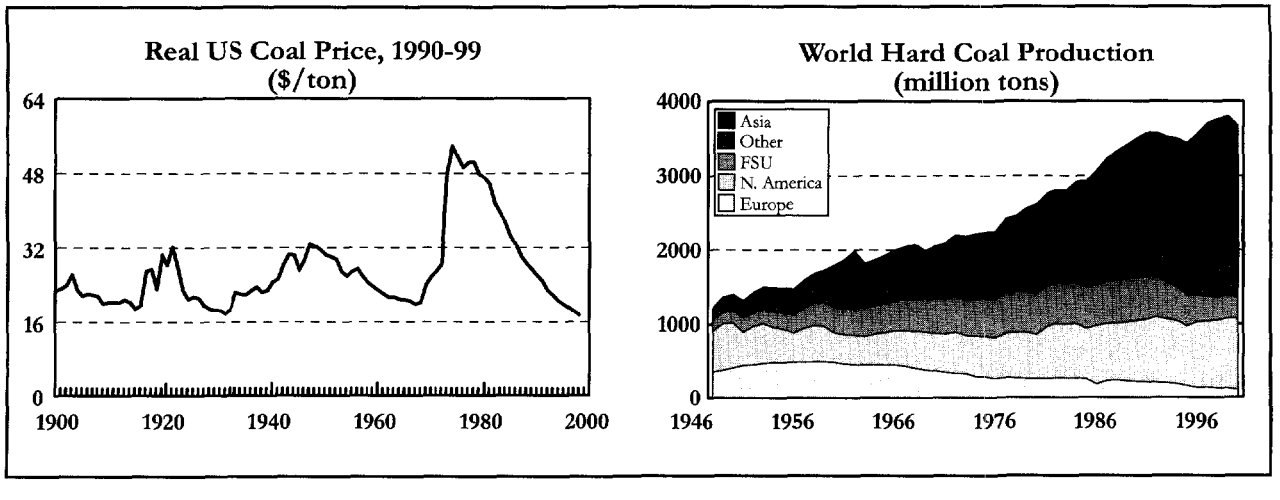
Coal powered the industrial revolution, but was displaced by lower-cost oil this century that was more environmentally friendly and offered a competitive advantage. World coal production grew slowly during the first half of the century, but increased strongly in the second half because of regained competitive advantage with oil. Much of the growth has been in a handful of countries – China, India, the US, South Africa, and Australia. In the developing countries the availability of lower-cost indigenous resources has made coal the fuel of choice for development. Of the net growth of 734 million tons in world coal consumption in 1965-98, more than three quarters was in India and China. Today these two countries account for more than one-third of total world consumption, and China depends on coal for about three-quarters of its primary energy needs.

Coal consumption has steadily increased in the US for power generation, with virtually all produced domestically. Importing countries, such as Japan and the Republic of Korea, have also increased consumption, in part because of competitive prices but also to diversify their dependence on imported energy resources. Consumption has fallen in Europe and the FSU, and has been displaced by natural gas. High-cost domestic European coal output is being displaced by lower-cost imports.

Coal prices rose in the 1970s and early 1980s along with the rise in oil prices and inflation. However, coal prices have since fallen significantly along with the decline in other energy prices, due to reduction of costs, and low-cost exports from such countries as Indonesia, Colombia, and Venezuela. Advances in technology, e.g., long wall mining, and improvements in productivity have sustained production capacity and contributed to downward pressure on prices. Known reserves are massive and provide no constraint on supply into the distant future. Limits to development will be from demand, because of environmental reasons and competition from other fuels. Still, growth is expected into the foreseeable future, mainly for power generation.

Natural Gas

Large scale natural gas development has been relatively more recent than coal and oil, but its share of world primary energy consumption continues to rise and is now approaching 25%. Its environmental and



cost advantages for new power generation capacity is expected to lead to increased market share in future.

Development of natural gas has been largely regional due to the high cost of long-distance transportation. Three-quarters of world gas consumption occurs in North America and Europe (Western, Central and Eastern). However, nearly three-quarters of the reserves are in the FSU and the Middle East.

Gas prices in the US were regulated and this led to the gas shortages of the 1970s during periods of peak winter demand. Deregulation of markets in the US and Canada in the 1980s has led to stable growth in production and trade, with prices now being set on the basis of gas-on-gas competition.

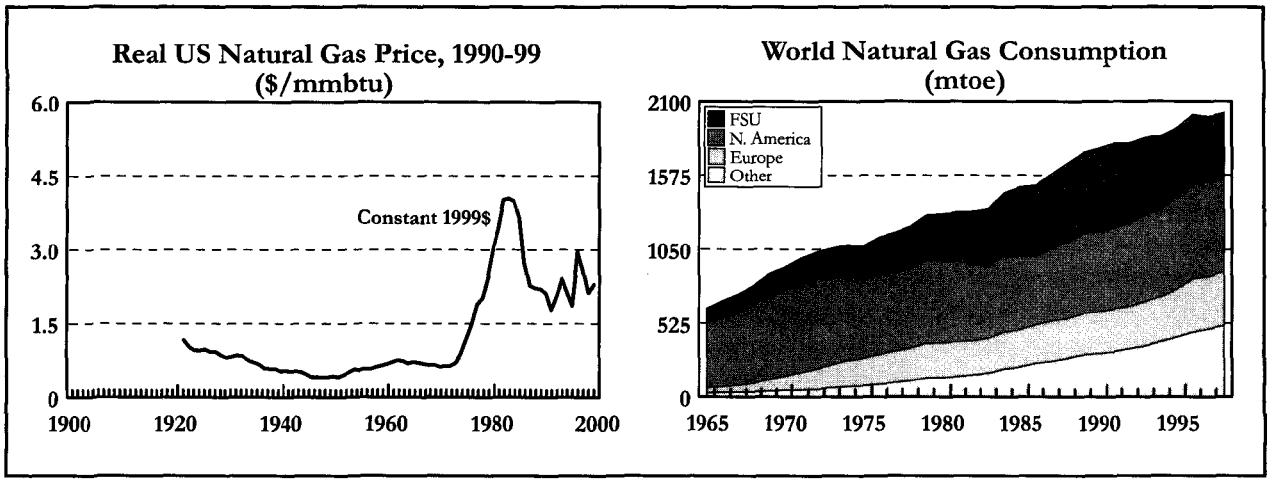
In continental Europe, gas continues to penetrate consuming countries, displacing coal and oil. Imports are from diversified sources, e.g., the North Sea, North Africa and Russia. Prices of imported gas are indexed to petroleum prices, but the region is slowly opening up to competition with recent EU Directives on Electricity and Natural Gas. In the UK, however, gas and electricity markets have been deregulated. The Interconnector pipeline between the UK and Belgium has been in operation for a year, and has introduced competitive spot priced gas into the heart of Europe. The pipeline is reversible and moved low-priced continental gas (linked to low oil prices) to the UK last winter.

Liquefied natural gas (LNG) natural markets continue to expand, with prices largely indexed to oil. Low oil prices and recession in Asia – where most LNG is shipped – impacted the industry, but demand is expected to continue its upward climb. LNG developments are set to expand in the Middle East, Australia, and Nigeria, but other producing countries are also contemplating constructing LNG facilities. Growth of the industry's infrastructure is leading to more opportunities for buyers and sellers, and will lead to greater price competition in the years ahead.

Some interesting findings emerge. A trend which has been evident in nearly all commodities, has been the importance of technology, improved production practices, and policies to increase production. Grain yields began to increase rapidly because of improved technology and better production practices during the 1940s in the US and during the 1960s in developing countries. This led to more and cheaper food which improved the diets of many people throughout the world. Petroleum production increased dramatically and allowed countries to power their cities and fuel their cars. Despite many efforts by governments and international organizations or groups of producers to support levels of commodity prices, a second trend which is evident has been the decline in prices relative to other goods. It is probably fair to say that not all attempts to control prices have been unsuccessful but the costs of intervention have been high. Finally, it is interesting to consider the outlook for commodities during the coming century. While that is not the focus of this Special Feature, we can note that we are ending the century with commodity prices at record lows. We cannot now see clear signs that commodity prices will increase rapidly in the future. The known reserves of commodities such as crude oil and metals have been increasing faster than our use of these resources. Much will depend on the rate of growth of global population and income, but also on policies and technology.

Conclusions

The twentieth century brought great changes to commodities and commodity markets. Production



and trade increased rapidly, spurred on by improvements in technology, transportation and communications. Markets became more efficient as information and communications improved while commodity exchanges became an integral part of trade. Production shifted from industrial to developing countries. Some commodities such as aluminum and petroleum became more important while others such as coal and tin were displaced by better or cheaper substitutes—including man-made products such as plastic. International efforts to stem the decline of prices were tried, but largely abandoned in favor of more open markets. However, domestic policies to protect producers from lower priced imports were used throughout the century and continue in many countries, despite high costs to consumers and taxpayers. Non-energy commodity prices ended the century at their lows relative to the prices of manufactures, while energy prices were above their century lows, but well below their highs of the mid-1970s.

Technology was one of the dominant forces affecting commodity markets during the twentieth century. In agriculture, improved technology led to higher yields and extended the range of climatic conditions under which crops could be grown. In metals, improved mining and refining techniques reduced the cost of recovering ore and producing metals. In petroleum, improved methods of locating and recovering crude oil expanded the known reserves while meeting current demand. Other technological advances led to improved communications and reduced transportation costs. Ocean freight rates, for example, declined by about three-quarters in real terms during the latter half of the twentieth century. The rate of growth of technology accelerated throughout the century and appears to have ended the century with a surge which was sometimes associated with the increased computerization of nearly all sectors of the economy.

Attempts to slow the decline in real commodity prices have largely failed. The International Tin Agreement kept tin prices high, encouraged the use of substitutes, and increased tin production. Eventually, the Agreement collapsed and tin prices fell. The most recent commodity organization to succumb to market forces was the International Natural Rubber Organization, which saw its major supporting countries withdraw in 1999 as rubber prices fell. OPEC has been the most successful commodity organization, and yet it faces competition from increased non-OPEC supplies and above quota production from its members.

Substitution between commodities has been an important element of commodity demand during the twentieth century. This has included increased substitution between commodities such as aluminum and other metals. But in addition, synthetics such as plastics and other man-made materials displaced traditional commodities. Synthetic rubber production, for example, now exceeds natural rubber production. Man-made fabrics such as nylon and polyester have replaced cotton in clothing and other fiber uses, and now account for about half of all fiber use. Non-caloric sweeteners have replaced sugar in some soft drinks. New man-made materials continue to be developed and are likely to further displace commodities during the twenty-first century.

The factors that shaped commodity markets in the 20th century – technology, policies, and demand growth – are likely to play an equally important role during the 21st century. The growth of technology does not appear to be slowing. In agriculture, traditional plant breeding techniques combined with biotechnology offer the potential of not only higher yields, but also more disease and drought resistant plants. Grains, which account for nearly one-half of all crop area, can benefit from further use of hybrid seeds, modified plant types such as super rice, and nutritionally altered crops such vitamin A enhanced rice. Improvements in technology in energy and metals, are continuing. Crude oil production has experienced a surge in productivity as horizontal drilling has allowed greater recovery from shallow pools, and 3D compute seismology has improved the ability to locate and exploit oil reserves. Unmanned sub-sea well completion and floating production systems have reduced development costs of deep-sea drilling and allowed tankers to be loaded directly from platforms. Increased long-distance shipment of natural gas through pipelines has made gas more competitive with oil in heating, power generation, and as a petro-chemical feedstock. In metals production, the expanded use and refinements to leaching solvent extraction techniques have reduced mining costs. Long-wall coal mining has reduced labor requirements in US mines and caused mining costs to drop sharply. Larger and more efficient equipment has reduced mining costs thus making lower quality ore deposit extraction economically feasible.

Recent policy changes have shifted commodity markets toward increased competition and

reduced protection, and this is expected to continue in the 21st century. However, many of these changes have not yet had significant effects. Agricultural protection is being reduced as part of the Uruguay Round Agreement on Agriculture, but the extent of actual liberalization has been small. Future rounds of trade negotiations will address these issues and may result in more substantive liberalization. Regional trading arrangements such as ASEAN, EU, MERCOSUR, and NAFTA are likely to expand, but they have mixed results as new members receive increased protection while current members may see the level of protection erode because of budget considerations. The level of protection may decline in the future, but it is not yet clear that this will substantially affect commodity production, trade or world prices.

The growth of commodity demand has slowed in the past decade and this is expected to continue because of falling population growth rates and declining income elasticities of demand. World population growth is expected to slow from 1.64% per year during the last decade to 1.4% per year during the first decade and 1.2% during the second decade of the twenty-first century. In Asia, where the demand for commodities has grown the most rapidly, population growth will be even slower. This will be partially offset by faster world income growth—3.2% per annum during the 2002-2008 period compared to 2.5% during the 1991-98 period according to the World Bank's *Global Economic Prospects, 2000.* However, income growth in Asia, the most populous region, is projected to slow from the 1991-98 period. Further, since income elasticities of demand for commodities such as food decline as income increases, the overall impact of more rapid income growth on commodity demand will be small.

On balance, we do not see compelling reasons why real commodity prices should rise during the early part of the twenty-first century, while we see reasons why they should continue to decline. Thus, commodity prices are expected decline relative to manufactures as has been the case for the past century. This has important implications for commodity producers and especially developing countries since they are the most dependent upon commodities for export revenues. Developing countries receive roughly one-third of export earnings from primary commodities and lower commodity prices may generate large terms of trade and income losses. This is especially important for Africa which is the most commodity-dependent region, with 80% of export revenues coming from fuel and non-fuel commodities (the corresponding figures for Latin America and Asia are 50% and 25%, respectively). If commodity producers are to reduce the negative effects of terms of trade shocks and income losses from lower commodity prices, they must follow prudent macro economic and trade policies and purse sector policies which make their commodity sectors competitive, including policies which encourage foreign direct investment to gain access to capital and technology. On a positive note, not all countries will be harmed by lower commodity prices, since many are net importers of commodities such as food and petroleum. For these countries, lower commodity prices will reduce their foreign exchange outflows and improve their balance of payments.

Economic Outlook

Long term growth in developing countries outside the transition economies is expected to be below pre-crisis levels.

Developing countries are now recovering from the worst ravages of the financial crisis of 1997/98, with the East Asian economies rebounding from the collapse in output. However, the recovery is both uneven and fragile, and many countries continue to struggle in the aftermath of the crisis. Latin America is still in recession, and several crisis countries remain exposed to a sudden change in sentiment.

The external environment for developing countries is expected to improve further, with growth among the three industrial-country centers expected to be more balanced. This along with favorable policy trends in emerging markets, and increasing confidence among both domestic and foreign investors should help spur growth in developing countries over the next two years. Growth for the developing countries as a group is projected to accelerate to 4.2% in 2000, and 4.5% in 2001. However, growth will vary markedly across regions.

While disruptions to global economic activity, trade, commodity, and financial market caused by the East Asian crisis are likely to have diminished by 2001, two issues that affect growth in developing countries remain. First, the external environment is projected to be somewhat less favorable than in the pre-crisis period and also more fragile. Second, the crisis has accentuated structural weaknesses in developing countries, especially with respect to the financial sector and the government balance sheet.

Principally for these reasons, the long-term forecast for growth in developing countries has been reduced to 4.9% (2002-08). Even with this downward revision, it represents a significant increase from 1991-98 levels for developing countries as a group. However, this growth is fueled mainly by increased growth in the transition economies. Excluding these counties, developing countries' growth rates are projected to reach 5% in 2000-2008, down from 5.3% in 1991-98.

While the most likely global scenario involves an upturn in growth for both industrial and developing countries over the next few year, the underpinnings of growth, especially in the developing countries, remain fragile. Capital flows to emerging markets continue to be scarce and expensive. In such an environment, the prospective unwinding of large imbalances in the industrial countries present the clearest potential risks for these projections. Chief among these risks are the consumption boom (which is being driven by the stock market) and widening external deficit in the United States, and the continuing uncertain outlook for Japan.

WORLD GROWTH, 1981-2008
(annual percentage change in real GDP)

			Est.	Forecasts			
Region	***1981-90***	***1991-98***	***1998***	***1999***	***2000***	***2001***	***2002-08***
World total	**3.1**	**2.5**	**1.9**	**2.6**	**2.9**	**2.8**	**3.2**
High-income countries	3.0	2.3	2.0	2.6	2.5	2.3	2.7
OECD countries	3.0	2.2	2.0	2.6	2.5	2.3	2.6
Non-OECD countries	5.2	5.7	1.2	3.0	4.0	4.6	5.2
Developing countries	3.3	3.2	1.6	2.7	4.2	4.5	4.9
East Asia and the Pacific*	8.1	8.5	0.1	5.5	6.2	6.2	6.3
Europe and Central Asia	2.7	-4.0	-0.2	0.3	2.5	3.3	4.0
Latin America and the Caribbean	1.6	3.6	2.1	-0.6	2.7	3.5	4.2
Middle East and North Africa	0.7	2.9	3.2	2.0	3.2	3.5	3.7
South Asia	5.7	5.8	5.1	5.4	5.5	5.3	5.1
Sub-Saharan Africa	1.8	2.8	2.4	2.3	3.1	3.4	3.6
Memorandum item							
East Asian 5 crisis countries**	6.9	6.0	-7.9	4.4	5.3	5.1	5.3

*Includes the Republic of Korea

**Indonesia, the Republic of Korea, Malaysia, Philippines, and Thailand.

Note: GDP is measured at market prices and expressed in 1987 prices and exchange rates. Growth rates over historic intervals are computed using the least squares method.

Source: Global Economic Prospects, World Bank, December 1999.

Ocean Freight

Freight rates increased sharply because of economic recovery and restocking in Asia. Rates could increase further this year as the world economic recovery consolidates.

Dry bulk freight rates rose sharply in the fourth quarter, mainly for Capesize vessels, due to the recovery in economic activity and trade, Y2K stocking, and higher bunker prices. The Baltic Dry Index rose 28%, with much of the growth occurring in September and October before easing slightly to end the year at 1320 – up 36% from end-June.

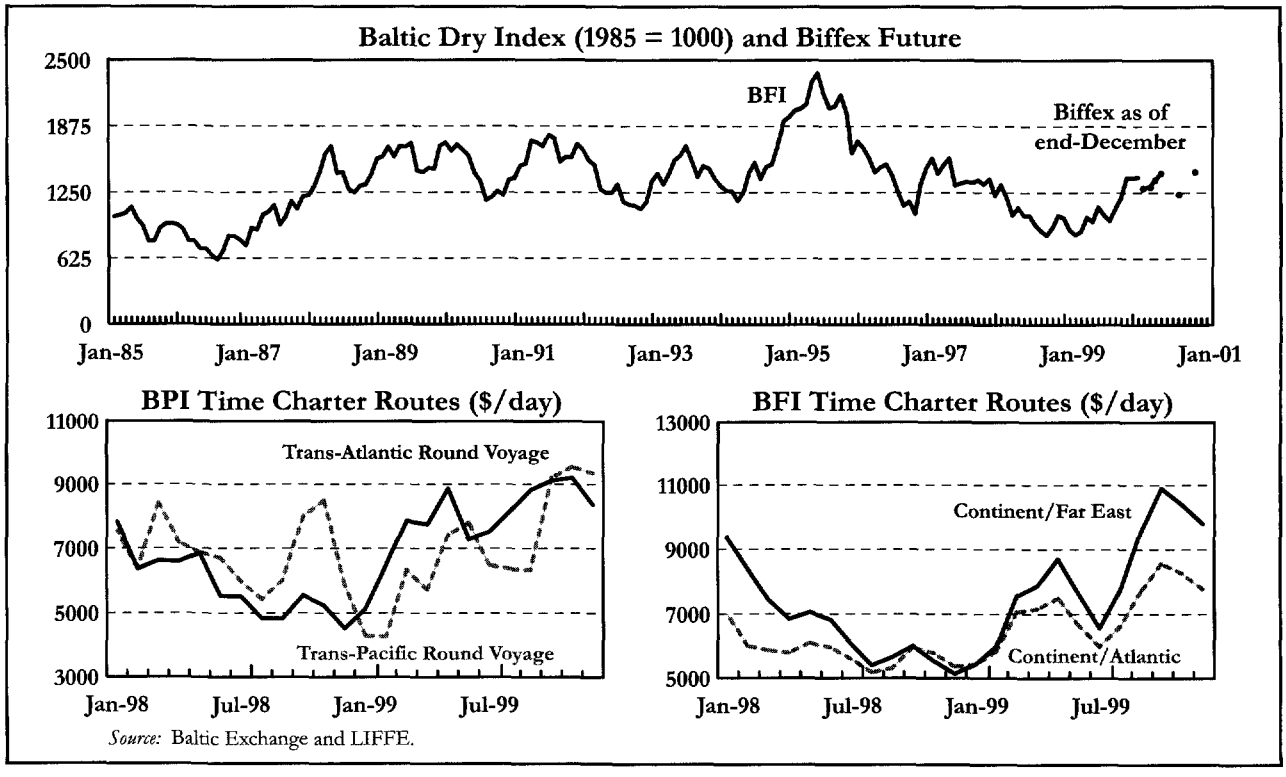
The Baltic Exchange launched the Baltic Dry Index (BDI) on November 1, and continues the established time series of the Baltic Freight Index, shown in previous reports. The BDI is a composite of the Baltic Capesize, Baltic Panamax, and Baltic Handy indices. The Baltic Panamax Index (BPI) is now being used by Liffe as the price settlement for its Biffex futures contracts.

The Baltic Capesize Index (80,00dwt+) soared 60% in the fourth quarter, ending the year 118% higher than at end-June. Time charter rates for Capesize vessels to Europe and the Far East were up 75% in the quarter. The strength was due to increased shipments of raw materials to East Asia, and recovery in the global steel market. Since mid-summer, buyers of iron ore, coking coal and steam coal have substantially increased purchases, partly because stocks were drawn down in the first half of the year.

The Panamax Index (50,000-75,000dwt) rose 21%, but eased in December to end the year only 16% higher than at end-June. Weakness in the grain trade prevented it from keeping pace with the Capesize Index, but rising demand for scrap and metals helped lift rates nonetheless. Trans-Pacific round voyage rates were up 46%. Some Panamax owners are competing for smaller coal cargoes because of poor returns in grain markets.

The Handy Index, of smaller size vessels, increased 12% but slipped back to end the year higher than end-June. Time charter rates for a Trans-Pacific round voyage increased 31%, while the Trans-Atlantic round voyage increased 21%.

Rates are expected to increase in 2000 assuming strong expansion in global economic activity and trade. Rising demand for coking coal, steam coal, iron ore and other raw materials are expected to underpin the rise in rates, although increased demand for grain will also add to upward pressures. Continued recovery in Asian economies will lead to higher coal shipments, fueled by new private power-plants set to commence operations in the second half of the year.



Source: Baltic Exchange and LIFFE.

COMMODITIES

Coal

International prices remain weak but spot prices show signs of turning with the recovery in Asian demand. Nevertheless over-capacity and continued reductions in costs will keep prices low.

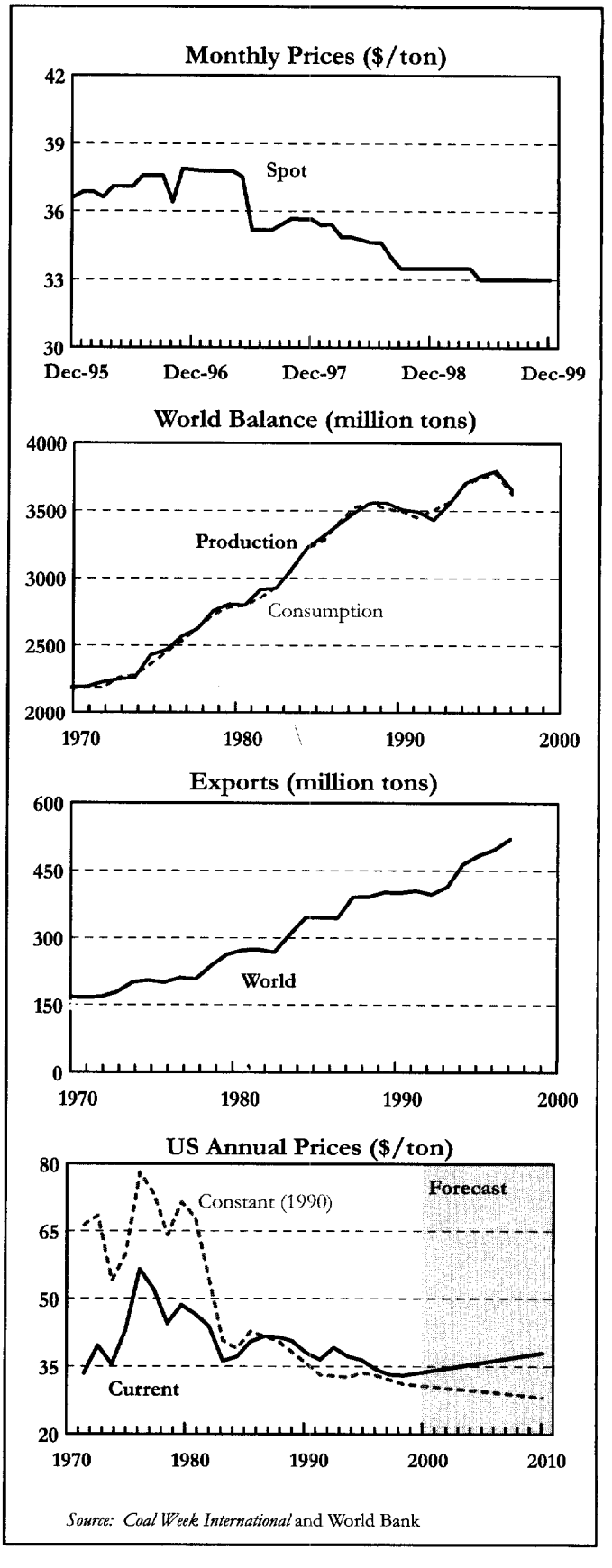
International thermal coal prices slipped in the fourth quarter, despite rising demand, because of ample supply. Contract negotiations are underway between international producers and Japanese consumers for both coking and thermal coal, with producers trying to limit further cuts and arguing for increases amid growing Asian demand. However, spot prices have traded some $8-10/ton below last year's benchmarks, which themselves fell substantially a year ago. Ongoing cost reductions has sustained surplus supply, thus making it difficult for producers to extract higher prices.

Coking coal prices have firmed recently because of the recovery in Asian steel demand. While continued demand growth could augur well for a rollover in prices, over-capacity and large discounts on spot markets will likely lead to a decrease in contract prices.

There are signs that thermal coal prices are bottoming and increasing on spot markets, partly due to the recovery in Asian demand. However, low spot prices and large availability of low-cost supply will likely result in lower contract prices this year.

US prices remain weak because of mild weather and high inventories, compounded by increasing utilization of nuclear power generation. Utilities stocked up in anticipation of potential Y2K problems, and coal demand will stay low in the 1Q00.

Prices are expected to slip further this year as supply outstrips demand, and exports remain flat because of strong competition from foreign producers. Phase II of the Clean Air Act Amendments (1990) begin in 2000 which significantly tightens the annual emissions limits imposed on large, higher emitting plants. Consequently there will be greater reliance on low-sulfur western coal, which will account for virtually all of the growth in US production. Real prices are expected to decline over the long term by 1.5% due to continued improvements in technology, reductions in costs, and increasing imports from low-cost producers of low-sulfur coal.



Source: Coal Week International and World Bank

Other Developments

- The Australian Bureau of Agriculture and Resource Economics reports that China could import more than 50 million tons of coal by 2010 if market liberalizing initiatives continue to be implemented. This is equal to almost 12 percent of current world seaborne hard coal trade or 20 percent of world seaborne steaming coal trade. Although China has introduced major economic reforms in the coal industry, substantial assistance is still provided to key state owned coal mines, including subsidies to loss-making enterprises, tax relief, and financial assistance, as well as benefiting from transport subsidies and a small tariff on coal imports. If these were removed, the price of China's domestic coal would rise and imports to the southern coastal provinces would be more competitive.
- Pittston, once the largest US coal exporter, is getting out of the coal business and concentrating on expanding its other business activities. Its used to sell 5 mt/y to Japanese steel mills under long-term contracts, but with the changing structure of the coking coal industry, it lost market share to both US suppliers and exporters in Australia and Canada. However, its main problem was the scale of its legacy costs. It will establish a tax-deductible trust to make payments on $600 million of coal-related liabilities, with the initial investment in the trust to come from the sale of coal assets. Of the liabilities, $450 million are for retiree medical health benefits, while the remainder is for black lung obligations, workmen's compensation, and reclamation liabilities.

PRODUCTION (million tons)

	1995	1996	1997	1998
China	1360.7	1396.7	1372.8	1235.6
US	858.6	885.2	910.4	936.0
India	273.4	285.6	297.2	303.1
S. Africa, Rep.	206.2	206.4	220.1	222.8
Australia	191.1	193.4	206.8	219.0
Russian Fed.	176.9	166.5	159.2	148.6
Poland	137.2	137.9	137.8	116.9
Ukraine	83.5	74.1	75.5	73.7
Kazakhstan	79.6	73.2	70.2	67.0
Indonesia	41.1	50.2	55.1	59.7
Germany	58.9	53.2	51.2	45.3
UK	54.6	50.2	48.5	41.3
Canada	38.6	40.0	41.3	38.3
Colombia	25.7	30.1	30.7	33.8
Korea, D. R.	26.0	24.1	24.1	24.1
Czech Rep.	17.7	17.5	16.6	16.1
Vietnam	6.6	11.2	13.1	13.1
Spain	13.7	13.7	13.8	12.5
Venezuela	4.6	3.5	5.6	6.8
World	**3705.4**	**3761.8**	**3796.3**	**3655.8**

Source: IEA

EXPORTS (million tons)

	1995	1996	1997	1998
Australia	136.4	138.6	146.4	162.3
US	80.3	82.1	76.0	70.5
S. Africa, Rep.	59.7	60.2	63.4	67.1
China	28.6	36.5	30.7	32.3
Indonesia	31.3	36.4	41.5	46.9
Canada	34.0	34.4	36.5	34.2
Poland	31.9	28.9	29.5	28.1
Russian Fed.	26.3	25.3	21.2	23.5
Colombia	18.3	24.8	26.5	29.6
Kazakhstan	12.9	21.7	n.a.	n.a.
Czech Rep.	7.0	6.7	6.6	n.a.
Venezuela	4.3	3.5	4.2	n.a.
Netherlands	2.9	2.4	3.5	n.a.
Vietnam	1.8	4.4	4.2	3.5
Ukraine	2.4	2.0	n.a.	n.a.
New Zealand	1.3	1.6	1.2	n.a.
Belgium	0.8	1.2	1.5	1.3
UK	0.9	1.0	1.1	0.9
Germany	1.7	1.0	0.5	0.3
World	**464.6**	**483.9**	**496.7**	**519.2**

Source: IEA

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (mil. tons)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Production	2185	2807	3561	3762	3796	3657	2.80	2.54	0.44
Consumption	2175	2783	3516	3744	3777	3630	2.78	2.64	0.38
Exports	167	263	401	484	497	519	4.68	4.75	2.83

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	37.21	36.39	34.38	33.17	33.00	33.50	34.00	35.50	38.00
Constant 1990	32.58	33.58	33.00	32.03	31.09	30.79	30.46	29.70	28.13

Source: IEA and World Bank forecasts.

Natural Gas – US

Gas prices decline due to mild weather and high inventories, but are expected to rise this year because of strong demand for new gas-fired power generation and storage injection this summer.

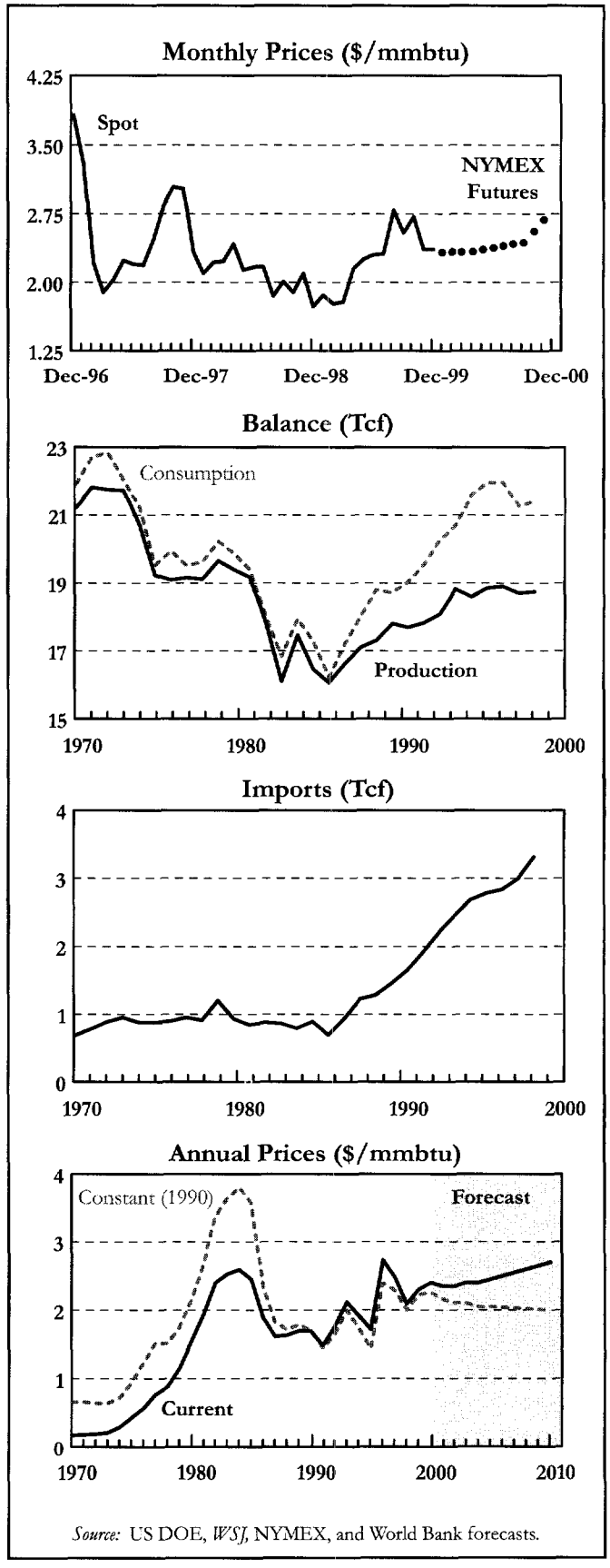
Average natural gas prices fell 2.7% in the fourth quarter amid mild weather and ample inventories, ending the year at $2.30 per million btu (mmbtu)—down from the August high of $2.79/mmbtu. Despite adequate supply for the rest of winter, there is likely to be upward pressure on prices this summer due to strong demand for storage injections and for new gas-fired power generation, as well as lingering weakness in US gas supply. However production is set to recover later this year and along with increasing imports will provide adequate capacity to meet growing power demand for gas into the medium term.

Temperatures were some 10% warmer than normal in December and began this year substantially milder, resulting in a loss of heating demand. Inventories are estimated to have ended 1999 at a relatively high 2,500 billion cubic feet (Bcf), 8.5% below last year's record end-of-year high, but sufficient to carry the rest of the winter without any severe spike to prices.

The fact that inventories are below last year's levels in the face of weak demand reflects the decline in US production caused by low oil and gas prices in 1998 and 1999. However, the upturn in prices has caused a rebound in drilling activity, and production is expected to recover during the year.

Imports from Canada are expected to rise 4% from new pipeline additions, and will be up more than 10% in the fourth quarter. The Alliance pipeline enters service late this year, and total imports will rise a further 5% in 2001. Sable Island gas off the east coast has just come on stream and will be directed to the US through the Maritime and Northeast pipeline until domestic demand and infrastructure have the opportunity to grow.

Gas prices are expected to rise this year due to strong demand pressures this summer, but are projected to ease back next year as domestic supply recovers and imports continue to rise.



Source: US DOE, *WSJ*, NYMEX, and World Bank forecasts.

Natural Gas – Europe

Imported continental prices continue to increase because of contracts indexed to oil prices, but liberalized UK prices remain weak because of mild weather.

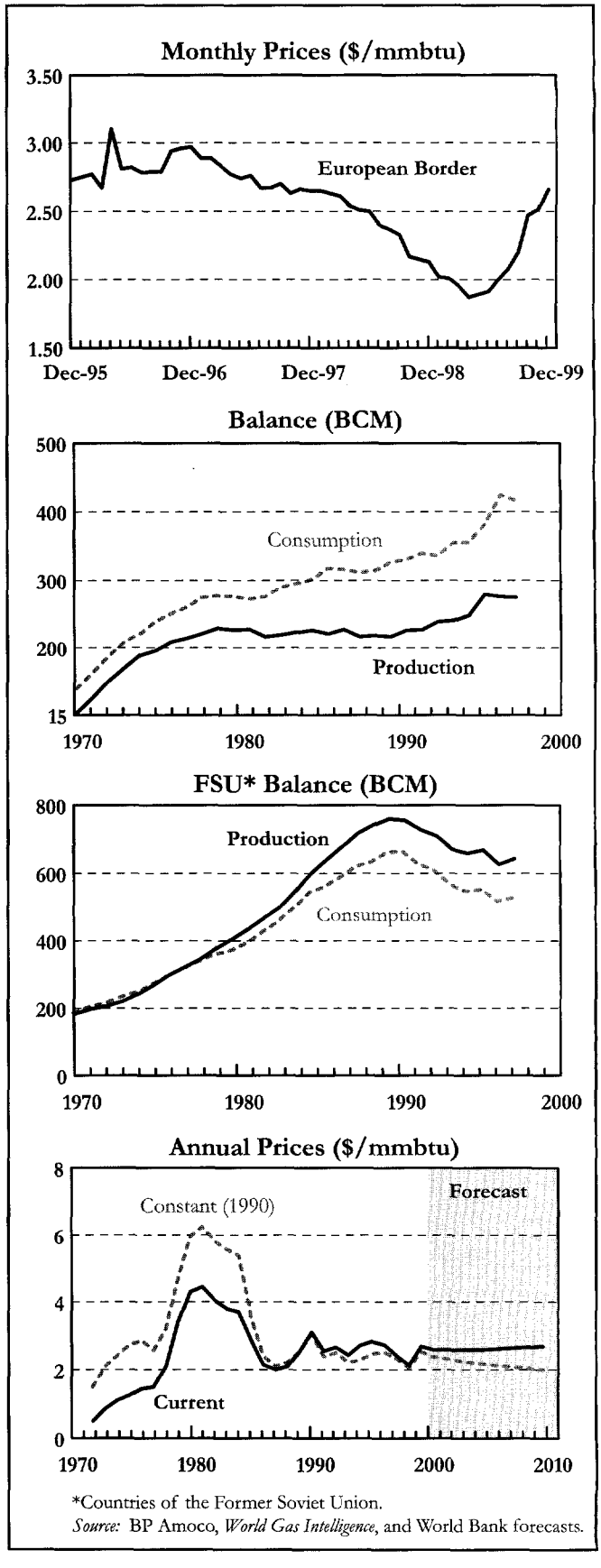
Imported gas into Europe rose 22% mainly due to the large increase in oil prices. Contract prices of imported gas into Europe are linked to petroleum prices, but with a lag, and reached $2.66/mmbtu in December – up 42% from the lows in April. Gas prices are expected to continue increasing in the first part of 2000 because of current high oil prices.

In the liberalized UK market, where gas prices are largely divorced from oil prices, gas prices have generally been weak due to mild weather. A bout of cold weather and supply problems caused prices to spike very briefly in mid-December, but quickly reverted back to around $2/mmbtu (system average price).

The Interconnector pipeline between the UK and the continent began its second year of operation in October. During the first year it flowed at a maximum 50% of its forward flow capacity of 20 billion cubic meters (Bcm). It reversed flow to the UK last winter when continental prices were low (reverse flow capacity is 8.5 Bcm). The main impact of the Interconnector on UK prices so far seems to have been to flatten winter prices, but mild weather and low oil prices have also impacted the market.

On November 2, Europe's first gas international trading hub was launched at the Belgian port of Zeebruge, where gas arrives from the UK and Norway via the Interconnector and Zeepipe, and from Algeria in the form of liquefied natural gas. The new hub will be run by Huberator, the new subsidiary of Belgium's Distrigas.

While annual prices are expected to rise this year because of higher oil prices, longer term prices are expected to be under increasing downward pressure because of the affects of liberalization of Europe's gas and electricity markets, greater supply options, increasing gas-to-gas competition, and eventual uncoupling from oil prices. Much will depend on the pace of liberalization, but markets are expected to open up to competition faster than stipulated under the EU directive.



*Countries of the Former Soviet Union.

Source: BP Amoco, *World Gas Intelligence*, and World Bank forecasts.

Petroleum

Oil prices to remain high until OPEC raises production quotas.

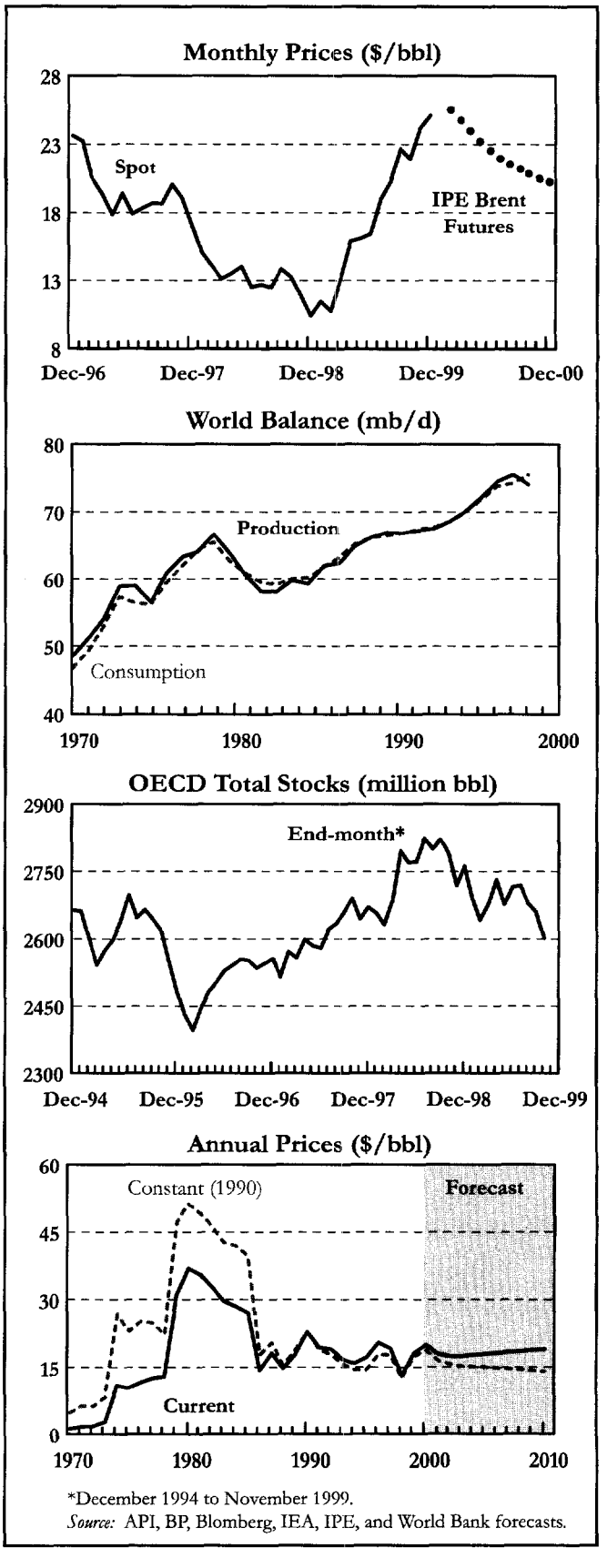
Oil prices rose 15% in the fourth quarter on falling inventories and expectations that OPEC will extend quotas beyond March 2000. Prices reached a high of $26/bbl in December, one-and-a-half times the lows in February 1999. Stocks will continue to decline throughout the winter, and in the absence of higher production prices could soar. At some point OPEC will raise production, and prices are expected to eventually settle back below $20/bbl.

Inventories continued to fall in the fourth quarter, with OECD industry stocks ending 1999 near the levels of end-1996. Both crude and products fell significantly, especially in North America and Europe. There was precautionary movement of products from primary inventory to guard against potential Y2K problems, which might lessen pressure on inventories in January. US data in early January show that crude and product inventories have fallen below historical averages of the last several years. This occurred despite mild weather, although Y2K stocking exacerbated the decline.

OPEC production fell by almost 0.2 mb/d in the fourth quarter mainly because of a reduction in Iraq's oil output. Excluding Iraq, the other 10 OPEC members raised production by 0.4 mb/d, with most of the increase originating in Iran and Nigeria. OPEC was 0.8 mb/d above quota, with Saudi Arabia the largest over-producer including its half share of Neutral Zone production, followed by Iran and Nigeria.

Since the first quarter of 1998, OPEC-10 reduced production by 3.1 mb/d or 11.5%, but this was partly offset by an increase in Iraq's production of 0.7 mb/d. OPEC 10's production has been edging higher, and in December compliance to its cumulative target reductions slipped below 80%.

Iraq's production was halted for three weeks at the end of its sixth $5.3 billion 180-day oil-for-aid program in November, due to disputes with the UN concerning rollover of the program and debate on a comprehensive resolution on Iraq. (In October, the Security Council had raised the revenue ceiling to $8 billion to account for revenue shortfalls under previous programs.)



*December 1994 to November 1999.

Source: API, BP, Blomberg, IEA, IPE, and World Bank forecasts.

Petroleum (continued)

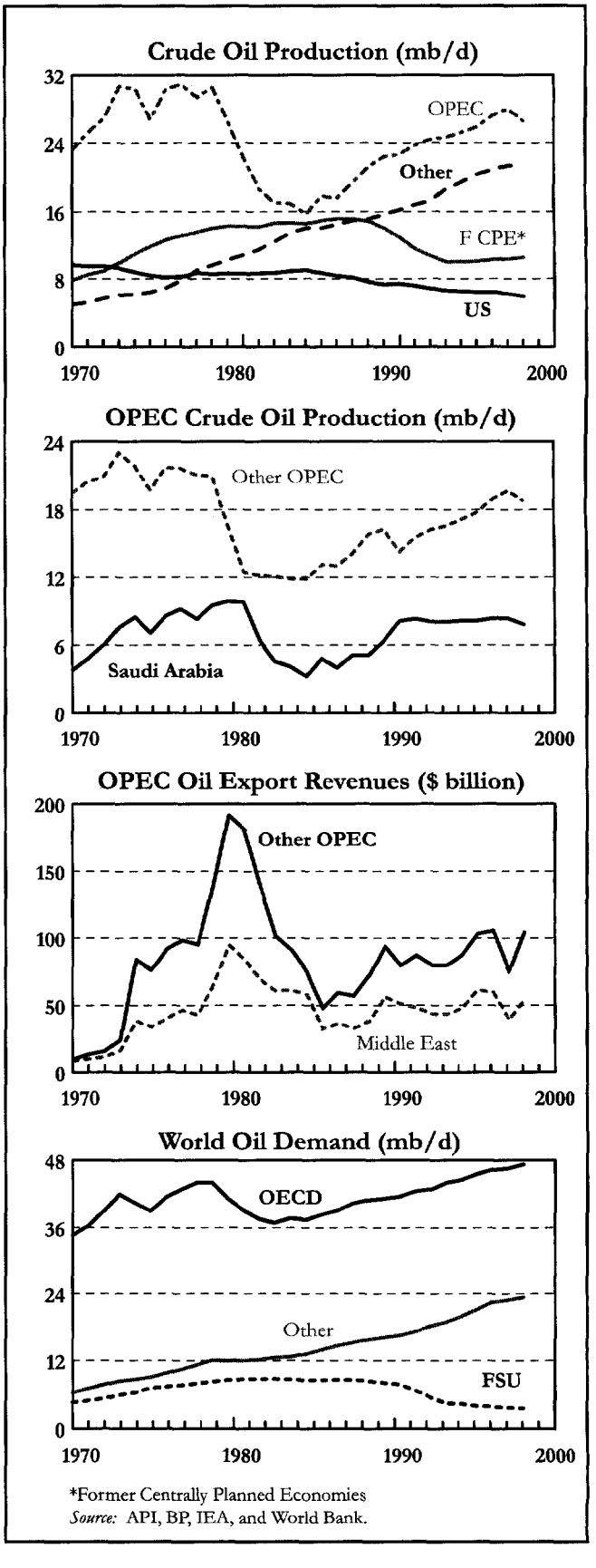
In early December the UN agreed to a 7th phase, but on December 17 the Security Council significantly liberalized trade sanctions on Iraq by approving a resolution authorizing resumption of weapons inspections and removing the ceiling on Iraq's exports – although the Council maintains control of the country's oil revenue. Iraq rejected the resolution and vowed to keep exporting oil under terms of the oil-for-aid program. Iraq's exports resumed in mid-December but weekly volumes have been quite varied. Without a ceiling on exports, Iraq's production potentially could exceed 3 mb/d by mid-year, but would require significant investment and technical expertise to raise output substantially above that level.

Non-OPEC supplies rose 0.9 mb/d in the fourth quarter, with most of the increase occurring in the OECD. North Sea production increased by 0.5 mb/d due to a rebound from maintenance and start-up of new fields – Norway's output up 0.3 mb/d. There was also higher output in other parts of Europe, the US, Canada, and Australia. Non-OECD production rose modestly, with a relatively large gain in Africa.

World oil demand rose an estimated 2.6% or 1.9 mb/d in the fourth quarter, with nearly half of the growth occurring in the US, Japan and the Republic of Korea. Non-OECD demand increased by 3.5% or almost 1 mb/d, with relatively strong growth in Asia, the FSU, and the Middle East. For 1999, world oil demand was up 1.7% or 1.3 mb/d, with all of Asia (including OECD Pacific) up 0.8 mb/d or 4%.

As 2000 begins with oil prices in the mid-$20s and physical markets tightening, the most important developments for the oil market will be OPEC's production decisions. In the absence of higher production, stocks will continue to fall and prices will rise.

OPEC's objectives of reducing inventories and raising prices have been met, but the organization is reluctant to raise output too quickly and cause a sharp decline in prices. They are also reluctant to suggest when they will increase output, given the large role that expectations has on futures prices. When prices recently weakened, OPEC was quick to state that quotas should be extended beyond March. The immediate effect of these statements is to drive up prompt prices, and thus it may actually hasten the



*Former Centrally Planned Economies
Source: API, BP, IEA, and World Bank.

Petroleum (continued)

time when the organization raises production.

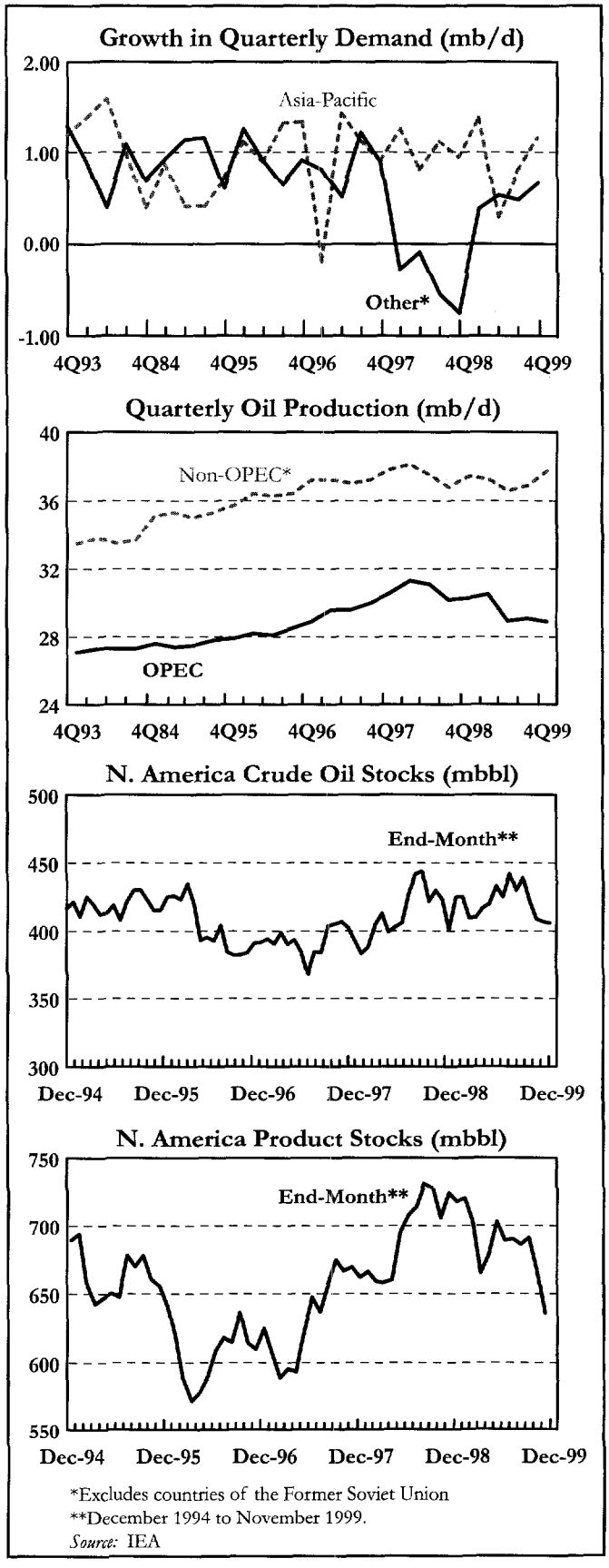
In the first quarter world oil demand is expected to exceed supply by around 2.5 mb/d, assuming OPEC's production remains essentially unchanged. Both oil demand and non-OPEC supplies are expected to be higher by around 1 mb/d year-on-year, but as OPEC supplies have fallen, the supply deficit is expected to be larger than last year's 1.2 mb/d (see table). Stocks could fall to very low levels at winter's end.

Some OPEC members contend that if prices do not rise significantly during the first quarter, why raise production at winter's end when demand is weak? However, demand is likely to be very strong in the second quarter as refiners replenish depleted stocks and prepare for the summer driving season. Thus, the combination of high prices, low stocks and strong demand is expected to bring forth higher OPEC production.

For the full year, world oil demand is estimated to increase by 1.8 mb/d or about 2.5%, according to the IEA, assuming acceleration of global economic growth. All of Asia, including the OECD Pacific, is expected to grow by nearly 0.8 mb/d or 3.8%. Non-OPEC supplies are projected to increase by 0.8 mb/d, with an increase of 0.6 mb/d expected in the OECD – mainly in Norway, Australia, and Canada.

Should OPEC raise production by 2 mb/d beginning in the second quarter, it implies a stock draw of nearly 1 mb/d for 2000 according to IEA projections. This may suggest that prices will remain high, but it is likely that such an increase would push prices back under $20/bbl. The market could, in fact, be well balanced. High prices will likely dampen demand for OPEC oil, because of the negative impact on consumption and the very positive affect on supply.

The challenge for OPEC is to raise production in a coordinated manner. At some point it will also have to accommodate Iraq back into the quota system. Prices are expected to remain volatile, in part because OPEC sets production for relatively lengthy periods – six months or more. It may be possible that OPEC is contemplating higher prices because of the apparent limited impact on economic activity – although it would not be trivial. However, OPEC's major long-term problem of pursuing a higher price path is the impact it would have on competing supplies.



*Excludes countries of the Former Soviet Union
**December 1994 to November 1999.
Source: IEA

OPEC CRUDE OIL PRODUCTION QUOTAS (mb/d)

	1Q98	1Q99	3Q99	4Q99	4Q99 - Quota	Pledged Cutbacks
Algeria	0.87	0.82	0.74	0.74	0.01	0.137
Indonesia	1.31	1.29	1.26	1.23	0.04	0.193
Iran, Islamic R.	3.58	3.81	3.26	3.49	0.13	0.569
Iraq	1.58	2.48	2.81	2.28		
Kuwait*	1.94	1.72	1.56	1.53	-0.31	0.369
Libya	1.46	1.36	1.36	1.39	0.16	0.226
Neutral Zone	0.52	0.57	0.58	0.60	0.60	
Nigeria	2.26	2.01	1.90	1.98	0.10	0.373
Qatar	0.71	0.67	0.62	0.63	0.04	0.107
Saudi Arabia*	8.43	7.87	7.42	7.45	0.01	1.310
UAE	2.45	2.18	2.03	2.03	0.03	0.382
Venezuela	3.36	2.93	2.73	2.74	0.02	0.650
Total Crude	28.47	27.71	26.23	26.07	0.81	4.316
Excluding Iraq	26.89	25.23	23.42	23.79	0.81	4.316
NGLs	2.82	2.82	2.85	2.84		
Total OPEC	**31.29**	**30.53**	**29.08**	**28.91**		

*Quota includes share of Neutral Zone production.
Source: IEA and OPECNA.

NON-OPEC OIL SUPPLY (mb/d)

	1998	1999	3Q99	4Q99	Change 3Q99-4Q99
US	8.37	7.99	7.93	8.04	0.11
Mexico	3.50	3.35	3.30	3.26	-0.04
Canada	2.67	2.55	2.57	2.62	0.05
UK	2.84	2.94	2.89	3.06	0.17
Norway	3.14	3.13	3.06	3.36	0.30
Other OECD	1.36	1.36	1.39	1.47	0.08
Africa	2.73	2.78	2.81	2.89	0.08
China	3.19	3.19	3.18	3.18	0.00
Other Asia	2.19	2.24	2.23	2.23	0.00
FSU	7.30	7.49	7.55	7.59	0.04
E. Europe	0.20	0.19	0.19	0.19	0.00
L.America	3.70	3.84	3.82	3.85	0.03
Middle East	1.89	1.87	1.88	1.88	0.00
Processing gain	1.64	1.67	1.65	1.69	0.04
Total non-OPEC	**44.71**	**44.59**	**44.43**	**45.30**	**0.87**

Note: Includes natural gas liquids (NGLs), unconventional, and other supply sources.
Source: IEA

WORLD PETROLEUM DEMAND AND SUPPLY (millions of barrels per day)

Demand	1996	1997	1998	1Q99	2Q99	3Q99	4Q99	1999	1Q00	2Q00	3Q00	4Q00	2000
OECD	**45.9**	**46.7**	**46.9**	48.8	45.7	46.9	49.1	**47.6**	48.9	46.9	48.3	50.0	**48.5**
FSU	**4.3**	**4.3**	**4.1**	4.2	3.6	4.0	4.1	**3.9**	4.2	3.9	3.9	4.1	**4.0**
Other	**21.6**	**22.7**	**23.2**	23.5	24.1	23.9	24.1	**24.0**	24.5	25.0	24.5	25.1	**24.8**
Total	**71.8**	**73.7**	**74.2**	76.5	73.4	74.8	77.3	**75.5**	77.6	75.8	76.7	79.2	**77.3**
Supply													
OECD	**21.7**	**22.1**	**21.9**	21.5	20.9	21.1	21.8	**21.3**	22.0	21.7	21.6	22.3	**21.9**
FSU	**7.1**	**7.2**	**7.3**	7.4	7.4	7.5	7.6	**7.5**	7.6	7.6	7.6	7.6	**7.6**
Other*	**14.9**	**15.2**	**15.5**	15.7	15.7	15.8	15.9	**15.8**	16.0	15.9	16.0	16.0	**15.9**
OPEC**	**28.4**	**29.9**	**30.8**	30.7	29.1	29.1	28.9	**29.4**	29.5	31.5	31.5	31.5	**31.0**
Total	**72.1**	**74.4**	**75.5**	75.3	73.1	73.5	74.2	**74.0**	75.1	76.7	76.7	77.4	**76.4**
Stock change													
OECD	**0.0**	**0.3**	**0.3**	-0.7	0.4	-0.3							
Other/misc.***	**0.2**	**0.5**	**1.0**	-0.5	-0.7	-1.0							
Total	**0.3**	**0.8**	**1.3**	-1.2	-0.3	-1.3	-3.1	**-1.5**	-2.5	0.9	0.0	-1.8	**-0.9**

*Includes processing gains (1.6 mb/d in 1998 and 1.7 mb/d in 1999). **Includes NGLs (2.8 mb/d in 1998 and 2.9 mb/d in 1999).
***Includes floating storage, oil in transit, and miscellaneous to balance.
Note: Includes natural gas liquids (NGLs), nonconventional, and other supply sources.
Source: IEA data and estimates, and World Bank forecasts.

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (000 tons)	1970	1980	1990	1997	1998	1999	1970-80	1980-90	1990-99
Production	48.5	63.9	66.9	74.4	75.5	74.0	1.82	0.18	1.96
Consumption	46.7	62.7	66.4	73.7	74.2	75.5	2.25	0.20	1.88
Stock Change & Misc.	1.8	1.2	0.5	0.8	1.3	-1.5			

	Actual				Forecast				
Price ($/bbl)	1996	1997	1998	1999	2000	2001	2002	2005	2010
Current	20.42	19.17	13.07	18.07	20.00	18.00	17.50	18.00	19.00
Constant 1990	17.88	17.69	12.54	17.45	18.84	16.54	15.68	15.06	14.06

Source: BP and IEA, and World Bank forecasts.

Cocoa

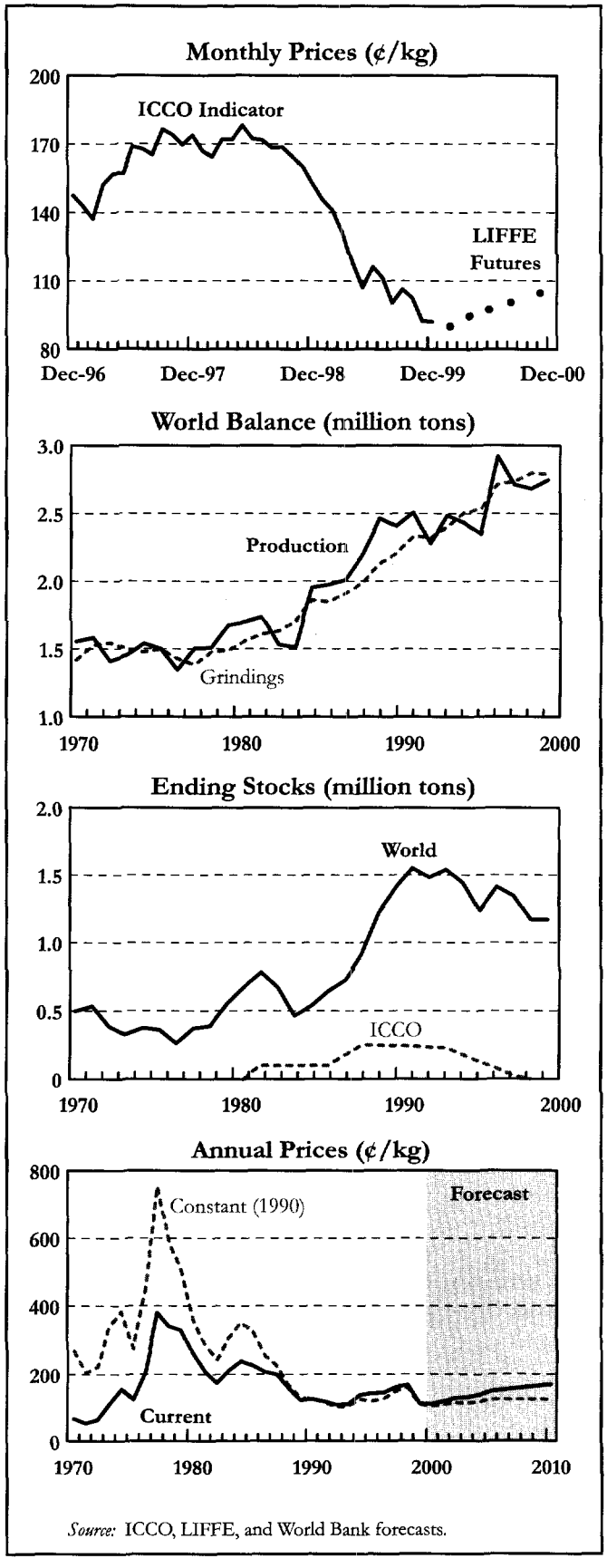
The cocoa market is still depressed with prices reaching a low of 91.9¢/kg in December, the lowest since 1972. The bearish sentiment is expected to persist for the rest of the current crop year.

Cocoa prices continued to fall throughout last quarter, with the ICCO daily price indicator reaching a 27-year low of 91.9¢/kg in December. The quarter average bottomed at 95.4¢/kg, 9.8% lower than third quarter and 40.0% lower than a year ago. The New York and London nearby contracts experienced 26- and 20-year record lows, respectively in December. The 1999 average was 113.5¢/kg, down from 167.6¢/kg in 1998.

While estimates regarding the 1999/00 season (October to September) still vary, a bumper crop appears to be a reality, with some analysts believing that it may even exceed three million tons. *LMC International*'s latest cocoa bulletin puts the 1999/00 crop at 3.02 million tons, a staggering 8.7% increase over last season's crop. With the exception of Brazil, all major producing countries are expected to increase their output. The top African producers, Côte d'Ivoire, Ghana, Nigeria, and Cameroon, are expected to increase output by 8.1%, 14.3%, 5.9% and 8.3%, respectively. Indonesia and Malaysia, the top Asian producers are also expected to increase output by 8.3% and 6.3%, respectively.

Demand for cocoa beans in Eastern Europe and the Former USSR is expected to increase 10% this season following the more than 35% decline last season. Western Europe and the US, the largest cocoa markets, are expected to register modest growth, not exceeding 2% implying that world grindings are expected to grow by no more than 2.5% to 3.0%.

Given a surplus of about 200,000 tons of cocoa beans this season, the intense pressure on cocoa prices is expected to continue for the next few months. We forecast prices for 2000 to be close to the 1999 average, i.e., about 112¢/kg; this forecast implies low prices throughout the first few months of 2000 and a modest recovery towards the beginning of the next season. Prices are expected to pick up in the year 2001 when some production cutbacks along with recovery in demand should be realized.



Source: ICCO, LIFFE, and World Bank forecasts.

Other Developments

- The recent political changes in Côte d'Ivoire introduced some nervousness in the cocoa market as many cocoa traders initially anticipated disruption of cocoa bean supply; as soon as the situation stabilized the fears evaporated. However, the depressed cocoa prices have taken a large toll in Côte d'Ivoire, especially at the time when the sector was liberalized and producers and exporters were fully exposed to the realities of market forces. The government of Côte d'Ivoire intends to assist in a private risk management mechanism, but the details are still unknown.
- The EU Internal Market Ministers agreed to allow the use of non-cocoa vegetable fats in chocolate manufacturing, according to USDA. The agreement which is expected to be ratified within a year, will settle the 25-year dispute. The origins of the dispute go back to when the UK, Ireland, and Denmark joined the EU in 1973, and received exemption from the regulation which limited chocolate producers to use only cocoa butter.

PRODUCTION AND GRINDINGS

	1995/96	*1996/97*	*1997/98*	*1998/99*
Gross Production (000 tons)				
Côte d'Ivoire	1,200	1,108	1,113	1,150
Ghana	404	323	409	370
Indonesia	285	325	331	365
Nigeria	158	160	165	185
Brazil	231	185	170	130
Cameroon	135	126	115	125
Malaysia	115	100	65	85
Ecuador	103	103	35	70
Dominican R.	55	52	58	48
Colombia	50	50	45	46
Mexico	42	45	35	30
PNG	36	29	29	30
World	**2,916**	**2,713**	**2,683**	**2,747**
Grindings (000 tons)				
Netherlands	385	402	425	435
US	342	394	399	395
Côte d'Ivoire	140	160	205	225
Germany	266	240	226	205
Brazil	205	180	188	195
UK	191	172	174	165
France	113	106	103	107
Malaysia	95	95	100	100
World	**2,713**	**2,736**	**2,795**	**2,790**

Source: ICCO

TRADE

	1995/96	*1996/97*	*1997/98*	*1998/99*
Exports (000 tons)				
Côte d'Ivoire	1,038	929	964	977
Ghana	331	267	326	308
Indonesia	224	264	148	212
Nigeria	147	137	143	142
Cameroon	93	95	84	91
Dominican R.	50	41	54	48
PNG	35	28	29	30
World	**2,116**	**1,932**	**1,941**	**1,990**
Imports (000 tons)				
US	445	353	427	408
Netherlands	405	464	320	396
Germany	299	327	309	312
UK	248	176	193	206
France	117	111	108	112
Singapore	88	86	89	88
Russian Fed.	75	85	75	78
Italy	71	71	72	71
Bel-Lux	45	54	82	60
Spain	50	49	66	55
Estonia	5	65	78	49
Japan	49	54	43	49
Canada	39	34	53	42
World	**2,229**	**2,219**	**2,218**	**2,222**

Source: ICCO and World Bank.

GLOBAL SUMMARY

	Actual						*Annual Growth Rate (%)*		
World Balance (000 tons)	*1970/71*	*1980/81*	*1990/91*	*1996/97*	*1997/98*	*1998/99*	*1970-80*	*1980-90*	*1990-98*
Gross Production	1,554	1,695	2,506	2,713	2,683	2,747	0.44	4.69	1.43
Grindings	1,418	1,556	2,335	2,736	2,795	2,790	0.19	4.39	2.72
Exports	1,186	1,126	1,733	1,932	1,941	1,990	-0.52	4.31	1.11
Ending Stocks	497	675	1,791	1,399	1,225	1,150	2.32	14.10	-4.84

	Actual				*Forecast*				
Price (¢/kg)	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2005*	*2010*
Current	145.6	161.9	167.6	113.5	112.0	120.0	130.0	150.0	170.0
Constant 1990	127.7	149.4	160.9	109.6	105.5	110.3	116.5	125.5	125.8

Note: Quantities refer to cocoa beans. Crop year begins October 1.
Source: ICCO and World Bank.

Coffee

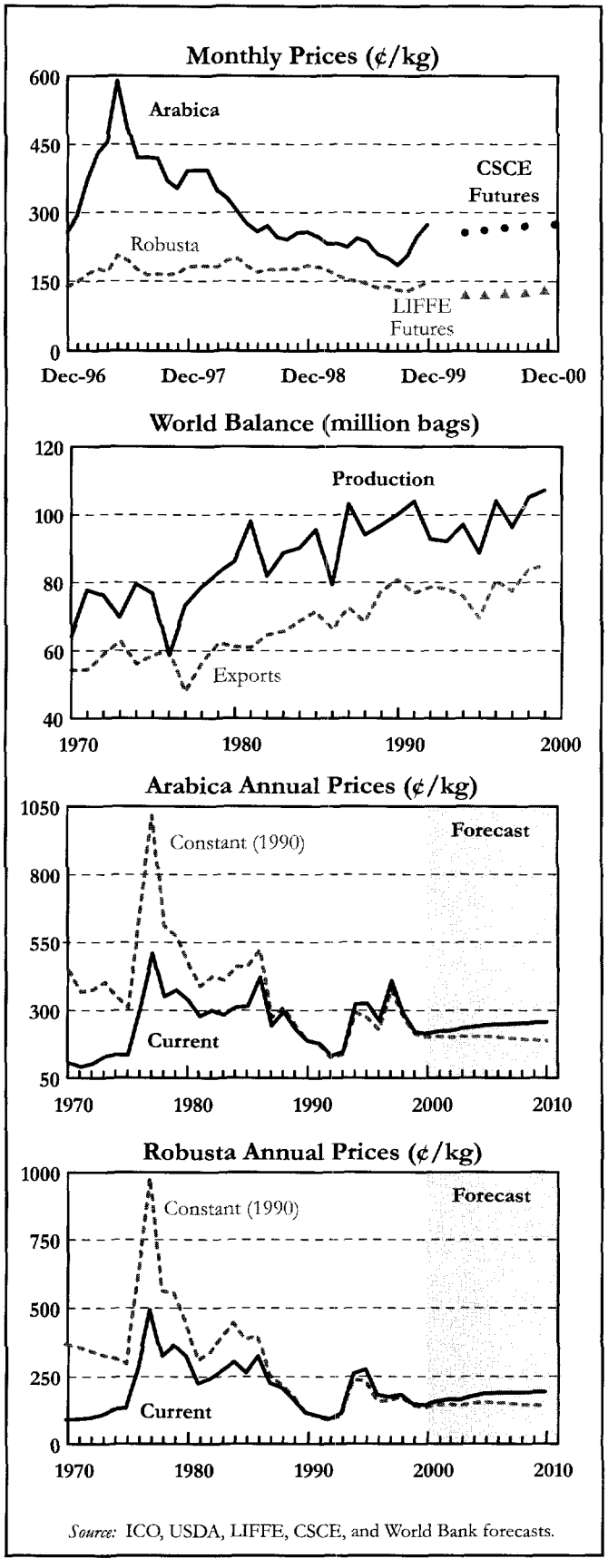
Following a highly volatile quarter, both arabica and robusta prices gained some ground on fears of extensive damage to Brazil's crop by the recent drought. Because such fears have diminished, prices are expected to weaken.

The arabica price indicator reached 274.4¢/kg in December, bringing last quarter's average up to 244.0¢/kg, 22.7% higher than the third quarter but 3.3% lower than a year ago. Robusta prices reached 147.3¢/kg in December, with an average of 138.4¢/kg during the last quarter, 2.3% higher than the third quarter but 23.0% lower than a year ago.

In its latest *Tropical Products: World Markets and Trade* (December 1999), USDA reports that global coffee production may be at a record high of 107.2 million bags, a 2% increase over last season's crop. In the same report, USDA estimated Brazil's output for this season at about 26.5 million bags (down 23% from last year). This estimate is much lower than the Brazilian government's estimate of 28.9 million bags, although more recent independent forecasts point more towards the USDA figure. All other major coffee producers are expected to experience substantial gains: Côte d'Ivoire (93%), Guatemala (44%), India (23%), Mexico (18%), Uganda (11%), and Vietnam (21%).

Ending stocks in producing countries are expected to decline by almost 15% (from 23.5 million bags in 1998/99 to 20.04 million bags in 1999/00). Most of the decline took place in Brazil, where many coffee exporters fearing a worsening of the economic situation after the real's devaluation last year, converted coffee stocks to dollars. Expectedly, stocks moved to consuming countries. For example, stocks in the US increased from 1.68 million bags last season to 2.70 million bags this season.

Despite differing opinions on the size of Brazil's crop, even under the most pessimistic scenario, global coffee production will exceed total demand this season, implying that price recovery is unlikely. We therefore expect arabica prices to average between 220¢/kg and 225¢/kg in 2000, slightly below the 1999 average. A small decline is also expected for robusta prices.



Source: ICO, USDA, LIFFE, CSCE, and World Bank forecasts.

Other Developments

- Brazil doubled its fund for coffee retention during the 2000/01 season according to *The Public Ledger*. Last year, Brazil's Coffee Policy Council earmarked close to $110 million for coffee retention.
- The government of Costa Rica announced that it will remove an ad valorem tax on coffee and bananas, which is expected to reduce the government's revenue by $16 million.
- The mood in the coffee market has gone through considerable swings in the last few months mainly reflecting weather conditions in Brazil: the season started bullish when the reports of frost in Brazil first appeared during July/August 1999. It then turned bearish in September when frost was out of the question. It turned bullish again in October/November due to fears that the drought may have cased damage.

PRODUCTION (000 bags)

	1996/97	1997/98	1998/99	1999/00
Brazil^	27,663	22,756	34,547	26,500
Colombia	10,876	12,211	11,500	12,000
Vietnam*	5,705	6,893	6,200	7,500
Indonesia*^	8,296	7,756	7,589	7,200
Côte d'Ivoire*	4,528	3,682	2,742	5,300
Mexico	5,324	5,116	4,400	5,200
Guatemala	4,524	4,218	3,400	4,900
India	3,469	4,718	3,833	4,700
Uganda*	4,297	3,032	3,600	4,000
Ethiopia	3,270	2,916	3,867	3,500
Honduras	2,004	2,564	2,300	2,776
Costa Rica	2,126	2,489	2,376	2,550
El Salvador	2,534	2,157	1,840	2,221
Peru^	1,802	1,916	2,066	2,150
Ecuador^	1,993	1,191	1,260	1,800
Thailand*	1,403	1,293	993	1,370
Kenya	1,246	882	1,133	1,330
Cameroon*	1,432	889	1,333	1,300
Venezuela	1,200	975	1,400	1,250
PNG^	1,089	1,076	1,340	1,250
Nicaragua	793	1,086	1,044	1,100
World	**102,411**	**96,438**	**105,140**	**107,215**

Source: ICO and USDA.

STOCKS AND CONSUMPTION

	1996/97	1997/98	1998/99	1999/00
Ending Stocks (000 bags)				
Brazil	14,128	11,278	12,075	7,362
US	1,611	2,294	1,680	2,713
Colombia	4,420	3,929	2,669	2,447
Germany	2,200	2,400	1,800	2,133
Côte d'Ivoire	2,915	1,885	1,693	1,517
Italy	1,327	1,257	1,133	1,239
Costa Rica	1,212	1,212	1,052	1,122
Ethiopia	660	360	1,077	1,102
Japan	1,083	1,067	1,067	1,072
World	**37,957**	**35,938**	**35,921**	**43,500**
Consumption (000 bags)				
US	17,847	18,194	18,290	18,110
Brazil	10,880	10,880	12,500	12,800
Germany	9,709	9,038	9,300	9,349
Japan	6,369	5,900	5,710	5,993
France	5,623	5,317	5,300	5,413
Italy	4,857	4,843	4,700	4,800
Spain	3,029	2,968	2,999	2,999
Canada	2,960	2,920	2,291	2,724
UK	2,296	2,565	2,419	2,427
World	**99,500**	**99,400**	**98,000**	**98,967**

Source: ICO, USDA, and World Bank.

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (000 bags)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	64,161	86,174	88,749	96,438	105,140	107,215	2.03	1.62	0.17
Consumption	71,536	79,100	96,300	99,400	98,000	98,967	1.01	1.97	0.22
Exports	54,186	60,995	76,163	77,538	83,891	84,979	0.71	2.63	0.17
Ending Stocks	53,661	42,471	54,992	35,938	35,921	43,500	-2.34	2.58	-1.88

	Actual				Forecast				
Arabica Prices (¢/kg)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	269.4	416.8	298.1	229.1	222.7	231.5	234.8	254.0	265.0
Constant 1990	236.4	384.6	286.1	221.2	209.8	212.8	210.3	212.5	196.2
Robusta Prices (¢/kg)									
Current	180.6	173.6	182.3	148.9	145.5	158.7	165.4	186.1	192.0
Constant 1990	158.4	160.2	174.9	143.8	137.1	145.9	148.1	155.7	142.1

*Entirely or predominantly robusta producer. ^Crop year begins April 1 (Otherwise October 1). One bag equals 60 kg.
Source: ICO, USDA, and World Bank.

Tea

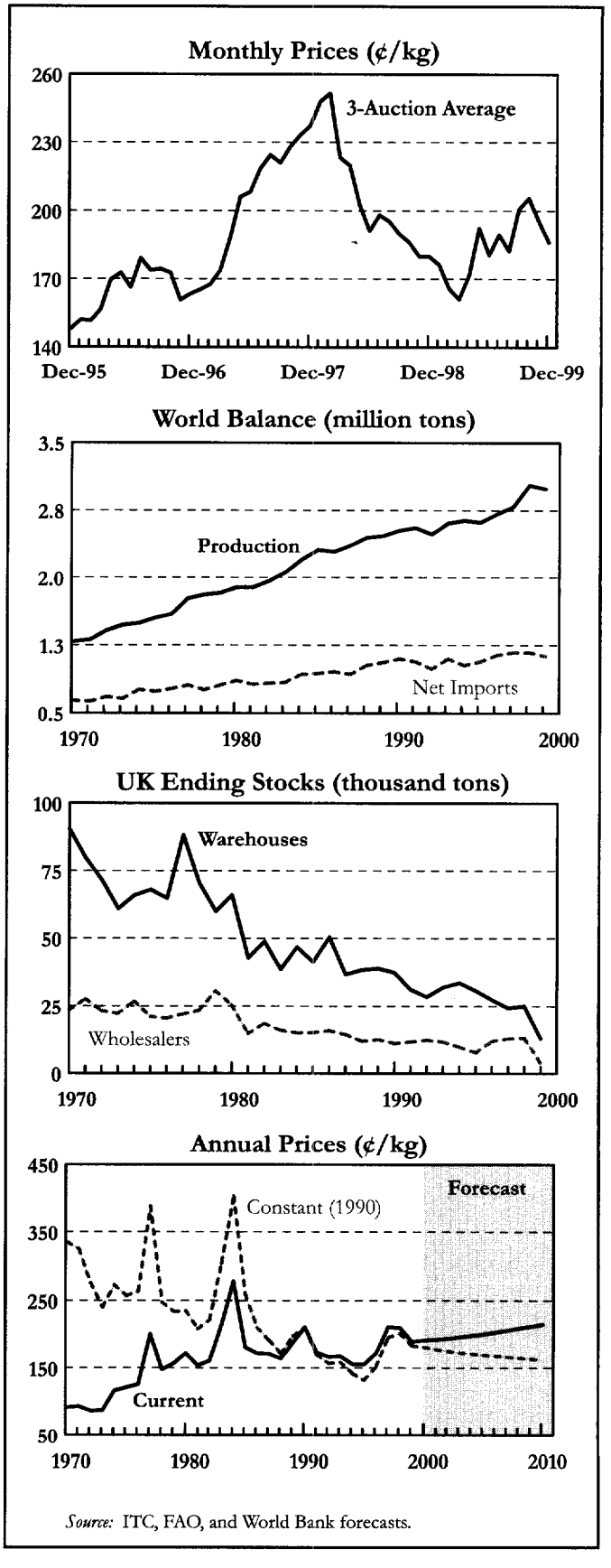
Following a brief recovery in October, all three auction prices declined in November and December. The fourth quarter's average price was 2.5% higher than the third quarter.

Tea prices in the fourth quarter of 1999 averaged 195.7¢/kg, 2.5% higher than third quarter's average and 7.3% higher than a year ago. The 1999 3-auction average, however, stood at 183.9¢/kg, more than 10% lower than the 1998 average, mainly a response to weak demand by Russian, Eastern European, and Central Asian importers.

Preliminary estimates indicate that global tea production in 1999 declined by 4% (from 2.86 to 2.74 million tons). Most of the decline came form India (-8.1%) and Kenya (-16.0%). The downturn in production is primarily attributed to severe weather conditions in the early part of the year in Kenya and Northern India. Sizeable declines in production also took place in Bangladesh (from 56 to 45 thousand tons) and Malawi (from 40 to 35 thousand tons).

World exports dropped by 7.7% in 1999 with all major exporting countries experiencing sharp declines: China (-9.0%), India (-14.4%), and Kenya (-12.5%). Taking into account the lower tea prices at major auctions during most of 1999, total revenues by major exporting countries may have declined even further. For example, Indian export values for the year (up to November) dropped 21% to 16.5 million rupees (approximately $380 million) compared to the same period in 1998, according to the *Indian Tea Association.* On the import side, the Russian Federation appears to have registered a noticeable pick up, from 135,000 tons in 1998 to 141,000 tons in 1999. Pakistan, however, reduced its imports by about 10,000 tons while the UK's imports remained at their 1998 levels.

Two factors are expected to shape the medium term outlook for tea. First, unless the weather pattern of early 1999 repeats itself, we expect a recovery in production and hence in exports. On the other hand, we also expect a recovery in both domestic use and import demand. Putting these two factors together, we expect the three tea auctions for the year 2000 to average close to the 1999 level, about 186¢/kg, a level which we also expect to persist throughout the year 2001.



Source: ITC, FAO, and World Bank forecasts.

Other Developments

- Egypt has temporarily fixed a trade dispute with Kenya following retaliatory measures to protest against higher taxation on rice imported from Egypt.
- Kenya's government has postponed the privatization of the Kenya Tea Development Authority by six months (now expected to take place in July). Reasons for the delay were to allow for preparation by all stakeholders and especially the smallholder sector.
- Indian tea factories in the small-scale sector have been exempt from the 2 Rs/kg excise duty, effective December 10, 1999. Following this action, the corporate sector is also seeking a similar exemption from the levy.
- Following last year's financial crisis in Russia, CTC tea gained in market share against the orthodox variety, tea bags, flavored tea, and green teas, because of lower costs.

PRODUCTION AND AUCTION VOLUMES

	1996	1997	1998	1999
Production (000 tons)				
India	780	811	870	800
China	617	638	648	650
Sri Lanka	259	277	281	283
Kenya	257	221	294	247
Turkey	115	140	185	190
Indonesia	166	154	166	165
Japan	89	91	82	85
Iran, Islam. R.	62	69	60	65
Argentina	43	55	55	58
Vietnam	47	52	51	55
Bangladesh	53	54	56	45
Malawi	38	44	40	35
Tanzania	19	23	24	23
Uganda	17	21	26	22
Taiwan, China	23	24	23	22
Zimbabwe	17	17	18	18
World	**2,665**	**2,761**	**2,863**	**2,743**
Major Auction Volumes (000 tons)				
Colombo	230	255	229	262
Mombasa	190	167	207	215
Calcutta	85	87	79	87
Chittagong	46	43	43	40
Jakarta	13	30	35	24
All Auctions	**941**	**969**	**987**	**1,014**

Source: FAO, ITC, and World Bank.

TRADE

	1996	1997	1998	1999
Exports (000 tons)				
Sri Lanka	234	258	265	257
Kenya	244	198	263	230
China	173	205	220	200
India	160	203	206	176
Indonesia	102	67	70	80
Argentina	41	56	59	59
Malawi	37	49	41	35
Uganda	15	18	23	21
Bangladesh	26	25	22	20
Tanzania	18	19	22	20
World	**1,112**	**1,180**	**1,255**	**1,158**
Net Imports (000 tons)				
UK	148	151	147	145
Russian Fed.	111	148	135	141
Pakistan	115	98	112	102
US	89	81	97	95
Egypt	73	78	66	65
Japan	49	52	45	45
Iraq	2	17	40	35
Morroco	28	35	41	35
Poland	27	32	27	31
Iran, Islam. R.	27	30	29	27
Afganistan	48	38	24	22
World	**1,122**	**1,174**	**1,166**	**1,133**

Source: FAO, ITC, and World Bank.

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (000 tons)	**1970**	**1980**	**1990**	**1997**	**1998**	**1999**	**1970-80**	**1980-90**	**1990-98**
Production	1,287	1,894	2,526	2,761	2,863	2,743	4.07	2.88	0.90
Net Imports	640	859	1,099	1,174	1,166	1,133	2.57	2.33	1.26
Yields (tons/hectare)	0.77	0.80	1.12	1.22	1.31	1.31	0.34	4.12	0.19

	Actual				Forecast				
Price (¢/kg)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	166.1	206.0	205.8	183.9	186.0	187.0	188.5	195.0	210.0
Constant 1990	145.4	190.1	196.4	177.6	175.2	171.9	168.9	163.2	155.5

Source: ITC, FAO, and World Bank forecasts.

Fats and Oils

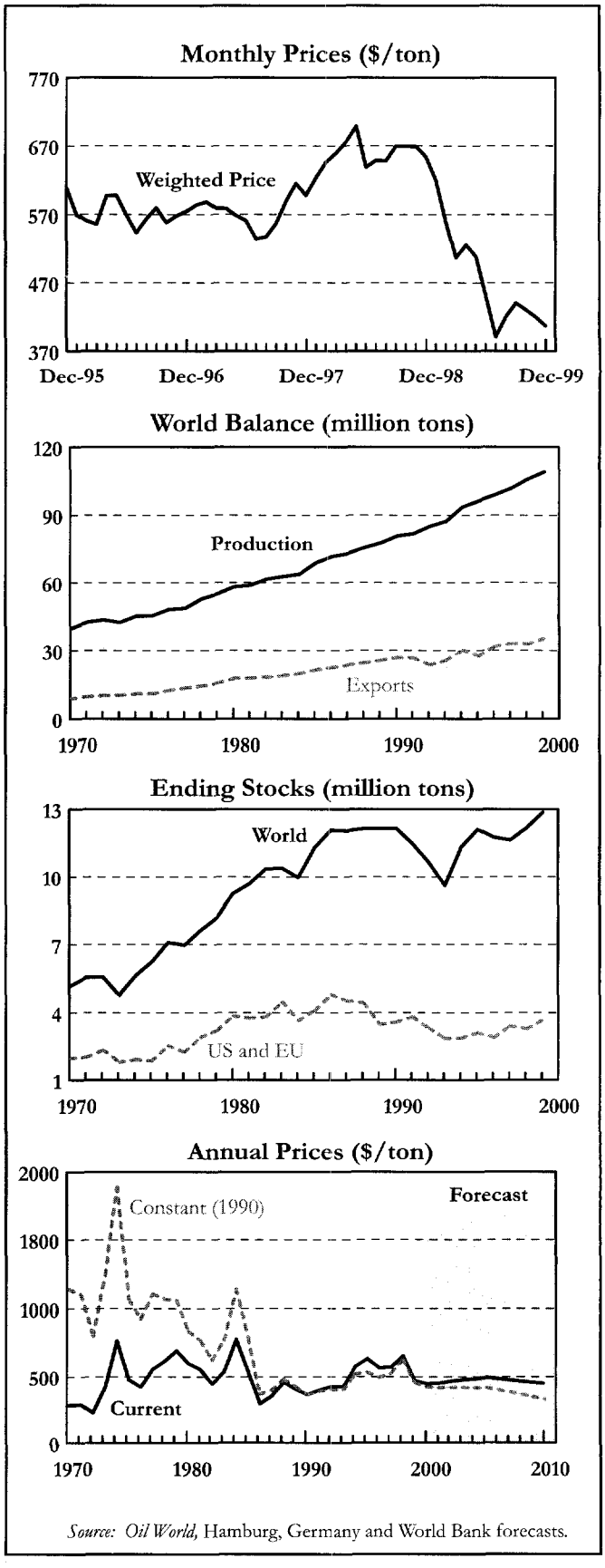
The World Bank's oils index was largely unchanged during the last quarter of 1999. With ample supplies of soybean, palm, and rapeseed oil, some downward pressure on prices is expected this year.

The World Bank's oil weighted price index averaged $419/ton the fourth quarter, largely unmoved from third quarter's average of $417/ton as soybean and palm oil, its major components, moved in different direction. The average is more than 37% lower than a year ago while the 1999 average is 28% lower than the 1998 average.

Global output of the major fats and oils for the 1999/00 season (October to September) is currently estimated at about 111 million tons, almost 3.8% higher than last season's crop. Most of this growth is expected to be accounted for by palm oil (7.5%), rapeseed oil (12.4%), and coconut oil (29.0%). These three oils account for more than half of world production and about two thirds of world trade of the most important oils. Marked declines in production are expected to take place in groundnut oil (-6.4%), olive oil (-11.7%), and sesame oil (-13.0%).

The US and the EU continue to be the largest oil producers accounting for 14% each, followed by China and Malaysia with 12.2% and 10.8% respectively. On the trade side, Malaysia leads the way, accounting for 29% of world exports, almost exclusively palm oil, followed by Indonesia (4.7%), Argentina (4.8%), and Indonesia (4.4%). On the import side, India has overtaken the EU with 14.3% versus an increase of 13.3% from last season; it is questionable whether India's oil imports can grow any further following the recent decision by the government to increase its import duty on refined oils.

The 1999/00 season is expected to reach record highs with global production of the 10 most important vegetable oils to range between 86.58 million tons (latest *Oil World* forecast) and 85.16 million tons (December *USDA* update). We expect our oil index therefore to experience a moderate decline in 2000 (around 7%, an average of $425/ton). A further decline may take place in the year 2001.



Source: *Oil World,* Hamburg, Germany and World Bank forecasts.

PRODUCTION OF MAJOR FATS & OILS (million tons)

	1996/97	1997/98	1998/99	1999/00
US	13.88	15.34	15.57	15.70
EU	14.71	15.55	15.42	15.54
China	10.60	11.22	12.48	13.57
Malaysia	10.26	9.74	11.13	12.01
India	7.88	7.58	7.17	6.89
Indonesia	6.37	6.30	6.97	7.76
Argentina	4.53	4.87	5.92	5.60
Brazil	4.70	4.78	5.12	5.22
World	**99.94**	**101.98**	**106.90**	**110.93**

Source: Oil World, Hamburg, Germany

CONSUMPTION OF MAJOR FATS & OILS (million tons)

	1996/97	1997/98	1998/99	1999/00
EU	16.39	16.70	16.93	17.34
China	14.33	15.04	15.65	16.40
US	12.62	13.02	13.60	13.92
India	9.40	9.83	10.94	11.78
Brazil	3.79	3.93	4.00	4.16
FSU	3.77	3.85	3.84	3.91
Indonesia	3.18	3.08	3.18	3.29
E. Europe	2.69	2.75	2.79	2.86
World	**99.73**	**102.25**	**106.06**	**110.37**

Source: Oil World, Hamburg, Germany

PRODUCTION, EXPORTS, AND STOCKS OF MAJOR FATS AND OILS

	Production (million tons)			Exports (million tons)			Price ($/ton)		
Fats and Oils	1997/98	1998/99	1999/00	1997/98	1998/99	1999/00	1997	1998	1999
Soybean	23.16	24.58	24.88	7.66	7.76	7.14	565	617	417
Palm	16.97	19.10	20.53	11.69	12.65	14.02	546	671	436
Rapeseed	12.21	12.63	14.19	2.10	1.86	2.01	646	623	425
Sunflower	8.59	9.21	9.49	3.01	3.11	3.09	581	728	507
Tallow	7.69	8.06	7.94	2.22	2.35	2.25	529	466	361
Lard	6.36	6.63	6.70	0.17	0.20	0.18	575	458	333
Butter	5.74	5.83	5.92	0.59	0.57	0.59	1,839	1,931	1,502
Groundnut	4.39	4.71	4.41	0.26	0.23	0.25	1,010	909	788
Cotton	4.07	3.81	3.94	0.22	0.17	0.20	613	718	563
Coconut	3.45	2.45	3.16	2.12	1.06	1.69	657	658	737
Palm Kernel	2.19	2.39	2.56	1.07	1.20	1.18	652	687	694
Olive	2.57	2.57	2.27	0.46	0.57	0.51	2,503	n.a.	n.a.
Corn	1.93	1.96	2.00	0.77	0.71	0.73	559	676	557
Fish	0.84	1.14	1.15	0.43	0.59	0.63	548	727	314
Linseed	0.69	0.72	0.76	0.12	0.12	0.15	571	708	512
Sesame	0.72	0.69	0.60	0.02	0.02	0.02	1,476	n.a.	n.a.
Castor	0.44	0.43	0.43	0.26	0.20	0.22	832	1,061	1,069
Total	**101.98**	**106.90**	**110.93**	**33.17**	**33.36**	**34.85**			

Source: Oil World, Hamburg, Germany

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (million tons)	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
Production	39.78	58.09	80.84	101.98	106.90	110.93	3.66	3.61	3.43
Consumption	39.82	56.80	80.77	102.25	106.06	110.37	3.53	3.75	3.38
Exports	8.83	17.76	26.89	33.17	33.36	34.85	7.01	4.34	2.83
Ending Stocks	5.18	9.25	12.15	11.80	12.73	12.98	6.97	2.83	-0.84
	Actual				Forecast				
Price ($/ton)	1996	1997	1998	1999	2000	2001	2002	2005	2010
Current	569.7	574.0	658.6	473.2	450.6	454.6	470.4	498.8	511.5
Constant 1990	498.9	529.6	632.1	456.9	424.4	417.8	421.3	417.4	378.6

Note: Crop year begins October 1. The price is trade weighted average of soybean, palm, coconut, and groundnut oils.
Source: Oil World, Hamburg, Germany and World Bank.

Coconut Oil

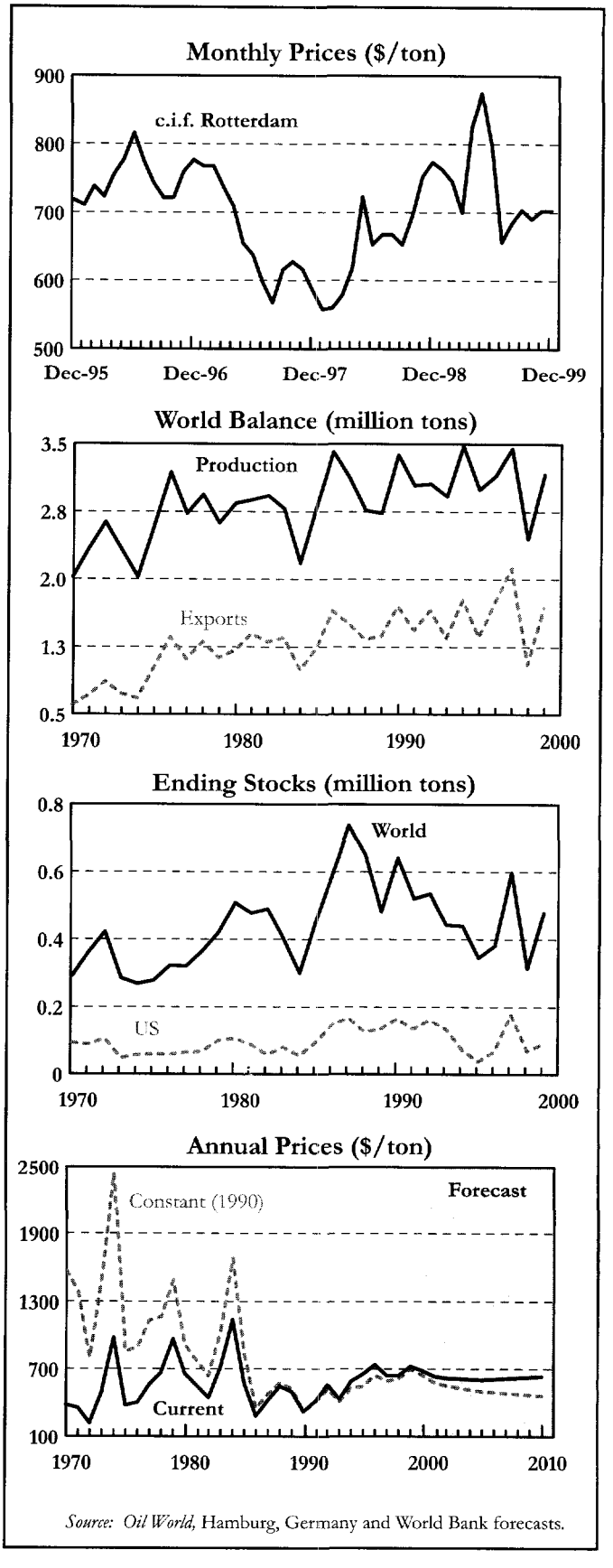
With a 1999/00 coconut oil crop estimated to recover to 3.2 million tons and a healthy palm kernel output, the market is entering a bearish period with prices not expected to exceed $700/ton in this, and possibly the next year.

Coconut oil prices averaged $698.7/ton during the last quarter of 1999, a little higher than the third quarter's average of $681.3/ton but 5.6% lower than a year ago. Prices of palm kernel oil, a close substitute to coconut oil averaged $686.0/ton in the last quarter of 1999, 4.5% higher than third quarter but 7.4% lower than a year ago. In 1999/00, coconut and palm kernel oils are expected to account for 2.96% and 2.39% of world production of the 17 major fats and oils, respectively. About half of the global production of both oils is internationally traded.

The latest forecasts for coconut oil indicate that global output in the 1999/00 season (October to September) will recover fully from the lagged El Niño effects which pushed it down to less than 2.5 million tons last season. *Oil World*'s estimate of global output is currently at 3.16 million tons while USDA's December update puts it at 3.36 million tons. Exports are expected to reach 1.69 million tons most of which will go to Europe and the US, the two dominant end users of coconut oil, accounting for 35% and 32% of global imports. Palm kernel oil is expected to pick up with world production reaching between 2.56 and 2.61 million tons in 1999/00, up from 2.39 million tons last season. Trade is expected to reach 1.20 million tons with EU and the US accounting for 480,000 and 205,000 tons of imports respectively.

The Philippines, the world's dominant coconut oil producer, is expected to reach 1.18 million tons, followed by Indonesia and India with 794,000 and 407,000 tons respectively. Production of palm kernel oil is expected to reach 1.37 million tons in Malaysia, followed by 647,000 in Indonesia.

With coconut oil production reaching its pre-El Niño levels and palm kernel oil production also registering a moderate increase, the market outlook will be less bullish than last season. We expect coconut oil prices to average no more than $700/kg in the year 2000, about 5% lower than 1999, and there may be a further price decline in 2001.



Source: Oil World, Hamburg, Germany and World Bank forecasts.

Other Developments

- Coconut production in India's province Kerala is expected to decline by as much as 22% according to *The Financial Express*. The region has recently been hit by a mite outbreak, reported the Coconut Development Board last December. India accounts for 13% of global coconut oil production. In 1998/99, it produced 435,000 tons while in 1999/00, it is expected to produce 407,000 tons.
- Of the 1.50 million ton increase in global trade of the major fats and oils between 1998/99 and 1999/00, coconut oil is expected to account for 630,000 tons, that is more than 40% of total growth.

COCONUT OIL

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
Philippines	1,257	1,628	780	1,183
Indonesia	756	652	499	794
India	419	439	435	407
Mexico	134	128	123	125
Vietnam	57	69	73	87
World	**3,151**	**3,448**	**2,446**	**3,163**
Ending Stocks (000 tons)				
US	68	178	69	90
Philippines	87	32	56	80
Indonesia	35	40	40	69
India	31	32	35	32
World	**382**	**598**	**314**	**480**
Exports (000 tons)				
Philippines	950	1,386	463	850
Indonesia	603	511	368	602
World	**1,753**	**2,122**	**1,060**	**1,688**
Imports (000 tons)				
EU	639	756	539	596
US	539	653	359	536
China	42	34	49	55
Korea, Rep.	44	40	42	42
World	**1,695**	**2,090**	**1,150**	**1,681**

Source: Oil World, Hamburg, Germany

PALM KERNEL OIL

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
Malaysia	1,157	1,127	1,251	1,368
Indonesia	506	543	609	647
Nigeria	181	180	188	189
Thailand	36	34	37	40
Colombia	33	33	36	39
World	**2,167**	**2,187**	**2,393**	**2,557**
Ending Stocks (000 tons)				
Malaysia	144	149	105	120
Indonesia	40	35	35	60
US	23	29	34	35
EU	15	23	25	30
World	**263**	**282**	**225**	**287**
Exports (000 tons)				
Malaysia	483	476	551	560
Indonesia	435	474	543	525
World	**1,036**	**1,067**	**1,196**	**1,181**
Imports (000 tons)				
EU	427	419	464	480
US	178	163	181	205
Japan	54	53	50	54
Brazil	51	45	27	42
World	**1,055**	**1,060**	**1,145**	**1,221**

Source: Oil World, Hamburg, Germany

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
Coconut Oil (000 tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	2,020	2,842	3,377	3,448	2,446	3,163	2.36	0.74	0.08
Consumption	2,021	2,688	3,169	3,201	2,821	2,990	2.24	0.72	0.25
Exports	608	1,215	1,701	2,122	1,060	1,688	6.80	1.29	1.26
Ending Stocks	292	509	641	598	314	480	3.22	3.89	-5.59
Palm Kernel Oil (000 tons)									
Production	378	570	1,449	2,187	2,393	2,557	2.80	11.20	5.77
Consumption	387	528	1,375	2,161	2,398	2,537	2.62	11.38	5.80
Exports	160	402	907	1,067	1,196	1,181	7.24	9.35	1.76
Ending Stocks	45	134	256	282	225	287	6.26	9.60	0.23

	Actual				Forecast				
Coconut Oil Prices ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	751.6	656.8	657.9	737.1	700.0	650.0	635.0	620.0	650.0
Constant 1990	659.3	606.1	631.5	711.8	659.4	597.4	568.8	518.8	481.2

Note: Crop year begins October 1.
Source: Oil World, Hamburg, Germany and World Bank.

Palm Oil

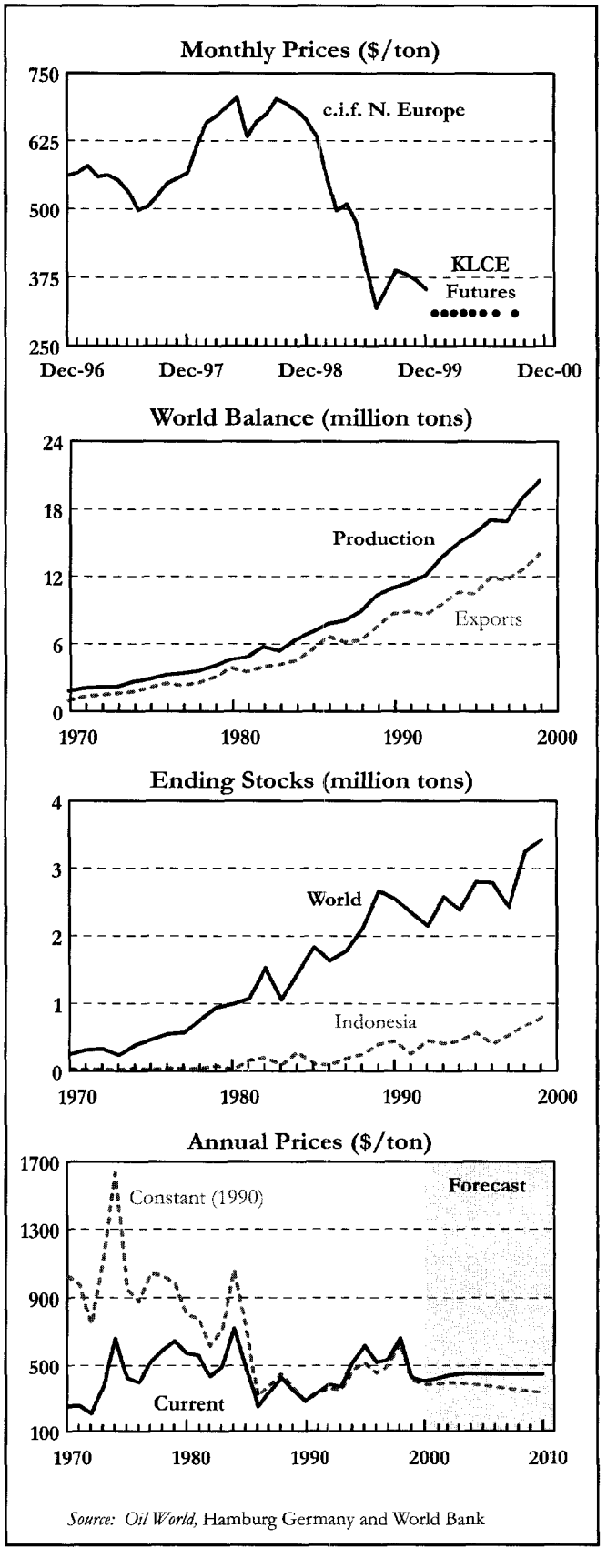
With production expected to surpass 20 million tons, the bearish sentiment appears to have taken over the palm oil market. India raised its import duty on refined edible oils to 27.5%.

Palm oil prices recovered slightly last quarter to average $368.3/ton, 4.1% higher than the third quarter average but 45.8% lower than a year ago. Palm oil, a close substitute to soybean oil, is expected to account for 18.5% of global production and 40% of global trade of the most important oils. More than two thirds is internationally traded, making it the most highly traded oil.

Following the 1998/99 (October to September) impressive growth of 12.5% in global palm oil production, the 1999/00 crop is currently estimated to increase by another 7.5% to reach a record high of 20.53 million tons according to *Oil World.* This estimate is similar to USDA's December update which places global 1999/00 output at 20.60 million tons (*Oilseeds: World Markets and Trade*). Both Malaysia and Indonesia, the world's top producers will increase their crop by almost 8% and are expected to account for about 80% of global production. About one quarter of the increase in output is expected to go to stocks according to *Oil World,* although the USDA estimate for the 1999/00 season has remain at its 1998/99 level of 2.79 million tons.

Global exports are expected to reach another record level, between 13.5 and 14 million tons, two thirds of which will come out of Malaysia. India, which in the last two seasons has emerged as the dominant palm oil importer is expected to account for almost 23% of imports ahead of the EU (16.1%), China (11.9%), and Pakistan(7.9%). EU and China are expected to increase imports by 9% and 16%, respectively. Orders of refined palm oil from India, however, may start decline soon following the increase in the Indian import duty on refined edible oils.

With improved production prospects for palm oil in both top producing countries and good production prospects of other competing oils we expect prices to average in 2000 about 5% lower than 1999 with a little mild recovery in the year 2001.



Source: Oil World, Hamburg Germany and World Bank

Other Developments

- Representatives from the Malaysian Primary Industries Ministry will be visiting Baghdad soon in order to promote palm oil sales, according to *The Public Ledger*. Under current UN rules (oil-for-food program), Iraq is allowed to export certain quantity of crude oil in order to meet domestic food requirements through imports.
- India raised its import duty on refined edible oils from 1.1% to 27.5%. The duty on crude vegetable oils remains at 16.5%. Local oil processors welcomed the decision as they are expected to go back to business – about 65% of India's crushing and vegetable oil refining industry were idle since the country met most of its requirements through imported refined palm oil from Malaysia and Indonesia.
- A shipment with 21,000 tons of palm oil was returned to Indonesia after it was found to be contaminated with crude oil reported *The Public Ledger*. The palm oil was part of an 85,000 shipment to the Netherlands arrived in Rotterdam last year. The remaining 64,000 is still in Rotterdam.

PRODUCTION AND CONSUMPTION

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
Malaysia	9,000	8,509	9,759	10,532
Indonesia	5,078	5,086	5,841	6,300
Nigeria	678	688	713	735
Colombia	440	437	460	487
Thailand	386	363	389	427
Côte d'Ivoire	250	266	270	274
PNG	276	232	247	270
Ecuador	201	203	215	238
World	**17,487**	**16,967**	**19,102**	**20,526**
Consumption (000 tons)				
India	1,275	1,797	2,491	3,230
Indonesia	2,699	2,772	2,939	2,980
EU	1,897	1,951	2,000	2,163
China	1,663	1,545	1,462	1,572
Malaysia	1,217	1,088	1,099	1,357
Pakistan	1,087	1,175	1,040	1,095
Nigeria	728	775	765	810
Egypt	367	364	436	460
Thailand	387	363	355	384
Colombia	384	382	360	382
World	**17,090**	**17,694**	**18,109**	**20,116**

Source: Oil World, Hamburg, Germany

TRADE AND ENDING STOCKS

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
Malaysia	7,794	7,847	8,482	9,325
Indonesia	2,419	2,416	2,760	3,230
Singapore	286	253	270	270
PNG	281	228	242	265
World	**11,875**	**11,689**	**12,645**	**14,018**
Imports (000 tons)				
India	1,395	1,684	2,678	3,150
EU	1,957	2,028	2,028	2,215
China	1,851	1,490	1,419	1,640
Pakistan	1,020	1,210	1,050	1,090
Egypt	374	374	463	470
Singapore	402	351	450	425
Japan	382	355	357	360
Myanmar	290	241	275	330
World	**11,729**	**11,831**	**12,471**	**13,786**
Ending Stocks (000 tons)				
Malaysia	907	719	1,208	1,180
Indonesia	605	535	680	800
India	285	180	370	310
China	280	175	130	190
World	**3,009**	**2,426**	**3,244**	**3,422**

Source: Oil World, Hamburg, Germany

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (000 tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	1,742	4,587	10,976	16,967	19,102	20,526	9.82	9.41	7.15
Consumption	1,685	4,822	11,041	17,694	18,109	20,116	9.66	9.76	6.88
Exports	920	3,793	8,639	11,689	12,645	14,018	12.24	9.31	5.24
Ending Stocks	247	992	2,551	2,426	3,244	3,422	16.21	9.41	1.34
Yields	2.50	2.91	3.19	3.33	2.98	3.32	3.93	0.92	-0.27

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	530.9	545.8	671.1	436.0	415.0	430.0	450.0	460.0	460.0
Constant 1990	465.8	503.6	644.1	421.0	391.0	395.2	403.1	384.9	340.5

Note: Crop year begins October 1.
Source: Oil World, Hamburg, Germany

Soybean Oil

While no significant increase in soybean oil output is expected this season, pressure from competing oils is expected to keep prices low.

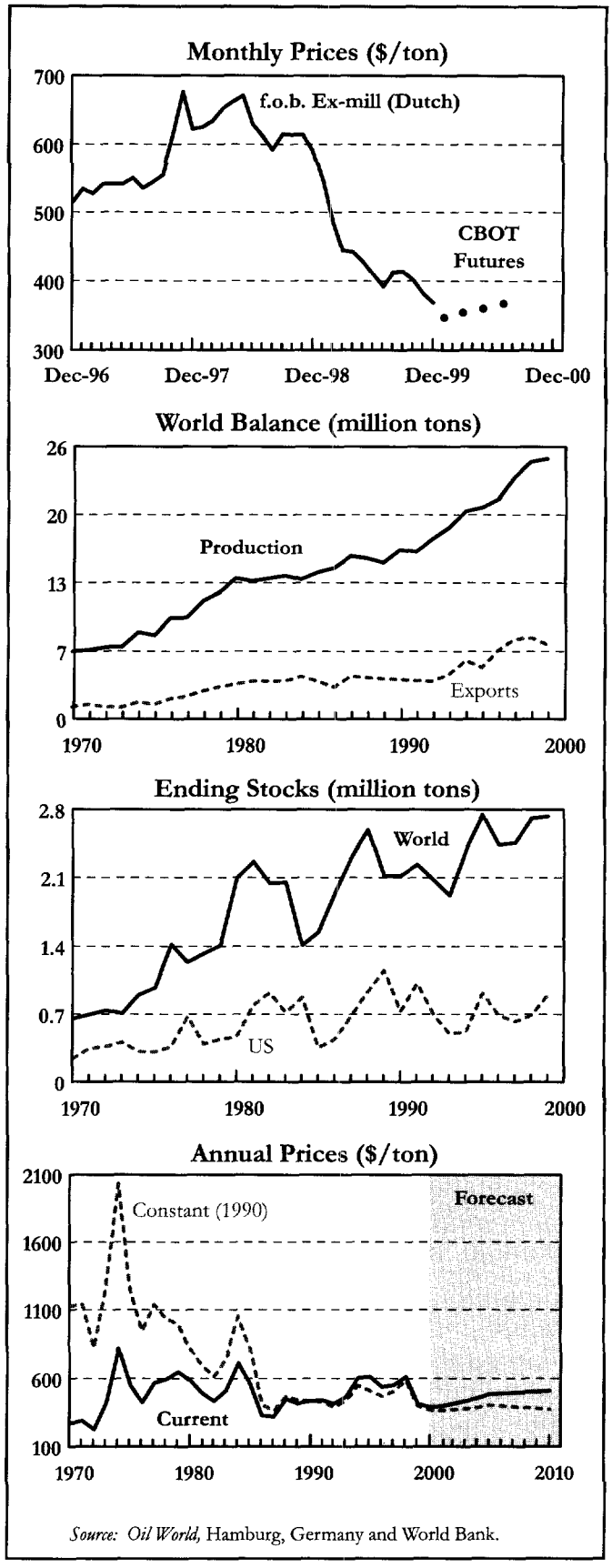
Fourth quarter soybean oil prices averaged $384.0/ton, down 5.5% from the third quarter and 36.7% lower than the same quarter of the year before. Soybean oil, a close substitute to palm oil, accounts for one quarter of vegetable oil global production with about one third being trade internationally.

This season's output (October to September) is expected to be between 24.18 million tons (USDA's December update) and 24.88 million tons (according to the latest *Oil World* estimate), thus pointing to no or at best a little growth. Increase in soybean oil output is expected to take place in China (7.4%) and the US (1.8%) while substantial reduction will take place in Argentina (-5.7%) and India (-6.8%).

Soybean oil exports are expected to shrink by an estimated 6% to 8%, with the US accounting for most of the decline (-20.1%) followed by Argentina (-7.9%) and Brazil (-7.3%). The current season is the second consecutive season where soybean oil exports are shrinking, mostly reflecting changes in the incentive structure in importing countries which tend to utilize domestic crushing facilities in order to enjoy part of the value added. China for example, imported 1.67 million tons of soybean oil in the 1996/97 season while it is expected to import only 0.85 million tons in the current season, according to USDA. Chinese imports of soybeans, instead, have surged from 2.27 to 4.30 million tons over the same time period.

Currently, India holds the key to the growth of vegetable oil imports which more than doubled in last three seasons. Its soybean oil import demand experienced a 10-fold increase over the last three seasons. It recent increase in the tariff rate of imported oil, however, may change the trend.

Although soybean oil output this season is expected to remain more or less at its 1998/99 levels, plentiful supplies of other competing oils may put some pressure on soybean oil prices, which we expect to average just above $400/ton for this year with very little increase in the year 2001.



Source: *Oil World,* Hamburg, Germany and World Bank.

Other Developments

- USDA forecasts world vegetable oil use at 14.06 kilograms per capita. If global per capita use continues its long-term trend, it may be as high as 15.9 kgs in the year 2010. With current population growth trends, the global demand for vegetable oil will reach 110 million ton by 2010.

SOYBEAN OIL

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
US	7,145	8,226	8,202	8,350
Brazil	3,760	3,790	4,073	4,098
Argentina	1,966	2,281	3,134	2,956
EU	2,730	2,936	2,904	2,931
China	1,410	1,663	1,844	1,980
India	607	791	805	750
World	**21,033**	**23,160**	**24,581**	**24,879**
Ending Stocks (000 tons)				
US	690	627	689	900
Brazil	311	346	304	327
China	455	340	240	260
World	**2,441**	**2,458**	**2,712**	**2,732**
Exports (000 tons)				
Argentina	2,019	2,128	3,118	2,870
Brazil	1,297	1,228	1,542	1,430
EU	867	1,040	1,005	1,004
US	924	1,433	1,076	860
World	**6,662**	**7,655**	**7,764**	**7,141**
Imports (000 tons)				
China	2,041	1,850	989	940
India	84	254	841	820
Iran, Islamic R.	408	699	973	736
Bangladesh	279	247	525	415
H.K., China	591	767	195	165
World	**5,840**	**7,512**	**7,775**	**7,096**

Source: Oil World, Hamburg, Germany

SOYBEAN MEAL

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
US	31,036	34,611	34,285	35,080
Brazil	15,640	15,637	16,631	16,919
Argentina	8,867	10,353	13,899	13,245
EU	11,998	12,808	12,609	12,679
China	7,069	8,293	9,187	9,756
India	2,787	3,623	3,677	3,431
World	**92,567**	**100,795**	**106,331**	**108,038**
Ending Stocks (000 tons)				
Brazil	759	1,124	1,180	1,130
Argentina	412	700	920	865
China	755	1,150	450	415
World	**4,049**	**5,045**	**4,922**	**4,820**
Exports (000 tons)				
Argentina	8,684	9,705	13,293	12,900
Brazil	10,927	9,788	10,347	10,530
US	6,345	8,470	6,520	7,100
India	2,156	2,787	2,945	2,500
World	**30,510**	**33,740**	**36,260**	**36,300**
Imports (000 tons)				
EU	11,370	13,047	16,709	16,060
East Europe	2,140	2,629	2,464	2,533
China	3,750	3,609	1,530	1,600
Thailand	1,059	956	1,161	1,150
Korea, Rep.	818	881	1,095	1,050
World	**30,401**	**33,507**	**36,560**	**36,280**

Source: Oil World, Hamburg, Germany

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
Soybean Oil (000 tons)	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
Production	6,477	13,417	16,141	23,160	24,581	24,879	7.92	2.02	5.50
Consumption	6,245	12,730	16,149	23,007	24,338	24,814	8.01	2.15	5.42
Exports	1,140	3,303	3,800	7,655	7,764	7,141	13.36	0.83	9.35
Ending Stocks	653	2,094	2,119	2,458	2,712	2,732	11.84	1.61	2.22
Soybean Meal (000 tons)									
Production	29,265	59,379	70,528	100,795	106,331	108,038	7.81	1.86	5.30
Consumption	29,012	57,744	69,653	99,570	106,754	108,120	7.81	1.93	5.23
Exports	5,636	18,201	26,649	33,740	36,260	36,300	9.75	4.39	4.98
Ending Stocks	602	1,992	3,217	5,045	4,922	4,820	13.58	4.89	6.15

	Actual				Forecast				
Soybean Oil Prices ($/ton)	1996	1997	1998	1999	2000	2001	2002	2005	2010
Current	551.5	564.8	625.9	427.3	405.0	410.0	430.0	500.0	525.0
Constant 1990	483.8	521.1	600.8	412.6	381.5	376.8	385.2	418.4	388.6

Note: Crop year begins October 1.
Source: Oil World, Hamburg, Germany and World Bank.

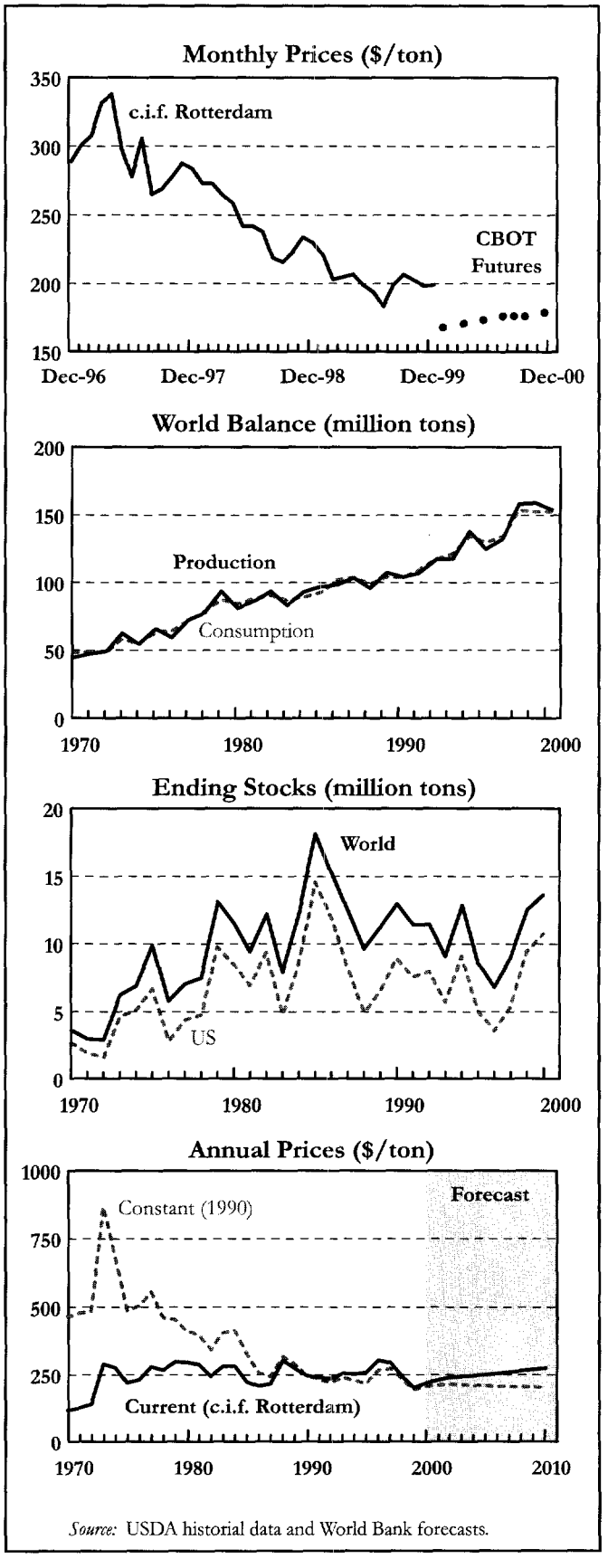
Soybeans

Soybean prices are expected to increase in 2000 following three years of sharp declines which took prices down 34% from their 1996 highs. However, lower production in the coming season would be needed to send prices significantly higher.

Soybean prices in 1999 fell to the lowest levels since 1972, even without considering inflation. And when inflation is considered, soybean prices are only 40% of their 1972 levels. Prices have increased about $10/ton since the July lows, but still remain near recent lows because of a record global harvest in 1998/99 and record or near-record harvests in the major exporters (US, Brazil and Argentina). However, a recent USDA report (*Oilseeds: World Markets and Trade*, November 1999), shows that soybean prices are undervalued relative to the historical norm of soybean prices to ending stocks. We conclude from our own analysis that the same situation exists for maize. Consequently, we expect both maize and soybean prices to increase in 2000 as production continues to contract and stocks fall.

The soybean market has already begun to adjust, with 1999/00 global production estimated to be down about 3% from the two previous years. But, stocks are still high and are expected to increase in 1999/00. World imports of soybeans and soybean products have increased in response to low prices, but not yet enough to reduce global stocks. Soybean yields have been above the long-term trend in each of the past three years. If global soybean yields dip below trend in the coming season, then this should combine with lower planted areas to reduce production and set the stage for a significant price recovery.

Soybean imports are also expected to increase in countries most affected by the Asian financial crisis as the economic outlook for these countries continues to improve. The Republic of Korea had about a 10% decline in soybean imports in 1997/98 and little recovery in 1998/99, but is now expected to return to the pre-crisis import levels. Taiwan, China also had about a 10% decline in soybean imports in 1997/98 and has not yet increased imports back to the levels before the crisis. Other countries including Mexico and Indonesia are expected to increase soybean and soybean meal imports.



Source: USDA historial data and World Bank forecasts.

Other Developments

- Genetically modified (GM) seeds continue to cause uncertainty for producers of soybean and other oilseeds. The recently signed international trade agreement on genetically altered organisms allows a country to ban the imports of genetically modified food without full scientific proof that they are unsafe. The agreement postponed the decision of whether and how countries should be notified if GMO products are being shipped for two years to allow markets the opportunity to segregate GMO products. However, it is likely that GM crops will continue to face opposition from European and Japanese buyers, and probably an increasingly large group of consumers and policy makers. For example, the government of the Brazilian state of Rio Grande do Sul is reportedly offering low interest loans to farmers who stop growing GM soybeans (*Public Ledger*, 12/13/1999).

PRODUCTION AND CRUSH

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
US	64,780	73,176	74,598	72,747
Brazil	27,300	32,500	31,000	31,000
Argentina	11,200	19,500	19,900	18,500
China	13,220	14,728	15,000	14,000
India	4,100	5,350	6,000	5,500
Paraguay	2,771	2,988	3,000	3,000
EU	1,144	1,570	1,535	1,413
Indonesia	1,460	1,306	1,300	1,300
World	**132,193**	**158,072**	**158,931**	**154,120**
Crush (000 tons)				
US	39,080	43,464	43,262	43,817
Brazil	18,910	21,900	21,400	21,400
Argentina	10,423	16,782	16,800	15,700
China	8,690	10,728	11,850	11,500
India	3,650	4,770	5,400	4,900
Mexico	2,690	3,600	3,720	3,785
Japan	3,810	3,720	3,680	3,520
Taiwan, China	2,362	2,043	1,900	2,000
Korea, Rep.	1,246	1,100	1,150	1,200
World	**113,772**	**131,730**	**131,982**	**131,444**

Source: USDA

TRADE AND STOCKS

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
US	24,110	23,761	21,813	23,541
Brazil	8,360	8,750	8,900	9,200
Argentina	750	3,231	330	2,800
Paraguay	2,150	2,390	2,400	2,400
World	**37,020**	**40,510**	**39,160**	**40,920**
Imports (000 tons)				
EU	15,311	16,297	16,143	16,043
Japan	5,043	4,873	4,650	4,600
China	2,309	2,975	3,885	4,335
Mexico	2,680	3,479	3,600	3,700
Taiwan, China	2,632	2,387	2,200	2,300
Korea, Rep.	1,486	1,340	1,450	1,500
Brazil	1,450	500	700	900
Indonesia	684	810	1,150	1,200
World	**36,160**	**38,970**	**39,340**	**41,040**
Ending Stocks (000 tons)				
US	3,588	5,438	9,471	10,750
Brazil	475	560	470	480
Argentina	393	570	310	250
World	**6,928**	**8,999**	**12,579**	**13,650**

Source: USDA

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	44.3	81.0	104.2	158.1	158.9	154.1	6.85	1.85	5.16
Consumption	48.0	84.3	104.0	153.7	152.6	152.8	6.52	2.06	4.87
Ending Stocks	3.6	11.5	13.0	9.0	12.6	13.7	13.52	0.24	-3.57
Crop Area (mil. hectares)	30.0	49.9	54.3	69.0	70.7	70.0	5.25	0.79	2.88
Yields (tons/hectare)	1.48	1.63	1.92	2.29	2.25	2.20	1.51	1.07	2.18
	Actual					Forecast			
Price ($/ton)	**1995**	**1996**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	259.3	304.8	243.3	201.7	220.0	230.0	240.0	250.0	275.0
Constant 1990	217.3	267.4	233.5	194.7	207.3	211.4	215.0	209.2	203.6

Note: All quantities are in local marketing years. Prices are for US soybeans, c.i.f. Rotterdam in calendar years.
Source: USDA historical data and estimates and World Bank price forecasts.

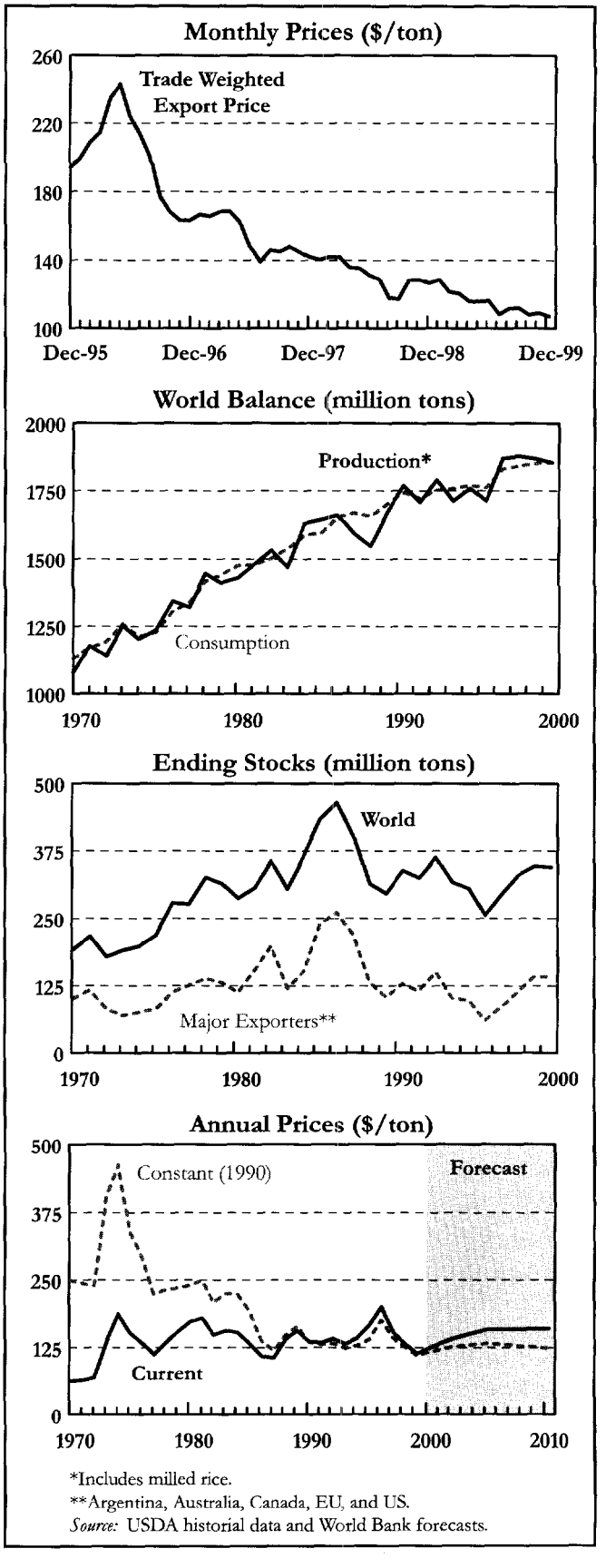
Grains

Grain prices are expected to increase in 2000 as global production and stocks continue to fall, consumption increases, and market sentiment begins to shift. However, the level of yields in the coming season will largely determine the extent of the price recovery. If global yields are above trend, prices may stay low.

The World Bank's index of grain prices has fallen about 40% since the peak in 1996. Following previous periods of sharp price declines, grain prices rebounded as production fell and consumption rose. A similar pattern is expected this year as the supply/demand balance shifts away from surplus and grain stocks fall. However, yields hold the key to the price recovery and thus prices could be volatile as each new crop development is evaluated during the next six months of the Northern Hemisphere season. If grain yields are above trend in the coming crop year, then prices could remain low for another year. But, if yields are reduced because of poor weather related growing conditions, then prices could rise sharply.

The world's grains markets have already begun to adjust to current surpluses and the stage is set for a price recovery. Since 1997/98, world grain production has declined 22 million tons, consumption has increased 14 million tons and trade has increased 7 million tons. World production declined in each of the past two years, while area planted to grains has fallen for three consecutive years. However, yield increases offset lower area planted and prevented production from falling enough to significantly reduce stocks. Consumption and trade are expected to increase in response to low grain prices and the recovery in Asian economies following the 1997 financial crisis. The increase in crude oil prices should also contribute to demand growth in the major oil exporting countries.

While it is difficult to forecast grain prices, it is less difficult to explain the factors which determine grain prices. Based on the econometrically estimated relationship of grain prices to stock levels, grain prices are about 10% below their historical norms relative to stocks. This is not unusual when prices have fallen sharply and it usually precedes an increase in prices. It suggests, that prices could rise quickly when the market sentiment changes.



*Includes milled rice.
**Argentina, Australia, Canada, EU, and US.
Source: USDA historial data and World Bank forecasts.

Other Developments

• Delegates from 140 countries met in Montreal in late January and negotiated an international trade agreement on genetically altered organisms-grains, bacteria, and farm animals. The agreement allows a country to ban the imports of genetically modified food without full scientific proof that it is unsafe. The US and a handful of other countries which pioneered the research and development of genetically modified organisms (GMO) wanted relatively loose controls while groups opposing the use of GMOs wanted tight controls. A key issue was whether and how countries should be notified if GMO products are being shipped. The agreement postponed this decision for two years to allow markets the opportunity to segregate GMO products. The US plants more than one-third of its cotton, corn and soybeans with GMOs. (*Washington Post*, 1/24 and 1/30/2000).

PRODUCTION AND STOCKS

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
China	388,458	378,443	393,934	395,100
US	333,154	333,730	346,994	335,662
EU	203,991	205,408	210,193	199,972
India	177,758	182,602	181,731	185,500
Russian Fed.	66,799	85,265	46,065	55,115
Canada	57,995	49,395	50,896	52,000
Brazil	46,260	39,465	43,208	43,912
Indonesia	38,034	36,818	38,600	38,300
Argentina	35,611	40,125	30,315	34,660
Australia	34,921	29,892	30,967	31,605
Mexico	29,865	27,053	28,098	29,575
Turkey	26,110	26,270	29,307	26,735
Poland	25,296	25,403	27,150	25,580
World	**1,871,403**	**1,878,907**	**1,869,183**	**1,857,976**
Ending Stocks (000 tons)				
China	96,261	87,190	94,726	96,676
US	39,949	58,693	78,072	86,465
EU	27,514	38,941	44,866	37,302
India	17,520	21,301	22,478	27,278
World	**293,834**	**330,045**	**347,516**	**346,828**

Source: USDA

TRADE

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
US	81,293	76,290	87,039	87,275
EU	62,472	55,413	61,901	64,516
Australia	24,248	19,374	21,415	21,790
Canada	24,899	23,880	17,911	21,025
Argentina	22,575	24,831	16,725	19,875
China	5,904	11,097	6,198	8,350
Thailand	5,296	6,474	6,225	5,925
World	**215,500**	**214,800**	**221,500**	**221,700**
Imports (000 tons)				
EU	41,580	43,888	42,965	43,668
Japan	27,292	27,653	27,262	26,910
Korea, Rep.	12,195	11,582	12,561	13,265
Mexico	7,634	10,454	11,670	11,015
Egypt	10,184	10,490	11,215	10,775
Iran, Isl. Rep.	10,030	7,307	4,056	9,600
Brazil	7,258	9,575	8,550	8,900
Saudi Arabia	8,133	5,945	6,975	6,850
Algeria	4,861	6,574	6,140	6,245
Taiwan, China	7,043	5,788	5,688	5,403
World	**215,500**	**214,800**	**221,500**	**221,700**

Source: USDA

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	1,078.7	1,429.6	1,768.9	1,878.9	1,869.2	1,858.0	2.90	1.49	1.10
Consumption	1,130.8	1,475.5	1,743.2	1,842.7	1,851.7	1,858.7	2.67	1.69	0.73
Exports	109.6	214.7	202.1	214.8	221.5	221.7	6.28	0.24	0.56
Ending Stocks	192.8	287.9	338.9	330.0	347.5	346.8	6.68	0.67	-3.18
Crop Area (mil. hectares)	663.0	722.1	694.3	690.2	685.4	674.3	0.90	-0.57	0.12
Yields (tons/hectare)	1.78	2.16	2.79	2.99	3.00	3.01	1.97	2.18	1.02
	Actual					Forecast			
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	166.5	201.0	153.7	131.0	115.9	123.7	134.2	158.3	167.9
Constant 1990	139.7	176.0	141.8	125.8	111.9	116.5	123.3	132.2	123.8

Note: Quantities are in local marketing years. Production and yields are based on milled rice. Prices are the trade weighted average of US maize, US HRW wheat, and Thai 5% broken white rice in calendar years.

Source: USDA historical data and estimates and World Bank price forecasts.

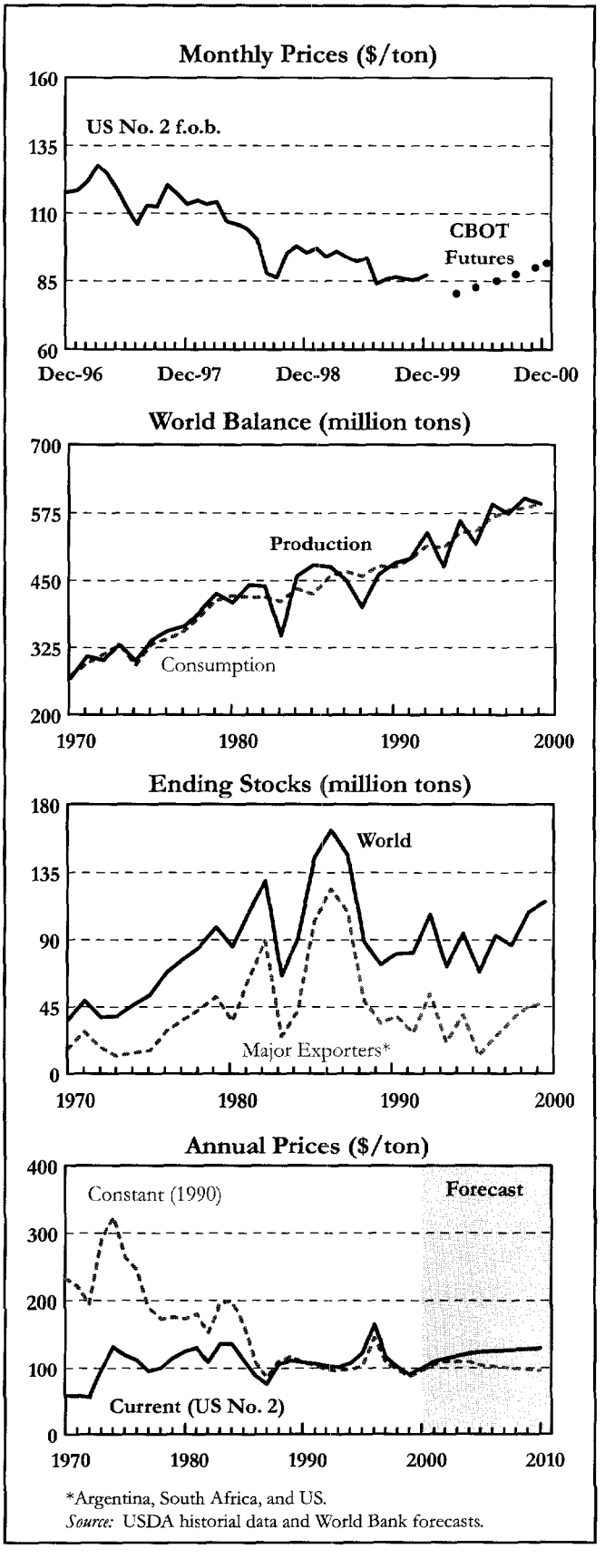
Maize

Maize prices are expected to increase in 2000, as production contracts in response to current low prices and stocks fall. Prices are below levels suggested by the historical relationship of stocks-to-use and are due to increase after three years of sharp decline.

Maize prices ended the year weak, but slightly above their July lows. The US maize export price for 1999 averaged $90.2/ton – the lowest level (in current $s) since 1987 when prices averaged $76/ton. The 1999 price was about $11/ton below the econometrically estimated price which should have occurred based on the relationship of ending stocks to total use, and this suggests that prices could rise quickly if market sentiment changed because of a shortfall in production or an increase in demand.

The current price decline has seen US maize export prices fall 46% in three years from an average of $166/ton in 1996. This compares with the sharp price decline from 1984 to 1987 when maize prices fell 44% in three years from $136/ton to $76/ton. Markets are not bound by history, but nevertheless, maize prices have not decline four consecutive years since at least 1960. Following the sharp decline from 1984 to 1987, maize prices rose 41% in 1988 as production and stocks fell. We do not project maize prices to rise sharply this year, but higher prices are expected as demand and supply continue to adjust to current low prices. If yields were to fall due to drought or other weather related causes, then production could decline enough to send prices higher. Futures prices are indicating higher prices for the new crop and early January prices have been strong.

Trade has not responded as much to low prices as might have been expected due in large part to the effects of the Asia crisis. Imports by the East Asia 5 crisis countries (Indonesia, Malaysia, Philippines, Rep. of Korea and Thailand) fell from 12.4 million tons in 1996/97 (before the crisis) to 10.9 million tons in the 1997/98 crisis year. USDA's forecast for current year imports are for a 9.6% increase over last year. Imports to the Middle East are expected to return to pre-crisis levels this year after declining 20% following the Asian crisis because of sharply lower oil prices.



*Argentina, South Africa, and US.

Source: USDA historial data and World Bank forecasts.

Other Developments

- The US's Environmental Protection Agency has placed restrictions on the cultivation of genetically modified maize in the US., effective on January 15. The new restrictions, require farmers who plant GM maize to plant "refuges" of conventional maize near their GM maize to reduce the pressure on insects and delay the evolution of resistance in pest populations. Farmers will not be allowed to spray insecticide on the refuges unless they can prove pests have exceeded certain levels. Biotech seed producers and farmers must monitor insect populations for the emergence of insecticide resistance. The regulations require seed producers to develop grower agreements with farmers or produce educational materials to ensure compliance. (*Washington Post*, 1/16/2000)

PRODUCTION AND STOCKS

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
US	234,518	233,864	247,943	242,254
China	127,470	104,300	132,954	128,000
EU	34,794	38,522	35,041	36,215
Brazil	35,700	30,080	32,110	33,000
Mexico	18,922	16,934	17,600	19,000
Argentina	15,500	19,360	13,500	15,500
India	10,612	10,852	10,780	10,500
Romania	9,610	12,680	8,500	10,000
Canada	7,380	7,180	8,952	9,096
S. Africa, Rep.	10,136	7,544	7,100	8,500
World	**592,040**	**573,423**	**605,054**	**600,721**
Ending Stocks (000 tons)				
US	22,433	33,220	45,630	51,780
China	45,000	26,000	38,616	41,916
EU	3,280	4,343	3,889	3,209
S. Africa, Rep.	2,450	1,550	1,400	1,400
Brazil	2,633	809	844	1,144
Argentina	750	1,612	713	714
Thailand	222	134	284	384
World	**92,940**	**86,482**	**108,493**	**115,383**

Source: USDA

TRADE

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
US	46,579	37,697	51,886	47,500
Argentina	10,203	12,756	7,849	8,800
China	3,892	6,173	3,338	5,000
Hungary	1,122	1,289	1,766	1,700
S. Africa, Rep.	2,200	1,041	1,000	1,100
World	**67,074**	**62,887**	**68,832**	**67,720**
Imports (000 tons)				
Japan	15,963	16,422	16,336	16,250
Korea, Rep.	8,336	7,528	7,517	8,250
Mexico	3,141	4,376	5,612	4,700
Taiwan, China	5,741	4,474	4,575	4,500
Egypt	3,196	3,259	3,700	3,700
Malaysia	2,485	2,145	2,500	2,600
EU	2,595	2,065	3,000	2,500
Colombia	1,674	1,694	1,570	1,700
Saudi Arabia	1,272	1,234	1,500	1,500
Venezuela	1,494	1,161	1,500	1,250
Peru	840	1,228	1,000	1,200
Brazil	513	1,324	968	1,000
World	**67,074**	**62,887**	**68,832**	**67,720**

Source: USDA

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	268.1	408.5	482.4	573.4	605.1	600.7	4.2	1.2	2.7
Consumption	273.0	421.9	475.0	581.3	583.0	593.8	4.1	1.6	2.7
Exports*	32.2	84.9	64.5	71.9	75.5	75.2	9.5	-0.7	1.4
Ending Stocks	36.1	85.5	80.9	86.5	108.5	115.4	10.8	-0.7	1.5
Crop Area (mil. hectares)	112.5	131.1	128.5	135.6	138.3	140.1	1.5	-0.1	0.9
Yields (tons/hectare)	2.38	3.12	3.75	4.24	4.35	4.29	2.7	1.3	1.8
	Actual					Forecast			
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	165.8	117.1	102.0	90.2	100.0	110.0	115.0	125.0	130.0
Constant 1990	145.5	108.0	97.9	87.1	94.2	101.1	103.0	104.6	96.2

*Includes intra-EU trade.

Note: Quantities are in local marketing years. Prices are for US No. 2 maize, f.o.b. US Gulf in calendar years.

Source: USDA historical data and estimates and World Bank price forecasts.

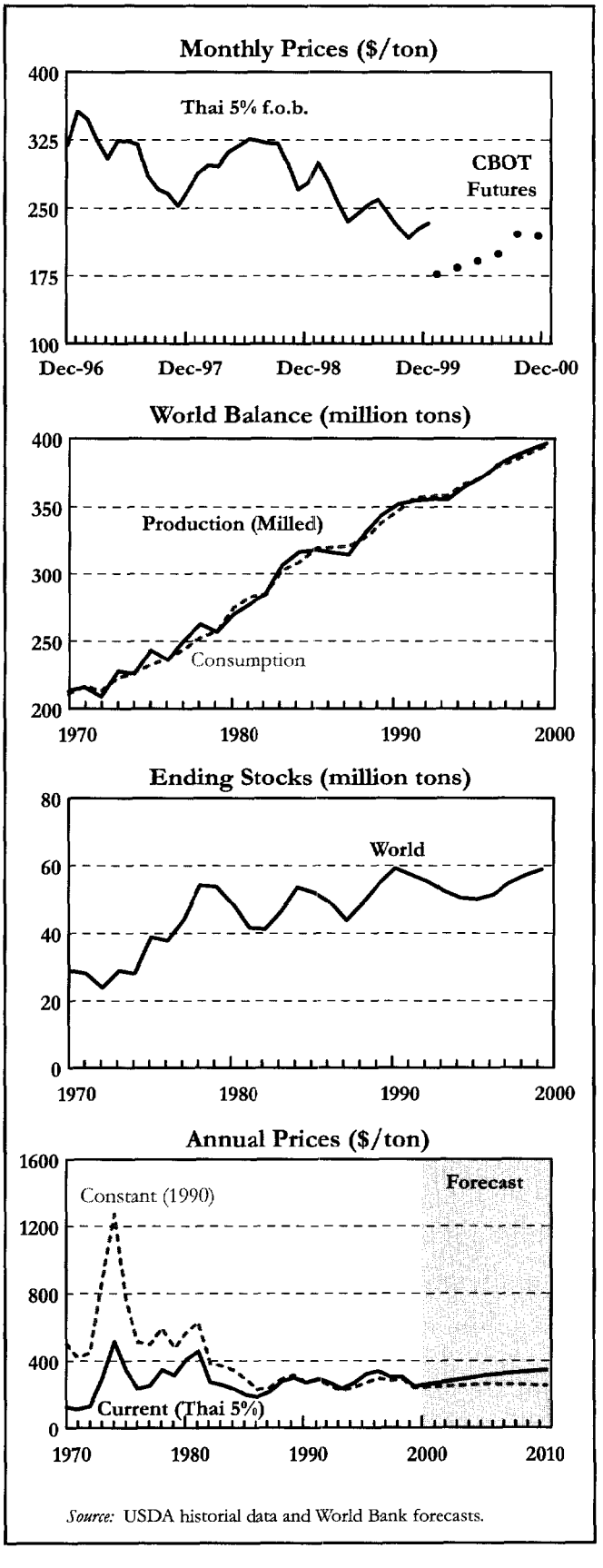
Rice

Prices will remain low in 2000 due to lower imports and expected large harvests in major producing countries. However, higher prices for wheat and other grains are expected to provide some support to rice prices.

Thai 5% broken white rice prices fell sharply in October and then recovered most of the loss by December as import demand shifted with policy changes and revised crop estimates. USDA's December estimate of world rice production for the 1998/99 year has been raised 5.0 million tons (milled basis) since our last report while the estimate of consumption has been raised by only 0.7 million tons. The estimate of world stocks was raised due to the higher production, but historical figures were also raised substantially due mostly to revised estimates of China's stocks.

World rice production for the 1999/00 marketing year is estimated to be up 4.7 million tons from 1998/99 while consumption is projected to be up 5.5 million tons. Production is still expected to exceed consumption and contribute another 1.7 million tons to world stocks. World trade in the 1999/00 marketing year is now estimated by USDA to total 23.6 million tons down 1.6 million tons from the previous year. Private sector forecasts suggest trade will be even lower than the USDA estimate. However, with the improvements in the global economy, trade may exceed mid-year estimates as was the case last year.

Recent market weakness was due in part to policy changes in Indonesia, which began with a ban on imports of low and medium quality rice by the private sector in September. Indonesia, the world's largest rice importing country, has now removed the ban and imposed a nearly 30% import tariff, effective January 1st to buffer its domestic market from low world prices. The government marketing authority, BULOG, will also play a smaller role in the future as the private sector is allowed to import all qualities of rice. The government has also indicated that BULOG will no longer be responsible for supplying rice to the military and civil servants beginning in April. BULOG will still be responsible for providing rice to the poor, but it is expected to play a more limited role than in the past.



Source: USDA historial data and World Bank forecasts.

Other Developments

- "Golden rice", a new strain of genetically altered rice has been developed after 10 years of research and $100 million of funding by the Rockefeller Foundation. The new rice contains three transplanted genes that allow plants to produce rice carrying beta-carotene which is converted into vitamin A within the body. The new rice can combat vitamin A deficiency, the leading cause of blindness and a malaise that affects as many as 250 million children. The United Nations estimates that vitamin A Deficiency may cause 2 million deaths each year among children under 5 years of age. The new rice could be widely available in as little as two years. (*Washington Post*, 1/14/2000)

PRODUCTION AND STOCKS

	1996/97	1997/98	1998/99	1999/00
Production (000 tons of paddy)				
China	195,100	200,700	198,714	201,429
India	121,980	123,462	127,123	126,763
Indonesia	49,360	49,237	50,791	50,791
Vietnam	27,277	28,930	30,253	30,000
Bangladesh	28,326	28,296	28,653	29,253
Thailand	20,700	23,500	22,800	23,333
Myanmar	15,517	15,345	16,034	16,466
Philippines	11,177	9,982	10,268	11,769
Japan	12,930	12,532	11,201	11,470
Brazil	9,504	8,551	11,450	10,000
US	7,783	8,301	8,529	9,603
Pakistan	6,461	6,500	7,012	7,201
World	**563,722**	**573,974**	**581,518**	**587,792**
Ending Stocks (000 tons)				
China	25,556	26,723	26,473	27,023
India	9,500	10,500	11,000	12,000
Indonesia	1,530	3,529	4,025	3,425
Philippines	1,590	1,273	1,747	1,847
Thailand	708	1,051	1,099	1,699
Korea, Rep.	390	805	980	1,330
World	**51,290**	**54,667**	**57,370**	**58,682**

Source: USDA

TRADE

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
Thailand	5,216	6,367	6,100	5,800
Vietnam	3,327	3,776	4,500	4,100
US	2,292	3,165	2,750	3,000
China	938	3,734	2,800	2,850
Pakistan	1,982	1,800	1,850	2,000
India	1,954	4,491	2,400	1,500
Uruguay	640	639	725	700
World	**18,799**	**27,280**	**24,483**	**23,191**
Imports (000 tons)				
Indonesia	808	6,081	3,900	3,000
Brazil	845	1,457	850	1,100
Bangladesh	44	2,499	1,400	900
Philippines	814	2,187	1,200	900
Iran, Islamic R.	973	500	650	900
Nigeria	731	900	900	850
Saudi Arabia	660	775	750	800
Japan	546	479	725	750
EU	844	787	700	750
Iraq	684	610	700	700
Malaysia	645	593	650	675
World	**18,799**	**27,280**	**24,283**	**23,191**

Source: USDA

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production (milled)	213.0	270.0	352.1	386.6	391.8	396.5	2.81	2.54	1.23
Consumption	210.6	275.0	347.4	383.3	389.3	394.8	2.85	2.58	1.27
Exports*	8.6	12.7	12.2	27.3	25.2	23.2	4.02	1.09	8.30
Ending Stocks	28.8	48.5	59.2	54.7	57.1	58.7	7.02	0.74	-0.43
Crop Area (mil. hectares)	132.7	144.5	146.6	151.3	152.2	153.8	0.77	0.08	0.22
Yields (tons/hectare)	2.35	2.75	3.56	3.79	3.82	3.84	2.03	2.54	0.81

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	338.9	303.5	304.2	248.4	260.0	270.0	280.0	315.0	345.0
Constant 1990	297.3	280.0	291.9	239.9	244.9	248.2	250.8	263.6	255.4

*Milled basis in calendar years.
Note: Production and yields are paddy in marketing years. Consumption and stocks are on a milled basis in marketing years. Trade is on a milled basis in calendar years. Prices are for Thai 5% broken WR, milled, f.o.b. Bangkok in calendar years.
Source: USDA historical data and estimates and World Bank price forecasts.

Wheat

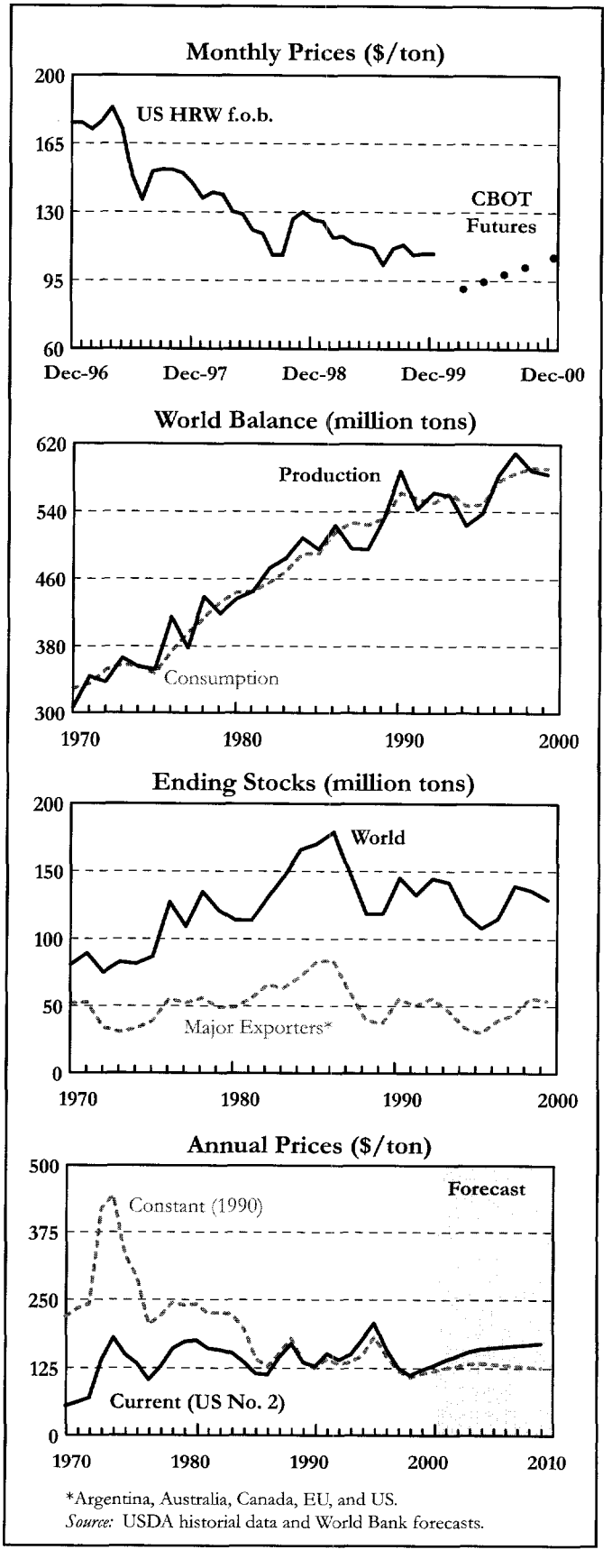
Wheat prices are expected to increase this year after the sharpest three year decline in at least four decades. However, high stocks will keep prices from rising sharply.

The US wheat export price ended the year at a December average of $102.2/ton, the lowest monthly average price since 1986, and down 61% from the high in May 1996. The year-on-year decline since the high in 1996 was the sharpest of any three year period in at least four decades. Prices are expected to rebound from current low levels as surpluses fall and the sentiment of the market shifts.

Despite falling prices, the fundamentals of the world wheat market improved slightly in 1999 with production and stocks both declining for the second consecutive year. Area harvested has declined 6% since the high in 1996/97, however this was offset by a 6.7% increase in yields. The world stock-to-use percentage is projected to fall to 21.9 by the end of the current marketing year compared to 23.8 two years ago. Ending stocks held by the five largest exporting countries remain high, leading to aggressive competition for exports and weak prices.

World wheat trade is increasing in response to both low prices and improving economic conditions in developing and industrial countries. World trade is projected to reach a seven year high of 104 million tons during this marketing year, as imports increase in Latin America (Bolivia, Ecuador, Peru, Venezuela), the FSU (Russia, Ukraine and Uzbekistan), and the Middle East (Algeria, Islamic Republic of Iran, Jordan). Imports into the East Asian crisis countries have generally not increased relative to last year or relative to pre-crisis levels.

The decline in world wheat prices in 1999 exceeds what was expected based on the econometrically estimated relationship of prices to ending stock levels. According to this relationship, world wheat prices should have averaged $120.2/ton in 1999 instead of the actual $112.0/ton. It is not unusual for prices to differ from their historical relationship to stocks and in the past such deviations have often led to a price change which remove the differential. Prices are projected to increase to $122/ton in 2000, and $130/ton in 2001 as demand and supply adjust to current low prices.



*Argentina, Australia, Canada, EU, and US.
Source: USDA historial data and World Bank forecasts.

Other Developments

- A port strike in British Columbia, Canada has brought grain and oilseed exports from Vancouver to a standstill. The strike, which began in late December, was at BC Rail's wholly-owned subsidiary Vancouver Wharves. Mediated talks over company demands for concessions to increase productivity failed and no new negotiations have been scheduled. The strike closed the entire railway network. (*Public Ledger*, 1/17-23/2000)
- An ongoing rail strike in Western Australia could lead to major delays in wheat shipments. The strike which began in early December has paralyzed shipments to ports. (*Public Ledger*, 12/20/2000)
- Low wheat prices have led to a number of govern-

PRODUCTION AND STOCKS

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
China	110,570	123,300	109,730	115,000
EU	98,506	94,181	103,036	96,560
India	62,097	69,350	65,907	71,500
US	61,980	67,534	69,327	62,812
Russian Fed.	34,900	44,200	26,900	30,500
Canada	29,801	24,280	24,076	26,850
Australia	23,702	19,417	22,110	23,000
Pakistan	16,907	16,650	18,694	17,854
Turkey	16,000	16,000	18,500	16,500
Argentina	15,900	14,800	12,000	14,500
Ukraine	13,550	18,404	14,937	14,000
Kazakhstan	7,700	8,950	4,700	11,000
Mexico	3,107	3,639	3,250	3,100
World	**582,751**	**609,330**	**588,656**	**584,164**
Ending Stocks (000 tons)				
US	12,073	19,663	25,744	27,947
China	24,166	33,366	27,836	26,336
EU	14,758	16,050	20,440	16,253
India	7,000	10,081	10,638	14,188
Canada	9,047	6,009	7,365	7,415
Australia	2,395	1,348	2,400	2,325
World	**115,039**	**139,214**	**135,997**	**131,144**

Source: USDA

TRADE

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
US	27,039	28,090	29,035	29,000
Canada	18,167	21,283	14,388	18,500
Australia	18,223	15,398	16,000	18,000
EU	17,834	14,196	16,000	16,000
Argentina	10,073	9,566	8,700	10,000
Kazakhstan	2,026	3,375	2,072	3,300
Turkey	967	1,306	3,000	1,500
World	**101,976**	**102,034**	**101,110**	**103,635**
Imports (000 tons)				
Egypt	6,893	7,156	7,300	6,700
Brazil	5,662	5,758	7,290	6,700
Iran, Islamic R.	7,048	3,587	3,000	6,500
Japan	6,264	6,200	5,883	5,900
Korea, Rep.	3,465	3,917	4,689	4,500
Algeria	3,628	5,221	4,400	4,500
Pakistan	3,018	3,562	3,200	3,000
Russian Fed.	2,572	3,028	2,500	3,000
Mexico	1,940	2,166	2,500	2,500
Iraq	1,135	2,707	2,500	2,500
Yemen, Rep.	2,292	2,366	2,100	2,000
China	2,692	1,914	1,000	1,000
World	**101,976**	**102,034**	**101,110**	**103,635**

Source: USDA

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	306.5	436.3	588.0	609.3	588.7	584.2	3.45	2.07	0.79
Consumption	329.5	444.0	561.9	585.2	591.9	591.1	3.08	2.39	0.57
Exports	55.0	94.1	101.1	102.0	101.1	103.6	5.51	1.79	-1.21
Ending Stocks	80.5	113.9	145.0	139.2	136.0	131.1	6.11	0.60	-1.98
Crop Area (mil. hectares)	207.0	237.1	231.4	227.9	224.7	216.5	1.28	-0.69	0.29
Yields (tons/hectare)	1.48	1.84	2.54	2.67	2.62	2.70	2.13	2.79	0.48
	Actual					Forecast			
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	177.0	207.6	126.1	112.0	122.0	130.0	140.0	160.0	170.0
Constant 1990	148.5	182.1	121.1	108.2	114.9	119.5	125.4	133.9	125.8

Note: Quantities are in local marketing years, except export and imports which are in July/June years.Prices are for US HRW No. 2 wheat, f.o.b. US Gulf in calendar years.

Source: USDA historical data and estimates and World Bank price forecasts.

Bananas

Prices reached a 6-year low in October, averaging 27.4% lower than a year ago. Large apple and citrus production in Europe added to an already depressed banana market.

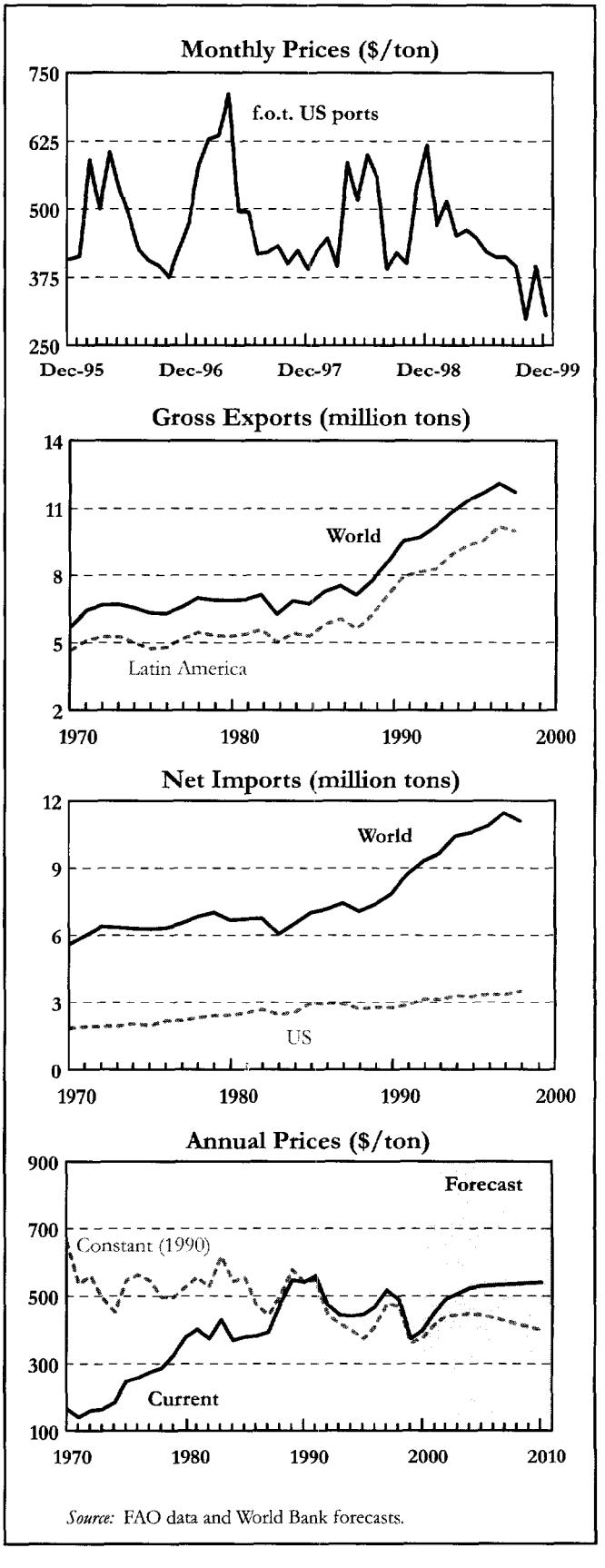
Banana prices (f.o.t. US ports) averaged $333/ton during the last quarter, 18.1% lower than the third quarter's average of $406.4/ton, and 27.4% lower than a year ago. In addition to the typical cyclical decline, excessive production of apples and citrus in Europe pushed prices down more than originally anticipated.

Ecuador, the world's dominant exporter, shipped 3.85 million tons of bananas during 1998. For the 10 months of 1999, banana exports from Ecuador, reached 3.63 million tons and assuming that the same trend holds for the months of November and December 1999, total exports for 1999 will be 1.5 to 2.0% higher than 1998. However, according to Ecuador's agriculture ministry, total export earnings fell to $861 million in January-November from $962 million during the same period of 1998. Exports from Costa Rica, the world's second largest banana exporter, reached 2.05 million tons in 1999, down 2% from 1998.

On the import side, it appears that the banana market is recovering. US imports reached 3.85 million tons in 1999, up 10% from 1998. Japanese imports also increased by 10%. Imports by the Republic of Korea have picked up: for the first 11 months of 1999 it imported 131 thousand tons, compared to 86 thousand tons in all of 1998. Imports by Russia, the fourth largest importer following the US, EU, and Japan, have also picked up. In August to October this year, Russia imported 72 thousand tons from Ecuador compared to 29 thousand tons last year.

Banana prices have been unusually low in 1999 by historical standards, and given the fact that apple and citrus production in Europe has been at record levels, it will take a few months before prices recover. We expect therefore, prices to average about $400/ton during 2000 and pick up considerably during 2001.

Note: Starting this January, we have switched to a new price series for bananas. We believe that the new series better reflects market conditions and is closer to a free market f.o.b. price. We have also added a European prices series. Details can be found in the "Description of Price Series" section of this report.



Source: FAO data and World Bank forecasts.

Other Developments

- The EU Commission adopted a proposal for modifying its banana regime in November 1999. The Commission's proposal is based on a single tariff following a 6-year transitional period during which there will be a tariff quota with preferential tariff access from ACP countries. During the transitional period the following Tariff Rate Quotas (TRQs) will apply: (i) 2.2 million tons at euro 75/ton which is bound in the EU WTO schedule; (ii) 353,000 tons would also be added at the same tariff; and (iii) 850,000 tons would be open to both ACP and non-ACP bananas but for ACP access, a preference of euro 275/ton would be accorded, implying a zero ACP tariff if the tariff within the quota did not exceed euro 275/ton. The licensing methods under consideration are traditional/newcomer based on a historical reference period, first-come/first-served, simultaneous examination, and auctioning.
- As a result of a weak banana market, Chiquita Brands International, Inc. announced that it will suspend the common stock dividend for this year. There are also talks that Chiquita may sell part or all of its operations. Its rival Dole Food Co. also announced that it will close its banana operations in Nicaragua and Venezuela according to *Bloomberg*.

GROSS EXPORTS (000 tons)

	1995	1996	1997	1998
Ecuador	3,737	3,842	4,446	3,848
Costa Rica	2,033	1,933	1,835	2,101
Colombia	1,336	1,407	1,509	1,436
Philippines	1,213	1,253	1,143	1,147
Guatamela	646	611	659	632
Panama	693	634	602	463
Honduras	522	637	557	433
Mexico	110	163	240	280
Côte d'Ivoire	173	193	191	200
Cameroon	171	191	179	132
Nicaragua	54	78	70	103
China	47	57	52	73
Venezuela	32	40	68	72
Saint Lucia	113	102	74	71
Brazil	13	30	40	69
Dominican R.	94	80	64	65
Jamaica	85	86	79	63
Belize	52	65	63	53
St. V. & Gren.	44	50	33	39
Malaysia	35	27	26	30
Dominica	32	40	35	29
Suriname	34	27	29	23
World	**11,375**	**11,712**	**12,124**	**11,489**

Source: FAO

NET IMPORTS (000 tons)

	1995	1996	1997	1998
US	3,266	3,368	3,354	3,505
EU	3,125	3,164	3,139	2,983
Japan	874	819	885	865
China	160	513	547	539
Russian Fed.	503	307	881	475
Canada	400	408	417	417
Poland	227	238	242	277
Argentina	201	248	252	243
F. Yugoslavia	117	155	195	169
Saudi Arabia	167	153	147	144
Chile	145	151	137	135
Turkey	88	97	111	123
Czech, Rep.	160	147	132	115
Korea, Rep.	122	124	136	86
New Zealand	72	70	74	73
Switzerland	75	74	74	73
Hungary	66	35	54	65
Syrian Arab R.	53	48	60	61
Norway	60	61	58	58
Slovakia	56	77	63	58
UAE	45	56	64	44
Iran	120	50	40	40
World	**10,536**	**10,787**	**11,466**	**10,979**

Source: FAO

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (000 tons)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Production	31,777	36,969	47,177	56,653	59,750	55,841	1.31	3.00	2.93
Gross Exports	5,731	6,886	11,364	11,712	12,124	11,489	0.43	2.23	5.79
Net Imports	5,585	6,680	10,567	10,787	11,466	10,979	0.87	1.75	5.67

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	469.6	517.1	489.5	373.2	399.6	452.0	490.6	529.1	540.1
Constant 1990	411.2	477.1	469.8	360.4	376.5	415.4	439.5	442.7	399.8

Source: FAO and World Bank.

Shrimp

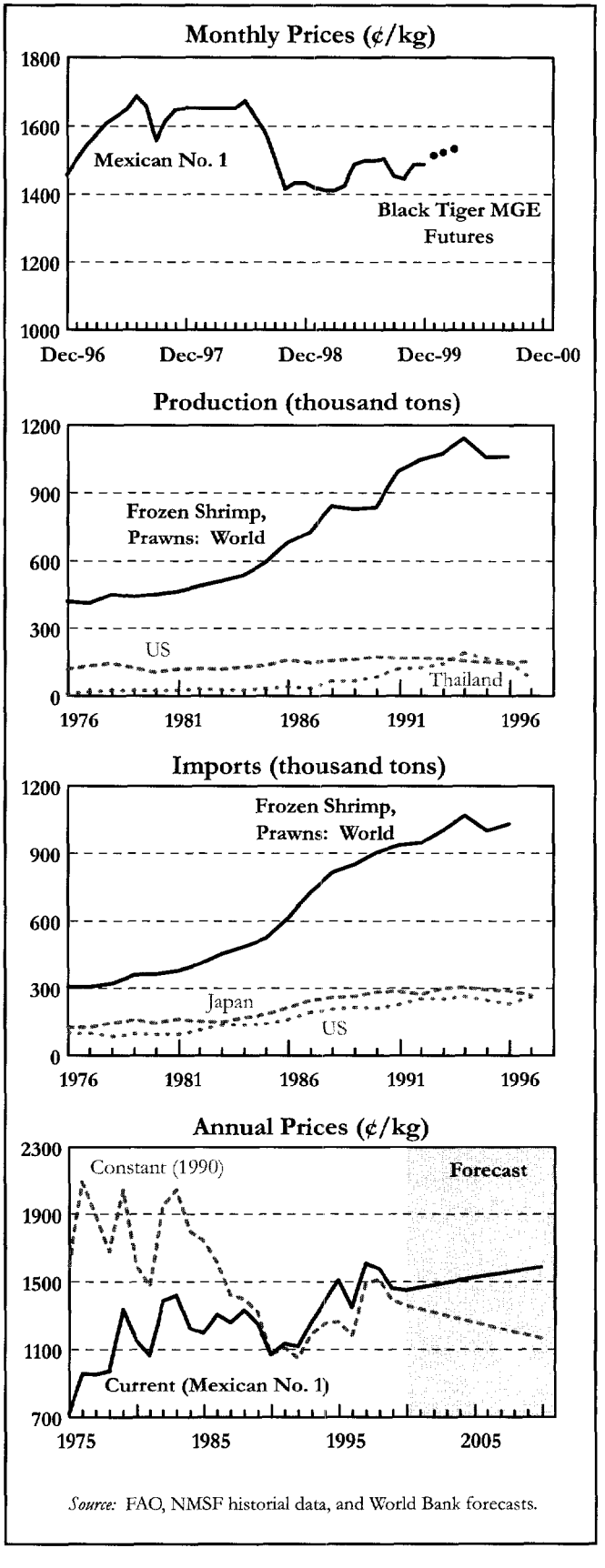
Prices rose during the holiday season due to strong demand and weak production. Prices will be strong this quarter as supplies are tight.

Shrimp prices fell from 1,485 ¢/kg to 1,473¢/kg this quarter. The decline was mostly due to an average October price of 1,444¢/kg, but prices for Mexican white 26/30 count rose 3.1% from this low to 1,488¢/kg in December.

White spot disease reduced production exports during the fourth quarter. Ecuador has seen its production decline by 25%, although exports are almost as high as last year, because shrimp were harvested earlier and smaller. Over two-thirds of its exports are of small size shrimp and Ecuador has shifted to Asian markets who have a preference for the smaller size.

US imports of shrimp rose 7.2% over the same January-November period of last year (*November 1999, NMFS*), and with lower imports from Ecuador and Central American countries, a scarcity of larger sizes and record levels of consumption in the US, Thailand, Mexico, Venezuela, Brazil, Vietnam and Bangladesh, have increased their exports to the US. Thailand has the greatest share of total US imports at 33.8%, an increase of 21.59 thousand tons or 26.7% over last year. Brazil and Venezuela have more than doubled their exports to the US from last year.

Harvests were lower in India, Australia, Indonesia, Sri Lanka and Iran this quarter due to weather-related and environmental problems. In India, farmed black tiger shrimp production was destroyed by the typhoon in Orissa. These poor harvests contributed to higher prices in Japan. Tight Asian supplies, a build-up of inventories, a strengthening market and higher demand, have also pushed prices up. Prices should remain at current levels or increase slightly. Consumption also remains strong in Europe but supplies have also been affected by the low Asian/Pacific and Ecuadorian catches. There have also been smaller harvests of cold water shrimp in Iceland and Canada, the latter's production reportedly down almost a third and its sector having partly shifted into crabbing. Although Norway's landings have been good, up over two-thirds from last year, with short supplies and strong currencies, there has been a strong rise in prices in the EU and they should remain as high or edge slightly higher.



Source: FAO, NMSF historial data, and World Bank forecasts.

Other Developments

- The US had restricted imports of wild shrimp from countries using methods which endangered sea turtles. However, affected countries challenged the imposition and won the shrimp-turtle case on appeal by the WTO Appellate Body. The WTO concluded that: "that WTO members may take measures relating to the conservation of exhaustible natural resources, including sea turtles. However, these measures may not be applied in a way that is arbitrary or unjustifiable or constitutes a disguised restriction on international trade."
- With increased and continued production losses due to the white spot virus, shrimp farmers are searching for successful health management techniques. One such technique adopted by farmers in Honduras, is to shift the larvae hatching season to March-December and to reduce the larvae density in ponds from 25 to 7 per square meter (m^2), in order to reduce stress on the shrimp (*FIS Latin America*).

PRODUCTION

	1994	1995	1996	1997
Production (000 tons)				
US	153.0	148.8	143.5	152.2
India	107.9	101.8	128.4	134.0
Ecuador	72.7	84.9	85.7	109.0
Thailand	191.0	165.7	152.0	79.4
Indonesia	88.7	78.2	79.6	77.6
Vietnam	63.1	38.7	38.8	41.6
Mexico	45.9	51.6	44.1	41.4
Greenland	35.0	33.0	34.7	30.8
Bangladesh	22.1	26.3	26.5	25.7
Spain	19.4	19.0	21.9	25.3
Pakistan	13.8	14.8	16.8	17.7
Iceland	31.2	35.1	38.7	15.6
Norway	25.0	16.1	17.8	15.2
Colombia	12.7	11.0	9.8	13.8
Panama	9.2	12.2	12.2	13.6
Australia	11.1	14.9	10.8	13.5
China, PR	61.0	48.0	56.9	13.5
Philippines	21.7	17.8	21.8	10.1
Korea, Rep	10.0	9.8	7.6	9.8
Mozambique	8.2	8.0	6.9	9.5
Myanmar	...	4.5	8.7	9.1
Venezuela	4.7	5.2	7.0	8.6
Taiwan, China	4.3	2.6	2.1	7.5
World	**1,143.3**	**1,060.7**	**1,063.7**	**n.a.**

Source: FAO

TRADE

	1994	1995	1996	1997
Exports (000 tons)				
Ecuador	72.0	86.4	85.7	109.0
India	110.5	98.5	110.7	105.4
Thailand	178.5	165.7	152.0	79.4
Indonesia	83.8	76.6	79.6	77.6
Denmark	40.6	34.0	46.7	47.9
Vietnam	63.1	37.4	35.8	41.6
Mexico	24.4	35.9	35.8	35.7
Bangladesh	31.3	27.7	27.6	31.4
Greenland	34.3	33.0	34.7	30.8
Canada	18.2	21.2	17.7	21.8
Pakistan	15.5	14.9	15.6	17.7
World	**1,050.4**	**978.0**	**1,013.2**	**n.a.**
Imports (000 tons)				
Japan	303.5	293.1	289.0	267.6
US	263.1	245.2	230.3	259.5
Spain	108.2	80.5	82.7	77.0
Denmark	49.9	40.4	53.1	52.8
France	48.3	53.1	55.1	51.6
Canada	16.4	22.6	50.8	34.8
Italy	28.8	28.2	33.1	28.1
UK	27.8	26.6	25.1	25.9
HK, China	33.2	28.8	29.7	23.0
Belgium	19.7	22.2	21.2	20.7
World	**1,068.9**	**1,003.3**	**1,033.5**	**n.a.**

Source: FAO

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (000 tons)	**1980**	**1985**	**1990**	**1994**	**1995**	**1996**	**1976-80**	**1980-90**	**1990-96**
Production	451.4	593.2	838.9	1143.3	1,060.7	1,063.7	2.17	7.56	3.33
Imports	361.9	524.1	905.5	1068.9	1,003.3	1,033.5	5.11	10.63	2.37

	Actual				Forecast				
Price (¢/kg)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	1,351.6	1,611.6	1,578.9	1,461.0	1,480.0	1,500.0	1,520.0	1,550.0	1,590.0
Constant 1990	1,183.6	1,487.0	1,515.4	1,410.0	1,394.0	1,379.0	1,362.0	1,297.0	1,177.0

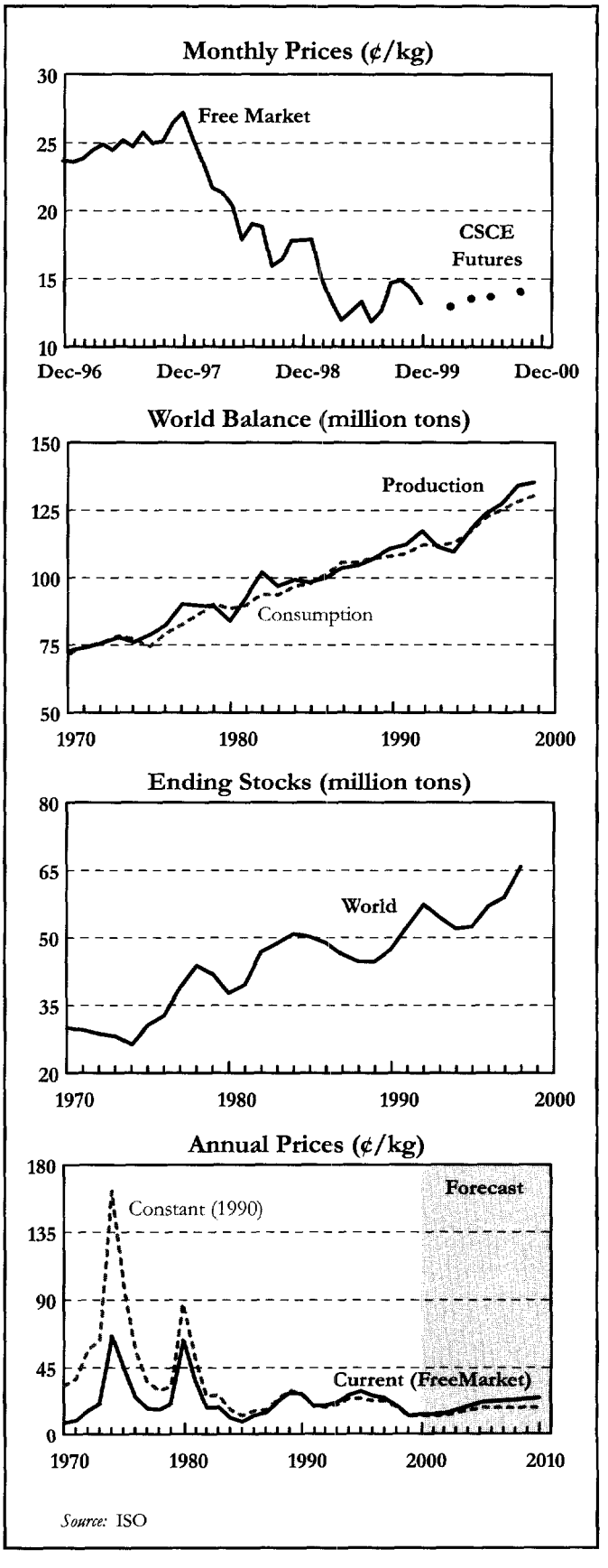
Note: Production, trade, exports, and imports are for the calendar year for frozen shrimp and prawns.
Source: FAO, NMFS historical data, and World Bank forecasts.

Sugar

Sugar prices are expected to remain near current levels for an extended period due to large global supplies and an imbalance between production potential and demand. A major cutback in supplies is needed before the market can return to balance, and history suggests this could take several years.

Sugar prices continue to trade in the narrow range between 13 and 15 cents/kg as large production and stocks exceed likely demand, but changes in near-term market conditions can send prices marginally higher or lower. It seems unlikely that prices can sustain a rally beyond 15 cents unless a major importer such as Russia increases buying. Global production is expected to reach a new high in 1999/00 according to ISO estimates while consumption and imports lag. Asian demand remains stagnant despite the improved economic outlook for the region. Production has not yet begun to contract as major producers are either expanding production or hoping another producer will cut production. Pressure from producers can also lead to government protection from low prices and this will delay even more the eventual price recovery.

It will take more than trade reforms to solve the world sugar market's problems according to Tony Hannah, head of economics and statistics at the International Sugar Organization (IS0), in an open outcry article in *The Public Ledger* (12/27/1999). According to Hannah, previous predictions of higher sugar prices which accompanied the start of the Uruguay Round did not consider the potential of low cost producers such as Brazil and the history of the sugar market to overproduce following every increase in prices. Brazil is said to have a production cost of 4.5 to 5.0 cents/pound, while Australia and Thailand have production costs around 9.0 cents/pound. These countries could respond quickly if prices were to rise. Competition from high fructose corn syrup (HFCS) further weakens the prospects that prices will rise to levels predicted by researchers from academia. The sugar market faces three problems according to Hannah, weak Asian demand, low cost sugar substitutes such as HFC and the potential of Brazil to increase sugar production even at very low prices. Despite the problems, Hannah still supports trade reform.



Other Developments

- Sugar producers, mostly from developing countries, have formed an alliance to pressure the EU and US to reform their sugar policies. The newly formed *Global Alliance for Sugar Trade Reform* began their campaign at the World Trade Organization talks in Seattle. The alliance includes Australia, Brazil, Canada, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, India, Nicaragua, Panama and Thailand. (*Bloomberg News*, 12/09/1999) According to Brian Fisher, Executive Director of the Australian Bureau of Agriculture and Natural Resources, world sugar demand would rise and prices could increase by up to 40 percent if barriers to trade in sugar were removed. (*Bloomberg News*, 11/30/1999)

PRODUCTION AND CONSUMPTION

	1996/97	1997/98	1998/99	1999/00
Production (000 tons)				
Brazil	15,269	18,134	21,050	19,750
EU	18,756	18,900	17,900	19,100
India	13,898	13,859	16,780	17,400
China	7,323	8,747	9,702	8,900
US	6,537	7,274	7,555	8,085
Thailand	6,099	4,325	5,475	6,000
Mexico	4,822	5,492	5,025	5,475
Australia	5,793	5,395	5,200	5,400
Cuba	4,316	3,284	3,780	4,000
Pakistan	2,460	3,800	3,775	3,575
World	**123,698**	**127,501**	**133,949**	**135,160**
Consumption (000 tons)				
India	15,195	16,026	16,225	16,600
EU	14,605	14,100	14,300	14,600
Brazil	8,800	9,150	9,200	9,300
US	8,838	8,923	9,140	9,300
China	8,050	8,300	8,625	8,800
Russian Fed.	5,325	5,450	5,975	5,995
Mexico	4,140	4,416	4,420	4,500
Pakistan	2,910	3,130	3,250	3,300
Indonesia	3,280	2,930	3,000	3,025
Japan	2,478	2,530	2,500	2,525
World	**122,231**	**125,199**	**128,140**	**130,395**

Source: ISO

TRADE

	1996/97	1997/98	1998/99	1999/00
Exports (000 tons)				
Brazil	5,995	8,483	11,205	10,450
EU	5,064	6,158	4,930	6,325
Australia	4,415	4,514	4,142	4,322
Thailand	4,129	2,570	3,270	4,060
Cuba	3,597	2,569	3,030	3,245
Guatemala	1,047	1,324	1,165	1,230
S. Africa, Rep.	939	1,078	1,531	1,130
Mexico	742	1,137	605	975
Colombia	808	849	875	850
Pakistan	0	519	525	275
World	**35,410**	**36,647**	**38,650**	**38,881**
Imports (000 tons)				
Russian Fed.	3,060	4,395	5,900	4,025
EU	1,902	1,896	1,825	1,825
Japan	1,726	1,660	1,610	1,630
Korea, Rep.	1,446	1,376	1,445	1,470
US	2,620	2,106	1,725	1,400
Canada	1,064	1,068	1,135	1,145
Egypt	1,295	1,210	1,025	1,085
Iran, Islamic R.	1,390	1,075	1,050	1,075
Malaysia	1,122	1,010	1,225	990
Indonesia	1,690	1,080	1,410	975
World	**35,425**	**36,631**	**38,419**	**33,890**

Source: ISO

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1997/98**	**1998/99**	**1999/00**	**1970-80**	**1980-90**	**1990-98**
Production	72.9	83.9	110.7	127.5	133.9	135.2	2.43	1.72	2.12
Consumption	71.9	88.6	107.9	125.2	128.1	130.4	2.22	1.97	1.91
Ending Stocks	30.0	37.7	47.3	59.0	65.8	n.a.	5.02	1.49	2.75

	Actual					Forecast			
Price (¢/kg)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	26.4	25.1	19.7	13.8	14.0	14.2	14.5	22.0	25.0
Constant 1990	23.1	23.1	18.9	13.3	13.2	13.1	13.0	18.4	18.5

Note: Quantities are in marketing years (October/September), measured in raw value, except world ending stocks, which are in calendar years. Prices are in calendar years.

Source: Historical data from the International Sugar Organization and World Bank price forecasts.

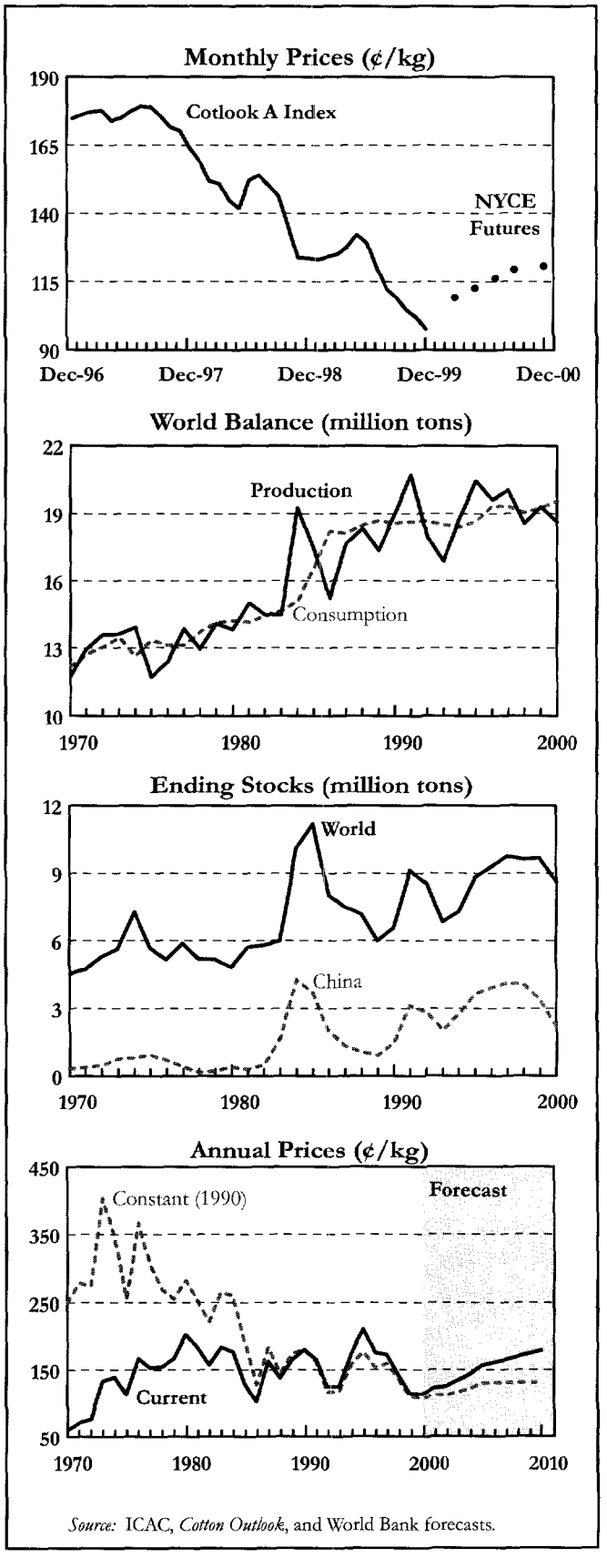
Cotton

The A Index dropped below 100¢/kg in December for the first time since September 1986. It appears that the market has reached bottom and will pick up soon, as production cutbacks for the next season are expected in virtually all countries except the US.

The medium staple cotton price indicator (Cotlook A Index) continued its slide reaching 97.4¢/kg in December, the lowest level since September 1986. The index averaged 101¢/kg during the last quarter of 1999, down 11.0% from the third quarter's average and 20.6% lower than the fourth quarter of last year.

Recent estimates released by the International Cotton Advisory Committee (ICAC) indicate that world cotton production for the 1999/00 season (August to July) will reach 19.30 million tons, 4% higher than last season's crop. Consumption will recover from 19.05 to 19.28 million tons. Production increases this season are expected to take place mainly in Brazil (35%), US and Pakistan (22% each), and Uzbekistan (16%), while China may reduce its output by as much as 13%. Exports will pick up from 5.27 million tons in 1998/99 to 5.97 million tons in 1999/00.

With production being almost equal to consumption in the current season and stocks remaining at the high end of the spectrum, the market outlook is justifiably dominated by a bearish sentiment. The news for the next season's crop gives a much more optimistic picture: apart from the US, all major producers are expected to reduce output leading to a 3.5% production cut-back while consumption is expected to increase by almost 2% – a number of major importers are expected to increase consumption: Brazil (21%), Japan (18%), and Mexico (37%). This imbalance is expected to lead to a 12% draw down in stocks, most of which is expected to come from China. We therefore expect prices to fluctuate around current levels for the first quarter and if next crop's estimates materialize, prices could increase considerably. However, because of the low current levels, this year's A Index average is expected to be close to the 1999 average (on calendar comparison). For 2001, we expect the A Index to increase between 8% and 10%.



Source: ICAC, *Cotton Outlook*, and World Bank forecasts.

Other Developments

- The US authorized the step-2 payment to cotton producers last October as part of the US $70 billion agricultural appropriations bill for the fiscal year 2000. USDA later announced that the support will be retroactive to the beginning of the fiscal year, October 1. While at the time of the announcement markets did not move in any substantial way, expectations that the support will run throughout the entire year may boost US output by 5%.
- China announced that it will scale cotton production down to 3.2 million tons in the 2000/01 season (it is estimated at 3.5 million tons), according to the Chinese farm ministry as reported by *Reuters* on January 14. Many analysts believe that China's announcement signaled the turning point in the cotton market.
- The EU has adopted a proposal which may reduce the amount of support that EU cotton producers receive if production exceeds a certain ceiling. If adopted by the Council, the regulation will enter into force by September 1, 2000.

PRODUCTION AND STOCKS

	1997/98	1998/99	1999/00	2000/01
Production (000 tons)				
US	4,092	3,030	3,700	3,900
China	4,600	4,501	3,900	3,500
India	2,450	2,710	2,800	2,750
Pakistan	1,530	1,480	1,800	1,550
Uzbekistan	1,150	1,000	1,160	1,100
West Africa	956	897	928	901
Turkey	795	871	850	816
Australia	681	726	700	650
Brazil	370	420	569	580
Greece	348	405	390	394
Turkmenistan	180	200	280	350
Syrian Arab R.	355	335	325	254
World	**20,015**	**18,551**	**19,298**	**18,620**
Ending Stocks (000 tons)				
China	4,198	4,124	3,339	2,289
India	811	1,011	1,217	1,217
US	844	849	979	1,034
Pakistan	323	353	533	598
Turkey	100	269	437	413
Australia	326	424	432	382
World	**9,825**	**9,699**	**9,702**	**8,696**

Source: ICAC

TRADE

	1997/98	1998/99	1999/00	2000/01
Exports (000 tons)				
US	1,695	915	1,400	1,750
Uzbekistan	950	900	950	1,009
West Africa	815	843	866	839
Australia	625	650	640	678
China	40	147	300	300
Turkmenistan	58	210	230	298
Greece	200	230	222	274
World	**5,982**	**5,274**	**5,972**	**6,193**
Imports (000 tons)				
Indonesia	425	500	555	542
Mexico	330	302	390	533
Italy	350	330	365	381
Turkey	280	250	376	371
Korea, Rep.	265	330	360	370
Brazil	380	292	284	344
Taiwan, China	275	293	322	310
Thailand	285	271	295	307
Japan	285	270	230	270
India	180	136	300	251
Russia Fed.	223	179	224	227
World	**5,725**	**5,429**	**5,972**	**6,193**

Source: ICAC

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Balance (000 tons)	1970/71	1980/81	1990/91	1998/99	1999/00	2000/01	1970-80	1980-90	1990-98
Production	11,740	13,832	18,970	18,551	19,298	18,620	1.23	3.05	0.13
Consumption	12,173	14,215	18,576	19,046	19,282	19,565	1.09	3.17	-0.08
Exports	3,875	4,414	5,081	5,274	5,972	6,193	0.50	2.83	0.27
Ending Stocks	4,605	4,895	6,645	9,699	9,702	8,696	1.77	2.63	2.17
Yields (tons/hectare)	369	411	574	557	583	564	0.92	3.41	-0.55
	Actual					Forecast			
Price (¢/kg)	1996	1997	1998	1999	2000	2001	2002	2005	2010
Current	177.3	174.8	144.5	117.1	118.0	130.1	132.3	158.8	180.8
Constant 1990	155.6	161.3	138.6	113.0	111.1	119.6	118.5	132.8	133.8

Note: Crop year begins August 1.
Source: ICAC and World Bank.

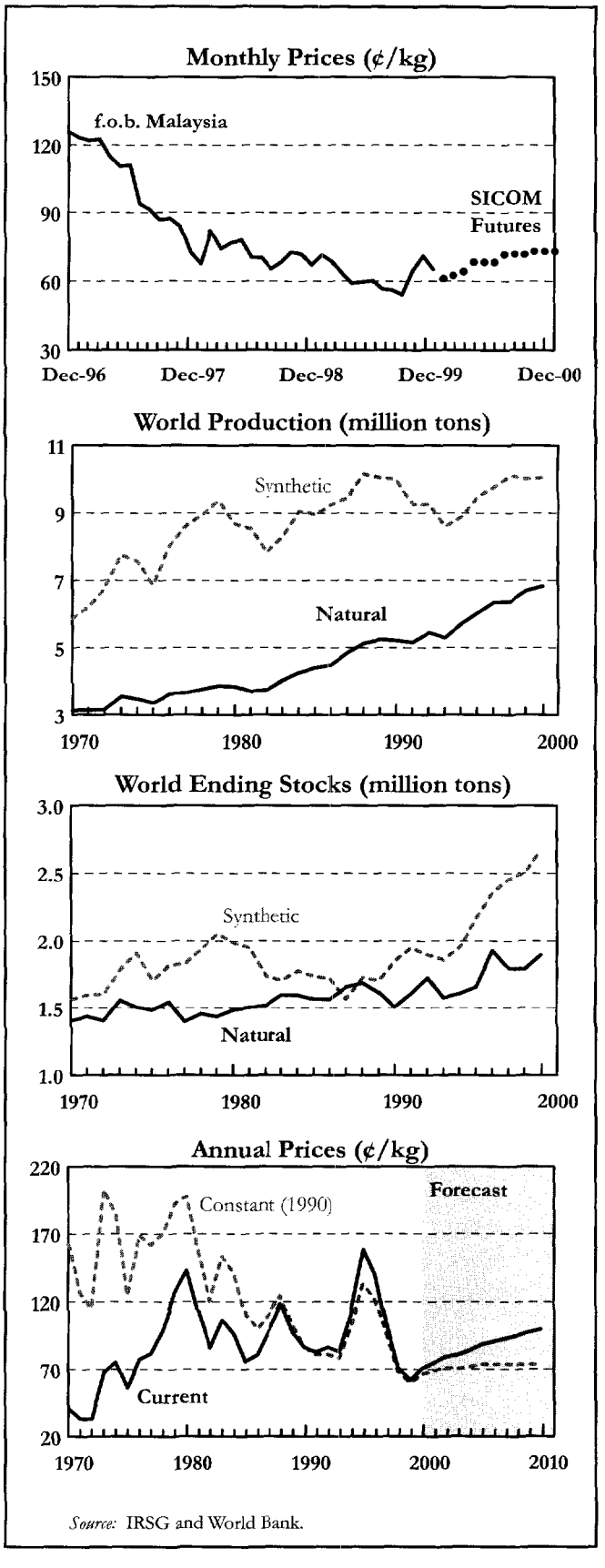
Rubber

Following heavy rains in Malaysia and Indonesia, prices reached a high of 74.1¢/kg in November only to retreat to 65.4¢/kg in December. The market is expected to turn higher during 2000.

The Kuala Lumpur rubber indicator price reached a high of 74.1¢/kg in November. Heavy rains in the Asian producing regions prevented farmers from tapping trees and created a short-term production shortfall. Although prices retreated to 65.4¢/kg in December, the fourth quarter's average of 68.1¢/kg was 22.3% higher than the third quarter but still 3.6% lower than the same quarter of last year.

According to the International Rubber Study Group's (IRSG) most recent estimates, the 1999 global output for natural and synthetic rubber reached 6.68 and 10.28 million tons respectively. The corresponding figures for 2000 are expected to be 6.79 and 10.57 million tons, giving a combined growth of 2.4%, compared to 1999. Consumption of natural rubber is expected to increase by 3.7% (from 6.78 million tons in 1999 to 7.03 million tons in 2000) while consumption of synthetic rubber is expected to increase by 2.2% (from 10.09 million in 1999 to 10.31 in 2000), giving a total combined increase of 2.8%.

There are some indications, however, that the market is about to turn. First, the demand-side fundamentals appear to improve considerably. Most of the crisis-stricken Asian economies are getting back on track, with regional GDP having grown an estimated 5.5% in 1999 and expected to grow an additional 6.2% in 2000. On the other hand, the effects of the financial crisis in Russia and Brazil have been less severe than originally anticipated. On the supply side, government-induced production control measures in Thailand, along with market-induced shifting from rubber to palm oil production, are expected to tighten the rubber market. It is likely therefore that what started as a weather-related price spike in the end of 1999, may well continue into 2000, reflecting the shift in the fundamentals this time. Hence, we expect some recovery with the price forecast averaging about 70¢/kg in 2000, considerably higher than the 1999 average, but slightly below the 1998 average. We expect this recovery to continue in 2001, with prices increasing to 75¢/kg.



Source: IRSG and World Bank.

Other Developments

- Record production, weak demand, and high stocks sent rubber prices to a 24-year record low last year. In addition, the termination of INRA III made 1999 one of the most turbulent years in recent history for the rubber market.
- China expressed an interest in purchasing 20,000 tons of rubber from the International Natural Rubber Organization's (INRO) stockpile according to *The Public Ledger*. Following INRA III's termination last October, INRO is in the process of disposing its 132,300 tons of rubber stocks used to manage its price band scheme. INRO has up to three years to liquidate the stockpile. Malaysia and Thailand have reportedly expressed interest in buying the remaining INRO stocks.

NATURAL RUBBER

	1995	1996	1997	1998
Production (000 tons)				
Thailand	1,970	2,033	2,216	2,025
Indonesia	1,527	1,505	1,714	1,688
Malaysia	1,083	971	886	827
India	540	580	591	557
China	430	444	450	458
Vietnam	189	201	219	232
Côte d'Ivoire	90	108	109	114
Sri Lanka	113	106	96	100
World	**6,360**	**6,380**	**6,700**	**6,680**
Consumption (000 tons)				
US	1,002	1,044	1,157	1,122
China	810	910	839	848
Japan	715	713	707	714
India	558	572	580	600
Germany	193	212	248	229
World	**6,140**	**6,500**	**6,580**	**6,780**
Net Exports (000 tons)				
Thailand	1,763	1,837	1,839	1,629
Indonesia	1,434	1,404	1,641	1,483
Malaysia	710	587	425	551
Vietnam	141	151	165	174
Liberia	30	67	75	90
World	**4,490**	**4,450**	**4,550**	**4,220**

Source: IRSG and World Bank estimates for 1998.

SYNTHETIC RUBBER

	1995	1996	1997	1998
Production (000 tons)				
US	2,486	2,589	2,610	2,358
Japan	1,520	1,592	1,520	1,546
China	553	600	589	683
Russian Fed.	775	725	621	676
Germany	548	555	619	646
France	583	595	606	620
Korea, Rep.	516	540	533	540
Taiwan, China	376	457	472	462
World	**9,770**	**10,090**	**10,010**	**10,280**
Consumption (000 tons)				
US	2,187	2,323	2,354	2,102
China	870	995	1,000	1,170
Japan	1,125	1,163	1,116	1,107
Germany	478	501	565	534
Russian Fed.	438	450	358	380
World	**9,580**	**10,000**	**9,860**	**10,090**
Gross Exports (000 tons)				
US	732	769	742	774
Japan	477	494	490	542
France	462	507	497	493
Germany	403	424	456	488
Korea, Rep.	177	266	342	350
World	**4,540**	**4,980**	**5,150**	**5,380**

Source: IRSG and World Bank estimates for 1998.

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
Natural Rubber (000 tons)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Production	3,140	3,820	5,080	6,380	6,700	6,680	1.77	3.19	2.91
Consumption	3,090	3,770	5,190	6,500	6,580	6,780	1.58	3.18	3.17
Net Exports	2,820	3,280	3,950	4,450	4,550	4,220	1.22	2.19	1.33
Ending Stocks	1,440	1,480	1,500	1,790	1,910	1,810	0.45	0.71	1.26
Synthetic Rubber (000 tons)									
Production	5,880	8,640	9,840	10,090	10,010	10,280	3.45	0.63	0.22
Consumption	5,610	8,830	9,620	10,000	9,860	10,090	3.80	0.46	0.17
Net Exports	1,460	2,320	3,370	4,980	5,150	5,380	3.67	3.90	5.77
Ending Stocks	1,560	1,740	1,890	2,450	2,600	2,650	1.77	-1.41	5.41

	Actual				Forecast				
Prices-Natural (¢/kg)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	139.4	101.8	72.2	62.9	70.6	75.0	79.3	88.2	99.2
Constant 1990	122.3	93.9	69.3	60.7	66.5	68.9	71.1	73.8	73.4

Source: IRSG and World Bank.

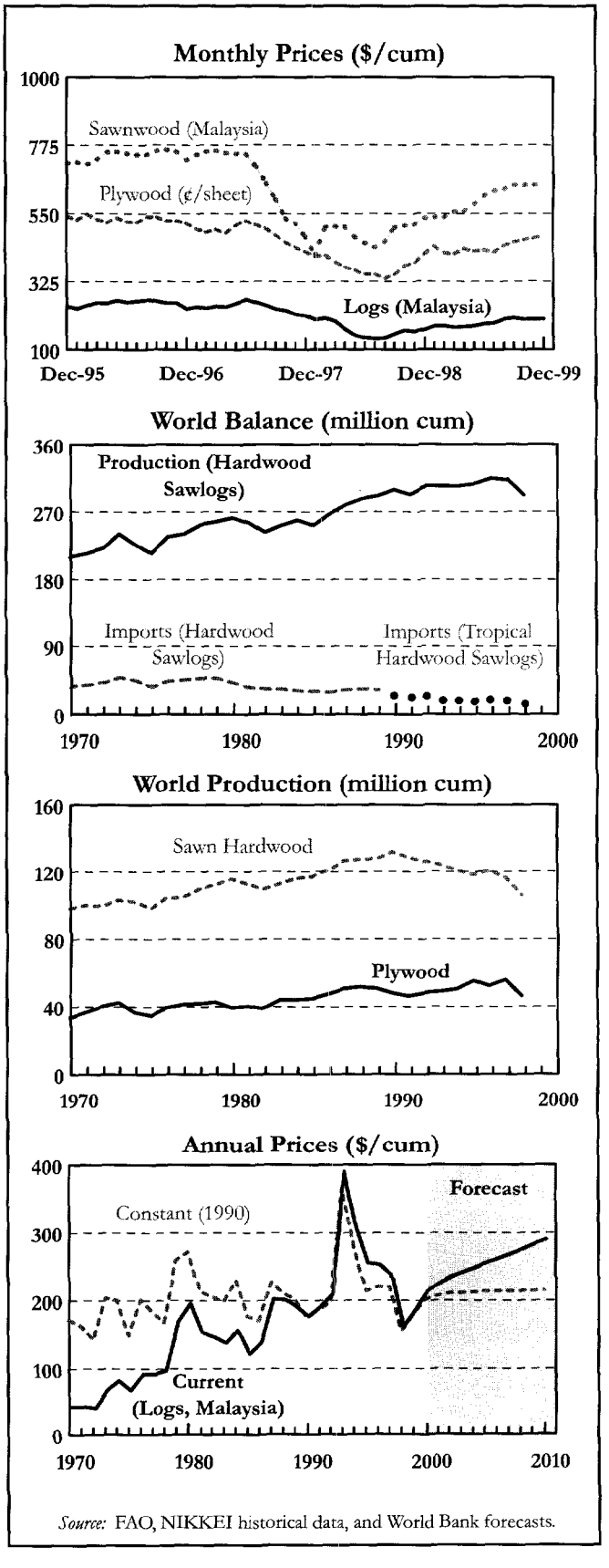
Tropical Timber

Tropical log prices are expected to remain firm in the near-term because of improved demand prospects in Asia and Europe, and tight supplies from major producers. Sawnwood prices may follow log prices higher, but could suffer from domestic processing preference.

Asian timber prices edged higher during the fourth quarter, with Malaysian log prices up 1.5% and sawnwood prices up 1.8%. This caps a sustained recovery since the lows of July 1998 following the Asian crisis. Prices are expected to continue firm as demand recovers along with the recovery in the Asian economies and supplies remain tight during the rainy season in southeast Asia which hampers logging.

African timber prices were up substantially during the fourth quarter due partly to the ban on Cameroonian exports of specified endangered species of logs. Prices of Sapele logs increased 18% compared to the third quarter while sawnwood prices were up 12%. The ban did not apply to Sapele logs, but its exports are now subject to authorizations and quota allocations. Sapele logs exported from neighboring People's Republic of Congo and Central African Republic are still shipped through Cameroon's port. Reduced supplies of endangered species logs and poor logging conditions due to heavy rains, contributed to higher prices for Sapele logs. African supplies are expected to be slim at least through March 2000, according to importers.

Japan has been shifting its imports away from Asian tropical timber in an effort to diversify supplies amid concerns that logs from southeast Asia may become scarce if environmental protection concerns increase. This has led to recent Japanese efforts to increase the use of softwoods for plywood production and imports from Russia and other sources. While Japan has traditionally been the largest importer of Asian tropical hardwoods, China and Hong Kong have been taking up the slack left by lower imports to Japan following the recent economic slump. The housing and furniture sectors have been the main engines driving import growth, but China's imports also increased after the government's July 1998 logging ban following the severe floods in the upper reaches of Yangtze River. China's steady currency value in the face of widespread currency devaluation in the Asian region provided additional capacity to import.



Source: FAO, NIKKEI historical data, and World Bank forecasts.

Other Developments

- The World Bank is holding a crisis forestry seminar in Jakarta in early February to find solutions to deal with the accelerating deforestation in Indonesia.
- Effective January 1, 2000, Indonesia export duty on forest products is to be reduced to 15% from 20% in order to promote economic recovery.
- Japan's demand for plywood is expected to remain weak for at least the first quarter of 2000 due to large inventories. Japan's plywood imports for 2000 are forecast to be 2.55 million cubic meters, with Malaysia accounting for 1.3 million cubic meters and other origins accounting for .35 million cubic meters.

Hardwood Logs (000 cum)	1997	1998
Prod. of Sawlogs & Veneer		
US	70,721	71,260
Brazil	26,000	25,000
Indonesia	32,250	21,444
China*	22,159	20,553
Malaysia	29,700	20,000
India	15,812	15,812
World	**313,131**	**293,372**
Exports of Tropical Hardwood		
Malaysia	6,593	5,583
PNG	3,006	1,613
Gabon	3,000	1,600
Cameroon	1,706	1,280
HK, China	548	742
World	**18,186**	**14,097**
Imports of Tropical Hardwood		
China*	4,439	3,723
Japan	5,854	3,427
India	704	1,323
HK, China	843	914
France	675	780
World	**17,617**	**14,470**

Source: FAO

Sawn Hardwood (000 cum)	1997	1998
Production		
US	29,972	28,084
India	14,960	14,960
Brazil	10,500	10,000
China*	8,195	7,295
Malaysia	7,176	5,091
Russian Fed.	3,925	3,560
World	**116,754**	**106,425**
Exports		
US	3,096	3,015
Malaysia	3,007	2,735
Canada	1,022	1,183
HK, China	735	837
Brazil	885	749
World	**16,802**	**17,155**
Imports		
China*	2,607	2,377
Italy	1,760	2,021
US	1,160	1,368
Japan	1,789	1,060
Spain	900	1,017
World	**21,066**	**20,929**

Source: FAO

Plywood (000 cum)	1997	1998
Production		
US	17,517	15,732
Indonesia	9,600	7,015
China*	8,097	4,978
Malaysia	4,447	3,904
Japan	4,257	3,267
Canada	1,830	1,750
World	**55,968**	**46,419**
Exports		
Indonesia	8,500	5,423
Malaysia	3,825	3,520
US	1,596	858
Canada	863	848
Russian Fed.	631	723
World	**20,593**	**16,387**
Imports		
Japan	5,422	3,938
China*	2,373	2,520
US	1,868	2,150
HK, China	1,074	1,078
Germany	1,095	1,074
World	**19,522**	**18,608**

Source: FAO

GLOBAL SUMMARY

	Actual					Est.	Annual Growth Rate (%)		
World Production (mil. cum)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Hardwood logs prod**	210	262	300	315	313	293	1.49	1.65	0.73
Hardwood logs imports**	36.1	42.2	25.1	16.7	17.6	14.5	0.07	-4.77	-6.81
Sawn hardwood prod.	98.5	115.8	131.8	120.6	116.8	106.4	1.17	1.74	-1.95
Sawn hardwood imports	7.1	13.2	16.1	19.1	21.1	20.9	4.97	2.50	3.67
Plywood production	33.4	39.4	48.2	52.4	56.0	46.4	1.16	2.04	0.34
Plywood imports	4.9	6.0	14.9	19.1	19.5	18.6	0.75	8.91	4.38

	Actual				Forecast				
Prices ($/cum)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Logs, current	252.1	238.3	162.4	187.1	215.0	225.0	235.0	255.0	290.0
Logs, constant 1990	220.8	219.8	155.9	180.7	202.5	206.8	210.5	213.4	214.7
Sawn hardwood, current	741.4	663.8	484.2	600.8	645.0	670.0	695.0	755.0	900.0
Sawn hardwood, constant	649.2	612.4	464.7	580.2	607.6	615.8	622.6	631.8	666.2

*Including Taiwan, China.
**Imports for 1970-89 and producton for all years refer to hardwood sawlogs and veneer logs. Imports from 1990 onwards are tropical hardwood sawlogs and veneer logs.
Source: FAO, NIKKEI historical data, and World Bank estimates and forecasts.

Nitrogen

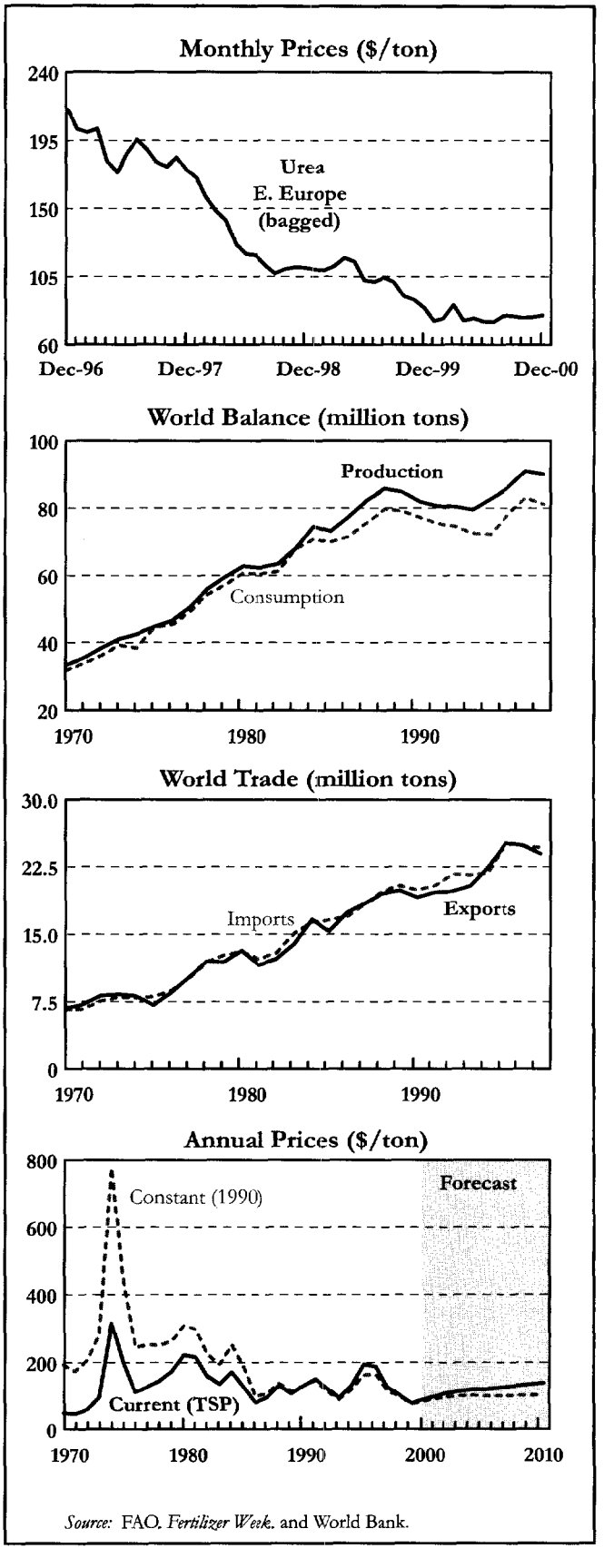
Urea prices are expected to move higher over the next several years because of recent production cuts, increased demand and the possibility of policy changes in key producing and consuming countries.

Urea prices have made a modest recovery over the last several months and now look ready to move higher. This appears to be a major turning point following the long decline in prices since 1995. Bulk prices, f.o.b. Eastern Europe, have risen from a low of $63.25/ton in June to a high of $68.25/ton in December. The industry is beginning to see plant closures which bring production down in Europe and the United States in response to low fertilizer prices. Demand is also starting to increase in Brazil, the rest of Latin America and Asia.

One of the major factors contributing to the decline of nitrogen fertilizer prices during the last several years has been the increase in exports from Ukraine. Even though total nitrogen fertilizer production in Ukraine fell by half from 1988 to 1998, the shipments to the domestic market fell by almost 90% and this led to increased exports. These larger exports contributed to the collapse of international prices from $210/ton in late 1995 to $63 in mid-1999. Now, this may change. The Ukrainian Ministry for Agricultural Complexes recently announced a tax cut and debt relief package to fertilizer producers as an emergency package to direct fertilizer back into the domestic market and alleviate a crisis in the agricultural sector according to *Fertilizer Week*, 11/8/99.

An even more important factor contributing to the price decline over the last several years was China's decision to ban urea fertilizer imports in early 1997. China was the largest importer in 1995, accounting for about 20 percent of world trade. The ban was designed to promote domestic production and achieve the longer term goal of nitrogen fertilizer self-sufficiency. However, this decision may now need to be reconsidered since China plans to join the World Trade Organization and such policies may not be allowed.

Given recent production cuts, improved demand prospects and possible policy changes, we are raising our medium term price forecast. Prices are expected to increase modestly in 2000 and then return to longer-term trend.



Source: FAO, *Fertilizer Week*, and World Bank.

Other Developments

- Potash Corporation of Saskatchewan (PCS) announced on December 31st that it was shutting two ammonia plants in Trinidad with a combined output of .93 million tons per year following the expiration of the natural gas supply contract between national Gas Company of Trinidad and Tobago Limited and PCS Nitrogen according to a PCS press release. The low international prices were not mentioned as a reason for the shutdown, but it was likely an important consideration. Negotiations are reportedly underway to agree to a new contract. Prices rose in early January following the announcement.
- The US Department of Commerce imposed provisional duties of 265% on Russian ammonium nitrate imports into the US on December 30th. A final determination is due on March 14, 2000.

PRODUCTION AND CONSUMPTION

	1994/95	1995/96	1996/97	1997/98
Production (000 tons)				
China	16,689	18,633	21,042	20,538
US	14,017	14,244	15,226	15,372
India	7,944	8,769	8,593	10,083
Russian Fed.	4,027	4,713	4,900	4,293
Canada	3,801	4,019	4,049	4,122
Indonesia	2,565	2,858	3,045	3,059
Ukraine	1,935	1,871	2,083	2,022
Netherlands	1,785	1,595	1,772	1,848
Pakistan	1,547	1,693	1,682	1,661
Poland	1,269	1,469	1,549	1,545
World	**82,746**	**86,004**	**90,973**	**90,092**
Consumption (000 tons)				
China	19,216	23,383	25,277	23,260
US	10,631	11,161	11,206	11,163
India	9,507	9,823	10,302	10,905
France	2,309	2,392	2,525	2,518
Pakistan	1,738	1,984	1,985	2,088
Indonesia	1,649	1,844	2,084	1,838
Germany	1,787	1,769	1,758	1,788
Canada	1,456	1,576	1,671	1,708
Brazil	1,225	1,151	1,197	1,306
UK	1,339	1,328	1,438	1,251
World	**72,247**	**77,986**	**83,017**	**81,177**

Source: FAO

TRADE

	1994/95	1995/96	1996/97	1997/98
Exports (000 tons)				
Russian Fed.	2,814	3,661	3,646	3,122
US	2,902	2,997	2,989	3,038
Canada	1,955	2,179	2,090	1,878
Netherlands	1,480	1,457	1,505	1,435
Ukraine	1,301	1,231	1,464	1,418
Indonesia	740	914	711	1,087
Bel-Lux	1,001	978	1,043	1,074
Saudi Arabia	911	788	845	806
Poland	457	637	520	590
Germany	630	831	676	561
World	**22,433**	**25,157**	**24,894**	**23,957**
Imports (000 tons)				
US	4,702	4,569	4,132	4,697
China	2,577	4,897	4,423	2,955
India	1,473	2,008	1,156	1,375
Germany	1,249	1,218	1,165	1,224
France	1,218	1,306	1,222	1,112
Vietnam	903	785	937	952
Italy	679	600	736	787
Thailand	687	780	811	779
Brazil	494	426	495	686
Australia	428	493	628	679
World	**21,815**	**25,097**	**24,838**	**24,646**

Source: FAO

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (mil. tons)	1970/71	1980/81	1990/91	1995/96	1996/97	1997/98	1970-80	1980-90	1990-96
Production	33.3	62.8	81.9	86.0	91.0	90.1	6.53	3.12	0.03
Consumption	31.8	60.8	77.2	78.0	83.0	81.2	6.86	2.60	-0.49
Exports	6.8	13.2	20.0	25.1	24.9	24.0	7.23	5.10	2.69

	Actual				Forecast				
Urea Prices ($/ton)	1996	1997	1998	1999	2000	2001	2002	2005	2010
Current	187.5	127.9	103.1	77.8	90.0	100.0	110.0	120.0	140.0
Constant 1990	164.5	118.0	98.9	75.1	84.8	91.9	98.5	100.4	103.6

Note: Quantities are for total nitrogen fertilizer in marketing years and prices are for urea, bagged, spot, f.o.b. Eastern Europe in calendar years.

Source: FAO and World Bank.

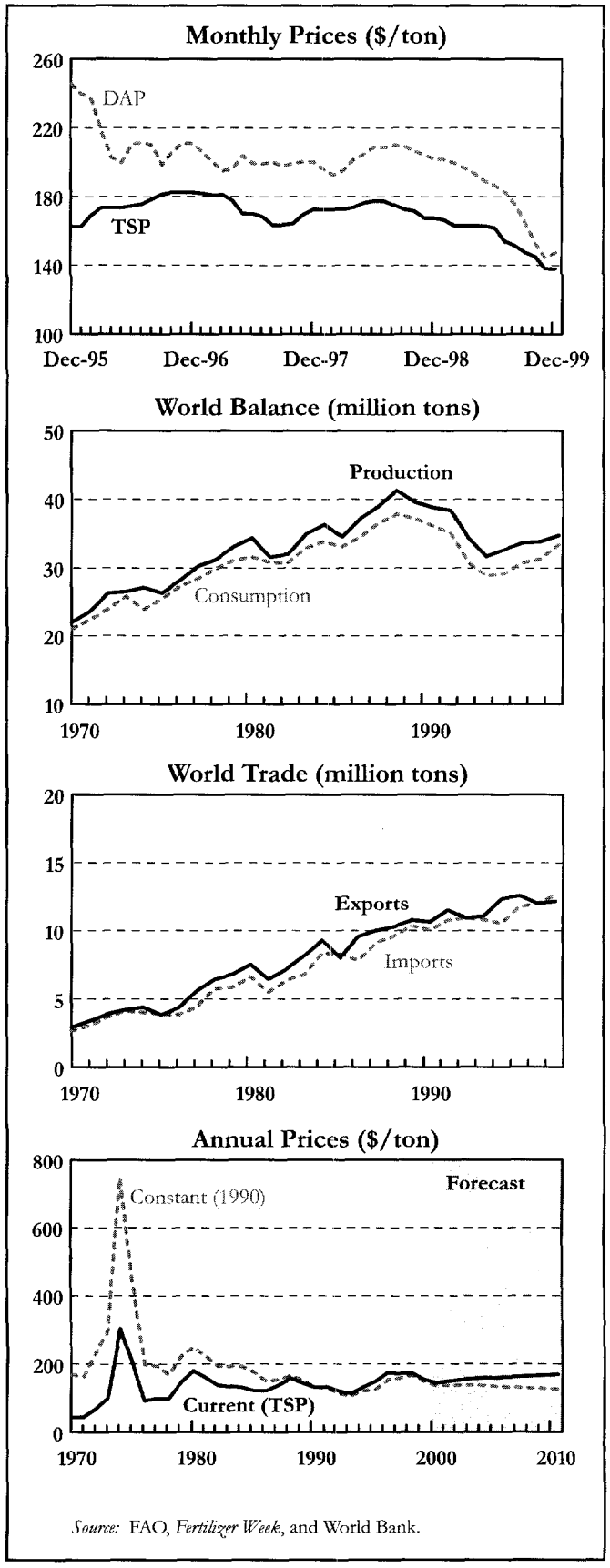
Phosphates

Phosphate fertilizer prices are expected to stabilize in 2000, after falling for more than a year. Production cuts and plant closings should bring the industry back into balance.

Phosphate fertilizer prices continued to fall in the fourth quarter, with DAP prices down 14.8% compared to the third quarter and TSP prices down 7.0%. However, the industry also started to make the necessary production cuts to bring demand and supply into balance, and prices began to firm in late December. IMC Global, a major US producer, announced in November that it would close plants in Louisiana and Florida, bringing 1999 production cuts to 1.7 million tons according to industry sources. Potash Corporation of Saskatchewan (PCS), the third largest phosphate producer, had previously announced plant closures and shutdowns in its phosphate and nitrogen operations in mid-August because of weak market conditions.

Weak demand has been a factor in recent price declines, but demand now looks ready to increase. Brazil's phosphate fertilizer imports were down one-third in the first 3 quarters of 1999 compared to 1998 because of the economic crisis. However, economic conditions in Brazil have improved and this should lead to a recovery in phosphate imports. Chinese imports totaled 3.5 million tons in the first eight months of 1999 and imports in 2000 are expected to remain near 1999 levels. Demand in India is expected to increase because of the recent damage to production facilities from the cyclone in Orissa province.

Phosphate rock prices for 2000, could come under pressure because of lower DAP prices and new production in Australia and Canada. The expected demand from Oswal Chemicals and Fertilizers Ltd., in India will also be slower to develop than expected because of the cyclone which hit the region in late-October. When the Oswal facility is fully operational, it is expected to need 3.5 million tons of phosphate rock per year. However, much of this rock is expected to come from China which has surplus capacity. On balance, phosphate rock prices are expected to remain about the same as last year at $44/ton for Moroccan exports.



Source: FAO, *Fertilizer Week*, and World Bank.

Other Developments

- The cyclone which hit Orissa province in India in late October disrupted phosphate production at India's second largest producer, Paradeep Phosphates Ltd. In addition, Oswal Chemicals and Fertilizers Ltd., which was under construction and had not yet begun production, was also damaged by the cyclone. The cleanup and repair is expected to take as long as four to six months. The bulk of India's phosphate fertilizer production capacity is located near Paradeep port which is 90 kilometers north of the cyclone's path according to *Fertilizer Week*, 11/8/99.
- US fertilizer exporters are lobbying the European fertilizer industry to eliminate tariffs of 5-8% on phosphate fertilizers imported from the US. The US accounts for 64% of world DAP exports, but only has a 2.4% market share in Europe according to the US exporters.

PRODUCTION AND CONSUMPTION

	1994/95	1995/96	1996/97	1997/98
Production (000 tons)				
US	11,055	10,500	10,900	10,765
China	5,045	6,091	5,822	6,482
India	2,587	2,626	2,615	3,090
Russian Fed.	1,716	1,933	1,575	1,777
Brazil	1,429	1,265	1,305	1,353
Morocco	894	936	979	921
France	667	668	682	687
Tunisia	721	741	790	673
Spain	422	413	478	488
Mexico	373	427	433	469
World	**32,808**	**33,847**	**34,020**	**34,925**
Consumption (000 tons)				
China	7,020	8,913	8,521	9,339
US	4,014	4,107	4,184	4,195
India	2,932	2,898	2,977	3,917
Brazil	1,931	1,575	1,705	1,943
France	1,030	1,032	1,052	1,120
Australia	923	965	985	1,100
Canada	628	658	704	705
Japan	703	631	611	594
Turkey	444	580	578	592
Pakistan	429	494	419	551
World	**29,271**	**30,908**	**31,428**	**33,466**

Source: FAO

TRADE

	1994/95	1995/96	1996/97	1997/98
Exports (000 tons)				
US	6,335	5,838	5,679	5,716
Russian Fed.	1,397	1,525	1,130	1,294
Morocco	769	811	858	846
Tunisia	674	686	703	637
Mexico	81	267	273	343
Bel-Lux	194	270	282	333
Netherlands	459	390	285	320
Jordan	318	318	328	256
Norway	179	207	207	208
Poland	91	175	135	197
World	**12,329**	**12,568**	**11,994**	**12,146**
Imports (000 tons)				
China	2,023	2,936	2,803	2,950
Australia	519	612	651	716
India	376	686	219	707
Brazil	517	341	446	703
France	600	568	561	568
Italy	500	538	524	508
Pakistan	283	272	381	416
Thailand	379	453	436	380
UK	377	349	343	345
Canada	286	292	377	343
World	**10,543**	**11,738**	**12,005**	**12,629**

Source: FAO

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1995/96**	**1996/97**	**1997/98**	**1970-80**	**1980-90**	**1990-96**
Production	22.0	34.5	39.0	33.8	34.0	34.9	3.72	1.70	-3.57
Consumption	21.1	31.7	36.3	30.9	31.4	33.5	3.85	1.39	-3.87
Exports	2.9	7.5	10.7	12.6	12.0	12.1	8.37	5.01	1.57

	Actual				Forecast				
TSP Prices ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	175.8	171.9	173.1	154.5	145.0	150.0	155.0	160.0	170.0
Constant 1990	154.3	158.6	166.1	149.2	136.6	137.9	138.9	133.9	125.8

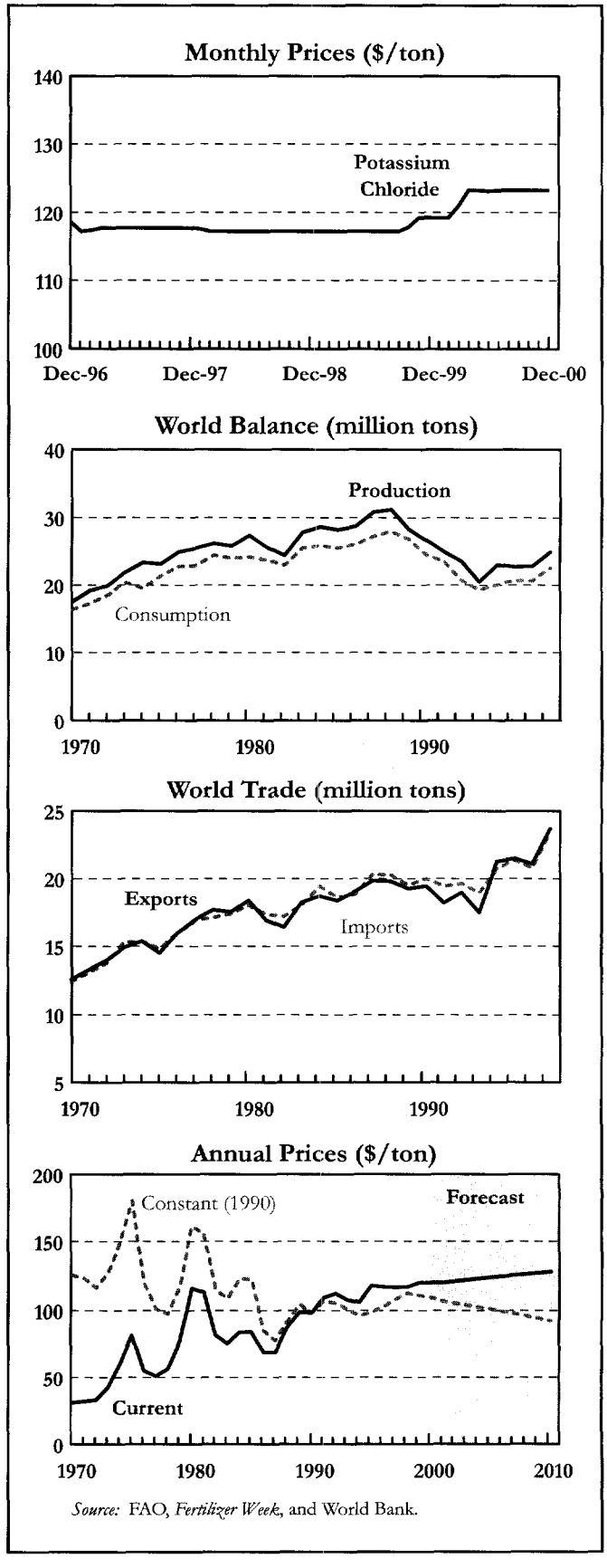
Note: Quantities are for total phosphate fertilizer in marketing years and prices are for TSP, bulk, spot, f.o.b. US Gulf in calendar years.
Source: FAO and World Bank.

Potash

Potash prices remained steady in 1999, as producers cut production to offset weak demand. Early contract agreements suggest prices in 2000 will remain about unchanged from 1999, while sales will increase.

Prices for muriate of potash (MOP), remained at $122.5/ton, f.o.b. Vancouver from the second quarter onwards. Weak demand in Europe and the US kept potash fertilizers sales slow in 1999, but major producers were able to cut supplies enough to keep inventories from rising to burdensome levels and likely ended 1999 with smaller inventories than at the start of the year. Canadian producers saw demand drop 12% from July to September while US producers faced a 13% decline in demand during the same period according to *Fertilizer Week*. IMC Global, a major US fertilizer producer, announced on November 1st, an extended shutdown schedule for three mines in Saskatchewan Cananda, as part of an ongoing program to balance global supply and demand according to FERTECON's *World Fertilizer Review* (12/99). Against this backdrop, attempts to increase prices in the second half of 1999 were rejected by buyers.

Brazilian imports of muriate of potash (MOP) fell 16% in the first 10 months of 1999 compared to the same period of 1998. However, potash imports recently got support from a larger than expected Chinese import quota of 6 million tons for MOP for 2000. The announcement, made in late December, was nearly double the 3.3 million tons imported in 1997/98 (see table opposite page) and is about 25% higher than 1999 imports according to industry sources. This continues the recent trend in China of increasing the applications for potash and phosphate fertilizers in order to better balance the NPK ratio. The global potash industry may be in for more good news if China hopes to join the WTO and continue expanding its potash use. China does not have an abundance of low cost water-soluble potash deposits and its desire to join the WTO will likely preclude the industry protection necessary to develop its higher cost water-insoluble reserves. Therefore, China appears likely to be a major importer of potash for the foreseeable future.



Source: FAO, *Fertilizer Week*, and World Bank.

Other Developments

- Potash Corporation of Saskatchewan announced in end-December that Canpotex, the offshore sales agency for Saskatchewan potash producers, has concluded contracts with major Chinese customers. The contracts should result in shipments to China during the first half of 2000 equal to or slightly higher than the 1.6 million tons sold to China in all of 1999. The contracts were completed at prices unchanged from the previous year. PCS supplies Canpotex with 56 percent of its potash product.
- The European Commission (EC) has completed its investigation of the current antidumping measures in place for imports of potash into the EU from Russia, Belarus and the Ukraine in November according to FERTECON's *World Fertilizer Review* (12/99). The EC has not yet made its findings public, but has reportedly disclosed them to interested parties.

PRODUCTION AND CONSUMPTION

	1994/95	1995/96	1996/97	1997/98
Production (000 tons)				
Canada	9,060	8,065	8,151	9,029
Germany	3,286	3,278	3,334	3,423
Russian Fed.	2,493	2,814	2,618	3,403
Belarus	2,510	2,789	2,716	3,247
Israel	1,260	1,326	1,500	1,488
US	827	843	834	883
Jordan	930	1,068	1,059	849
France	870	802	751	665
Spain	684	637	681	639
UK	580	582	618	565
World	**23,077**	**22,767**	**22,876**	**24,947**
Consumption (000 tons)				
US	4,652	4,770	4,921	4,847
China	2,444	2,887	2,337	3,390
Brazil	1,866	1,791	1,941	2,242
France	1,373	1,491	1,488	1,434
India	1,125	1,156	1,030	1,373
Malaysia	700	603	646	670
Germany	668	652	646	659
Spain	417	415	451	479
UK	475	473	485	450
Belarus	300	250	422	425
World	**20,084**	**20,690**	**20,675**	**22,611**

Source: FAO

TRADE

	1994/95	1995/96	1996/97	1997/98
Exports (000 tons)				
Canada	8,216	7,851	8,077	9,015
Germany	2,802	2,446	2,549	2,838
Russian Fed.	2,027	2,317	1,947	2,830
Belarus	1,917	2,189	1,978	2,506
Israel	1,327	1,286	1,203	1,632
Jordan	910	1,058	1,052	861
US	538	523	597	846
France	596	538	538	588
Spain	410	489	470	498
UK	385	374	371	373
World	**20,348**	**20,634**	**20,128**	**23,370**
Imports (000 tons)				
US	4,759	5,181	5,073	5,784
China	2,261	2,870	2,258	3,291
Brazil	1,643	1,539	1,826	2,132
India	1,282	1,424	667	1,437
France	1,274	1,230	1,341	1,418
Malaysia	708	660	631	701
Poland	386	456	502	509
Italy	439	461	440	447
Japan	485	490	439	431
Korea, Rep.	333	353	417	407
World	**19,906**	**20,472**	**19,717**	**23,043**

Source: FAO

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (mil. tons)	**1970/71**	**1980/81**	**1990/91**	**1995/96**	**1996/97**	**1997/98**	**1970-80**	**1980-90**	**1990-96**
Production	17.6	27.5	26.7	22.8	22.9	24.9	3.97	-0.03	-4.47
Consumption	16.4	24.2	24.5	20.7	20.7	22.6	3.93	0.05	-4.82
Exports	9.5	16.7	18.1	20.6	20.1	23.4	4.89	0.73	2.06

	Actual				Forecast				
MOP Prices ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	116.9	116.5	116.9	121.6	122.5	124.0	124.0	125.0	127.0
Constant 1990	102.6	107.5	112.2	117.5	115.4	114.0	111.1	104.6	94.0

Note: Quantities are for total potash fertilizer in marketing years and prices are for potassium chloride, also known as muriate of potash (MOP), f.o.b. Vancouver, in calendar years.

Source: FAO and World Bank.

Aluminum

Prices rally on expectations of rising demand and an extremely tight alumina market. Aluminum prices are expected to rise moderately in 2000 as the market surplus is reduced.

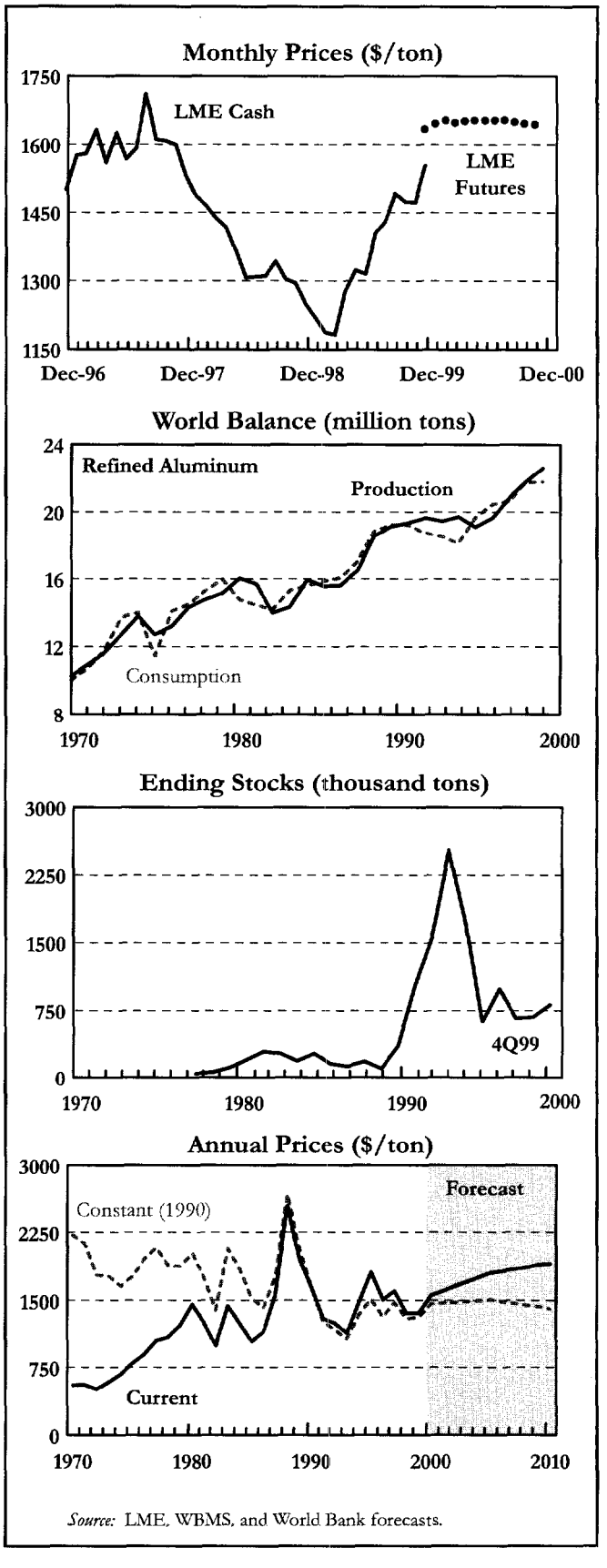
Aluminum prices continue to rise, up 4% in the quarter, due to expectations of improved demand, a modest reduction of inventories, and potential supply problems because of a tight alumina market. Prices stabilized through much of the quarter before surging in December to end the year at $1625/ton – up 37% from March and the highest level in more than 2 years. Prices could rally further but stocks remain high and the market is expected to remain in surplus this year and next. Consequently higher prices could attract forward producer selling and reactivation of idle capacity.

LME stocks declined gradually during the quarter, ending the year at 775 thousand tons, down 2.7% from end-September. However, inventories are still relatively large, and unreported stocks may have risen last year.

The alumina market continues to tighten following the explosion at Kaiser's Gramercy plant in June. It is unlikely that the plant will be reactivated in mid-year as the company has stated, and substantial production may not resume until next year. The market will remain in deficit this year but is expected to return to surplus in 2001. China is heavily reliant on alumina imports and is the most affected by limited supplies and higher prices.

Demand for refined aluminum remains strong in the US and is expanding in Europe, while Japanese demand is beginning to recover – but mainly for exports. Elsewhere is Asia, demand is very strong, particularly in the Republic of Korea, due to the revival of trade in manufactured products. However, part of the strong growth this past year was due to restocking.

The market surplus is expected to be reduced this year and prices are expected to increase moderately. But this will depend critically on the pace of demand, especially in Asia. US economic activity is expected to slow and will affect aluminum consumption in the construction, manufacturing, and auto sectors. Still, world demand is expected to increase by more than 4%, with production increasing by 3.5%.



Source: LME, WBMS, and World Bank forecasts.

Other Developments

- Alcan Global Automotive Products, an affiliate of Alcan Aluminum, has assisted Ford in creating a fuel-efficient, family size car that achieves more than 70 miles per gallon. The Prodigy, an aluminum-structured hybrid electric vehicle, uses Alcan's unibody technology which leads to a vehicle structure that weighs just 310 lb, a 50% weight saving. Curb weight is 2,387 lb, some 1,000 lb lighter than a typical sedan. Prodigy is part of Ford's initiative in the Partnership for a New Generation of Vehicles program, a collaboration between automakers, the US government and other organizations aimed at producing a prototype family car that can achieve up to 80 miles per gallon without compromising passenger needs.
- All 240 pots at Dubai Aluminum's 140 thousand tons per year (kt/y) Condor expansion were energized in October. The Jebel Ali smelter which produced 400 kt in 1998 will operate at its fully expanded capacity of 536 kt/y in 2000.
- For the first 11 months of 1999, world primary aluminum production totaled 18,856 kt, an increase of 3.4% or 628 kt over the same period a year earlier, according to IPAI. All main regions recorded gains but most of the increase occurred in the Eastern Hemisphere – Western Europe 163kt; Eastern and Central Europe 149 kt; Asia 102 kt; and Oceania 89 kt.

PRODUCTION OF REFINED ALUMINUM (000 TONS)

	1995	1996	1997	1998
US	3,375	3,577	3,603	3,713
Russian Fed.	2,724	2,874	2,906	3,005
China	1,676	1,771	2,035	2,336
Canada	2,172	2,283	2,327	2,374
Australia	1,293	1,370	1,490	1,626
Brazil	1,188	1,197	1,189	1,208
Norway	847	862	919	996
S. Africa, Rep.	233	617	683	693
Germany	575	577	572	612
Venezuela	627	635	641	584
India	537	531	547	542
Bahrain	454	461	490	501
UAE	247	259	378	387
Spain	362	362	360	360
New Zealand	273	285	310	318
Netherlands	216	227	232	264
UK	238	240	248	258
Indonesia	228	223	219	133
Tajikistan	230	198	189	196
Other	2,173	2,287	2,454	2,416
World	**19,668**	**20,836**	**21,799**	**22,607**

Source: WBMS

CONSUMPTION OF REFINED ALUMINUM (000 TONS)

	1995	1996	1997	1998
US	5,055	5,348	5,390	5,814
China	1,942	2,135	2,260	2,425
Japan	2,336	2,393	2,434	2,080
Germany	1,491	1,355	1,558	1,518
Canada	612	620	628	734
France	744	672	724	687
Italy	665	585	654	675
UK	620	600	619	668
India	581	585	553	567
Brazil	501	497	479	521
Korea, Rep.	675	674	666	506
Russian Fed.	476	444	469	489
Spain	350	360	430	435
Belgium	336	331	345	396
Australia	343	321	352	367
Taiwan, China	363	310	374	301
Greece	163	156	204	213
Turkey	144	136	161	181
Venezuela	183	207	193	180
Other	2,894	2,898	3,261	3,037
World	**20,473**	**20,627**	**21,756**	**21,793**

Source: WBMS

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (000 tons)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Production	10,257	16,027	19,362	20,836	21,799	22,607	3.13	2.02	2.28
Consumption	9,996	14,771	19,244	20,627	21,756	21,793	3.13	1.95	2.11
LME Ending Stocks	0	68	311	951	622	636	n.a.	-0.32	-1.51

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	1,506	1,599	1,357	1,361	1,550	1,600	1,650	1,800	1,900
Constant 1990	1,318	1,476	1,303	1,314	1,460	1,471	1,478	1,506	1,406

Source: WBMS and LME data, and World Bank forecasts.

Copper

Prices are expected to rise due to growing demand and reduced market surplus. However, further gains could be capped by producer selling and reactivation of idle capacity.

Copper prices continued to rally in the fourth quarter, rising 3.5%, on expectations of rising demand and diminishing surplus of supply. Prices consolidated in early December, but then surged to end the year at near $1850/ton, up 35% from March. Continued improvement in global economic activity could help take prices higher, but price rises could be capped by forward producer selling and reactivation of idle capacity.

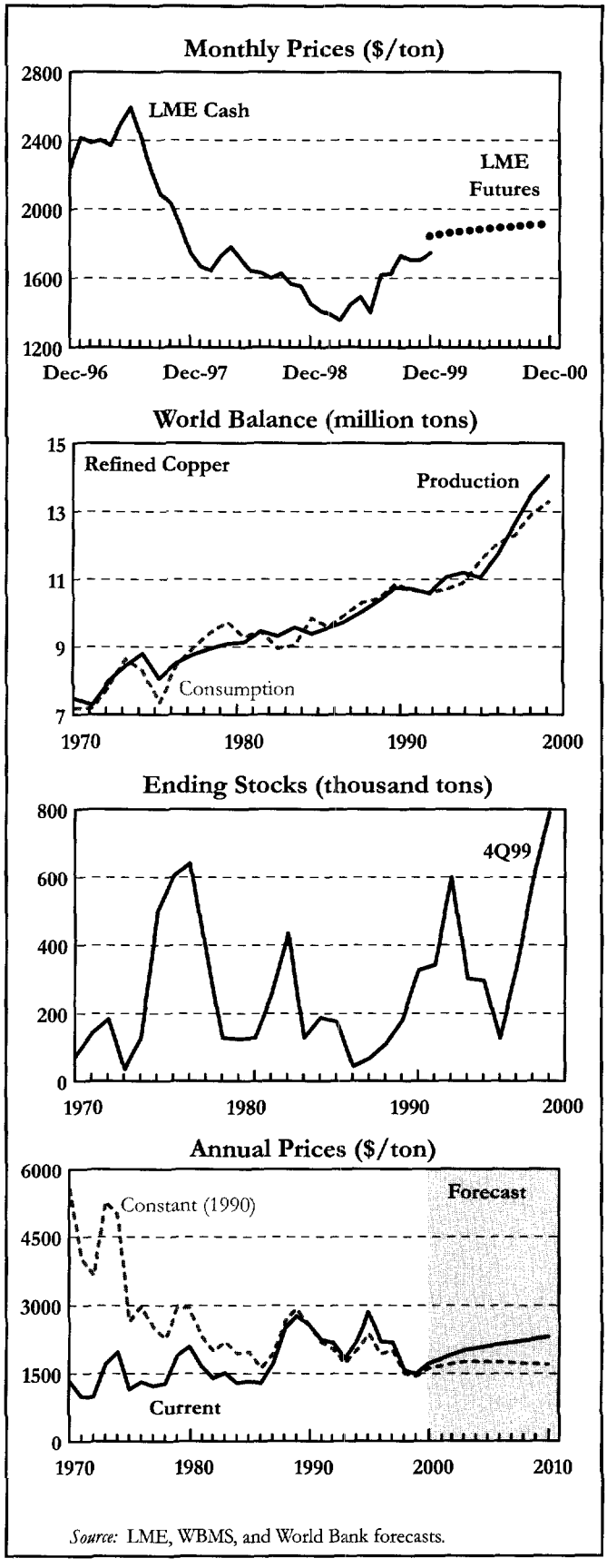
Inventories remain high with LME stocks ending the year at 790,000 tons, marginally below all time highs. In addition there is believed to be large tonnage of unreported stocks held off warrant.

Demand remains strong in the US, with the auto and construction sectors providing much of the increase. In some parts of Europe growth has also been strong in these sectors, and there are expectations of a more broad-based recovery this year. Demand is slowly recovering in Japan, mainly due to higher exports, and the Republic of Korea is enjoying a stellar rebound in both exports and domestic demand. Part of the increase in copper consumption last year was due to large-scale restocking in Asia and, as a result, the rate of growth is expected to slow this year.

Significant new capacity is coming on-stream in a number of the main producing countries, e.g., Chile, Indonesia and Australia. Nevertheless, growth in demand is expected to outstrip increases in supply this year, resulting in a diminished market surplus.

If global economic growth steams ahead and inventories fall, prices could rise sharply this year. However, should stocks remain high there could be resistance to further gains by forward producer selling. While production cutbacks have helped improve the market balance, higher prices could reactivate idle capacity and increase the availability of scrap material, the latter of which has already started to appear.

Longer term, average prices are expected to rise moderately, but the path will continue to be volatile and cyclical.



Source: LME, WBMS, and World Bank forecasts.

Other Developments

- Canada's First Quantum Minerals and Switzerland's Glencore International agreed in early January to purchase a 90% stake in Zambia's Nkana and Mulfuira copper mines from parastatal Zambian Consolidated Copper Mines (ZCCM) for $43 million. The companies agreed to invest $154 million over the next 3 years to boost output.
- Anglo American, through its subsidiary ZCI, signed an agreement with the Zambian government and ZCCM in December to acquire majority stakes in the Nchanga, Konkola and Nampundwe mines, which account for more than 2/3 of ZCCM's copper production. ZCI will take a 60% stake in the new holding company – Konkola Copper Mines – with ZCCM taking 20%, IFC 10%, and an international financial institution 10%. ZCCM will receive $90 million for the assets, and ZCI will sell its 27.3% interest in ZCCM to the government for $13 million. Anglo has a 50.1% share in ZCI which takes its share of the Zambia's copper industry to 30%.
- Chilean copper production in the first 11 months of 1999 rose 19.5% to 4.02 mt. Chile's National Mining Society expects the country's production to rise by 3% in 2000 to 4.4 mt.

PRODUCTION OF REFINED COPPER (000 TONS)

	1995	1996	1997	1998
US	2,280	2,347	2,450	2,460
Chile	1,492	1,748	2,117	2,335
Japan	1,188	1,251	1,279	1,277
China	1,080	1,119	1,179	1,211
Germany	616	671	674	696
Russian Fed.	560	599	640	656
Canada	573	559	561	563
Poland	406	425	441	447
Mexico	208	246	297	445
Peru	282	342	384	411
Korea, Rep.	233	246	265	369
Belgium	376	386	373	368
Kazakhstan	256	267	301	325
Zambia	314	317	328	306
Spain	164	264	292	304
Australia	266	311	271	285
Brazil	165	172	172	167
Phillippines	158	156	147	152
India	40	39	66	134
Other	1,157	1,267	1,362	1,236
World	**11,813**	**12,732**	**13,592**	**14,147**

Source: WBMS

CONSUMPTION OF REFINED COPPER (000 TONS)

	1995	1996	1997	1998
US	2,534	2,621	2,790	2,883
China	1,143	1,193	1,270	1,397
Japan	1,415	1,480	1,441	1,255
Germany	1,066	960	1,039	1,138
Italy	498	504	521	590
Taiwan, China	563	544	588	584
France	540	518	558	583
Korea, Rep.	540	598	621	560
UK	398	396	408	374
Mexico	172	192	252	341
Belgium	362	332	329	324
Brazil	198	233	258	301
Poland	213	226	230	266
Canada	190	218	225	246
Spain	175	191	203	235
Turkey	139	160	188	208
India	116	140	160	200
Sweden	143	144	158	167
Russian Fed.	187	165	165	165
Other	1,561	1,587	1,618	1,577
World	**12,152**	**12,401**	**13,021**	**13,394**

Source: WBMS

GLOBAL SUMMARY

	Actual						Annual Growth Rate (%)		
World Balance (000 tons)	**1970**	**1980**	**1990**	**1996**	**1997**	**1998**	**1970-80**	**1980-90**	**1990-98**
Production	7,583	9,242	10,809	12,732	13,592	14,147	1.95	1.14	3.33
Consumption	7,294	9,400	10,780	12,401	13,021	13,394	2.43	1.07	2.86
LME Ending Stocks	72	123	179	125	338	592	7.51	-5.95	3.69

	Actual				Forecast				
Price ($/ton)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	2,295	2,277	1,654	1,573	1,800	1,900	2,000	2,200	2,400
Constant 1990	2,010	2,101	1,587	1,519	1,696	1,746	1,792	1,841	1,777

Source: WBMS and LME data, and World Bank forecasts.

Gold

Prices fall back under $300/toz on renewed expectations of weak fundamentals, notably continued central bank sales and forward selling by producers. Higher prices will also impact price-sensitive consumers.

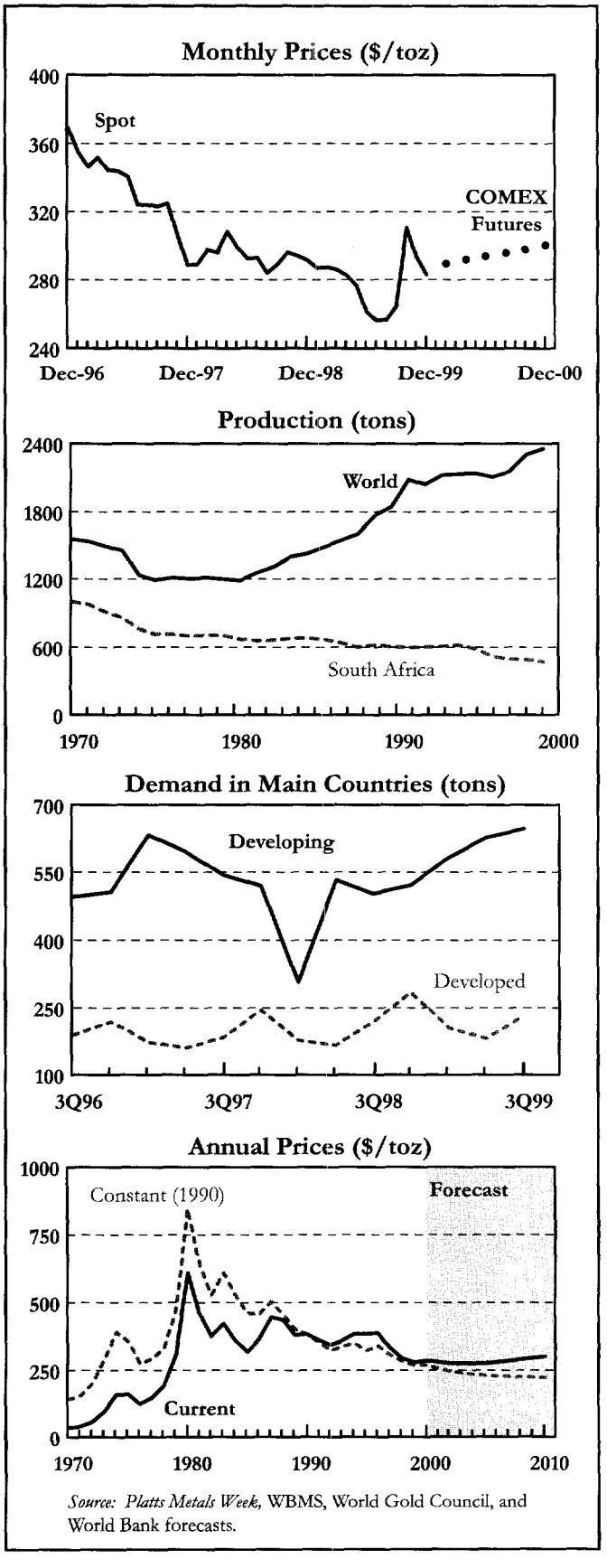
Gold prices fell 3.4% in the fourth quarter, but experienced volatile movements following the announcement in late September that 15 European central banks will limit gold sales to 2000 tons over the next 5 years. Prices shot up $85 to $340/toz in early October, but then settled back under $280 and ended the year at $290/toz.

Short covering by hedgers and speculators exacerbated the price spike, but once the buying pressure subsided prices quickly settled back, as underlying market fundamentals had not materially changed. Central bank sales will continue, as will forward selling by producers, and high prices will dampen the demand of price-sensitive consumers. Consequently, prices are expected to remain under $300/toz into the foreseeable future.

In December the Netherlands' central bank announced plans to sell 300 tons of gold over the next five years, but will not dispose of it by auction but instead sell quietly into the market. The declared sales by the Dutch, along with planned sales by Switzerland (1,300 tons) and the UK (365 tons), total 1965 tons, almost the entire quota set by the 15 European central banks.

On November 29 the UK government held its third gold auction, selling a further 25 tons at $293.50, which was $0.40 cents below the spot price. Bids were 2.1 times the allotted volume, well below those of the September auction which was oversubscribed more than 8 times.

Gold demand in the 27 key markets rose 22% in the third quarter year-on-year, and was the highest 3-month level of demand on record, according to the World Gold Council. Much of the growth was in Asia, where demand was up 29%. In the largest gold consuming country, India, demand rose 38%, and there were particularly high rates of growth in Egypt and Turkey. Demand in the six main OECD markets was up a rather sluggish 5%. With the rise in prices, it is expected that demand in the fourth quarter will be weaker in the developing countries.



Source: Platts Metals Week, WBMS, World Gold Council, and World Bank forecasts.

MINE PRODUCTION (tons)

	1995	1996	1997	1998
S. Africa, Rep.	522.4	494.6	492.5	473.8
US	316.9	326.2	362.3	366.0
Australia	253.5	289.5	311.0	309.3
Canada	150.9	166.4	171.4	165.9
China	136.4	120.6	149.6	158.2
Indonesia	63.3	83.6	90.0	124.0
Russian Fed.	127.8	119.9	123.9	113.1
Peru	56.5	65.1	74.3	93.8
Uzbekistan	63.6	71.0	82.0	82.0
Brazil	64.4	60.0	58.5	65.0
Ghana	53.1	49.3	54.7	63.1
PNG	51.7	51.6	48.5	60.3
Chile	44.2	51.8	47.8	43.8
Mexico	19.9	23.1	26.4	25.4
Zimbabwe	24.0	24.7	24.3	25.2
Kyrgyzstan	4.0	4.1	15.6	20.1
Kazakhstan	10.9	10.2	9.7	18.0
Colombia	22.1	21.5	16.2	14.8
Guyana	9.0	12.0	13.6	14.6
Bolivia	14.4	12.6	13.3	14.4
Philippines	12.8	8.1	11.2	8.7
Japan	9.2	8.6	8.4	8.6
New Zealand	12.1	11.5	11.4	7.7
Mongolia	4.5	4.9	8.5	7.3
Venezuela	10.0	11.7	22.3	6.8
World	**2,107.8**	**2,155.7**	**2,303.4**	**2,355.8**

Source: WBMS

CONSUMPTION IN MAIN MARKETS (tons)

	1995	1996	1997*	1998
India	477.2	507.8	736.7	815.0
US	314.7	331.7	362.0	428.4
Saudi Arabia	223.9	210.7	213.8	191.6
China	139.4	153.0	202.0	172.0
Turkey	193.1	184.9	199.0	208.4
Indonesia	160.2	123.3	142.1	91.2
Korea, Rep.	121.0	125.5	114.4	-162.5
Thailand	110.0	105.3	110.8	112.2
Italy	272.1	152.2	107.1	110.4
Japan	67.0	75.7	97.6	104.4
Egypt	119.0	129.0	92.5	-40.0
Pakistan	43.2	53.7	81.8	98.2
Taiwan, China	88.6	73.1	74.0	70.2
UAE	39.2	52.6	71.6	79.4
Germany	46.2	47.1	58.8	66.8
UK	54.0	59.0	58.0	64.0
Brazil	43.2	40.4	51.0	31.8
France	50.4	47.5	49.4	59.4
Mexico	31.0	41.0	49.0	55.0
Vietnam	36.0	41.0	45.0	44.0
Kuwait	35.1	34.7	35.4	33.0
HK, China	29.6	33.6	30.1	14.4
Oman	24.1	20.0	22.4	14.1
Malaysia	16.5	16.5	17.8	15.3
Singapore	116.0	106.0	14.0	19.0
World	**2,864.5**	**2,779.5**	**3,053.6**	**2,712.1**

Source: World Gold Council *Ranked for 1997.

GLOBAL SUMMARY

	Actual								% p.a.
World Balance (tons)	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1998-91**
Jewelry	2,358	2,760	2,553	2,618	2,791	2,850	3,342	3,145	4.2
Other Fabrication	518	446	488	457	503	486	563	564	1.2
Bar Hoarding	252	282	162	231	306	182	323	155	-6.7
Other		30	239		6			260	n.a.
Total Demand	**3,128**	**3,518**	**3,442**	**3,305**	**3,606**	**3,518**	**4,228**	**4,123**	**4.0**
Mine Production	2,159	2,234	2,287	2,279	2,274	2,357	2,480	2,555	2.4
Net Official Sales	111	622	464	81	173	275	376	412	20.6
Old Gold Scrap	482	488	576	617	625	641	629	1,098	12.5
Net Hedging	66	174	116	163	535	125	472	58	-1.8
Other	310			173		119	271		n.a.
Total Supply	**3,128**	**3,518**	**3,442**	**3,305**	**3,606**	**3,518**	**4,228**	**4,123**	**4.0**

	Actual			Forecast					
Price ($/toz)	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2005**	**2010**
Current	388	331	294	279	285	280	275	275	300
Constant 1990	388	305	282	269	268	257	246	230	222

Source: Gold Fields Minerals Services and LME data, and World Bank forecasts.

Iron Ore and Steel

Steel prices increase for products that have been under anti-dumping actions, and growing global demand is expected to result in much higher prices this year. Iron ore markets are also strengthening from rising steel production.

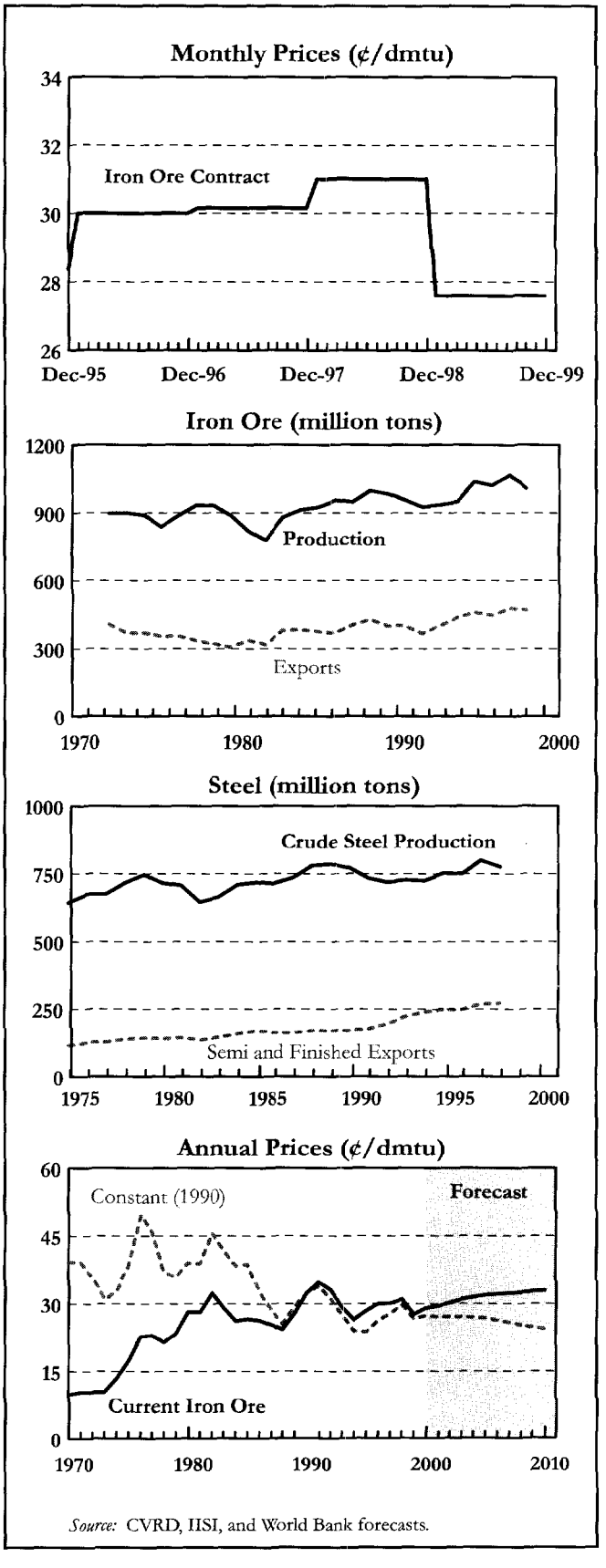
The iron ore market picked up in the second half of the year due to economic recovery in Asia and rebound in global steel production. Price negotiations are underway between producers and major consumers in Japan and Europe, and producers would like to re-capture the 11% drop last year. Given the expected upturn in steel demand, producers may achieve a price increase of about 5%. While Japanese steel exports have risen, domestic demand remains weak, and buyers will attempt to roll-over prices.

The index of steel prices increased 3.1% in the fourth quarter, and was up 15% from the lows in February. However, the price increases have been very uneven. Prices have been significantly stronger for products in which western countries have put up effective barriers with anti-dumping actions. HR coil prices are up 40%, as US imports from Brazil and Russia are governed by duty suspension agreements, while CR coil are up 25% partly because of US anti-dumping duties of 17%-177% against 12 countries.

US steel imports fell 16% in the first 11 eleven months because of anti-dumping measures, and were down 29% in November, benefiting both domestic production and prices of restricted products.

Global steel production (63 countries reported by IISI) began rising in July last year and rose 11% or 6.6 million tons in November. Output in the CIS is up by nearly 40% followed by an increase in North America of 18%, while Japanese production increased by nearly 13% for the month.

Steel demand is recovering in Asia, particularly in the auto and manufacturing sectors, while construction remains depressed. Global economic expansion is expected to lead to 3% growth in steel demand this year, from less than 1% last year. Markets are expected to tighten and prices could continue to rise sharply. Much will depend on the pace of demand and the level of inventories, and also the response by steelmakers in light of the apparent recovery. Trade tensions will remain a concern, and the industry will continue to be highly cyclical and volatile.



Source: CVRD, IISI, and World Bank forecasts.

IRON ORE PRODUCTION (000 tons)

	1995	1996	1997	1998
China	261,919	252,283	268,623	222,236
Brazil	178,380	179,870	187,950	183,050
Australia	139,067	147,200	157,767	153,459
Russian Fed.	78,348	72,136	70,870	72,340
India	62,000	67,264	69,400	71,400
US	62,645	62,132	62,737	62,590
Ukraine	50,741	47,590	52,990	50,760
Canada	37,629	37,042	38,928	38,908
S. Africa, Rep.	32,650	30,829	33,250	32,948
Sweden	21,663	21,288	21,893	20,930
Venezuela	19,452	18,720	18,660	17,230
Mexico	12,910	14,202	13,244	14,500
Iran, Islamic R.	9,080	9,850	12,750	12,750
Mauritania	11,330	11,400	11,700	11,402
Kazakhstan	14,900	12,980	12,627	8,693
Chile	7,950	8,480	8,090	8,280
Turkey	5,510	5,150	8,065	7,383
Peru	5,975	4,468	4,746	4,905
Egypt	2,099	2,700	3,000	3,000
New Zealand	2,570	2,600	2,500	2,700
Other	21,695	13,726	10,395	8,243
World	**1,038,513**	**1,021,910**	**1,070,185**	**1,007,707**

Source: IISI

CRUDE STEEL PRODUCTION (000 tons)

	1995	1996	1997	1998
China	95,360	101,237	108,911	114,588
US	95,191	95,535	98,486	97,653
Japan	101,640	98,801	104,545	93,548
Germany	42,051	39,793	45,007	44,046
Russian Fed.	51,589	49,253	48,502	43,822
Korea D. Rep.	36,772	38,903	42,554	39,896
Brazil	25,076	25,237	26,153	25,760
Italy	27,766	23,910	25,842	25,714
Ukraine	22,309	22,332	25,629	24,445
India	22,003	23,753	24,415	23,480
France	18,100	17,633	19,767	20,126
UK	17,604	17,992	18,501	17,315
Taiwan, China	11,605	12,350	15,994	16,914
Canada	14,415	14,735	15,553	15,930
Spain	13,802	12,154	13,683	14,821
Mexico	12,147	13,172	14,218	14,211
Turkey	13,183	13,624	14,475	14,144
Belgium	11,606	10,818	10,739	11,425
Poland	11,890	10,432	11,585	9,915
Australia	8,460	8,415	8,831	8,941
Other	195,051	201,165	214,363	213,835
World	**752,260**	**750,007**	**798,842**	**775,941**

Source: IISI

EXPORTS OF IRON ORE (000 tons)

	1995	1996	1997	1998
Brazil	131,358	129,740	140,419	143,200
Australia	130,223	128,606	144,914	142,134
India	32,332	31,700	31,100	32,200
Canada	28,833	27,920	32,340	30,179
S. Africa Rep.	21,847	20,091	20,730	22,093
Ukraine	21,015	20,570	20,083	17,702
Sweden	17,083	16,071	18,282	15,954
Russian Fed.	20,218	17,126	11,773	14,000
Mauritania	11,514	11,158	11,700	11,400
Venezuela	10,609	9,580	9,322	8,600
Kazakhstan	1,180	3,747	9,270	7,354
Chile	6,114	6,911	7,052	6,700
Peru	6,008	4,029	3,712	4,800
Philippines	4,744	4,546	4,500	4,500
US	5,270	6,256	6,336	3,002
Bahrain	3,200	2,800	3,000	3,000
New Zealand	1,316	1,382	1,300	1,300
Korea, D. Rep.	300	200	200	200
Slovak Rep.	80	95	81	75
Spain	1,552	975	43	55
Other	4,059	2,604	1,102	304
World	**458,855**	**446,107**	**477,259**	**468,752**

Source: IISI

EXPORTS OF SEMI-FINISHED AND FINISHED STEEL(000 tons)

	1995	1996	1997	1998
Japan	22,129	19,262	22,892	24,996
Russian Fed.	27,371	26,994	26,120	24,831
Germany	20,324	20,437	23,663	22,400
Bel.-Lux.	14,190	14,673	16,459	17,647
Korea Rep.	9,795	10,438	11,739	17,476
Ukraine	11,653	12,142	16,147	15,948
France	12,796	13,124	14,884	15,056
Italy	10,173	10,922	10,695	10,192
Brazil	9,655	10,257	9,163	8,756
UK	8,896	9,336	9,371	8,332
Netherlands	6,317	6,481	6,819	6,752
Taiwan, China	3,027	3,765	5,119	6,022
Mexico	5,930	5,352	5,497	5,961
Turkey	6,211	6,697	7,227	5,723
US	6,623	4,641	5,568	5,597
Spain	4,947	5,486	5,556	5,280
Canada	4,716	4,929	4,787	5,262
China	10,745	7,131	8,765	5,206
Austria	3,762	3,128	3,724	4,838
Sweden	3,217	3,599	3,975	3,832
Other	46,014	48,232	49,490	50,703
World	**248,491**	**247,026**	**267,660**	**270,810**

Source: IISI

APPENDIX

APPENDIX

TABLE A1: COMMODITY PRICE DATA

Commodity	Unit	Annual Averages Jan-Dec 1997	Annual Averages Jan-Dec 1998	Annual Averages Jan-Dec 1999	Quarterly Averages Oct-Dec 1998	Quarterly Averages Jan-Mar 1999	Quarterly Averages Apr-Jun 1999	Quarterly Averages Jul-Sep 1999	Quarterly Averages Oct-Dec 1999	Monthly Averages Oct 1999	Monthly Averages Nov 1999	Monthly Averages Dec 1999
Energy												
Coal, Australia	$/mt	35.10	29.23	25.96	26.43	26.10	26.10	26.10	25.53	25.60	25.50	25.50
Coal, US	$/mt	36.39	34.38	33.17	33.50	33.50	33.17	33.00	33.00	33.00	33.00	33.00
Crude oil, avg. spot*	$/bbl	19.17	13.07	18.07	11.85	11.79	16.10	20.65	23.74	21.95	24.16	25.10
Crude oil, Brent*	$/bbl	19.09	12.72	17.81	11.09	11.24	15.40	20.54	24.04	21.95	24.59	25.59
Crude oil, Dubai*	$/bbl	18.10	12.12	17.16	11.56	11.07	15.26	19.69	22.65	21.26	23.05	23.63
Crude oil, W. TX Int'l*	$/bbl	20.33	14.35	19.24	12.90	13.05	17.66	21.73	24.52	22.64	24.85	26.08
Natural gas, Europe	$/mmbtu	2.74	2.42	2.13	2.15	1.99	1.89	2.09	2.55	2.47	2.51	2.66
Natural gas, US	$/mmbtu	2.48	2.09	2.27	1.91	1.81	2.23	2.55	2.48	2.72	2.36	2.36
Non-Energy Commodities												
Agriculture												
Beverages												
Cocoa**	¢/kg	161.9	167.6	113.5	159.1	139.4	113.6	105.7	95.4	102.2	92.2	91.9
Coffee, arabica**	¢/kg	416.8	298.1	229.1	252.4	238.0	235.5	198.8	244.0	207.7	250.0	274.4
Coffee, robusta**	¢/kg	173.6	182.3	148.9	179.7	172.7	149.1	135.4	138.4	129.0	139.0	147.3
Tea, Calcutta auctions**	¢/kg	214.5	216.5	206.8	190.0	162.3	223.4	224.9	216.6	230.6	221.0	198.3
Tea, Colombo auctions**	¢/kg	202.0	207.5	165.0	181.4	160.3	145.9	170.7	183.4	186.6	184.0	179.5
Tea, Mombasa auctions**	¢/kg	201.5	189.9	179.8	164.6	180.3	175.1	176.9	187.0	199.5	181.2	180.3
Food												
Fats and Oils												
Coconut oil**	$/mt	656.8	657.9	737.1	740.3	736.0	832.3	681.3	698.7	690.0	703.0	703.0
Copra	$/mt	433.8	411.1	461.5	459.3	457.7	521.3	433.7	433.3	430.0	436.0	434.0
Groundnut meal	$/mt	221.0	116.2	n.a.	105.0	102.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Goundnut oil**	$/mt	1,010.4	909.4	787.7	857.7	808.0	755.7	781.7	805.3	804.0	807.0	805.0
Palm oil**	$/mt	545.8	671.1	436.0	679.3	563.3	458.7	353.7	368.3	381.0	370.0	354.0
Palmkernel oil	$/mt	651.8	686.7	694.1	741.0	704.7	729.0	656.7	686.0	684.0	693.0	681.0
Soybean meal**	$/mt	275.8	170.3	152.2	160.7	145.7	140.0	152.3	170.7	173.0	169.0	170.0
Soybean oil**	$/mt	564.8	625.9	427.3	606.3	492.3	426.7	406.3	384.0	401.0	382.0	369.0
Soybeans**	$/mt	295.4	243.3	201.7	229.0	210.3	200.0	196.3	200.0	203.0	198.0	199.0
Grains												
Maize**	$/mt	117.1	102.0	90.2	96.5	95.9	93.4	85.4	86.1	85.8	85.4	87.2
Rice, Thai, 5%**	$/mt	303.5	304.2	248.4	282.2	278.7	244.5	244.3	226.3	217.0	228.0	233.8
Rice, Thai, 25%	$/mt	257.1	259.9	216.3	257.7	239.6	211.6	217.9	196.1	190.3	199.2	198.8
Rice, Thai, 35%	$/mt	246.8	249.7	210.5	251.6	232.9	205.9	212.7	190.6	186.0	194.0	191.8
Rice,Thai, A1.Special	$/mt	210.4	213.0	193.2	238.5	214.2	189.5	201.1	168.1	169.8	172.0	162.5
Sorghum**	$/mt	109.6	98.0	84.4	90.0	90.9	87.6	79.5	79.6	78.4	79.4	81.0
Wheat, Canada	$/mt	181.4	162.9	151.3	164.7	160.7	148.2	148.2	148.0	147.6	149.5	146.9
Wheat, US, HRW**	$/mt	159.5	126.1	112.0	127.7	119.9	112.8	109.2	106.4	108.1	108.8	102.2
Wheat, US, SRW	$/mt	143.7	111.5	96.3	109.0	99.5	96.4	93.4	95.9	98.7	96.9	92.1
Other Food												
+ Bananas - EU	$/mt	967.7	1001.7	852.2	918.7	1093.1	837.1	739.7	739.0	765.5	725.1	726.5
+ Bananas - US new**	$/mt	517.1	489.5	373.2	423.3	461.1	346.2	351.6	334.0	327.3	332.4	342.2
Bananas - US old	$/mt	502.7	476.2	415.7	458.8	479.3	444.0	406.4	333.0	299.0	395.3	304.7
Beef**	¢/kg	185.5	172.6	184.3	166.2	177.1	175.6	192.5	192.1	186.6	193.9	196.0
Fishmeal	$/mt	606.3	661.9	392.5	601.3	453.3	343.3	369.3	404.0	399.0	401.0	412.0
Lamb	¢/kg	339.3	275.0	261.1	264.2	247.0	263.2	267.1	267.0	272.2	266.6	262.3
Oranges**	$/mt	459.0	442.4	430.8	415.1	420.3	458.6	474.8	369.6	518.0	340.4	250.4
Shrimp	¢/kg	1,612	1,579	1,461	1,427	1,413	1,470	1,485	1,473	1,444	1,488	1,488
Sugar, EU, domestic**	¢/kg	62.72	59.75	59.17	60.88	59.72	58.78	58.55	59.65	60.61	59.35	59.00
Sugar, US, domestic**	¢/kg	48.36	48.64	46.60	48.27	49.45	49.88	47.01	40.05	42.84	38.36	38.96
Sugar, world**	¢/kg	25.06	19.67	13.81	17.34	15.40	12.63	13.06	14.14	14.88	14.35	13.18
Raw Materials												
Timber												
Logs, Cameroon	$/cum	284.8	286.4	269.3	295.9	282.3	255.3	247.2	292.4	269.3	307.5	300.5
Logs, Malaysia**	$/cum	238.3	162.4	187.1	162.0	175.3	178.4	195.9	198.8	198.4	198.6	199.5
Plywood	¢/sheet	485.0	376.1	441.3	395.2	426.4	429.9	440.3	468.8	462.4	466.9	477.0
Sawnwood, Cameroon	$/cum	563.6	526.3	455.2	532.0	461.5	424.4	441.8	493.1	481.4	504.6	493.2
Sawnwood, Malaysia**	$/cum	664.5	484.2	600.8	519.8	544.3	582.8	632.9	643.4	643.4	643.4	643.4
Woodpulp	$/mt	556.5	508.4	507.1	458.3	447.6	491.5	521.2	568.3	548.7	578.0	578.0

Continued

TABLE A1: COMMODITY PRICE DATA (CONTINUED)

Commodity	Unit	Annual Averages Jan-Dec 1997	Annual Averages Jan-Dec 1998	Annual Averages Jan-Dec 1999	Quarterly Averages Oct-Dec 1998	Quarterly Averages Jan-Mar 1999	Quarterly Averages Apr-Jun 1999	Quarterly Averages Jul-Sep 1999	Quarterly Averages Oct-Dec 1999	Monthly Averages Oct 1999	Monthly Averages Nov 1999	Monthly Averages Dec 1999
Non-Energy Commodities (continued)												
Agriculture (continued)												
Other Raw Materials												
Cotton**	¢/kg	174.8	144.5	117.1	127.5	123.9	129.4	113.8	101.3	104.6	101.9	97.4
+ Cotton, Memphis	¢/kg	178.4	165.8	123.0	158.5	n.q.	n.q.	n.q.	120.5	125.4	119.7	116.3
Jute	$/mt	304.6	258.0	276.3	270.0	250.0	260.0	295.0	300.3	301.0	300.0	300.0
Rubber, Malaysia**	¢/kg	101.8	72.2	62.9	70.6	68.0	59.7	55.6	68.1	64.7	74.1	65.4
Rubber, NY	¢/kg	121.6	89.5	80.9	87.0	83.7	77.5	74.6	87.7	83.3	94.0	85.7
Rubber, Singapore	¢/kg	101.0	70.9	62.0	69.0	65.5	59.9	55.9	66.9	64.7	70.9	65.2
Sisal	$/mt	776.6	820.8	691.5	850.0	779.2	731.7	647.5	607.7	628.0	635.0	560.0
+ Wool, Australian 64's	¢/kg	625.3	429.0	398.8	369.9	368.0	400.3	414.2	412.5	418.8	411.2	407.6
Wool, Australian 56's	¢/kg	430.3	336.3	303.6	307.2	301.4	307.8	309.0	296.2	300.6	295.0	293.0
Fertilizers												
DAP	$/mt	199.9	203.4	177.8	204.4	199.3	189.7	173.9	148.2	152.9	144.3	147.5
Phosphate rock**	$/mt	41.0	43.0	44.0	43.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
Potassium chloride	$/mt	116.5	116.9	121.6	118.1	119.1	122.5	122.5	122.5	122.5	122.5	122.5
TSP**	$/mt	171.9	173.1	154.5	168.9	164.1	162.6	150.9	140.4	145.1	138.0	138.0
Urea, E. Europe, bagged	$/mt	127.9	103.1	77.8	88.0	79.5	75.9	77.4	78.2	77.5	78.0	79.1
Urea, E. Europe, bulk	$/mt	114.0	83.1	66.4	68.3	67.6	64.6	66.1	67.3	66.3	67.1	68.7
Metals and Minerals												
Aluminum**	$/mt	1,599	1,357	1,361	1,283	1,196	1,306	1,443	1,501	1,474	1,473	1,554
Copper**	$/mt	2,277	1,654	1,573	1,545	1,407	1,467	1,679	1,739	1,724	1,728	1,765
Gold	$/toz	331.1	294.2	278.8	293.9	286.8	273.5	259.2	295.7	310.7	293.2	283.1
+ Iron ore, CVRD Carajas**	¢/dmtu	30.15	31.00	27.59	31.00	27.59	27.59	27.59	27.59	27.59	27.59	27.59
Iron ore, CVRD S. Syst.	¢/dmtu	28.88	29.69	26.96	29.69	26.96	26.96	26.96	26.96	26.96	26.96	26.96
Lead**	¢/kg	62.4	52.9	50.3	49.6	50.5	51.9	50.2	48.5	49.7	47.8	47.9
Nickel**	$/mt	6,927	4,630	6,011	3,961	4,635	5,232	6,392	7,785	7,321	7,950	8,083
Silver	¢/toz	489.2	553.4	525.0	495.8	530.2	515.6	526.7	527.3	541.7	519.2	521.1
Steel products (8) index***	1990=100	89.1	74.9	68.4	69.0	64.1	66.4	70.4	72.6	72.5	73.0	72.3
Steel-cold rolled coilsheet	$/mt	448.2	370.8	340.4	320.0	306.7	328.3	350.0	376.7	370.0	380.0	380.0
Steel-hot rolled coilsheet	$/mt	337.3	279.2	243.3	236.7	206.7	223.3	263.3	280.0	280.0	280.0	280.0
Steel, rebar	$/mt	325.2	257.5	234.2	240.0	230.0	230.0	240.0	236.7	240.0	240.0	230.0
Steel, wire rod	$/mt	382.7	332.1	290.0	326.7	293.3	290.0	290.0	286.7	290.0	290.0	280.0
Tin**	¢/kg	564.7	554.0	540.4	538.9	524.6	543.6	526.8	566.5	543.1	584.2	572.1
Zinc**	¢/kg	131.6	102.5	107.6	95.6	99.3	102.0	113.2	116.0	114.9	114.7	118.4
World Bank Commodity Price Indices for Low and Middle Income Countries (1990 = 100)****												
Petroleum		83.8	57.1	79.0	51.8	51.5	70.4	90.3	103.8	95.9	105.6	109.7
Non-Energy Commodities		117.6	99.1	88.0	94.1	89.5	87.3	86.0	89.1	87.7	89.5	90.2
Agriculture		128.7	107.8	92.8	102.1	97.5	92.8	88.7	92.1	90.5	92.8	93.0
Beverages		170.7	140.6	107.7	124.9	116.0	109.3	97.3	108.1	99.3	109.2	115.9
Food		116.3	104.9	87.5	101.2	95.1	87.1	83.8	84.2	85.8	84.0	82.8
Fats and Oils		147.7	132.8	105.0	131.5	115.6	106.0	96.7	101.9	103.7	101.6	100.3
Grains		112.1	101.3	86.4	96.5	94.3	86.8	83.8	80.6	79.4	81.2	81.2
Other Food		92.9	84.1	73.9	79.1	78.7	71.9	73.2	71.7	74.6	71.2	69.3
Raw Materials		113.7	87.3	88.5	86.4	86.9	88.0	88.6	90.3	90.0	91.9	89.2
Timber		125.8	90.9	111.8	96.7	101.7	108.2	117.7	119.6	119.6	119.6	119.6
Other Raw Materials		105.5	84.9	72.6	79.4	76.8	74.2	68.8	70.4	69.8	73.0	68.4
Fertilizers		119.7	122.1	114.1	120.1	118.7	118.0	112.3	107.3	109.6	106.1	106.1
Metals and Minerals		90.1	75.5	73.7	71.8	67.2	70.7	76.8	80.2	78.9	79.8	81.8

*Included in the petroleum index. **Included in the non-energy index. ***Steel not included in the non-energy index.
****Indices are computed using the new price series for bananas and iron ore.
$ = U.S. dollar ¢ = U.S. cent bbl = barrel cum = cubic meter dmtu = dry metric ton kg = kilogram + = new series
mmbtu = million British thermal units mt = metric ton toz = troy ounce
Note: Fats, oils and oilseeds prices are from *Oil World*, Hamburg, Germany

APPENDIX

Table 42: Commodity Prices and Price Projections in Current Dollars

		Actual					Projections				
Commodity	**Unit**	***1970***	***1980***	***1990***	***1998***	***1999***	***2000***	***2001***	***2002***	***2005***	***2010***
Energy											
Coal, US	$/mt	n.a.	43.10	41.67	34.38	33.17	33.00	33.50	34.00	35.50	38.00
Crude oil, avg. spot	$/bbl	1.21	36.87	22.88	13.07	18.07	20.00	18.00	17.50	18.00	19.00
Natural gas, Europe	$/mmbtu	n.a.	3.40	2.55	2.42	2.13	2.70	2.60	2.60	2.60	2.70
Natural gas, US	$/mmbtu	0.17	1.55	1.70	2.09	2.27	2.50	2.40	2.35	2.45	2.70
Non-Energy Commodities											
Agriculture											
Beverages											
Cocoa	¢/kg	67.5	260.4	126.7	167.6	113.5	112.0	120.0	130.0	150.0	170.0
Coffee, other milds	¢/kg	114.7	346.6	197.2	298.1	229.1	222.7	231.5	234.8	254.0	265.0
Coffee, robusta	¢/kg	91.4	324.3	118.2	182.3	148.9	145.5	158.7	165.4	186.1	192.0
Tea, 3-auction average	¢/kg	83.5	165.9	205.8	204.6	183.9	186.0	187.0	188.5	195.0	210.0
Food											
Fats and Oils											
Coconut oil	$/mt	397.2	673.8	336.5	657.9	737.1	700.0	650.0	635.0	620.0	650.0
Copra	$/mt	224.8	452.7	230.7	411.1	461.5	410.0	425.0	435.0	460.0	483.0
Groundnut oil	$/mt	378.6	858.8	963.7	909	787.7	800.0	800.0	800.0	820.0	850.0
Palm oil	$/mt	260.1	583.7	289.8	671.1	436.0	415.0	430.0	450.0	460.0	460.0
Soybean meal	$/mt	102.6	262.4	200.2	170.3	152.2	189.0	199.0	205.0	215.0	226.0
Soybean oil	$/mt	286.3	597.6	447.3	625.9	427.3	405.0	410.0	430.0	500.0	525.0
Soybeans	$/mt	116.9	296.2	246.8	243.3	201.7	220.0	230.0	240.0	250.0	275.0
Grains											
Maize	$/mt	58.4	125.3	109.3	102.0	90.2	100.0	110.0	115.0	125.0	130.0
Rice, Thai, 5%	$/mt	126.3	410.7	270.9	304.2	248.4	260.0	270.0	280.0	315.0	345.0
Sorghum	$/mt	51.8	128.9	103.9	98.0	84.4	95.0	105.0	110.0	120.0	125.0
Wheat, US, HRW	$/mt	54.9	172.7	135.5	126.1	112.0	122.0	130.0	140.0	160.0	170.0
Other Food											
Bananas, US	$/mt	166.1	377.3	540.9	489.5	373.2	399.6	452.0	490.6	529.1	540.1
Beef	¢/kg	130.4	276.0	256.3	172.6	184.3	187.4	191.8	194.0	200.0	220.0
Oranges	$/mt	168.0	400.2	531.1	442.4	430.8	430.0	450.0	500.0	565.0	600.0
Shrimp	¢/kg	n.a.	1,152	1,069	1,579	1,461	1,480	1,500	1,520	1,550	1,590
Sugar, world	¢/kg	8.2	63.16	27.67	19.67	13.81	14.00	14.20	14.50	22.00	25.00
Raw Materials											
Timber											
Logs, Cameroon	$/cum	43.0	251.7	343.5	286.4	269.3	305.0	315.0	320.0	340.0	420.0
Logs, Malaysia	$/cum	43.1	195.5	177.2	162.4	187.1	215.0	225.0	235.0	255.0	290.0
Sawnwood, Malyasia	$/cum	175.0	396.0	533.0	484.2	600.8	645.0	670.0	695.0	755.0	900.0
Other Raw Materials											
Cotton, A Index	¢/kg	67.6	206.2	181.9	144.5	117.1	118.0	130.1	132.3	158.8	180.8
Rubber, RSS1, Malaysia	¢/kg	40.7	142.5	86.5	72.2	62.9	70.6	75.0	79.3	88.2	99.2
Tobacco	$/mt	1,076	2,276	3,392	3,342	3,026	3,000	3,000	3,000	3,250	3,300
Fertilizers											
DAP	$/mt	54.0	222.2	171.4	203.4	177.8	165.0	175.0	180.0	195.0	205.0
Phosphate rock	$/mt	11.00	46.71	40.50	43.00	44.00	44.00	44.00	44.00	44.00	46.00
Potassium chloride	$/mt	32.0	115.7	98.1	116.9	121.6	122.5	124.0	124.0	125.0	127.0
TSP	$/mt	43.0	180.3	131.8	173.1	154.5	145.0	150.0	155.0	160.0	170.0
Urea, E. Europe, bagged	$/mt	48.0	222.1	130.7	103.1	77.8	90.0	100.0	110.0	120.0	140.0
Metals and Minerals											
Aluminum	$/mt	556	1,456	1,639	1,357	1,361	1,550	1,600	1,650	1,800	1,900
Copper	$/mt	1,416	2,182	2,661	1,654	1,573	1,800	1,900	2,000	2,200	2,400
Gold	$/toz	36.0	608.0	383.5	294.2	278.8	285.0	280.0	275.0	275.0	300.0
Iron ore, Carajas	¢/dmtu	9.84	28.09	32.50	31.00	27.59	29.00	29.50	30.25	32.00	33.00
Lead	¢/kg	30.3	90.6	81.1	52.9	50.3	51.0	54.0	56.0	60.0	64.0
Nickel	$/mt	2,846	6,519	8,864	4,630	6,011	7,500	7,200	7,000	6,000	6,800
Silver	¢/toz	177.0	2,064	482.0	553.4	525.0	520.0	515.0	510.0	525.0	550.0
Tin	¢/kg	367.3	1,677	608.5	554.0	540.4	560.0	560.0	570.0	590.0	610.0
Zinc	¢/kg	29.6	76.1	151.4	102.5	107.6	115.0	116.0	117.0	120.0	125.0

n.a. = not available

Note: Projections as of January 20, 2000.

Source: World Bank, Development Economics, Development Prospects Group

Table A3. Confidence Intervals for Price Projections in Current Dollars

Commodity	Unit	2000	2001	2002	2005
Energy					
Coal, US	$/mt	27.00 - 39.00	25.50 - 41.50	24.00 - 44.00	22.00 - 49.00
Crude oil, avg. spot	$/bbl	16.00 - 25.00	13.50 - 23.00	11.70 - 23.50	10.75 - 25.25
Natural gas, Europe	$/mmbtu	2.20 - 3.30	2.00 - 3.30	1.75 - 3.45	1.60 - 3.60
Natural gas, US	$/mmbtu	2.00 - 3.00	1.80 - 3.00	1.60 - 3.10	1.50 - 3.40
Non-Energy Commodities					
Agriculture					
Beverages					
Cocoa	¢/kg	96 - 128	95 - 146	89 - 172	82 - 219
Coffee, other milds	¢/kg	186 - 260	178 - 286	153 - 317	134 - 373
Coffee, robusta	¢/kg	122 - 171	123 - 196	111 - 221	113 - 261
Tea, 3-auction average	¢/kg	158 - 223	146 - 234	139 - 245	140 - 263
Food					
Fats and Oils					
Coconut oil	$/mt	609 - 802	558 - 854	494 - 927	452 - 1,050
Copra	$/mt	352 - 469	349 - 502	325 - 547	296 - 613
Groundnut oil	$/mt	684 - 897	628 - 937	621 - 1,009	583 - 1,138
Palm oil	$/mt	355 - 478	346 - 538	354 - 617	333 - 733
Soybean meal	$/mt	159 - 223	155 - 243	155 - 288	151 - 312
Soybean oil	$/mt	347 - 462	344 - 511	345 - 588	377 - 784
Soybeans	$/mt	185 - 260	179 - 281	180 - 335	163 - 363
Grains					
Maize	$/mt	82 - 122	86 - 136	93 - 158	81 - 179
Rice, Thai, 5%	$/mt	213 - 317	205 - 346	227 - 416	204 - 451
Sorghum	$/mt	78 - 116	82 - 130	89 - 151	78 - 172
Wheat, US, HRW	$/mt	100 - 149	101 - 161	118 - 202	104 - 229
Other Food					
Bananas, US	$/mt	354 - 446	379 - 526	405 - 578	417 - 642
Beef	¢/kg	150 - 225	150 - 234	144 - 268	140 - 290
Oranges	$/mt	323 - 538	324 - 576	396 - 735	379 - 752
Shrimp	¢/kg	1,214 - 1,746	1,170 - 1,830	1,116 - 2,046	1008 - 2,201
Sugar, world	¢/kg	11.9 - 16.1	11.1 - 17.3	15.4 - 29.7	14.7 - 33.0
Raw Materials					
Timber					
Logs, Cameroon	$/cum	244 - 372	224 - 400	195 - 432	187 - 493
Logs, Malaysia	$/cum	174 - 264	169 - 281	165 - 306	153 - 357
Sawnwood, Malyasia	$/cum	497 - 787	516 - 817	500 - 876	468 - 1,027
Other Raw Materials					
Cotton, A Index	¢/kg	99 - 133	110 - 151	98 - 166	102 - 214
Rubber, RSS1, Malaysia	¢/kg	61 - 80	61 - 89	62 - 96	61 - 116
Tobacco	$/mt	2,550 - 3,450	2400 - 3,600	2438 - 4,063	2178 - 4,323
Fertilizers					
DAP	$/mt	135 - 201	137 - 214	140 - 254	137 - 273
Phosphate rock	$/mt	37 - 51	37 - 52	35 - 53	33 - 55
Potassium chloride	$/mt	104 - 141	99 - 149	94 - 156	88 - 169
TSP	$/mt	119 - 177	117 - 183	115 - 208	112 - 224
Urea, E. Europe, bagged	$/mt	74 - 110	75 - 125	86 - 161	84 - 174
Metals and Minerals					
Aluminum	$/mt	1,240 - 1,860	1,200 - 2,000	1,100 - 2,200	1,075 - 2,525
Copper	$/mt	1,440 - 2,160	1,425 - 2,375	1,330 - 2,670	1,300 - 3,100
Gold	$/toz	230 - 340	210 - 350	185 - 365	170 - 385
Iron ore, Carajas	¢/dmtu	24 - 34	23 - 36	23 - 38	22 - 43
Lead	¢/kg	41 - 61	41 - 68	38 - 75	36 - 84
Nickel	$/mt	6,000 - 9,000	4,800 - 9,600	4,200 - 9,800	3600 - 8,400
Silver	¢/toz	415 - 625	385 - 645	340 - 680	315 - 735
Tin	¢/kg	450 - 670	420 - 700	380 - 760	355 - 825
Zinc	¢/kg	92 - 138	87 - 145	78 - 156	72 - 168

Note: Projections as of January 20, 2000.

Source: World Bank, Development Economics, Development Prospects Group

APPENDIX

Table A4 Commodity Prices and Price Projections in Constant 1990 Dollars

		Actual					Projections				
Commodity	**Unit**	***1970***	***1980***	***1990***	***1998***	***1999***	***2000***	***2001***	***2002***	***2005***	***2010***
Energy											
Coal, US	$/mt	n.a.	59.88	41.67	33.00	32.03	31.09	30.79	30.46	29.70	28.13
Crude oil, avg. spot	$/bbl	4.82	51.22	22.88	12.54	17.45	18.84	16.54	15.68	15.06	14.06
Natural gas, Europe	$/mmbtu	n.a.	4.72	2.55	2.32	2.06	2.54	2.39	2.33	2.18	2.00
Natural gas, US	$/mmbtu	0.68	2.15	1.70	2.00	2.19	2.36	2.21	2.11	2.05	2.00
Non-Energy Commodities											
Agriculture											
Beverages											
Cocoa	¢/kg	269.1	361.7	126.7	160.9	109.6	105.5	110.3	116.5	125.5	125.8
Coffee, other milds	¢/kg	457.2	481.6	197.2	286.1	221.2	209.8	212.8	210.3	212.5	196.2
Coffee, robusta	¢/kg	364.3	450.6	118.2	174.9	143.8	137.1	145.9	148.1	155.7	142.1
Tea, 3-auction average	¢/kg	332.9	230.5	205.8	196.4	177.6	175.2	171.9	168.9	163.2	155.5
Food											
Fats and Oils											
Coconut oil	$/mt	1583.7	936.1	336.5	631.5	711.8	659.4	597.4	568.8	518.8	481.2
Copra	$/mt	896.5	629.0	230.7	394.6	445.6	386.3	390.6	389.7	384.9	357.5
Groundnut oil	$/mt	1509.4	1193.0	963.7	872.8	760.6	753.7	735.3	716.7	686.1	629.2
Palm oil	$/mt	1036.9	810.9	289.8	644.1	421.0	391.0	395.2	403.1	384.9	340.5
Soybean meal	$/mt	409.0	364.6	200.2	163.5	146.9	178.1	182.9	183.6	179.9	167.3
Soybean oil	$/mt	1141.7	830.2	447.3	600.8	412.6	381.5	376.8	385.2	418.4	388.6
Soybeans	$/mt	466.2	411.5	246.8	233.5	194.7	207.3	211.4	215.0	209.2	203.6
Grains											
Maize	$/mt	232.9	174.0	109.3	97.9	87.1	94.2	101.1	103.0	104.6	96.2
Rice, Thai, 5%	$/mt	503.6	570.6	270.9	291.9	239.9	244.9	248.2	250.8	263.6	255.4
Sorghum	$/mt	206.5	179.0	103.9	94.1	81.5	89.5	96.5	98.5	100.4	92.5
Wheat, US, HRW	$/mt	218.9	240.0	135.5	121.1	108.2	114.9	119.5	125.4	133.9	125.8
Other Food											
Bananas, US	$/mt	662.2	524.1	540.9	469.8	360.4	376.5	415.4	439.5	442.7	399.8
Beef	¢/kg	520.1	383.4	256.3	165.6	178.0	176.5	176.3	173.8	167.4	162.9
Oranges	$/mt	670.0	556.0	531.1	424.6	416.0	405.1	413.6	447.9	472.8	444.2
Shrimp	¢/kg	n.a.	1,600	1,069	1,515	1,410	1,394	1,379	1,362	1,297	1,177
Sugar, world	¢/kg	32.8	87.8	27.7	18.9	13.3	13.2	13.1	13.0	18.4	18.5
Raw Materials											
Timber											
Logs, Cameroon	$/cum	171.5	349.7	343.5	274.9	260.0	287.3	289.5	286.7	284.5	310.9
Logs, Malaysia	$/cum	172.0	271.6	177.2	155.9	180.7	202.5	206.8	210.5	213.4	214.7
Sawnwood, Malyasia	$/cum	697.8	550.2	533.0	464.7	580.2	607.6	615.8	622.6	631.8	666.2
Other Raw Materials											
Cotton, A Index	¢/kg	269.7	286.5	181.9	138.7	113.1	111.1	119.6	118.5	132.8	133.8
Rubber, RSS1, Malaysia	¢/kg	162.4	197.9	86.5	69.3	60.7	66.5	68.9	71.1	73.8	73.4
Tobacco	$/mt	4,290	3,161	3,392	3,207	2,921	2,826	2,757	2,687	2,719	2,442
Fertilizers											
DAP	$/mt	215.3	308.7	171.4	195.2	171.7	155.4	160.9	161.3	163.2	151.8
Phosphate rock	$/mt	43.9	64.9	40.5	41.3	42.5	41.5	40.4	39.4	36.8	34.1
Potassium chloride	$/mt	127.6	160.8	98.1	112.2	117.5	115.4	114.0	111.1	104.6	94.0
TSP	$/mt	171.5	250.4	131.8	166.1	149.2	136.6	137.9	138.9	133.9	125.8
Urea, E. Europe, bagged	$/mt	191.4	308.6	130.7	98.9	75.1	84.8	91.9	98.5	100.4	103.6
Metals and Minerals											
Aluminum	$/mt	2,217	2,023	1,640	1,303	1,314	1,460	1,471	1,478	1,506	1,406
Copper	$/mt	5,645	3,031	2,661	1,587	1,519	1,696	1,746	1,792	1,841	1,777
Gold	$/toz	143.5	844.7	383.5	282.3	269.2	268.5	257.4	246.4	230.1	222.1
Iron ore, Carajas	¢/dmtu	39.2	39.0	32.5	29.8	26.6	27.3	27.1	27.1	26.8	24.4
Lead	¢/kg	120.8	125.8	81.1	50.7	48.5	48.1	49.6	50.2	50.2	47.4
Nickel	$/mt	1,1348	9,056	8,864	4,443	5,805	7,065	6,618	6,271	5,020	5,034
Silver	¢/toz	705.7	2866.9	482.0	531.2	506.9	489.9	473.4	456.9	439.3	407.1
Tin	¢/kg	1,464.7	2,330.5	608.5	531.8	521.8	527.6	514.7	510.6	493.7	451.6
Zinc	¢/kg	118.0	105.8	151.4	98.3	103.9	108.3	106.6	104.8	100.4	92.5

n.a. = not available

Note: Projections as of January 20, 2000.

Source: World Bank, Development Economics, Development Prospects Group

Table A5. Confidence Intervals for Price Projections in Constant 1990 Dollars (70% probability)

Commodity	Unit	2000	2001	2002	2005
Energy					
Coal, US	$/mt	25.44 - 36.74	23.44 - 38.14	21.50 - 39.42	18.41 - 41.00
Crude oil, avg. spot	$/bbl	15.07 - 23.55	12.41 - 21.14	10.48 - 21.05	9.00 - 21.13
Natural gas, Europe	$/mmbtu	2.07 - 3.11	1.84 - 3.03	1.57 - 3.09	1.34 - 3.01
Natural gas, US	$/mmbtu	1.88 - 2.83	1.65 - 2.76	1.43 - 2.78	1.26 - 2.84
Non-Energy Commodities					
Agriculture					
Beverages					
Cocoa	¢/kg	90 - 121	88 - 134	79 - 154	69 - 183
Coffee, other milds	¢/kg	175 - 245	163 - 263	137 - 284	112 - 312
Coffee, robusta	¢/kg	115 - 161	113 - 180	100 - 198	95 - 219
Tea, 3-auction average	¢/kg	149 - 210	134 - 215	125 - 220	117 - 220
Food					
Fats and Oils					
Coconut oil	$/mt	573 - 756	513 - 785	442 - 831	379 - 879
Copra	$/mt	331 - 442	321 - 461	291 - 490	248 - 513
Groundnut oil	$/mt	645 - 845	577 - 861	556 - 903	488 - 952
Palm oil	$/mt	334 - 450	318 - 494	317 - 553	279 - 614
Soybean meal	$/mt	150 - 210	143 - 223	139 - 258	126 - 261
Soybean oil	$/mt	327 - 435	317 - 470	309 - 527	316 - 656
Soybeans	$/mt	174 - 245	165 - 258	161 - 300	136 - 303
Grains					
Maize	$/mt	77 - 115	79 - 125	83 - 141	68 - 150
Rice, Thai, 5%	$/mt	201 - 299	189 - 318	203 - 372	171 - 377
Sorghum	$/mt	73 - 109	75 - 120	80 - 135	65 - 144
Wheat, US, HRW	$/mt	94 - 140	93 - 148	106 - 181	87 - 191
Other Food					
Bananas, US	$/mt	334 - 421	348 - 484	362 - 517	349 - 537
Beef	¢/kg	141 - 212	138 - 215	129 - 240	117 - 243
Oranges	$/mt	304 - 506	298 - 529	354 - 658	317 - 629
Shrimp, Mexican	¢/kg	1,143 - 1,645	1,075 - 1,682	1,000 - 1,833	843 - 1,842
Sugar, world	¢/kg	11.2 - 15.2	10.2 - 15.9	13.8 - 26.6	12.3 - 27.6
Raw Materials					
Timber					
Logs, Cameroon	$/cum	230 - 351	206 - 368	175 - 387	156 - 413
Logs, Malaysia**	$/cum	164 - 249	155 - 259	147 - 274	128 - 299
Sawnwood, Malyasia**	$/cum	468 - 741	474 - 751	448 - 784	392 - 859
Other Raw Materials					
Cotton	¢/kg	94 - 126	101 - 139	88 - 148	86 - 179
Rubber, RSS1, Malaysia	¢/kg	58 - 75	56 - 82	56 - 86	51 - 97
Tobacco	$/mt	2,402 - 3,250	2,206 - 3,309	2,184 - 3,640	1,822 - 3,617
Fertilizers					
DAP	$/mt	127 - 190	125 - 196	126 - 227	114 - 228
Phosphate rock	$/mt	35 - 48	34 - 48	32 - 47	28 - 46
Potassium chloride	$/mt	98 - 133	91 - 137	84 - 140	73 - 141
TSP	$/mt	112 - 167	108 - 168	103 - 186	94 - 187
Urea, E. Europe, bagged	$/mt	70 - 103	69 - 115	77 - 144	70 - 146
Metals and Minerals					
Aluminum	$/mt	1,168 - 1,752	1,103 - 1,838	985 - 1,971	900 - 2,113
Copper	$/mt	1,357 - 2,035	1,310 - 2,183	1,191 - 2,392	1,088 - 2,594
Gold	$/toz	217 - 320	193 - 322	166 - 327	142 - 322
Iron ore, Carajas	¢/dmtu	23 - 32	21 - 33	20 - 34	18 - 36
Lead	¢/kg	39 - 57	37 - 62	34 - 67	30 - 70
Nickel	$/mt	5,652 - 8,479	4,412 - 8,824	3,762 - 8,779	3,012 - 7,029
Silver	¢/toz	391 - 589	354 - 593	305 - 609	264 - 615
Tin	¢/kg	424 - 631	386 - 643	340 - 681	297 - 690
Zinc	¢/kg	87 - 130	80 - 133	70 - 140	60 - 141

Note: Projections as of January 20, 2000.
Source: World Bank, Development Economics, Development Prospects Group

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Table A6. Weighted Indices of Commodity Prices and Inflation

	Actual					Projections*				
	1970	*1980*	*1990*	*1998*	*1999*	*2000*	*2001*	*2002*	*2005*	*2010*
Current Dollars										
Petroleum	5.3	161.2	100.0	57.1	79.0	87.4	78.7	76.5	78.7	83.0
Non-Energy Commodities**	43.8	125.5	100.0	99.1	88.0	92.9	96.5	99.7	108.4	116.7
Agriculture	45.8	138.1	100.0	107.8	92.8	96.5	100.8	104.2	114.5	123.9
Beverages	56.9	181.4	100.0	140.6	107.7	105.6	110.5	114.1	125.2	133.3
Food	46.7	139.3	100.0	104.9	87.5	93.1	96.7	100.1	109.1	113.5
Fats and oils	64.4	148.7	100.0	132.8	105.0	111.3	114.4	118.1	122.7	128.1
Grains	46.7	134.3	100.0	101.3	86.4	93.0	98.9	103.9	116.3	124.4
Other food	32.2	134.3	100.0	84.1	73.9	78.3	80.9	83.3	93.9	95.4
Raw materials	36.4	104.6	100.0	87.3	88.5	94.2	98.9	102.2	113.6	130.3
Timber	31.8	79.0	100.0	90.9	111.8	121.0	125.9	130.7	141.9	168.2
Other Raw Materials	39.6	122.0	100.0	84.9	72.6	75.8	80.5	82.8	94.3	104.4
Fertilizers	30.4	128.9	100.0	122.1	114.1	111.9	111.9	114.3	116.7	123.3
Metals and minerals	40.4	94.2	100.0	75.5	73.7	82.3	84.6	87.1	92.7	98.6
Constant 1990 Dollars* **										
Petroleum	21.1	223.8	100.0	54.8	76.3	82.4	72.3	68.5	65.8	61.5
Non-Energy Commodities**	174.7	174.3	100.0	95.1	84.9	87.5	88.7	89.3	90.7	86.4
Agriculture	182.4	191.8	100.0	103.5	89.6	90.9	92.6	93.4	95.8	91.7
Beverages	226.7	252.0	100.0	134.9	104.0	99.5	101.6	102.2	104.8	98.7
Food	186.0	193.4	100.0	100.7	84.5	87.7	88.8	89.7	91.3	84.0
Fats and oils	256.4	206.5	100.0	127.5	101.4	104.8	105.1	105.8	102.7	94.8
Grains	186.1	186.5	100.0	97.2	83.4	87.6	90.9	93.1	97.3	92.1
Other food	128.4	186.6	100.0	80.8	71.3	73.8	74.3	74.6	78.5	70.6
Raw materials	145.1	145.2	100.0	83.8	85.4	88.7	90.9	91.6	95.1	96.4
Timber	126.6	109.7	100.0	87.3	107.9	114.0	115.7	117.1	118.8	124.5
Other Raw Materials	157.7	169.5	100.0	81.5	70.1	71.4	74.0	74.2	78.9	77.3
Fertilizers	121.1	179.0	100.0	117.2	110.1	105.4	102.9	102.4	97.7	91.3
Metals and minerals	160.8	130.8	100.0	72.4	71.2	77.6	77.7	78.0	77.5	73.0
Inflation Indices, 1990=100* **										
MUV index*****	25.08	71.98	100.00	104.19	103.56	106.15	108.80	111.63	119.51	135.09
% change per annum		11.12	3.34	0.51	-0.60	2.50	2.50	2.60	2.30	2.48
US GDP deflator	32.69	64.53	100.00	120.41	121.97	123.80	126.03	128.55	136.95	151.80
% change per annum		7.04	4.48	2.35	1.30	1.50	1.80	2.00	2.13	2.08

*Commodity price projections as of January 20, 2000.

**The World Bank primary commodity price indices are computed based on 1987-89 export values in US dollars for low- and middle-income economies, rebased to 1990. Weights for the sub-group indices expressed as ratios to the non-energy index are as follows in percent: agriculture 69.1, fertilizers 2.7, metals and minerals 28.2; beverages 16.9, food 29.4, raw materials 22.8; fats and oils 10.1, grains 6.9, other food 12.4; timber 9.3 and other raw mterials 13.6.

***Computed from unrounded data and deflated by the MUV index

****Inflation indices for 1998-2010 are projections as of October 19, 1998. Data for 1997, US GDP deflator is actual; MUV is a preliminary estimate. Growth rates for years 1980, 1990, 1997, 2005 and 2010 refer to compound annual rate of change between adjacent end-point years; all others are annual growth rates from the previous year.

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

Source: World Bank, Development Prospects Group; Historical US GDP deflator; US Department of Commerce.

Description of Price Series

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

Bananas (Central & South American), major brands, c.i.f. Hamburg

Bananas (Central & South American), major brands, US import price, free on truck (f.o.t.) US ports, new series

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

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

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

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

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

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

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

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

Cotton ("cotton outlook", "A" index), middling 1-3/32 inch, average of the cheapest 5 of 15 styles traded in Northern Europe, c.i.f.

Cotton (US), Memphis/Eastern, middling 1-3/32 inch, c.i.f. Northern Europe, one of the 15 styles based on which the Cotlook A Index is computed

Crude oil (spot), average spot price of Brent, Dubai and West Texas Intermediate, equally weighed

Crude oil (spot), U.K. Brent 38' API, f.o.b. U.K ports

Crude oil (spot), Dubai Fateh 32' API, f.o.b. Dubai

Crude oil (spot), West Texas Intermediate (WTI) 40' API, f.o.b. Midland Texas

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

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

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

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

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

Iron ore (Brazilian), Companhia Vale do Rio Doce (CVRD) Carajas fines, 67.35% Fe (iron) content (dry weight) ores, moisture content 8.0%, contract price to Europe, f.o.b. Ponta da Madeira. Unit 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.

Iron ore (Brazilian), CVRD Southern System standard sinter fines (SSF), 64.2% Fe ores, moisture content 6.5%, contract price to Europe, f.o.b. Tubarao.

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

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

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

Logs (West African), sapele, high quality (loyal and marchand LM), f.o.b. Cameroon; beginning January 1996, LM 80 centimeter or more

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

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

Natural Gas (Europe), average import border price

Natural Gas (U.S.), spot price at Henry Hub, Louisiana

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

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

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

Palmkernel Oil (Malaysian), c.i.f. Rotterdam

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

Description of Price Series (continued)

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

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

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

Rice (Thai), 25% broken, WR, milled 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 price, government standard, f.o.b. Bangkok

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

Rubber (any origin), RSS no. 1, in bales, Rubber Traders Association (RTA), spot, New York

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

Sawnwood (Cameroonian), sapele, width 6 inches or more, length 6 feet or more, f.a.s. Cameroonian ports

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

Shrimp , (Mexican), frozen, white, No. 1, shell-on, headless, 26/30 count per pound, wholesale price at New York

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

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

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

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

Steel products price index, 1990=100, (Japanese), composite price index for eight selected steel products based on quotations f.o.b. Japan excluding shipments to the United States and China, weighted by product shares of apparent combined consumption (volume of deliveries) at Germany, Japan and the United States. The eight products are as follow: 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
Sugar (EU), European Union negotiated import price for raw unpacked sugar from African, Caribbean and Pacific (ACP) under Lome Conventions, c.i.f. European ports

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

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

Tea (Calcutta auctions), leaf, include excise duty, arithmetic averages of weekly quotes

Tea (Colombo auctions), Sri Lankan origin, all tea, arithmetic averages of weekly quotes

Tea (Mombassa/Nairobi auctions), African origin, all tea, arithmetic averages of weekly quotes

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

TSP (triple super-phosphate), bulk, spot, f.o.b. US Gulf

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

Urea, (varying origins), bulk, spot, f.o.b. Eastern Europe

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

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

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

Wool (Australian), merino, 64's, clean, c.i.f. UK

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

Definitions and Explanations

Annual growth rates are calculated by least squares regressions for the three sub-periods (1970-80, 1980-90, 1990-most recent figure). Because the selection of breaks is admittedly *ad hoc*, in the sense that it is based solely on the fact that 1980 and 1990 represent the beginning and the end of their respective decades, the break points are introduced in the estimation process through a kinked growth model. This model imposes the restriction that the three growth lines intersect at 1980 and 1990, which implies that one sub-period's observations will affect the growth rates of the other sub-periods. The growth rates are updated in each January issue of this report. The full results and details about the methodology can be found in a forthcoming paper "Unit Roots *Versus* Trend Stationarity in Growth Rate Estimation," which will also be available on our *GCM* web site.

Constant prices are prices which are deflated by the Manufactures Unit Value Index (MUV), with a base of 1990=100. The MUV is the 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.

Dollars are US dollars unless otherwise specified.

Futures prices shown in this report are end of quarter closing prices. The prices are converted to the same units as the monthly data for comparison purposes, however they are not adjusted for quality or transportation. Thus, the futures prices will often have a significant margin from the actual monthly prices, but this margin should not be interpreted as the expected direction of future price movements. Rather, it is the path of futures prices which is considered to have economic meaning.

Price indexes were computed by the Laspeyres formula. The Non-Energy Price Index is comprised of 33 commodities. U.S. dollar prices of each commodity are weighted by 1987-89 average export values. Base year reference for all indexes is 1990. Countries comprised of all low and middle income economies according to World Bank income classification. Details are shown in Table A1 Commodity Price Data.

Regions are classified according to the World Bank's analytical groupings.

Reporting period. Calendar vs. crop or marketing year refers to the span of the year. It is common in many agricultural commodities to refer to production and other variables over the twelve month period which begins with harvest. A crop or marketing year will often differ by commodity and, in some cases, by country or region. Commodities such as metals use calendar year.

Tons refer to metric tons (1,000 kilograms).

Acronyms and Abbreviations

ACP	African, the Caribbean, and the Pacific
API	American Petroleum Institute
bbl	barrel
BP	British Petroleum
Bel-Lux	Belgium/Luxemburg
c.i.f.	cost, insurance, and freight
CBOT	Chicago Board of Trade
CSCE	Coffee, Sugar, and Cocoa Exchange
cum	cubic meter
CVRD	Companhia Vale do Rio Doce
dmtu	dry metric ton unit
dwt	dead weight ton
EU	European Union
ECE	Economic Commission for Europe
f.o.b.	free on board
f.o.r.	free on rail
f.o.t.	free on truck
FAO	Food and Agriculture Organization of the United Nations
FSU	Former Soviet Union
G-5	France, Germany, Japan, United Kingdom, and United States
G-7	G-5 plus Canada and Italy
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GNP	Gross national product
ha	hectare
ICAC	International Cotton Advisory Committee
ICCO	International Cocoa Organization
ICO	International Coffee Organization
IEA	International Energy Agency
IGC	International Grains Council
IISI	International Iron and Steel Institute
IMF	International Monetary Fund
INRO	International Natural Rubber Organization
IRSG	International Rubber Study Group
ISO	International Sugar Organization
ITC	International Tea Committee
ITTO	International Tropical Timber Organization
kg	kilogram
KLCE	Kuala Lumpur Commodity Exchange
kt	thousand ton
lb	pound
LIBOR	London Interbank Offer Rate
LIFFE	London International Financial and Futures and Options Exchange
LME	London Metal Exchange
mb/d	million barrels per day
MGE	Minneapolis Grain Exchange
mmbtu	millions of British thermal units
mt	metric ton
mtoe	million tons of oil equivalent
MUV	Manufactures unit value
n.a.	data not available
NIKKEI	Nihon Keizai Shimbun, Inc.
nil.	data less than half the unit shown
NMFS	The National Marine Fisheries Service
NYCE	New York Cotton Exchange
NYMEX	New York Mercantile Exchange
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
QR	Quantitative Restrictions
PNG	Papua New Guinea
SDR	Special drawing right
SICOM	Singapore Commodity Exchange
ton	metric ton
TRQ	Tariff Rate Quotas
UAE	United Arab Emirates
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US DOE	US Department of Energy
USDA	US Department of Agriculture
WBMS	World Bureau of Metal Statistics
WFP	World Food Programme
WHO	World Health Organization
WSJ	The Wall Street Journal
WTO	World Trade Organization

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THE WORLD BANK
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Telephone: 202-477-1234
Facsimile: 202-477-6391
Telex: MCI 64145 WORLDBANK
MCI 248423 WORLDBANK
Internet: www.worldbank.org
Email: books@worldbank.org

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