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# GLOBAL COMMODITY MARKETS

*a comprehensive  
review and price  
forecast*



THE WORLD BANK  
Commodities Team  
Development Prospects Group

ISSN 1020-721X



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**THE WORLD BANK**  
Washington, D.C.

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## Summary

*Commodity prices were mixed in the third quarter, with energy and metals increasing because of production cuts, while agricultural and fertilizer prices continued to fall on abundant supplies. Oil prices could rise in the near-term, but are expected to decline next year due to higher production. Metals prices are expected to continue rising due to improved global economic prospects and cuts in supplies, while agricultural prices are expected to remain low for at least another year.*

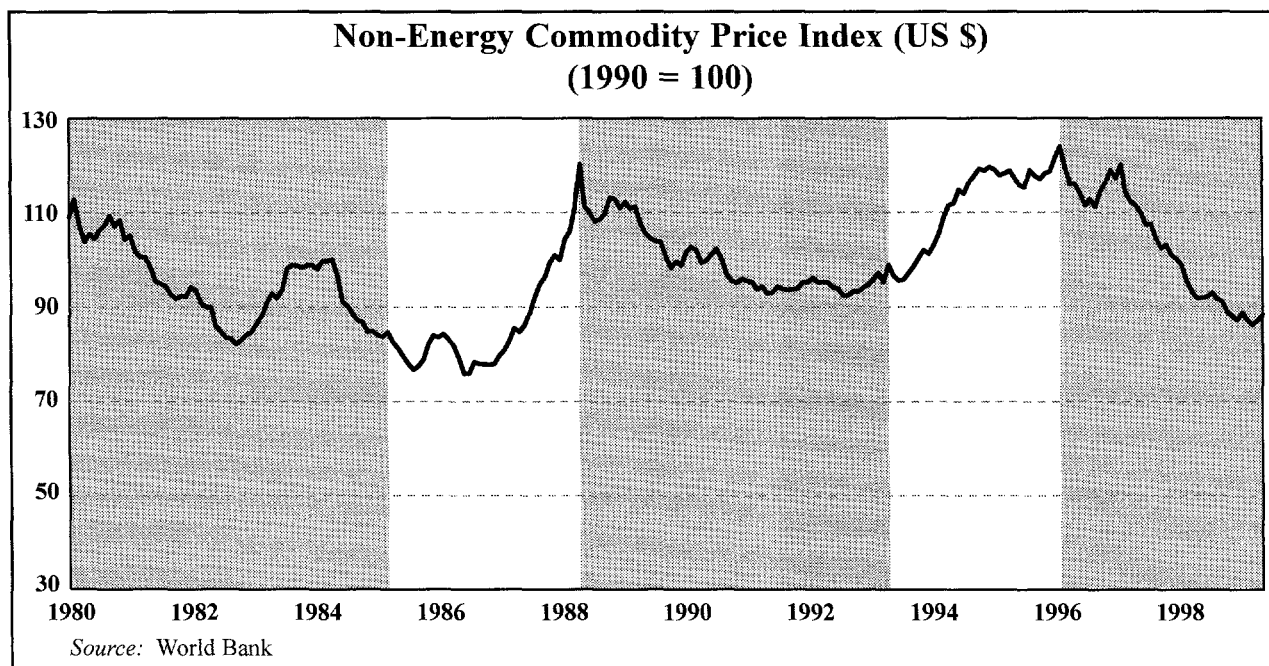
Petroleum prices have continued to recover, with crude oil prices up 28% from the second quarter. Prices surged to \$24/bbl in September in anticipation of the OPEC decision not to raise production quotas before next March. Stocks, particularly US crude oil, are beginning to decline and are expected to fall sharply this winter in the absence of higher production. This could lead to a spike in prices; but if this occurs, oil producers are expected to raise output either formally or through relaxation of existing quotas. By next year, prices are expected to fall as production increases faster than demand.

Metals prices continued to recover mainly because of reductions in supply, with the index of metals

prices up 8.6% compared to the previous quarter. Significant cutbacks in US copper production in late June and early July initiated a rally that included most metals prices, although supply shortfalls in other metals (notably nickel) and the recovery of demand in Asia contributed to the price increases. Copper prices were up nearly 15% on the announced cutbacks, but stocks remain near all-time highs. Nickel prices rose 22% mainly because of shortfalls in supply, including a strike in Canada and problems bringing on new capacity in Australia.

Gold prices surged above \$300/toz in late September on the unexpected agreement by European central banks to limit sales during the next five years to 2,000 tons. Large short-covering contributed to the price spike that exceeded \$325 in early October. The market also drew strength from the IMF decision to abandon its plan to sell a portion of its reserves on the open market and instead revalue 14 million ounces of its gold reserves and conduct off-market sales to help fund the debt relief initiative for poor countries. While gold prices may remain volatile in the near-term, they are expected to settle back under \$300/oz, partly because central bank sales will likely continue.

Agricultural prices fell an additional 4.7% during the quarter as large supplies continue to depress prices. Most beverage prices are still declining, with cocoa prices falling to a new low in August and coffee prices



## SUMMARY

reaching new lows in September. Grains prices were also lower, with rice prices falling to a new low in September and maize and wheat prices unable to sustain the rally which began in July. Oilseed and vegetable oil prices were generally lower, with palm oil down 23% compared to last quarter, soybean oil down 5%, and coconut oil down 18%. The weakness in vegetable oil prices was due to both large supplies and the reduction in the Indonesian palm oil export tax. Soybean prices were only down 2% for the quarter and are expected to increase next quarter as supply prospects have improved and import demand is expected to increase.

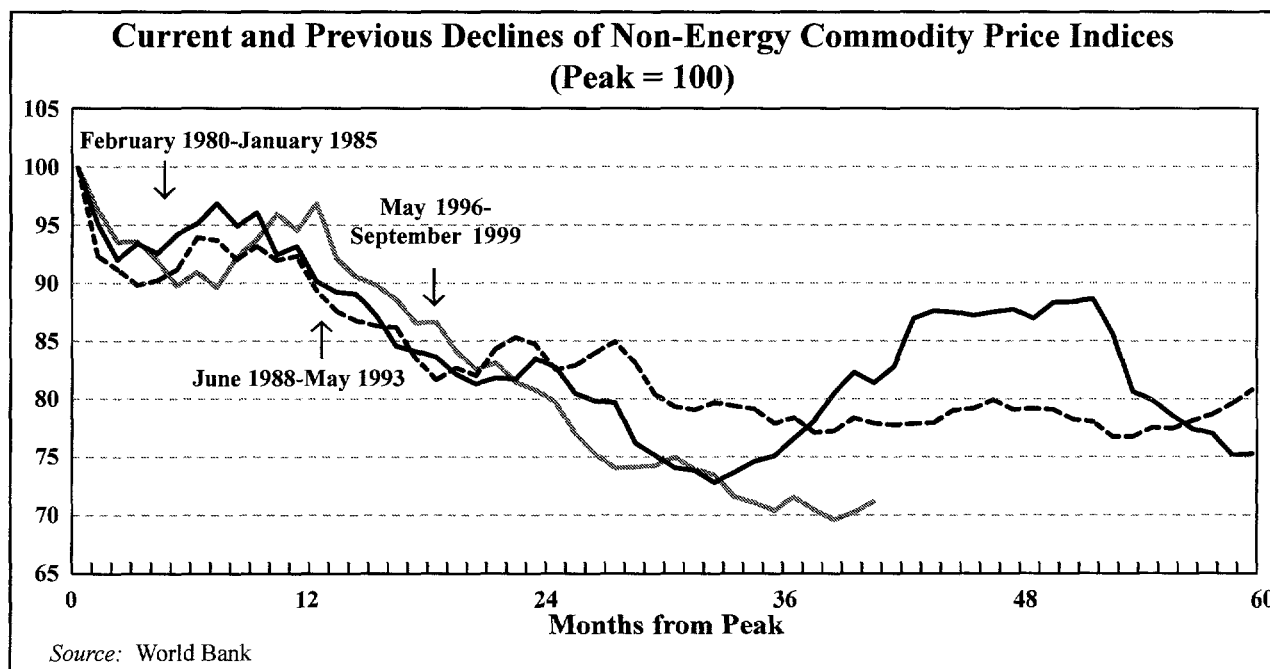
Other foods prices were about unchanged overall for the quarter and face mixed prospects over the near-term. Beef prices were up 10% for the quarter because of improved demand from the Asia region. Shrimp prices rose 1.0% due to stronger Asian demand. Sugar prices rose 3.4%, but from extremely depressed levels and despite the massive global surplus of sugar.

Agricultural raw materials were mixed, with cotton and rubber prices falling to new lows while timber prices continued to recover. Overall, agricultural prices have not given clear signs that they can sustain a price increase, as stocks are large and they may preclude a significant price rise. However, most agricultural commodities also appear to be near or past their lows and prices may drift with-

out strong direction.

Fertilizer prices have shown divergent trends over the last several years, with nitrogen fertilizer prices falling sharply while phosphate and potash prices remained firm because of supply control programs of major exporters. This finally showed signs of changing in the third quarter as phosphate fertilizer prices fell sharply. Diammonium phosphate (DAP) prices fell 8% and triple super phosphate (TSP) prices fell 7% in what appears to be the start of a more extended decline due to surplus capacity and weak demand due to low grain prices. Potash fertilizer prices remained firm as major producers continued to match supplies to demand.

The overall index of non-energy commodity prices appears to have stabilized as shown by the chart below. The decline since the cyclical peak in May 1996, has now totaled 30% and extended for 37 months. This compares with the previous two cyclical declines which averaged 34 months in length and had prices decline by an average of 25% – making this decline longer and deeper than either of the previous declines. The recovery of prices is expected to be slow, with an increase of 2.8% in the index in 2000 and 4.2% in 2001. That would make the current price recovery similar to that following the decline which began in June 1988 rather than the more rapid price recovery which followed the February 1980 price decline.





## Regional Price Indices

*Although prices of various commodities rallied in the latter part of the quarter, prices of developing countries' non-energy commodity exports declined an additional 1.7%. Price declines among regions varied from 1.1% to 2.7%.*

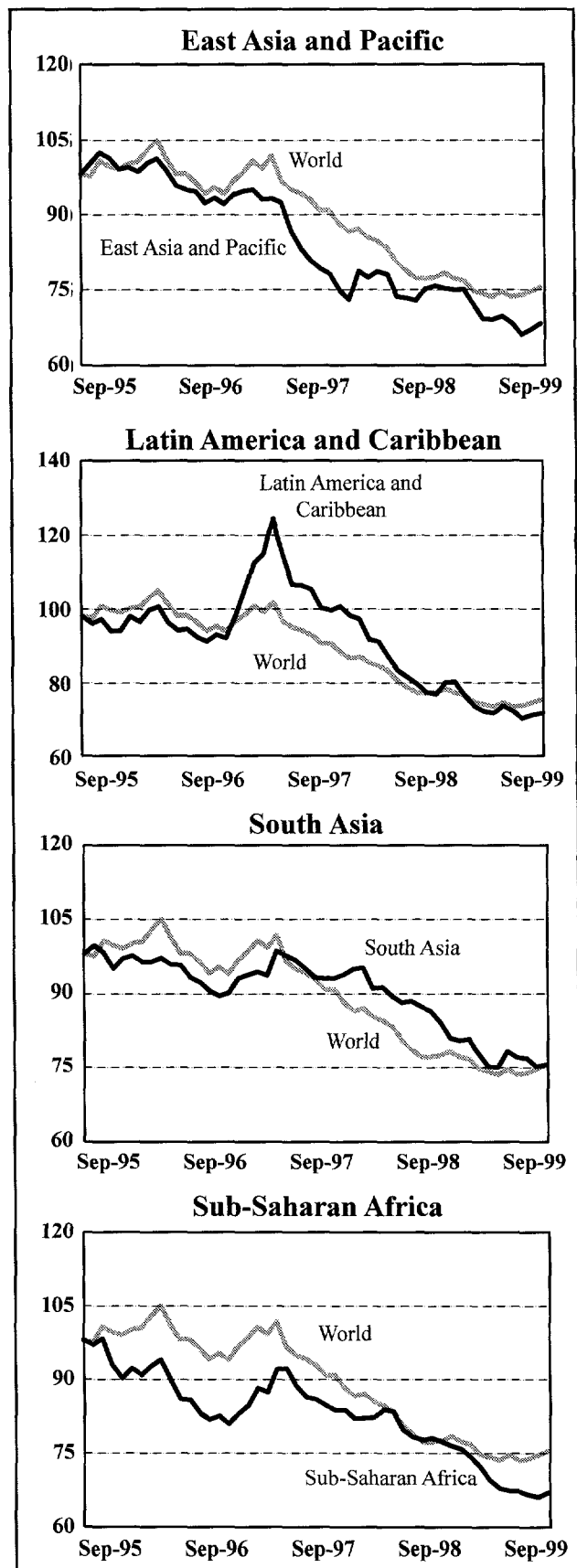
The export price index of the East Asia and Pacific region had the largest decline of the four regions at 2.7%. The declines in prices of the major exports in the region came from palm oil (-22.9%), natural rubber (-6.9%), and tin (-3.1%), while higher prices of major commodity exports came from tropical timber (logs up 9.8% and sawnwood up 8.6%) and copper up 14.5%.

The Latin America and Caribbean region's price index of non-energy commodity exports declined 2% compared to the second quarter. Losses from the decline in arabica coffee (-15.6%) were partially offset by price increases of other major commodity exports such as copper (14.5%), aluminum (10.5%), soybean meal (8.8%), and sugar (3.4%).

South Asia had the smallest decline in its export price index among the developing country regions, with a decline of 1.1%. The big price movers over the quarter were tea (15.3%, Colombo), cotton (-12.1%), and robusta coffee (-9.2%). Very little movement was seen in other major exports such as iron ore (0.0%), rice (-0.1%), or in the other tea auctions (0.1% and 0.4% in Calcutta and Mombassa, respectively).

The non-energy commodity export price index of the Sub-Saharan Africa region had a smaller decline of 1.4% this quarter versus 6.2% last quarter due mainly to the rise in sugar export prices. The price changes of major commodity exports also followed similar trends from last quarter with declines in robusta coffee (-9.2%), cocoa (-7.0%) and increases for copper (14.5%) and aluminum (10.5%). The export prices of the major commodity not following the trend from last quarter were sugar prices which increased 3.4% compared to a loss of 18% last quarter, contributing to the smaller overall decline for the region this quarter.

*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.



# Contracts are not Guarantees

## *Fallout from Large Commodity Price Changes*

The sharp fall in commodity prices over the past two years was extreme, but not unprecedented. When prices change dramatically, the stress on contract obligations can be large and often leads to defaults. This seems to be true whether the contracts are in India, Malaysia, or the United States; and whether the contracts are signed between private entities, governments or between the two. In many cases, defaults are voluntary in order to receive better prices (or in general higher returns). From the examples shown, we can draw some lessons of why contracts are not honored and what changes could reduce the chances of default. As long as the benefits from non-compliance exceed the benefits from complying, defaults will not be entirely eliminated. However, with the benefit of hindsight, one can see that there is definitely room for improvement.

### **Default on Contracts Among Private Parties**

#### *The case of the Midwest US grain elevators*

Many farmers in the Midwest US sign contracts with their grain elevators to sell grain for future delivery; in turn, the elevator operators hedge their future buying obligation from the producer by selling futures contracts on the futures exchange. Hedge-to-arrive contracts (HTAs), which were extensively used in the Midwest, are essentially forward contracts which allow the farmer the opportunity to change the delivery date, thereby adding risk to elevator operators.

Maize prices doubled between May 1995 and May 1996. As prices soared, farmers opted not to deliver the grain under their HTA agreement because they had the option to deliver at a later date. This left the elevator operators locked into futures contracts without a physical offset. Some elevator operators could not meet the margin requirements, and their positions were liquidated, and they subsequently lost money.<sup>1</sup> A number of them collapsed leaving banks with un-

paid loans. The problem cannot be blamed on farmers since they exercised their contract options. However, poorly structured contracts which did not consider the potential for maize prices doubling led to severe financial problems for Midwestern banks.<sup>2</sup>

#### *The Case of Indian Palm Oil Importers*

Following the East Asian crisis, palm oil prices remained at high levels as Indonesia imposed a ban on its palm oil exports (to be replaced later by an export tax). Indonesia's absence from the export market kept palm oil prices strong until the end of 1998. When Indonesia returned to the export market (which also coincided with forecasts for a big palm oil crop), palm oil prices plummeted to \$319/ton in July 1999, from \$703/ton 10 months earlier.

India is the dominant palm oil importer, accounting for more than 20% of global imports most of which come from Malaysia. Following the drop in palm oil prices, a number of Indian palm oil importers abandoned their purchase contracts (agreed to when palm oil prices were high) and instead bought palm oil at the spot market at substantially lower prices. Despite concessions offered by Malaysian traders (reducing prices and deferring deliveries), defaults may have been as high as Rs30 billion (\$689 million) according to an estimate cited in the *Financial Times* (August 26, 1999). Again, large price changes created an opportunity for importers to abandon their contracts, and the cost of this decision was small or insignificant to them since no deposits had been made and laws were not expected to be enforced.

<sup>1</sup>Following the recent sharp rise in gold prices, Ashanti Goldfields obtained temporary agreement from creditor banks in early October not to demand margin calls (around \$250 million) on its forward sales (see the gold section of this report, p. 68).

<sup>2</sup>Futures contracts are generally traded on Commodity Futures Trading Commission-approved (CFTC) commodity exchanges. Trading is supervised, monitored, and regulated by the exchanges themselves as well as by CFTC. The CFTC had investigated that some of the HTA contracts may be illegal off-exchange instruments. An administrative law judge ruled in November 1998 that some elevators that allowed HTA contracts to roll forward out of the normal crop year were trading "illegal off-exchange futures" (*Agriculture Online*, November 12, 1998). The HTA case was subject to a hearing by the Agriculture, Nutrition, and Forestry Committee of the US Senate on May 15, 1996 (the material presented at the Committee can be found in Roger G. Ginder, "Local Problems Associated With Hedge To Arrive Grain Contracts," Iowa State University).

## Contracts Between Governments and Taxpayers

### *The case of income support policies*

Large price changes often induce governments to change policies in much the same way that private entities abandoned their contracts. In our last report's Special Feature we examined the farm income support schemes introduced by the US in 1996 and Mexico in 1994. The schemes would guarantee farmers a constant stream of income not based on current prices; the schemes also implied that the respective governments would not transfer any more money from taxpayers to producers, beyond what had been agreed on originally.

In both the US and Mexico, however, recent policy changes have reversed the government's policy. Because of low cotton prices, the Mexican government recently announced an emergency assistance program of US \$128/hectare to cotton producers for 1999 production (the assistance corresponds to about 15% of the prices currently received by Mexican cotton producers). In response to the recent decline in commodity prices, the US Congress has also authorized assistance to the farm sector exceeding US \$8 billion. Again, large price changes led to the changes in the policy that support to farmers would not be based on current prices and that no further transfers from taxpayers to consumers would be made.

## Contracts Among Governments

### *The eventual collapse of INRO*

International commodity agreements provide another case of failure to honor contracts when large price changes take place. The International Natural Rubber Organization (INRO) is in charge of implementing the third International Natural Rubber Agreement (INRA III), the last UN-backed international commodity agreement. INRA III's membership included six rubber-producing countries (Côte d'Ivoire, Indonesia, Malaysia, Nigeria, Sri Lanka, and Thailand) and 16 rubber-consuming countries, and was scheduled to expire in the year 2002. Under the agreement, if the natural rubber price indicator – a price index expressed in local currencies – moved outside a specified band the buffer-stock manager would intervene in the market to bring prices back within the band.

Following the 1997 devaluation of the East Asian currencies, the rubber indicator price increased in local currency. In response, producers supplied more rubber and that in turn depressed rubber dollar prices, which fell from 111¢/kg in June 1997 to 63¢/kg in

January 1998. Dollar export earnings of the rubber producing countries fell and the countries demanded that INRO intervene, but, the buffer-stock manager could not intervene because the price indicator was above the intervention level. Following INRO's inaction, Thailand and Malaysia withdrew – they are the first and third largest natural rubber producers accounting for 61% of INRO producers votes. Their withdrawal eventually led to INRA III's termination (effective October 13, 1999), and this will certainly lead to INRO's dissolution.

## Conclusion

Commodities experience extreme price changes which can lead to defaults on contracts between individuals and corporations, or to policy changes by governments. This has occurred recently, as commodity prices rose sharply during the mid-1990s and declined sharply in the last two years. Often, these defaults or policy changes result from the unexpected consequences of poorly designed contracts, and occur when the benefits of noncompliance exceed the benefits of compliance. The consequence of the contract defaults and policy changes can be devastating to individuals, businesses and financial institutions.

There are ways to reduce the chances of default, even if commodity prices remain as volatile as in the past. Understanding the implications of extreme commodity price changes is essential. Developing contracts which have reasonable termination limits would be another improvement. In addition, contracts which require a portion of the contract value to be paid upon signing would reduce the chances of noncompliance. However, this would only provide limited protection when price moves are extreme. An additional safeguard to ensure contract compliance would be to mark the contract to market on a regular basis, as is done with futures. This ensures that price changes are dealt with on an ongoing basis rather than only after the changes become so extreme so that noncompliance becomes an attractive option.

Changes in government policies and international agreements, in response to extreme commodity price movements, could be reduced if bounds were included in the policy or agreement. This could take the form of termination clauses or provide for revisions in response to price changes which exceed certain limits. This would allow policies and agreements to adjust more smoothly to the new environment.

# Economic Outlook

*World economic activity continues to improve with fairly robust recovery in East Asia and strong growth in the US. The global recovery is expected to continue, but significant risks to the forecast include a sharp slowdown in the US and a renewed bout of weakness in Japan.*

Global economic activity continues to improve, with output higher than anticipated in the East Asian crisis countries, the US, and Japan (although the Japanese recovery remains fragile). Adjustments from the crises have been more favorable than expected in some countries, such as in Russia and Brazil. Output declines in Russia have been limited by gains in domestic production for import substitution, though not yet by a recovery of non-oil exports. Brazil emerged from the crisis with greater resilience than expected, but growth worsened elsewhere in the region, partly due to deterioration in intra-regional trade and private capital flows.

World industrial production and trade appear to be accelerating from recent troughs, with the rapid recovery in East Asia seen as the most important contributor to recovery in world trade. However, the volume of capital flows to developing countries has been less than expected, and interest rate spreads remain high. The risks to the forecast have become more balanced, but the most significant would be a large slump in the US economy – induced by a sharp stock market correction – and renewed weakness in Japan.

*Consensus Forecasts* place world GDP growth at 2.6% for 1999, higher than the World Bank's 1.8% forecast of March 1999, presented in last quarter's *GCM*. The US economy has continued to show remarkable strength and played a major role in sustaining global economic activity following the outbreak of the Asian crisis. GDP is expected to increase by nearly 4%, with renewed export growth from the recovery in world demand adding to the still buoyant consumer demand. Europe is showing signs of growth acceleration, partly due to the increase in world trade, which should lead to more balanced growth in the industrialized countries and help improve export prospects in developing countries. Japan has seen an upswing in exports, driven by shipments to East Asia, however

the economy remains in a precarious state and the high value of the Yen can be expected to take its toll on Japanese export growth and corporate profits.

The main developing countries are projected by *Consensus* to grow at around 3% this year, however the recovery tends to mask the fragility and markedly different patterns of growth and recovery across developing regions. Outside of East Asia and South Asia – largely reflecting continued growth in China and India – real per capita incomes are expected to stagnate or decline this year over much of the developing world.

Much of the improvement has occurred in East Asia, as the five crisis countries are seen growing by 4.6% this year, compared with a decline of about 8% last year. The Republic of Korea is estimated to grow by 7.5% (versus –5.8% in 1998) led by a strong recovery in exports, but robust domestic consumption and restocking by producers are also helping sustain industrial activity. Outside of Indonesia, the other crisis countries are all expected to show moderate recovery.

The external environment for developing country growth is likely to show some improvement over the course of the next couple of years, although a number of uncertainties remain. A pattern of more balanced growth is likely to emerge, supported in part by policies to achieve a 'soft landing' in the US, to stem deflationary tendencies in Japan, and to revive business activity in Europe. Appreciation of currencies in developing Asia from post-crisis lows has helped to restore a degree of purchasing power to these economies, and has provided an impetus to renewed growth in exports.

For 2000, *Consensus Forecasts* projects world economic growth of more than 2.5%, slightly above the World Bank's March forecast. It shows only a slight slowdown in the G-7 countries (excluding Japan) to 2.7%, with Japan's GDP projected to increase only marginally. Economic growth in all developing regions is expected to strengthen. GDP in the East Asian-5 is expected to increase by 5%, with a slight slowdown in the Republic of Korea to 6% growth, while all other crisis countries are projected to show significant improvement. In the other developing regions *Consensus* shows strong recovery in all regions, e.g., Latin America 3.3%, and Eastern Europe including Russia 2.5%. GDP in China and India are seen growing at 7.4% and 6.7% respectively.

The World Bank's long-term outlook, *Global Economic Prospects*, will be published in December, 1999.

# Ocean Freight

*Freight rates rose strongly, particularly for Capesize vessels on Atlantic routes. Rates are expected to rise further due to higher exports and Y2K-related stocking.*

Dry bulk freight rates rose 5% in the third quarter, due to strong demand for Capesize vessels and fairly tight availability, with the Atlantic routes for minerals showing the largest gains. Sharply higher bunker-fuel costs have also contributed to higher rates, as has additional stocking to cushion possible Y2K problems. The quarterly growth masks the steady increase in rates during the quarter, as the Baltic Freight Index (BFI) of rates for Capesize (80,000+ dwt) and Panamax (50,000-75,000 dwt) reached 1,273 at the end-September, the highest level since the beginning of 1998, and up 28% from the end of June. The Baltic Handy Index (BHI) of Handysize vessels less than 43,000 dwt increased by just over 1% for the quarter, but rose 20% from the July low to end the quarter at 936.

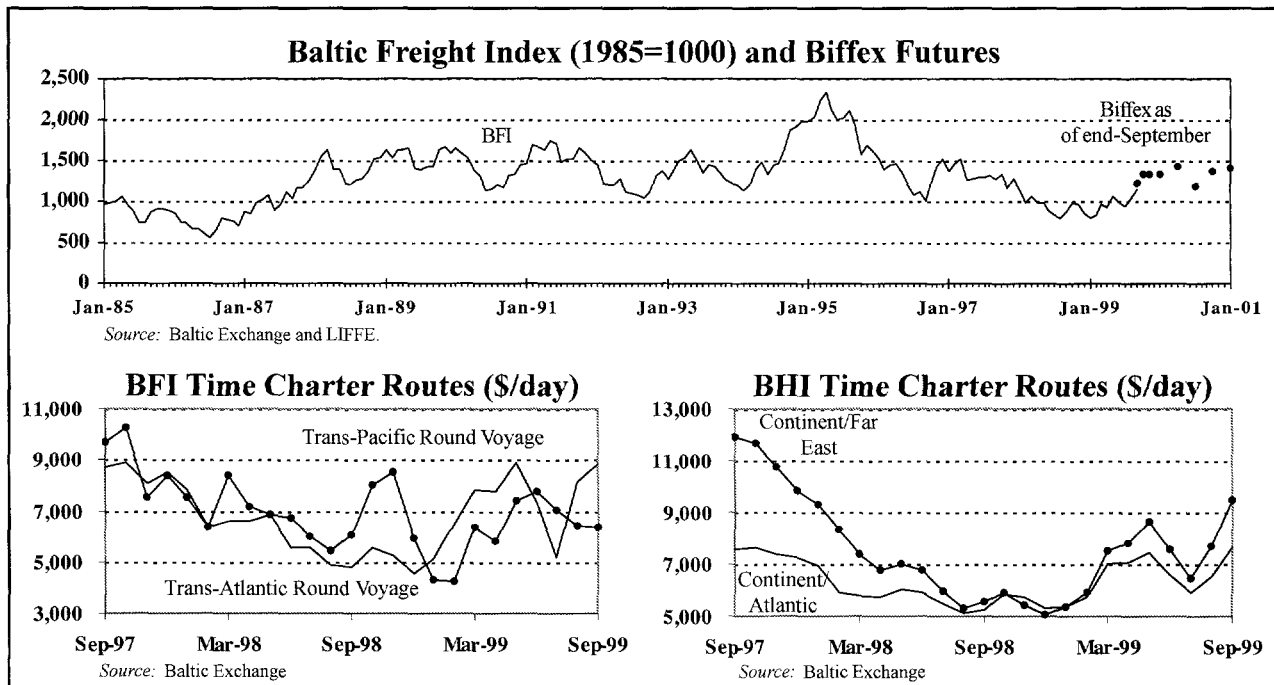
Capesize rates for coal and iron ore rose significantly, with most of the strength occurring on Atlantic routes. Coal shipments from South Africa to NW Europe rose 35% in the third quarter, with end-September rates of \$6.78/ton, up more than 50% from end-June. Coal shipped from Hampton Roads to Europe increased 23% for the quarter

with end-September rates at \$5.60/ton. Rates for iron ore shipments were up 25%, with Brazil/Far East rates just under \$9/ton at end-September, while Brazil/Europe rates stood at \$5.50/ton.

Panamax rates on average declined in the third quarter, but Trans-Atlantic rates rebounded sharply in August and September and exceeded Trans-Pacific rates for the first time since last year (see graph). Trans-Atlantic round voyage rates, although down 7.5% for the quarter, were at \$8,750/day at end-September – up 22% from end-June. Trans-Pacific round voyage rates declined 6% during the quarter, but also turned around sharply in September, ending the quarter at \$8,288/day, up more than 50% from lows earlier in the month.

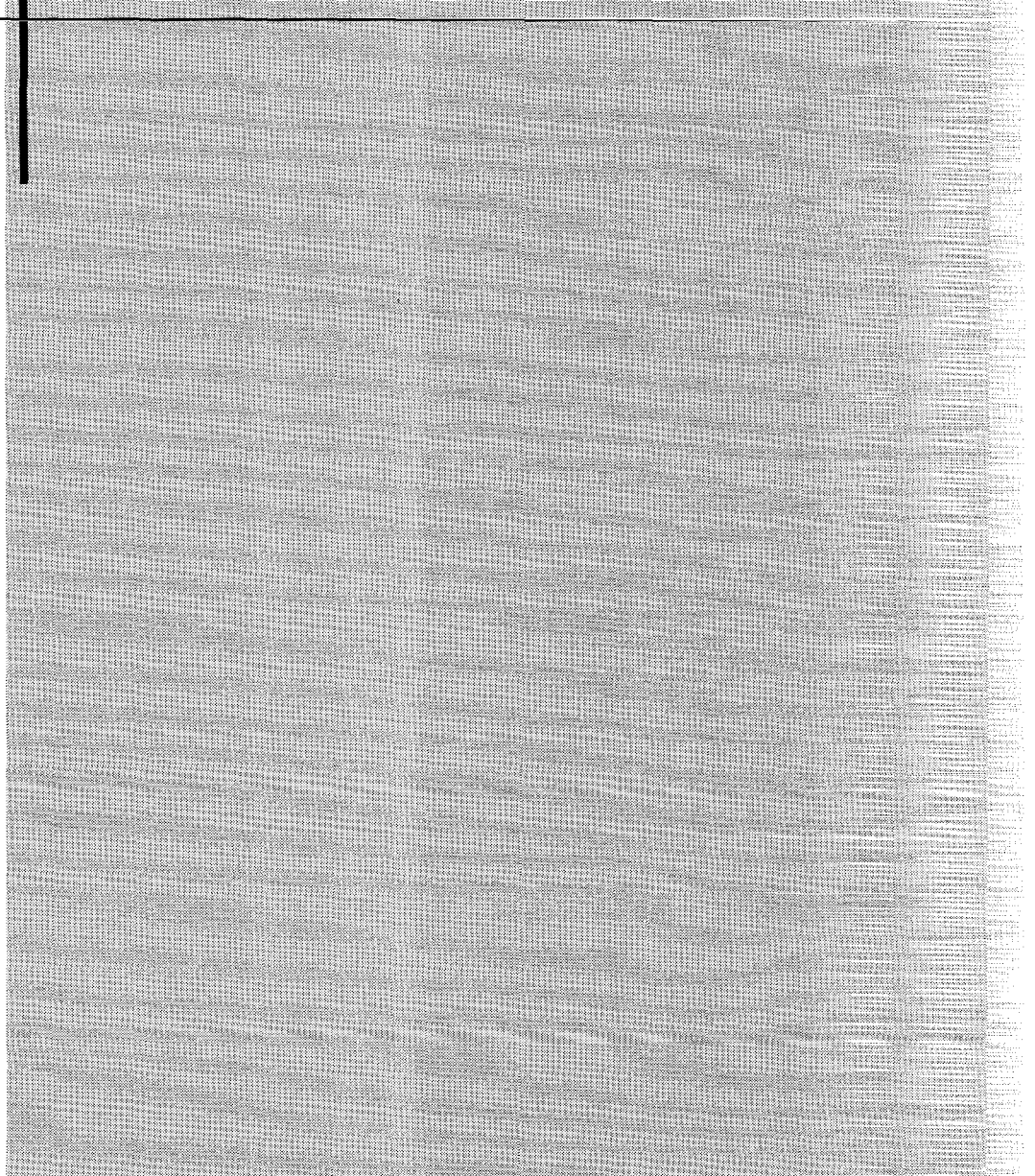
Handysize rates rose in both the Pacific and Atlantic, but Pacific rates posted the largest gains due to rising demand for scrap, metals, and some agricultural products. Time charter rates for a Trans-Pacific round voyage rose to \$10,395/day at end-September, up more than 50% from end-June. Trans-Atlantic round voyage rates increased to \$8,273/day, up 35% from end-June. Tanker rates remained depressed because of production cutbacks by OPEC producers, however their actions have caused marine fuel costs to more than double.

Biffex futures were in contango at end-September suggesting ample availability, but distant prices were much higher, reflecting expectations of rising demand for exports as global economic activity expands.





# COMMODITIES



# Coal

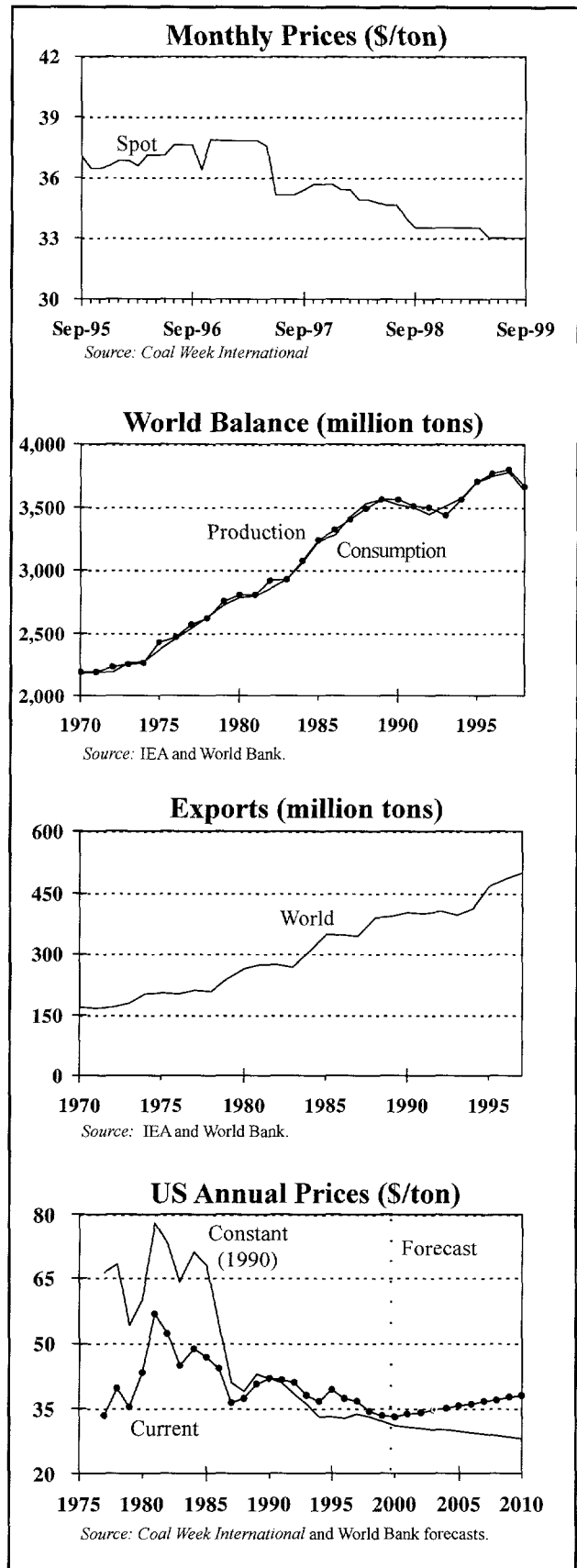
*International coal prices remain weak due to excess supply, while Asian demand is recovering. Both coking and steam coal prices are expected to decline next year.*

International coal prices remained weak in the third quarter but there are signs that prices could be bottoming owing to a recovery in demand in Asia, currency stabilization in some producing countries, and closure of high-cost mines. However, the market remains in surplus and upcoming contract negotiations for next year for both coking coal and steam coal will be difficult. Producers desire at least a rollover or small increase in prices while buyers will try to obtain further reductions. Given that the market is over-supplied it is possible that some producers may be willing to increase market share in exchange for lower prices. Consequently prices for both steam and coking coal are expected to decline slightly next year.

Exports from China, Poland, and Russia have risen which has contributed to the weakness in spot markets. And while demand is recovering in Asia, it has not been sufficient to absorb excess supplies and lift prices. There have been closures of high cost mines, but there has not been the same degree of consolidation that has buoyed metals markets, such as copper and aluminum.

In the US, coal demand for power generation has been weak this year because of the mild winter and high stocks. Electric utility coal demand is expected to decline by nearly 1% this year, in part because of the restructuring of the power industry and sale of coal-fired generation facilities to non-utilities. However, total US power demand is expected to rise by 2.5% next year.

Coal production is expected to fall short of the record output in 1998, due to weak domestic demand, declining exports, and rising imports from lower-cost producers such as Colombia, Indonesia, South Africa and Venezuela. Metallurgical exports have fallen because of the collapse in prices in the Asian market, which has led to the closure of several mines. Increased demand for low sulfur compliance coal and the impending Clean Air Act Amendments' Phase II emission requirements are expected to result in the continued growth of coal imports.





## Other Developments

- Royal Dutch/Shell plans to sell its coal subsidiary, Shell Coal, by offering the company for sale by tender. The assets include five mining complexes in Australia plus a share in one mine and a development prospect in Venezuela. The sale could take up to a year and Shell will explore mergers, tender sales and even a possible share market float for some of the assets, depending on how the tender process proceeds.
- Colombia's plans to sell state coal company, Carboacol SA, for as much as \$600 million have been pushed back until early next year, partly due to a court ruling that forced the company to reassess the process.
- Australia's coal exports rose 4.7% during the first eight months of 1999 to 109.4 million tons (mt), with an increase of 19% in August. The state's three big ports – Dalrymple Bay, Hay Point, and Gladstone – all experienced large increases in shipments during August.
- Domestic coal demand in Poland was 10% less than planned at 38.4 mt, while exports were 2 mt higher than expected, at 13.4 mt.
- China's coal exports rose 31% year-on-year during the first seven months to 20.1 mt. Imports are up 65% to nearly 1.0 mt.
- Russian coal output increased 4.3% in the first half of this year to 124.4 mt.
- US metallurgical coal exports fell by a third in the first half of 1999 to 13.8 mt. The largest drop was to Asia where exports fell 50% to 2.9 mt.

Production (million tons)					Exports (million tons)				
	1995	1996	1997	1998		1995	1996	1997	1998
China	1,360.7	1,396.7	1,372.8	1,235.6	Australia	136.4	138.6	146.4	162.3
US	858.6	885.2	910.4	936.0	US	80.3	82.1	76.0	70.5
India	273.4	285.6	297.2	303.1	S. Africa, Rep.	59.7	60.2	63.4	67.1
S. Africa, Rep.	206.2	206.4	220.1	222.8	China	28.6	36.5	30.7	32.3
Australia	191.1	193.4	206.8	219.0	Indonesia	31.3	36.4	41.5	46.9
Russian Fed.	176.9	166.5	159.2	148.6	Canada	34.0	34.4	36.5	34.2
Poland	137.2	137.9	137.8	116.9	Poland	31.9	28.9	29.5	28.1
Ukraine	83.5	74.1	75.5	73.7	Russian Fed.	26.3	25.3	21.2	23.5
Kazakhstan	79.6	73.2	70.2	67.0	Colombia	18.3	24.8	26.5	29.6
Indonesia	41.1	50.2	55.1	59.7	Kazakhstan	12.9	21.7	n.a.	n.a.
Germany	58.9	53.2	51.2	45.3	Czech Rep.	7.0	6.7	6.6	n.a.
UK	54.6	50.2	48.5	41.3	Venezuela	4.3	3.5	4.2	n.a.
Canada	38.6	40.0	41.3	38.3	Netherlands	2.9	2.4	3.5	n.a.
Colombia	25.7	30.1	30.7	33.8	Vietnam	1.8	4.4	4.2	3.5
Korea, D. R.	26.0	24.1	24.1	24.1	Ukraine	2.4	2.0	n.a.	n.a.
Czech Rep.	17.7	17.5	16.6	16.1	New Zealand	1.3	1.6	1.2	n.a.
Vietnam	6.6	11.2	13.1	13.1	Belgium	0.8	1.2	1.5	1.3
Spain	13.7	13.7	13.8	12.5	UK	0.9	1.0	1.1	0.9
Venezuela	4.6	3.5	5.6	6.8	Germany	1.7	1.0	0.5	0.3
<b>World</b>	<b>3,705.4</b>	<b>3,761.8</b>	<b>3,796.3</b>	<b>3,655.8</b>	<b>World</b>	<b>464.6</b>	<b>483.9</b>	<b>496.7</b>	<b>519.2</b>

Source: IEA

Source: IEA

Global Summary	Actual						Annual Growth Rate (%)		
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-97
<b>World Balance (mil. tons)</b>									
Production	2,185	2,807	3,561	3,762	3,796	3,657	2.8	2.8	1.2
Consumption	2,175	2,783	3,516	3,744	3,777	3,630	2.8	2.9	1.3
Exports	167	263	401	484	497	519	4.4	4.9	3.5
		Actual			Forecast				
<b>Prices (\$/ton)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Current	39.17	37.21	36.39	34.38	33.25	33.00	33.50	35.50	38.00
Constant 1990	32.86	32.58	33.58	33.00	32.11	31.09	30.79	29.70	28.13

Source: IEA and World Bank forecasts.

# Natural Gas – US

*Gas prices rise on weather-related demand increases, lower storage injections, and declining US production. Inventories remain relatively high, but strong demand growth this winter should result in somewhat higher prices.*

Natural gas prices rose 14% in the third quarter due to rising demand, lower storage injections, and concerns about US production. Prices briefly exceeded \$3.00 per million btus (mmbtu) in August, but receded back below \$2.50/mmbtu by end-September as weather-related demand moderated and storage injections increased.

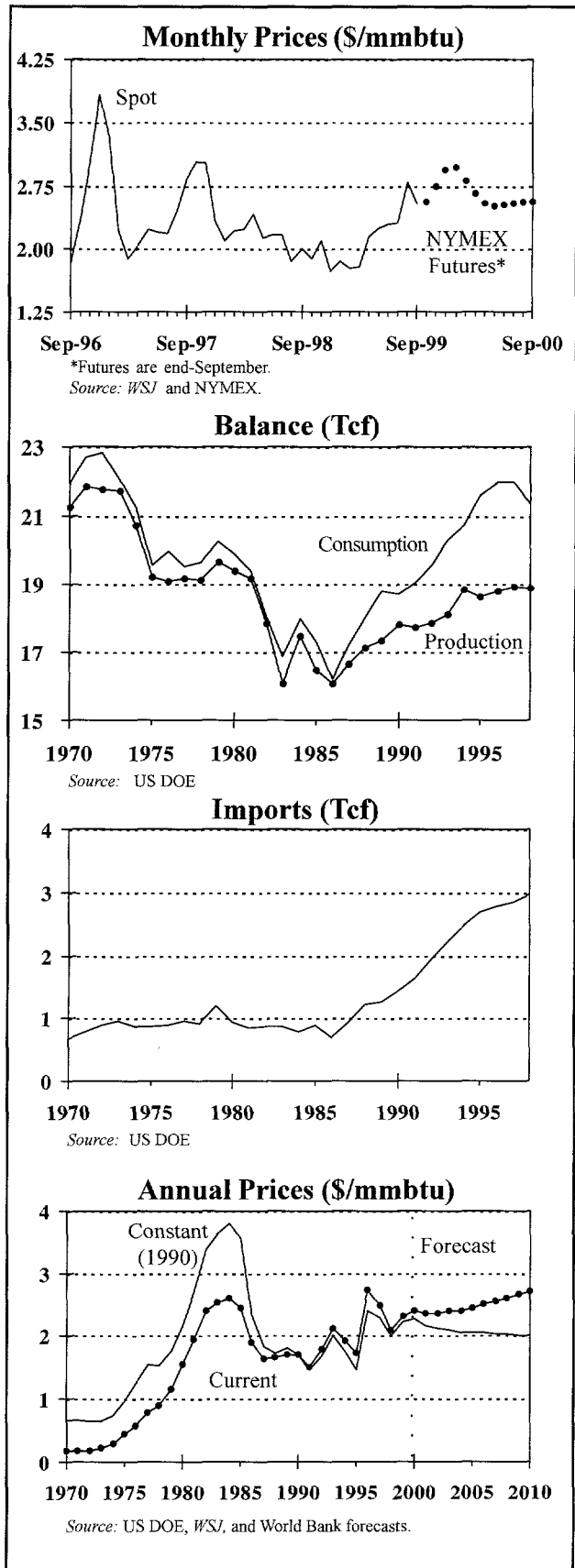
Demand rose during the summer due to increased air conditioning requirements, new gas-fired power generation capacity, and higher oil prices which allowed the gas industry to recapture markets lost to fuel oil.

Storage injections this summer fell below last year's levels as a result of peak demand for power generation, but injections recovered in late August as temperatures moderated. By October 1 storage levels were 89% full, versus 91% last year, and appear headed to reach 3,100 billion cubic feet (Bcf) by the beginning of the heating season, not far below last year's high level of 3,176 Bcf.

US production has declined by 1% this year following an extended period of low oil and gas prices and associated decline in investment and drilling activity. Higher oil and gas prices are leading to a rebound in drilling activity which is expected to begin reversing the production decline next year. Large potential for new capacity exists in the deepwater Gulf of Mexico, but a key challenge will be to slow the production decline in the shallow-water Gulf.

Imports from Canada could reach 3,600 Bcf next year through new pipeline capacity, but the ability of Canadian producers to fill the new pipelines will depend on storage and drilling activity, the latter being raised by higher prices.

Assuming normal weather, gas demand this winter is expected to rise significantly above last year's levels, that were kept unusually low because of mild temperatures. The combination of higher demand and lower US production should result in firmer prices in 2000, but a rebound in supply and growing imports from Canada are expected to prevent sustained upward pressure on long-term real prices.



# Natural Gas – Europe

*Gas prices rise in lagged response to the rebound in oil prices, and are expected to continue rising this year. In the longer term, prices will be under downward pressure because of market liberalization and increasing competition.*

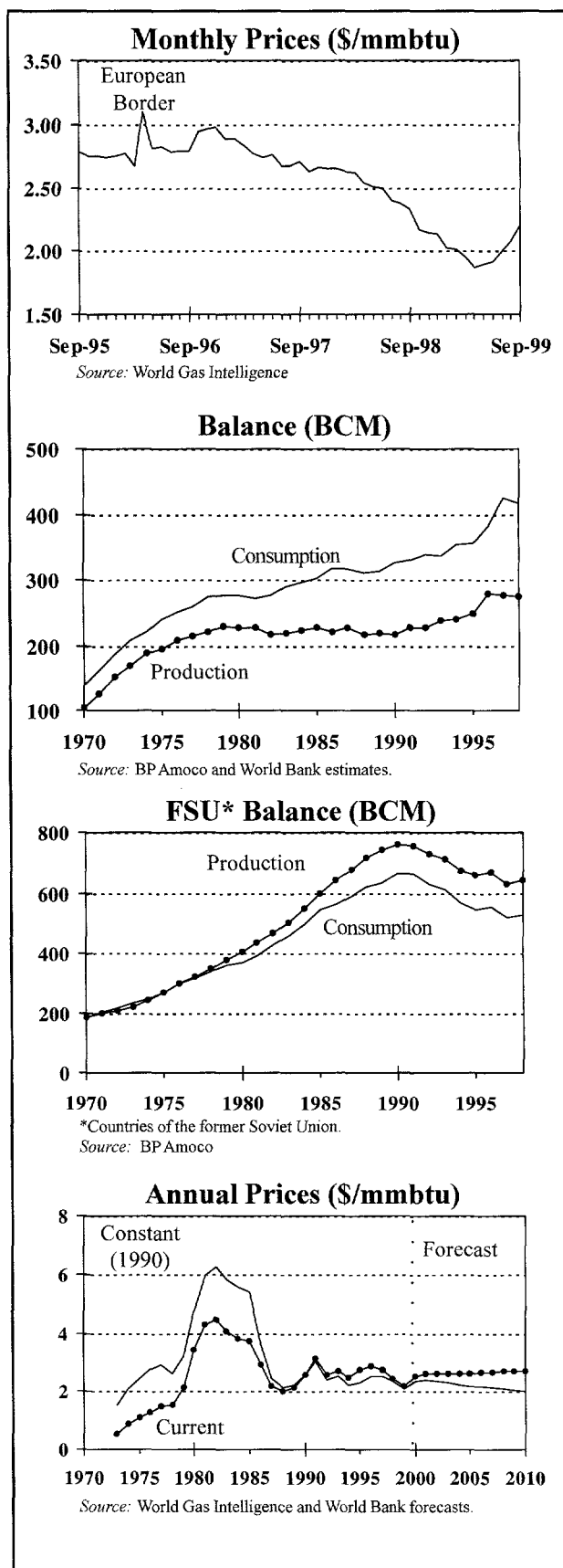
Border prices for natural gas imported into Europe rose 10% in the third quarter – reaching US\$2.20/mmbtu in September – slowly recovering with the rebound in oil prices. Gas prices under long term contract are indexed to petroleum products, but with several months lag. This marks the first quarterly increase in nearly three years, and prices are expected to continue rising in response to the steep rise in oil prices.

In the longer term, European gas prices are expected to come under downward pressure from market liberalization, abundant supplies, and increasing competition. The EU Gas Directive comes into effect August 2000, while enacted electricity market liberalization is already beginning to affect fossil fuel markets.

In the deregulated UK market, spot prices ended the quarter at 9.1 pence per thermal unit (US\$1.51/mmbtu), and were relatively weak because of mild weather and surplus supply. Forward prices for January 2000 were over 14 pence per therm (near US\$2.35/mmbtu) at end-September, reflecting anticipated strength from peak winter demand. Exactly a year ago, January 1999 prices were near 19 pence per therm, but by mid-December prices had dropped below 15 pence per therm, due to oversupply and low continental gas prices that kept a lid on UK export prices.

The reversible-flow Interconnector pipeline between the UK and the mainland which began operation last fall will provide arbitrage opportunities depending on relative gas prices between the UK and the continent. With the upturn in oil prices, continental gas prices are likely to be above UK prices next year, but the export market may not provide much relief to UK producers because of surplus supply.

This may have partly prompted Russia's Gazprom to appoint Britain's main gas supplier, Centrica, to manage its shipping rights through the Interconnector. Gazprom, which owns 10% of the pipeline's capacity, may earn more money by renting out the capacity than using it for Russian gas exports.



# Petroleum

*Prices reach \$24/bbl on OPEC's decision not to raise output before next March.*

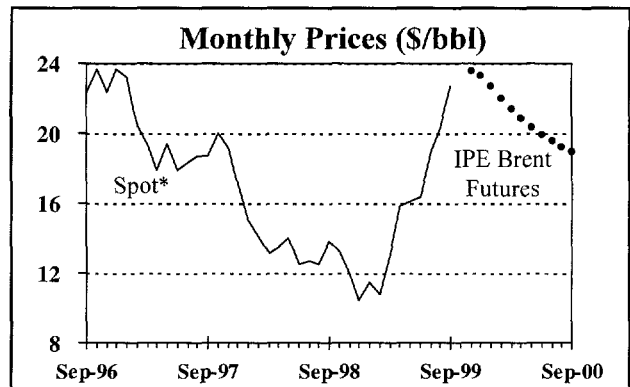
*Inventories are expected to decline sharply this winter, and in the absence of higher production, prices could spike higher.*

Petroleum prices rose 28% in the third quarter due to declining stocks and OPEC's decision not to raise production quotas. Prices peaked at around \$24/bbl in September and then receded slightly, partly due to investment fund liquidation after the large run-up in prices, but also due to uncertainty about when producers might raise output. Inventories are expected to decline sharply over the peak-demand winter season in the absence of higher supplies, and prices could spike sharply higher. Should this happen, it is likely that oil producers will raise output to moderate the price rise, but the timing of such actions could be critically important.

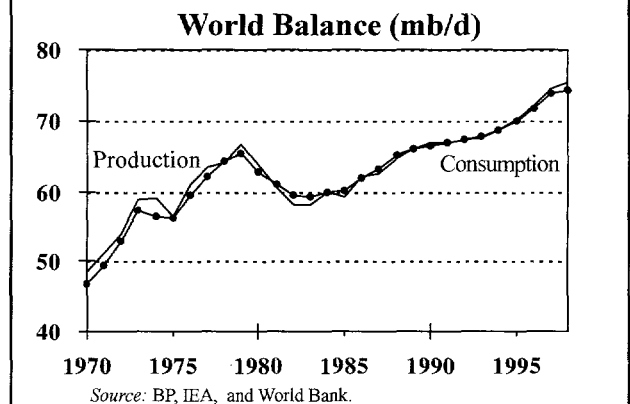
OPEC met September 22 and agreed to extend production quotas through March of next year. This decision was widely anticipated and helped fuel the price rally in August and September. OPEC next meets March 29, 2000 in Venezuela, but the Ministers from Mexico, Saudi Arabia and Venezuela – the group that spearheaded three rounds of production cuts – plan to hold an informal meeting in November to review the market situation, and possibly take action on production if deemed necessary.

Before raising quotas, producers have suggested that they will want reliable statistical evidence that markets have sufficiently tightened, over and above observing the prevailing level of prices. Apparently, the prime indicator is the level of inventories, but they will also want to see growth in demand. The problem with using "inventories" as an indicator is that the data are incomplete – only OECD data are reported regularly – and they lag by 1-2 months. Given that prices can move substantially in very short periods of time, waiting for "solid" inventory data will be problematic, if the intention is to moderate a spike in prices.

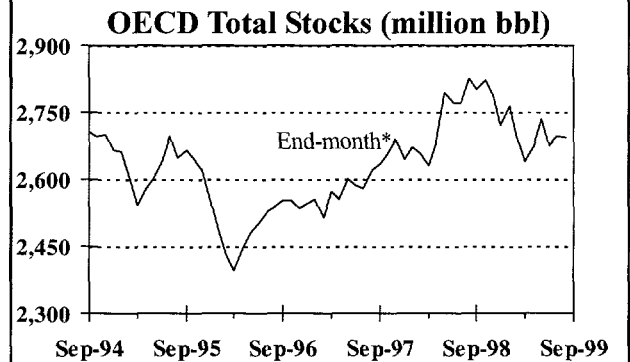
Rather, OPEC will have to rely on a combination of prices, stock trends, and short-term forecasts. While the organization may not want to anticipate what future stock levels may be, it would have to make some judgement to prevent a spike in prices.



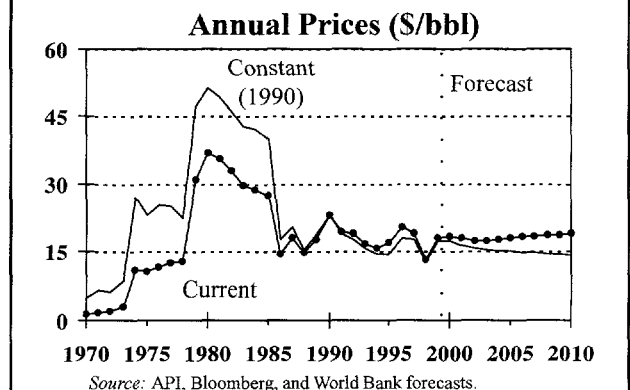
\*World Bank average. Futures prices are end-September.  
Source: Bloomberg and IPE.



Source: BP, IEA, and World Bank.



\*September 1994 to August 1999.  
Source: IEA and World Bank.



Source: API, Bloomberg, and World Bank forecasts.

# Petroleum (continued)

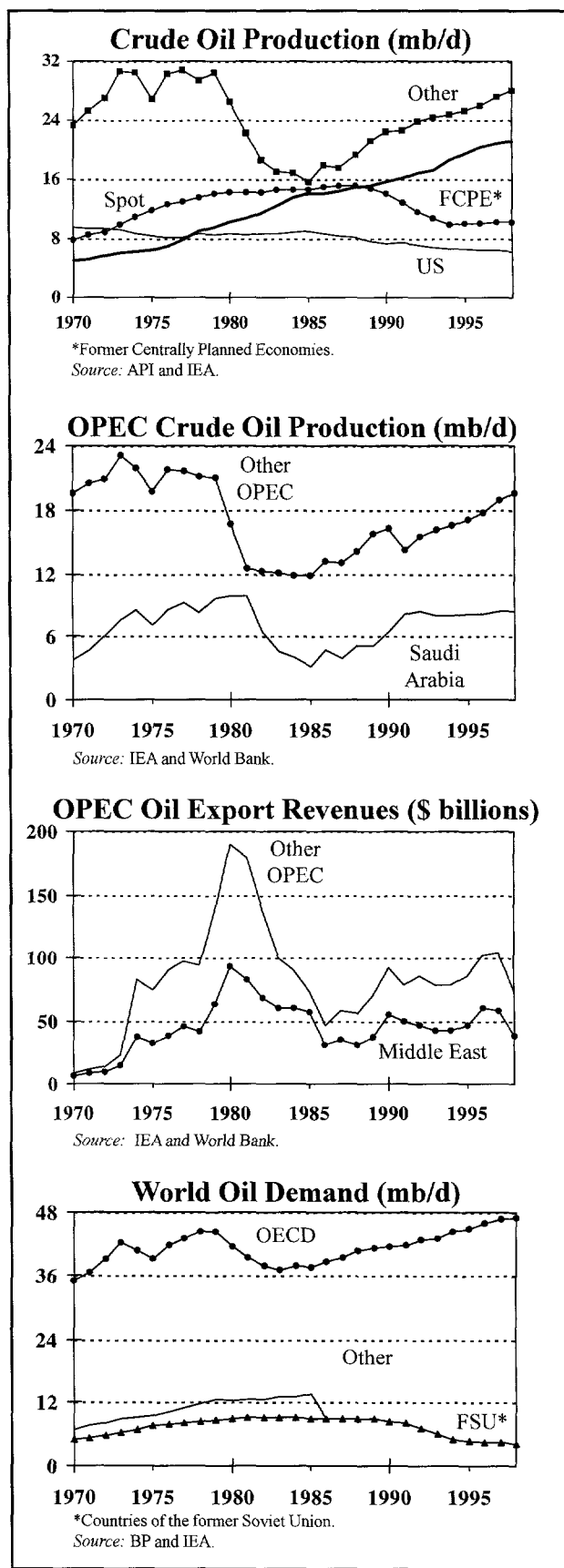
OPEC has maintained fairly good compliance to its quotas in recent months, although it slipped below 90% in September. OPEC production, excluding Iraq, fell by 0.2 mb/d in the third quarter, which is about 3.5 mb/d lower than in 1Q98 – before they moved to reduce output. However, production increased nearly 0.4 mb/d in September, back toward average 2Q99 levels. For the quarter, most countries were near quota, with Indonesia and Libya both 0.1 mb/d above quota. In September, all were at least marginally above quota, including Saudi Arabia and Kuwait when including their equal shares of Neutral Zone output.

Iraq's production has steadily increased, approaching 2.9 mb/d in September. The UN Security Council agreed to raise the \$5.3 billion revenue limit to \$8.3 billion for the current 180-day period ending November 20, because of higher oil prices. This allows Iraq to continue exporting oil at relatively high levels (2.3 mb/d in September) under the oil-for-food program. Differences remain in the Council regarding the complete lifting of sanctions and weapons inspections inside Iraq.

Non-OPEC production rose 0.4 mb/d in the third quarter, and was also 0.4 mb/d higher than year earlier levels. North Sea output was up 0.15 mb/d, with the UK and Norway rebounding from summer maintenance. Production in the FSU has been edging up this year, rising by nearly 0.1 mb/d in the quarter, and Canadian production is also on the increase partly due higher production from the Hibernia field off the east coast. Non-OPEC supply is projected to increase by 0.8 mb/d in the fourth quarter with much of the growth in the OECD, however, output for 1999 will average 0.2 mb/d less than last year because of large declines in the first half of this year in the OECD.

World oil demand increased by 1.2% in the third quarter, with growth of 1% in the OECD, and 2.3% in the non-OECD (outside the FSU where consumption continues to fall). Demand in the Republic of Korea rose 9%, continuing the strong recovery this year. Elsewhere in Asia, China's apparent consumption was up 3.5% and the rest of developing Asia grew by 3%.

OECD inventories moved up toward 2.7 billion barrels in July/August, but preliminary data show a decline in September which will likely result in a draw for the third quarter. This indicates that the balance is



# Petroleum (continued)

tightening, as stocks typically build in the third quarter. US stocks have recorded the largest decline, especially for crude and gasoline, but heating oil stocks remain relatively large heading into the winter season.

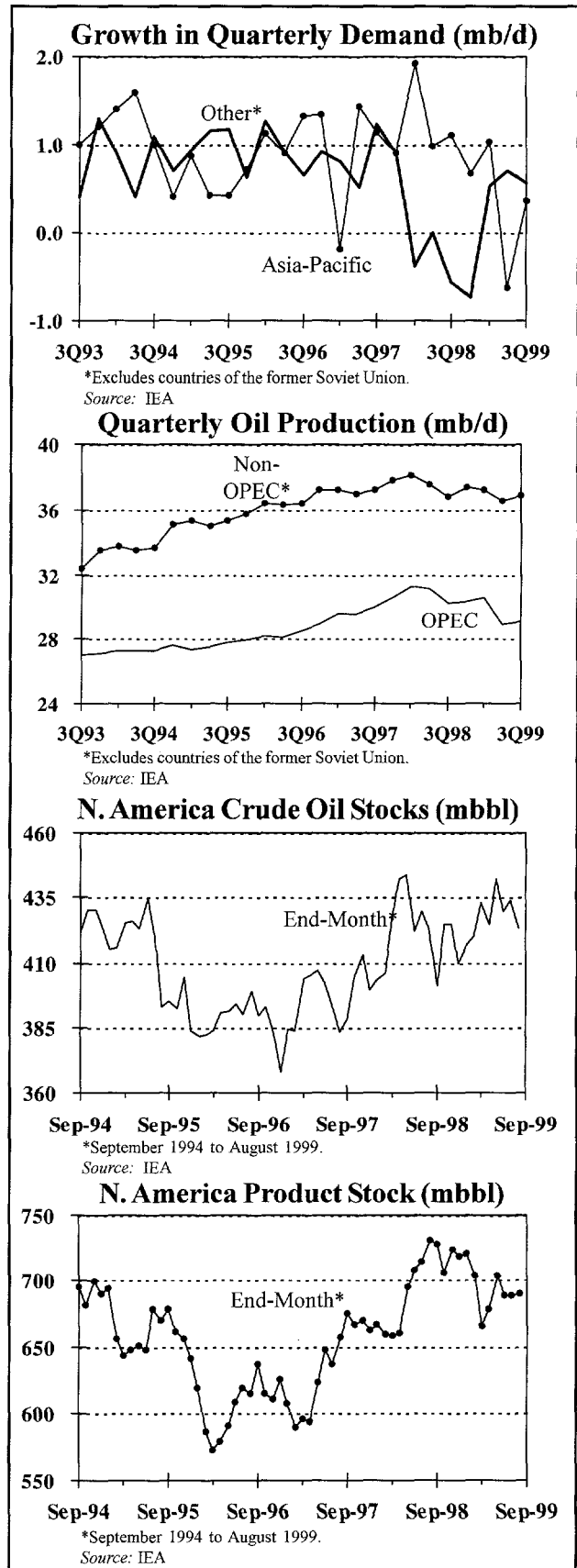
For the fourth quarter, IEA projections of supply and demand show that inventories will fall by some 2.5 mb/d, assuming OPEC leaves its production relatively unchanged. It could place OECD inventories back near the low levels at end-1996, when prices were similar to the recent highs.

In the first quarter of 2000, IEA projections imply an extremely large inventory withdrawal of 3.5 mb/d, again assuming little change to OPEC production. If this were to occur prices could rise substantially. However, it is felt that if oil prices do spike above \$25 oil producers would raise production, either formally or through relaxation of existing quotas.

For the year 2000, the IEA projects oil demand to increase by 2.5% or 1.8 mb/d, with relatively strong growth in all regions. Non-OPEC supply—which is estimated to fall by about 0.15 mb/d this year because of the lengthy period of low prices—is poised to rebound by 0.8 mb/d next year (although some forecasters place the growth in the range of 1.0-1.5 mb/d). Higher output is expected in several areas, notably the North Sea, Mexico, Brazil, and several new developments in the African countries of Angola, Sudan, and Congo.

It is clear from these projections that the market will need more oil from OPEC in 2000, particularly if stocks are at low levels at the beginning of the year. An increase of 2 mb/d would help balance the market and provide for some rebuilding of inventories. But if an increase of this size were not forthcoming until the second quarter, it would imply essentially no build in stocks for the year (see table), leaving inventories at low levels and prices relatively high.

The impact on prices on will depend on the timing and volume of additional OPEC production, but also on changes to demand, inventories, and non-OPEC supplies. Just as OPEC's reduction of output has had a large upward impact on prices, an announcement to raise production could cause a large decline of prices to well under \$20/bbl, but they are unlikely to fall to the lows of earlier this year.



OPEC Crude Oil Production and Quotas (Millions of barrels per day)							Non-OPEC Oil Supply (Millions of barrels per day)					
	1Q99	2Q99	3Q99	Quota	3Q99- Pledged Quota Cutbacks			1997	1998	2Q99	3Q99	Change 2Q99-3Q99
Algeria	0.82	0.73	0.74	0.73	0.01	0.137	US	8.65	8.37	8.00	7.92	-0.08
Indonesia	1.29	1.28	1.31	1.19	0.12	0.193	Mexico	3.41	3.50	3.32	3.31	-0.01
Iran, Islamic R.	3.81	3.47	3.32	3.36	-0.04	0.569	Canada	2.57	2.67	2.51	2.57	0.06
Iraq	2.48	2.51	2.81				UK	2.74	2.84	2.82	2.89	0.07
Kuwait*	1.72	1.57	1.58	1.84	-0.26	0.369	Norway	3.28	3.14	2.99	3.05	0.06
Libya	1.36	1.33	1.33	1.23	0.10	0.226	Other OECD	1.42	1.36	1.28	1.36	0.08
Neutral Zone	0.57	0.50	0.50			0.50	Africa	2.73	2.73	2.72	2.80	0.08
Nigeria	2.01	2.01	1.90	1.89	0.01	0.373	China	3.19	3.19	3.19	3.16	-0.03
Qatar	0.67	0.60	0.62	0.59	0.03	0.107	Other Asia	2.12	2.14	2.21	2.26	0.05
Saudi Arabia*	7.87	7.35	7.40	7.44	-0.04	1.310	FSU	7.20	7.30	7.44	7.53	0.09
UAE	2.18	2.03	2.03	2.00	0.03	0.382	Eastern Europe	0.20	0.19	0.19	0.19	0.00
Venezuela	2.93	2.74	2.73	2.72	0.01	0.650	Latin America	3.44	3.70	3.83	3.84	0.01
Total Crude	27.71	26.12	26.23	22.98	0.44	4.316	Middle East	1.90	1.89	1.87	1.88	0.01
Excluding Iraq	25.23	23.61	23.42	22.98	0.44	4.316	Processing gain	1.57	1.64	1.65	1.65	0.00
NGLs	2.82	2.81	2.84				<b>Total non-OPEC</b>	<b>44.42</b>	<b>44.65</b>	<b>44.02</b>	<b>44.40</b>	<b>0.38</b>
<b>Total OPEC</b>	<b>30.53</b>	<b>28.93</b>	<b>29.07</b>				<i>Note:</i> Includes natural gas liquids (NGLs), unconventional, and other supply sources.					
<i>*Quota includes share of Neutral Zone production.</i>							<i>Source:</i> IEA					
<i>Source:</i> IEA and OPECNA.							<i>Source:</i> IEA					

World Petroleum Demand and Supply (Millions of barrels per day)													
	1996	1997	1998	1Q99	2Q99	3Q99	4Q99	1999	1Q00	2Q00	3Q00	4Q00	2000
<b>Demand</b>													
OECD	45.9	46.7	46.9	48.8	45.4	47.2	49.3	47.7	49.6	46.5	48.0	50.3	48.6
FSU	4.4	4.4	4.1	4.2	3.6	3.8	3.8	3.8	4.3	3.9	3.9	3.7	4.0
Other	21.5	22.7	23.2	23.5	24.0	23.7	24.1	23.8	24.4	24.6	24.5	24.9	24.5
<b>Total</b>	<b>71.8</b>	<b>73.8</b>	<b>74.2</b>	<b>76.5</b>	<b>73.0</b>	<b>74.7</b>	<b>77.2</b>	<b>75.3</b>	<b>78.3</b>	<b>75.0</b>	<b>76.4</b>	<b>78.9</b>	<b>77.1</b>
<b>Supply</b>													
OECD	21.7	22.1	21.9	21.5	20.9	21.1	21.8	21.3	22.0	21.6	21.6	22.3	21.9
FSU	7.1	7.2	7.3	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.5	7.5	7.5
Other*	14.9	15.2	15.5	15.7	15.7	15.8	15.9	15.8	15.9	16.1	16.0	15.9	15.9
OPEC**	28.4	29.9	30.7	30.5	28.9	29.1	29.2	29.4	29.3	31.2	31.5	31.5	31.9
<b>Total</b>	<b>72.1</b>	<b>74.4</b>	<b>75.4</b>	<b>75.1</b>	<b>72.9</b>	<b>73.5</b>	<b>74.4</b>	<b>74.0</b>	<b>74.7</b>	<b>76.3</b>	<b>76.6</b>	<b>77.2</b>	<b>77.2</b>
<b>Stock change</b>													
OECD	0.0	0.3	0.3	-0.8	0.4								
Other/misc.***	0.2	0.0	0.9	-0.5	-0.5								
<b>Total</b>	<b>0.3</b>	<b>0.6</b>	<b>1.2</b>	<b>-1.3</b>	<b>-0.1</b>	<b>-1.2</b>	<b>-2.8</b>	<b>-1.3</b>	<b>-3.6</b>	<b>1.3</b>	<b>0.2</b>	<b>-1.7</b>	<b>0.1</b>
<i>*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)</i>													
<i>***Includes floating storage, oil in transit, and miscellaneous to balance.</i>													
<i>Note:</i> Includes natural gas liquids (NGLs), nonconventional, and other supply sources.													
<i>Source:</i> IEA data and estimates, and World Bank forecasts.													

Global Summary									
World Balance (mb/d)	Actual					Annual Growth Rate (%)			
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-98
Production	48.5	63.9	66.9	72.1	74.4	75.4	2.9	1.0	1.6
Consumption	46.7	62.7	66.4	71.8	73.8	74.2	3.1	1.0	1.5
Stock Change and Misc.	1.8	1.2	0.5	0.3	0.6	1.2			
Prices (\$/bbl)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	17.18	20.42	19.17	13.07	18.00	18.50	18.00	18.00	19.00
Constant 1990	14.41	17.88	17.69	12.54	17.38	17.43	16.54	15.06	14.06
<i>Source:</i> BP and IEA, and World Bank forecasts.									

# Cocoa

*With a 1999/00 crop 6% higher than last season, the bearish market sentiment is likely to persist for this year and possibly the next. Côte d'Ivoire's liberalization of its cocoa sector became effective ahead of its October 1 deadline.*

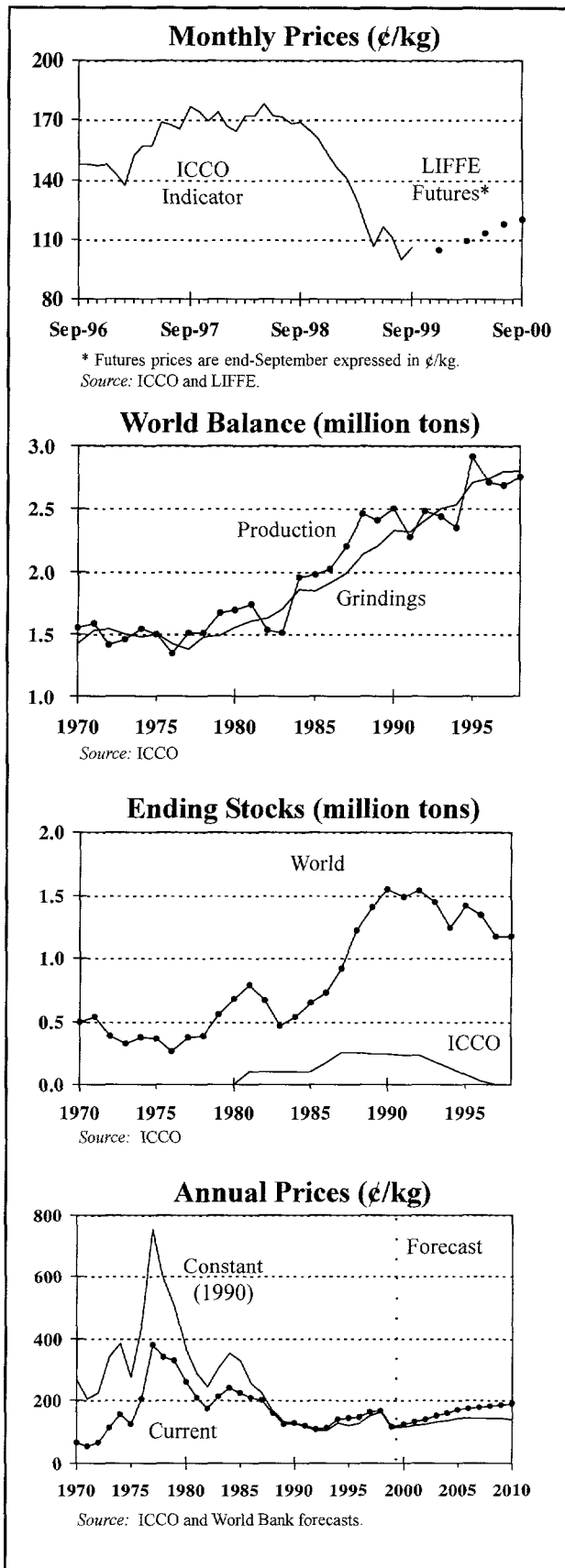
The recovery in June proved to be short-lived as cocoa prices continued their fall in July; they reached a 6-year record low of 99.8¢/kg in August, only to recover a little in September. The third quarter average was 105.7¢/kg, 6.9% lower than second quarter's average, and 37.6% lower than a year ago. The bearish mood was evident in both New York and London futures which continued their weakness throughout most of the quarter.

Some preliminary estimates for the new crop which just began (October 1) indicate that another bumper crop may be on the horizon. *LMC International's* latest commodity bulletin indicates that the 1999/00 crop may be as high as 2.94 million tons, almost 6% higher than last season's crop. All four major Africa cocoa producers are expected to register significant gains: Cameroon 4.2%, Côte d'Ivoire 3.8%, Ghana 10.4%, and Nigeria 8.6%. Indonesia, the world's third largest producer, is also expected to increase its output by 10% despite earlier reports of a production shortfall.

Following a plunge to 35,000 tons in 1997/98 (from 103,000 tons in 1996/97) due to El Niño damage, Ecuador's production prospects are back on track. In 1998/99 it produced 70,000 tons while it is expected to reach 95,000 tons in 1999/00. Brazil's output decline seems unstoppable as it is expected to register yet another setback to 110,000 tons this season (from 130,000 in 1998/99). The "witches' broom" disease has taken a large toll pushing Brazil's production down to a 4-decade record low.

Côte d'Ivoire's Caisse de Stabilisation (Caistab) relinquished its marketing mandate in mid-August, one and a half month ahead of the initially scheduled October 1 deadline. Caistab currently assumes only market monitoring responsibilities.

Following the recent estimates for the 1999/00 crop and the expected stock build-up, the bearish mood in the cocoa market is likely to persist for quite some time. We expect prices to average 117¢/kg for 1999. We have also lowered next year's forecast to 125¢/kg.





## Other Developments

- ICCO begun working on the new Agreement. The current Agreement, originally set to expire at the end of September 1999, was extended for another two years. The main modification of the Agreement is the elimination of article 29 which calls for production management, according to *The Public Ledger*. Under the proposal, the role of ICCO will be more of a monitoring nature – along the lines of similar commodity bodies such as the ICAC and the IRSG. As of 1993, the Agreement had no buffer stock provision while the liquidation of the ICCO buffer stocks was completed in 1998.
- Italy and Spain came at odds with the EU Commission after failing to scrap laws which restrict the sale of chocolate containing non-cocoa fats, according to *Bloomberg*. Early this summer, the EU drafted a proposal which would allow chocolate manufacturers to use a certain amount of non-cocoa in chocolates, without changing the name. Currently, chocolate consumed in Italy containing non-cocoa fats should be labeled as “chocolate substitute”.

Production and Grindings					Trade				
	1995/96	1996/97	1997/98	1998/99		1995/96	1996/97	1997/98	1998/99
<b>Gross Production (000 tons)</b>					<b>Exports (000 tons)</b>				
Côte d'Ivoire	1,200	1,108	1,113	1,150	Côte d'Ivoire	1,038	929	964	977
Ghana	404	323	409	370	Ghana	331	267	326	308
Indonesia	285	325	331	365	Indonesia	224	264	148	212
Nigeria	158	160	165	185	Nigeria	147	137	143	142
Brazil	231	185	170	130	Cameroon	93	95	84	91
Cameroon	135	126	115	125	Dominican R.	50	41	54	48
Malaysia	115	100	65	85	PNG	35	28	29	30
Ecuador	103	103	35	70	<b>World</b>	<b>2,116</b>	<b>1,932</b>	<b>1,941</b>	<b>1,990</b>
Dominican R.	55	52	58	48	<b>Imports (000 tons)</b>				
Colombia	50	50	45	46	US	445	353	427	408
Mexico	42	45	35	30	Netherlands	405	464	320	396
PNG	36	29	29	30	Germany	299	327	309	312
<b>World</b>	<b>2,916</b>	<b>2,713</b>	<b>2,683</b>	<b>2,747</b>	UK	248	176	193	206
<b>Grindings (000 tons)</b>					France	117	111	108	112
Netherlands	385	402	425	435	Singapore	88	86	89	88
US	342	394	399	395	Russian Fed.	75	85	75	78
Côte d'Ivoire	140	160	205	225	Italy	71	71	72	71
Germany	266	240	226	205	Bel-Lux	45	54	82	60
Brazil	205	180	188	195	Spain	50	49	66	55
UK	191	172	174	165	Estonia	5	65	78	49
France	113	106	103	107	Japan	49	54	43	49
Malaysia	95	95	100	100	Canada	39	34	53	42
<b>World</b>	<b>2,713</b>	<b>2,736</b>	<b>2,795</b>	<b>2,790</b>	<b>World</b>	<b>2,229</b>	<b>2,219</b>	<b>2,218</b>	<b>2,222</b>

Source: ICCO

Source: ICCO and World Bank.

Global Summary	Actual			Est.			Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1996/97	1997/98	1998/99	1970-80	1980-90	1990-98
<b>World Balance (000 tons)</b>									
Gross Production	1,554	1,695	2,506	2,713	2,683	2,747	0.9	3.9	0.7
Grindings	1,418	1,556	2,335	2,736	2,795	2,790	0.9	4.1	1.4
Exports	1,186	1,126	1,733	1,932	1,941	1,990	-0.5	4.3	1.1
Ending Stocks	497	675	1,791	1,399	1,225	1,150	3.1	9.8	-3.5
	Actual			Forecast					
<b>Prices (¢/kg)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Current	143.2	145.6	161.9	167.6	117.0	125.0	130.0	170.0	190.0
Constant 1990	120.2	127.7	149.4	160.9	113.0	117.8	119.5	142.2	140.7

Note: Quantities refer to cocoa beans. Crop year begins October 1.

Source: ICCO and World Bank.

# Coffee

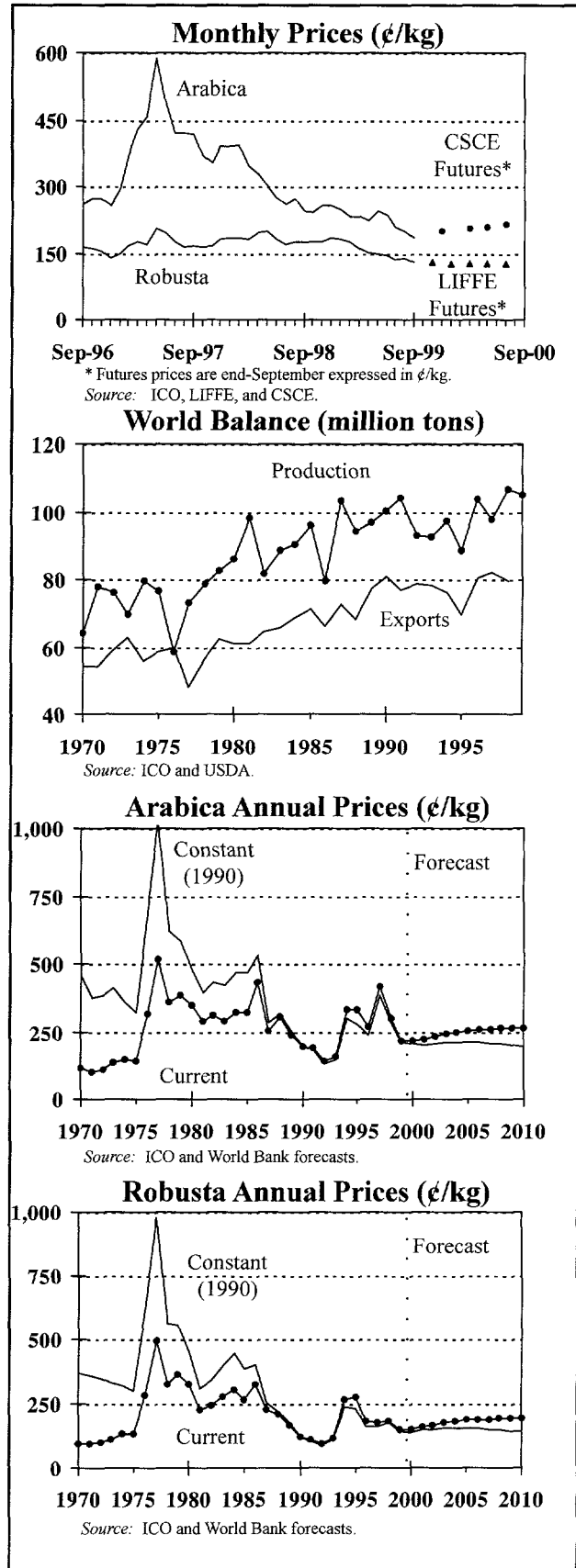
*Prices took a further downturn, and – with another surplus season almost a reality – the bearish sentiment is expected to persist for some time. The 1994 Coffee Agreement was extended for a 2-year period.*

The arabica price indicator fell to 185.9¢/kg in September, bringing the third quarter average down to 198.8¢/kg, 15.6% lower than last quarter and 23.3% lower than a year ago. Robusta prices followed a similar path, reaching a low of 131.3¢/kg in September, with an average of 135.4¢/kg during the third quarter, 9.2% down from last quarter and 22% lower than a year ago. The bearish mood was evident in both New York and London, especially after it became clear that a Brazilian frost was out of the question.

Early estimates for the 1999/00 crop point to yet another surplus year. The latest USDA forecasts put the global production for the 1999/00 season at 104.5 million bags, just 1% below last season's bumper crop. With the exception of Brazil, whose crops estimate is projected at 26.5 million bags (down from last season's 34.5 million bags), other major coffee producers are expected to increase their output and thus make up for the difference: Colombia by 10%, Mexico by 18%, and Vietnam by 13%. With consumption expected not to exceed 99 million bags, a further stock buildup is an inevitable market outcome.

Consumption in the US grew by almost 1% in the 12-month period ending September, according to *LMC International* while in Europe it declined by 0.4% over the same period. In Brazil, the second largest consumer, consumption declined by 2.1%, not surprisingly since the devaluation of the real, coffee has become more expensive in the domestic market and more attractive in the export market.

With another surplus season becoming a reality – and consequently further stock buildup – prices are likely to remain weak for the rest of 1999 and most of 2000. On a more important note, however, some preliminary estimates put Brazil's 2000/01 crop as high as 40 million bags. While it is too early for such a figure to carry any significant weight (as it serves only as an upper limit at the moment), it does send the signal that even the medium-term market outlook is likely to be dominated by the current bearish sentiment.



## Other Developments

- The 1994 International Coffee Agreement was extended for a 2-year period until September 30, 2001 while "a Negotiating Group shall be established to draft the text of a new International Coffee Agreement by 30 September 2000, thus giving a full year for such a text to be ratified by Member countries" according to a July 22 resolution issued by the ICO Executive Director. Two other resolutions called for (a) an international coffee conference to be held regularly and (b) the creation of a Private Sector Consultative Board to "act in a consultative and advisory capacity to the Executive Board and Council of the Organization on matters of concern to the world coffee industry."
- The Association of Coffee Producing Countries (ACPC) increased Brazil's export quota by 13% (from 15 million bags in 1999/00 to 17 million bags in 2000/01) and it reduced it by 6% for all other members. According to many analysts, however, compliance to ACPC's quotas is expected to be limited.

Production (000 bags)					Stocks and Consumption				
	1996/97	1997/98	1998/99	1999/00		1995/96	1996/97	1997/98	1998/99
Brazil <sup>A</sup>	27,663	22,756	34,547	26,500	<b>Ending Stocks (000 bags)</b>				
Colombia	10,876	12,211	11,500	12,700	Brazil	16,000	14,128	11,278	15,278
Indonesia <sup>AA</sup>	8,296	7,756	7,589	7,200	Colombia	6,328	4,420	3,929	3,669
Vietnam <sup>*</sup>	5,705	6,893	6,200	7,000	Germany	2,400	2,200	2,400	1,800
Mexico	5,324	5,116	4,400	5,200	US	2,608	1,611	2,294	1,680
Côte d'Ivoire <sup>*</sup>	4,528	3,682	2,742	5,000	Italy	1,259	1,327	1,257	1,133
India	3,469	4,718	3,833	4,500	Japan	1,350	1,083	1,067	1,067
Uganda <sup>*</sup>	4,297	3,032	3,600	3,600	Congo, D. R.	239	365	790	765
Ethiopia	3,270	2,916	3,867	3,500	Costa Rica	1,149	1,200	1,050	760
Guatemala	4,524	4,218	3,400	3,345	Bel-Lux	731	434	1,192	755
Honduras	2,004	2,564	2,300	2,850	<b>World</b>	<b>43,717</b>	<b>37,957</b>	<b>35,938</b>	<b>35,921</b>
Costa Rica	2,126	2,489	2,376	2,550	<b>Consumption (000 bags)</b>				
El Salvador	2,534	2,157	1,840	2,272	US	18,138	17,847	18,194	18,290
Peru <sup>A</sup>	1,802	1,916	2,066	2,150	Brazil	10,230	10,880	10,880	11,320
Ecuador <sup>A</sup>	1,993	1,191	1,260	1,800	Germany	9,761	9,709	9,038	9,300
Cameroon <sup>*</sup>	1,432	889	1,333	1,300	Japan	5,999	6,369	5,900	5,710
Venezuela	1,200	975	1,400	1,250	France	5,519	5,623	5,317	5,300
Kenya	1,246	882	1,133	1,250	Italy	4,718	4,857	4,843	4,700
PNG <sup>A</sup>	1,089	1,076	1,340	1,150	Spain	2,930	3,029	2,968	2,976
Nicaragua	793	1,086	1,044	1,100	UK	2,452	2,296	2,565	2,419
Thailand <sup>*</sup>	1,403	1,293	993	1,000	Canada	2,800	2,960	2,920	2,291
<b>World</b>	<b>102,411</b>	<b>96,438</b>	<b>105,140</b>	<b>104,457</b>	<b>World</b>	<b>96,300</b>	<b>99,500</b>	<b>99,400</b>	<b>98,000</b>

Source: ICO and USDA

Source: ICO and USDA.

Global Summary									
World Balance (000 bags)	Actual					—Est.—	—Annual Growth Rate (%)—		
	1970/71	1980/81	1990/91	1996/97	1997/98		1998/99	1970-80	1980-90
Production	64,161	86,174	88,749	102,411	96,438	105,140	2.9	0.3	1.4
Consumption	71,536	79,100	96,300	99,500	99,400	98,000	1.0	2.0	0.1
Exports	54,186	60,995	76,163	84,248	77,264	79,771	1.2	2.2	0.4
Ending Stocks	53,661	42,471	54,992	37,957	35,938	35,921	-2.3	2.6	-3.4

Arabica Prices (¢/kg)	Actual					Forecast				
	1995	1996	1997	1998	1999	2000	2001	2005	2010	
Current	333.2	269.4	416.8	297.6	215.0	209.4	220.5	254.0	265.0	
Constant 1990	279.6	236.4	384.6	285.7	208.6	197.3	202.6	212.5	196.2	

Robusta Prices (¢/kg)	Actual					Forecast				
	1995	1996	1997	1998	1999	2000	2001	2005	2010	
Current	277.1	180.6	173.6	181.9	147.7	147.7	158.7	186.1	192.0	
Constant 1990	232.4	158.4	160.2	174.6	142.6	139.2	145.9	155.7	142.1	

\* Entirely or predominantly robusta producer. <sup>A</sup> Crop year begins April 1 (otherwise October 1). One bag equals 60 kg.  
Source: ICO, USDA, and World Bank.

# Tea

*The global crop shortfall owing to adverse weather conditions in India and Kenya coupled with declining stocks, have allowed the two tea auctions' prices to recover during the third quarter lifting all except Colombo auctions above last year's levels.*

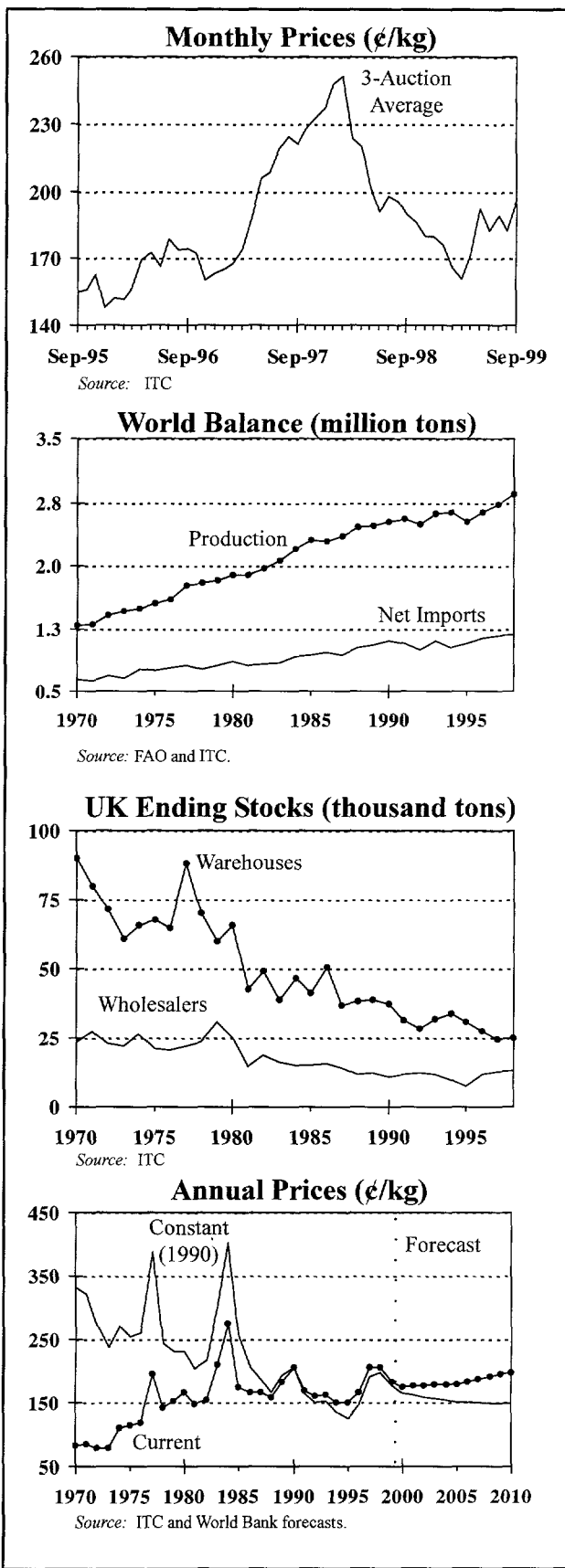
Although Mombassa tea auctions prices increased 16.9% in September, average prices over the quarter remained even with an 0.4% increase from last quarter. Average prices also remained even for the Calcutta auctions, increasing only 0.1% over the quarter. In spite of a 15.3% price increase on average over the second quarter, prices at the Colombo auctions have remained weak compared to third quarter prices in 1998 (down 14.7%).

Global crop shortfall as of July 1999 is estimated at 110 thousand tons and with the information at hand we expect 1999 production to be substantially lower than the record 2.86 million tons of 1998. India's cumulative output up to July is down by 52 thousand tons (-12.5%) compared to the period in 1998. Despite reports from the United Planters' Association of South India that increases have taken place in August and September, the 1999 crop is unlikely to exceed 830 thousand tons. Notable declines have also been reported for the other major producers: Kenya 42.2 thousand tons, Indonesia 10.1, Bangladesh 7.3, and Malawi 3.3 for 1999 up to July.

According to the Sri Lanka Tea Board, the country's output for the first eight months of 1999 reached 184.2 thousand tons, compared to 185.3 thousand tons in 1998. Because of low tea prices, Sri Lanka's export earnings have been disappointing despite steady increase in export volume. For the 8-month period ending August, Sri Lanka's tea exports were \$401 million, compared to \$487 million for the same period of 1998. Sri Lanka's 1999 output is likely to be about the same as last year.

On the demand side, the Russian Federation, the world's dominant tea importer, is still pressured by the ruble crisis and is currently purchasing mostly low grade teas. Also, weak Russian demand has been compounded by the increase of import duty on packet tea to 20%.

Despite of the global crop shortfall, demand prospects are still weak, especially if one adds the political uncertainty in Pakistan, the world's third largest tea importer. We expect the three-auctions average to be at \$183/ton with no prospects of recovery for next year.



## Other Developments

- The Indian Tea Board has considered establishing a tea futures exchange. A similar attempt by tea brokers in London some 30 years ago failed according to the *Financial Times*. While the idea is still at the drawing board, analysts content that successful launching of a tea contract will be a difficult task. As the main impediments, they cite (i) the lack of a "dominant" or "standard" tea variety, (ii) quality determination of tea requires actual tasting, and (iii) tea stocks do not retain their original quality for long.
- Egypt joined the Common Market for Eastern and South Africa in January 1999 and committed to a 90% reduction on prevailing tariff on all commodities (including tea) with member countries, and to zero tariff by year 2000. Kenya stands to gain with tea duty currently at 3%, as compared to 30 to 40% for non-members.
- The Indian government imposed an excise duty of Rs 2/kg on all tea produced; this is likely to weaken domestic demand.
- The privatization of five tea factories in the Nyeri District of Kenya has been completed successfully and they are now being run by growers reported *Africa News Service*.

Production and Yields					Trade				
	1995	1996	1997	1998		1995	1996	1997	1998
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
India	756	780	811	870	Sri Lanka	235	234	258	265
China	588	617	638	648	Kenya	237	244	198	263
Kenya	245	257	221	294	China	167	173	205	220
Sri Lanka	246	259	277	281	India	164	160	203	206
Indonesia	144	166	154	166	Indonesia	79	102	67	70
Turkey	103	115	140	115	Argentina	41	41	56	59
Japan	85	89	91	82	Malawi	33	37	49	41
Iran, Islam. R.	55	58	60	60	Uganda	11	15	18	23
Bangladesh	48	53	54	56	Bangladesh	25	26	25	22
Argentina	32	43	55	55	Tanzania	21	18	19	22
Vietnam	40	40	42	42	<b>World</b>	<b>1,079</b>	<b>1,112</b>	<b>1,180</b>	<b>1,255</b>
Malawi	35	38	44	40	<b>Net Imports (000 tons)</b>				
Uganda	13	17	21	26	Russian Fed.	110	111	148	135
Tanzania	24	19	23	24	UK	136	148	151	147
Taiwan, China	21	23	24	23	Pakistan	116	115	98	112
Zimbabwe	16	17	17	18	US	83	89	81	97
<b>World</b>	<b>2,521</b>	<b>2,665</b>	<b>2,761</b>	<b>2,863</b>	Egypt	80	73	78	66
<b>Major Auction Volumes</b>					Japan	45	49	52	45
Colombo	229	230	255	229	Iraq	1	2	17	40
Mombasa	174	190	167	207	Morocco	38	28	35	41
Calcutta	93	85	87	79	Iran, Islam. R.	30	27	30	29
Chittagong	43	46	43	43	Poland	31	27	32	27
Jakarta	15	13	30	35	Afganistan	22	48	38	24
<b>All Auctions</b>	<b>894</b>	<b>941</b>	<b>969</b>	<b>987</b>	<b>World</b>	<b>1,074</b>	<b>1,122</b>	<b>1,174</b>	<b>1,166</b>

Source: FAO and ITC.

Source: FAO and ITC.

Global Summary									
	Actual						Annual Growth Rate (%)		
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-97
<b>World Balance (000 tons)</b>									
Production	1,287	1,894	2,526	2,665	2,761	2,863	4.2	3.2	0.9
Net Imports	640	859	1,099	1,122	1,174	1,166	3.0	2.9	1.1
<b>Yields (tons/hectare)</b>	0.77	0.80	1.12	1.13	1.16	1.22	0.2	4.3	1.0
	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
<b>Prices (¢/kg)</b>									
Current	148.9	166.1	206.0	204.7	183.0	174.0	177.0	179.0	198.0
Constant 1990	124.9	145.4	190.1	196.4	176.7	163.9	162.7	149.8	146.6

Source: ITC, FAO, and World Bank forecasts.

## Fats and Oils

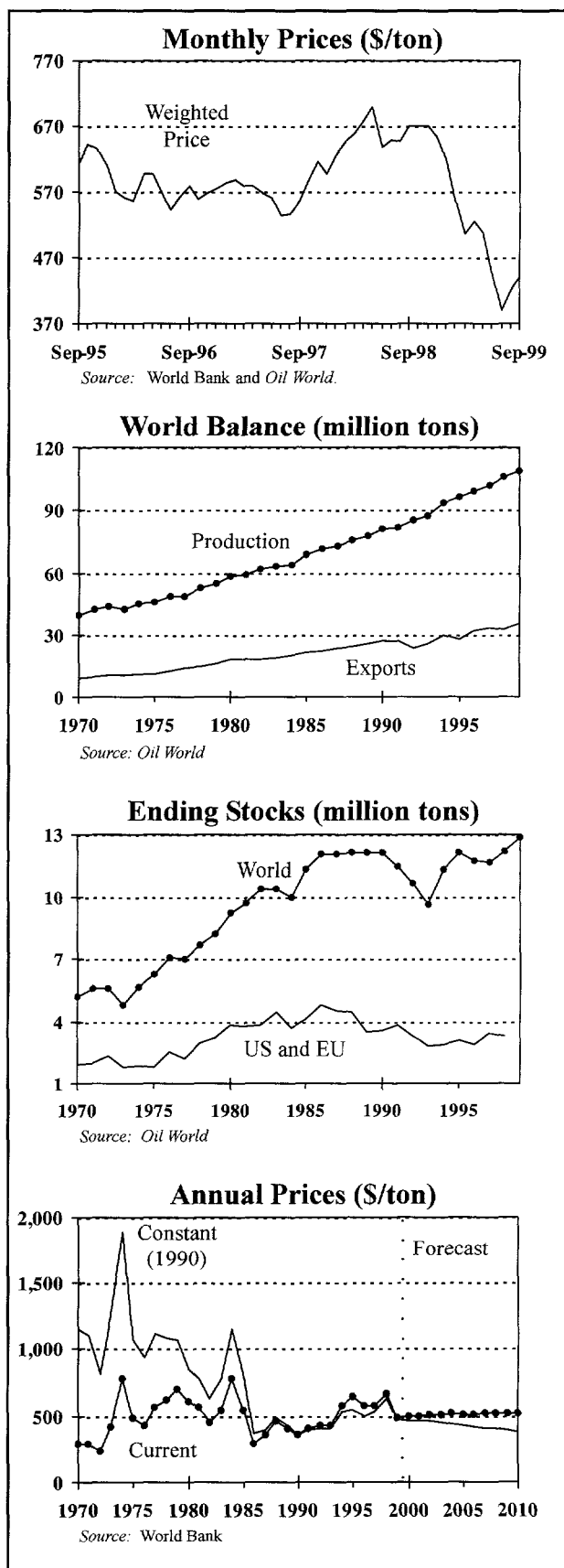
**The World Bank oils index dropped below \$390/ton in July but it reached \$440/ton in September mostly due to recovery in soybean and palm oil markets. Ample supplies of most oils will make further recovery unlikely.**

The World Bank's oil weighted price averaged \$417/ton the third quarter, down 16% from the second quarter's average and 33% lower than a year ago.

According to *Oil World*, global output of the major fats and oils is expected to reach yet another record level, estimated currently at 109 million tons. Most of the output growth is expected to take place in coconut oil (22%), palm oil (5%), and rapeseed oil (12%). Output of soybean oil, however, may not increase as originally anticipated following the October USDA forecasts which put US soybean crop at 73.38 million tons, down from their September forecast of 75.62 million tons.

Global trade expected to gain another 5% with Malaysia leading the way. Malaysia accounts for 27% of world oil exports (almost exclusively palm oil). Argentina and India follow by accounting for about 13% each. As discussed in the following oil sections of our report, the import market is dominated by India, which currently is estimated to import 4.36 million tons of vegetable oils, just 110 thousand tons below the EU but 1.2 million higher than China. Rising disposable incomes, low import duties, combined with an inefficient domestic crushing industry have all contributed to this surge, which is expected to continue unless some import duty or other quantitative restriction is imposed.

Despite the recent USDA downward forecast of the US soybean crop, the world oil market is expected to be dominated by plentiful supplies of the most important vegetable oils. Furthermore, import demand from Pakistan, the fifth major oil importer, is likely to shrink following the recent political developments. Therefore, we expect the oil index to remain considerably below \$500/ton for both 1999 and 2000, unless some adverse weather development dictate otherwise.



## Other Developments

• In response to the recent record of vegetable oil imports, the Indian Ministry of Agriculture has called for an immediate increase in edible oil tariffs, according to the USDA July update. Among other groups to benefit

from the imposition of such duty, the Solvent Extractors Association of India is pushing for the establishment of a variable duty on refined and crude edible oils as well as a reduction in the tariff of oilseed imports.

Exports of the 17 Major Fats and Oils (million tons)					Imports of the 17 Major Fats and Oils (million tons)				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
Malaysia	8.45	8.58	9.20	9.56	EU	4.35	4.53	4.52	4.74
Argentina	3.95	3.96	5.09	4.86	India	1.98	2.18	4.28	4.63
Indonesia	3.49	3.41	3.54	4.42	China	4.56	4.09	3.08	3.46
US	3.10	4.05	3.67	3.79	US	1.68	1.82	1.52	1.76
EU	2.73	2.93	2.85	2.95	Pakistan	1.32	1.52	1.55	1.59
Brazil	1.38	1.30	1.47	1.32	Iran, Islamic R.	0.79	1.05	1.16	0.98
Canada	0.93	0.99	1.00	1.07	Mexico	0.86	0.90	0.93	0.96
Philippines	0.96	1.40	0.52	0.86	Turkey	0.86	0.90	0.80	0.88
<b>World</b>	<b>31.90</b>	<b>33.15</b>	<b>33.03</b>	<b>34.59</b>	<b>World</b>	<b>31.39</b>	<b>33.18</b>	<b>33.12</b>	<b>34.73</b>

Source: Oil World

Production, Exports, and Stocks of the 17 Major Fats and Oils									
Fats and Oils	— Production (million tons) —			— Exports (million tons) —			— Stock-to-Use Ratio —		
	1997/98	1998/99	1999/00	1997/98	1998/99	1999/00	1997/98	1998/99	1999/00
Soybean	23.15	24.36	24.59	7.66	7.53	7.14	0.11	0.11	0.11
Palm	16.96	18.83	19.84	11.69	12.46	13.45	0.14	0.17	0.17
Rapeseed	12.21	12.52	14.02	2.10	1.88	2.19	0.10	0.08	0.09
Sunflower	8.62	9.20	9.51	3.00	3.10	3.21	0.10	0.11	0.11
Tallow	7.69	8.00	7.93	2.21	2.41	2.27	0.08	0.07	0.07
Lard	6.20	6.41	6.42	0.17	0.19	0.18	0.07	0.06	0.06
Butter	5.73	5.81	5.90	0.59	0.57	0.60	0.12	0.11	0.11
Groundnut	4.38	4.67	4.33	0.26	0.25	0.25	0.09	0.09	0.08
Cotton	4.08	3.81	3.84	0.22	0.17	0.19	0.07	0.07	0.07
Coconut	3.45	2.46	3.20	2.12	1.07	1.67	0.19	0.11	0.15
Palm Kernel	2.19	2.37	2.48	1.07	1.16	1.20	0.13	0.11	0.12
Corn	1.93	1.95	1.99	0.77	0.73	0.75	0.07	0.08	0.09
Olive	2.56	2.43	1.97	0.46	0.52	0.47	0.43	0.42	0.24
Fish	0.84	1.18	1.17	0.43	0.63	0.65	0.15	0.20	0.17
Linseed	0.68	0.73	0.78	0.12	0.13	0.15	0.14	0.15	0.15
Sesame	0.74	0.71	0.68	0.02	0.02	0.02	0.06	0.06	0.06
Castor	0.46	0.45	0.41	0.26	0.23	0.21	0.12	0.12	0.08
<b>Total</b>	<b>101.86</b>	<b>105.86</b>	<b>109.06</b>	<b>33.15</b>	<b>33.03</b>	<b>34.59</b>	<b>0.11</b>	<b>0.12</b>	<b>0.11</b>

Source: Oil World

Global Summary												
World Balance (mil. tons)	— Actual —						— Est. —			— Annual Growth Rate (%) —		
	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	101.86	105.86	109.06	3.8	3.3	2.2			
Consumption	39.82	56.80	80.77	102.20	105.47	108.92	3.6	3.5	2.1			
Exports	8.83	17.76	26.89	33.15	33.03	34.59	7.0	4.1	1.6			
Ending Stocks	5.18	9.25	12.15	11.70	12.19	12.47	5.8	2.7	0.0			
Weighted Price (\$/ton)	— Actual —						— Forecast —					
	1995	1996	1997	1998	1999	2000	2001	2005	2010			
Current	638.8	569.7	574.0	658.6	494.5	491.2	506.9	507.6	520.2			
Constant 1990	535.9	498.9	529.6	632.1	471.7	461.2	464.5	420.9	381.5			

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

# Coconut Oil

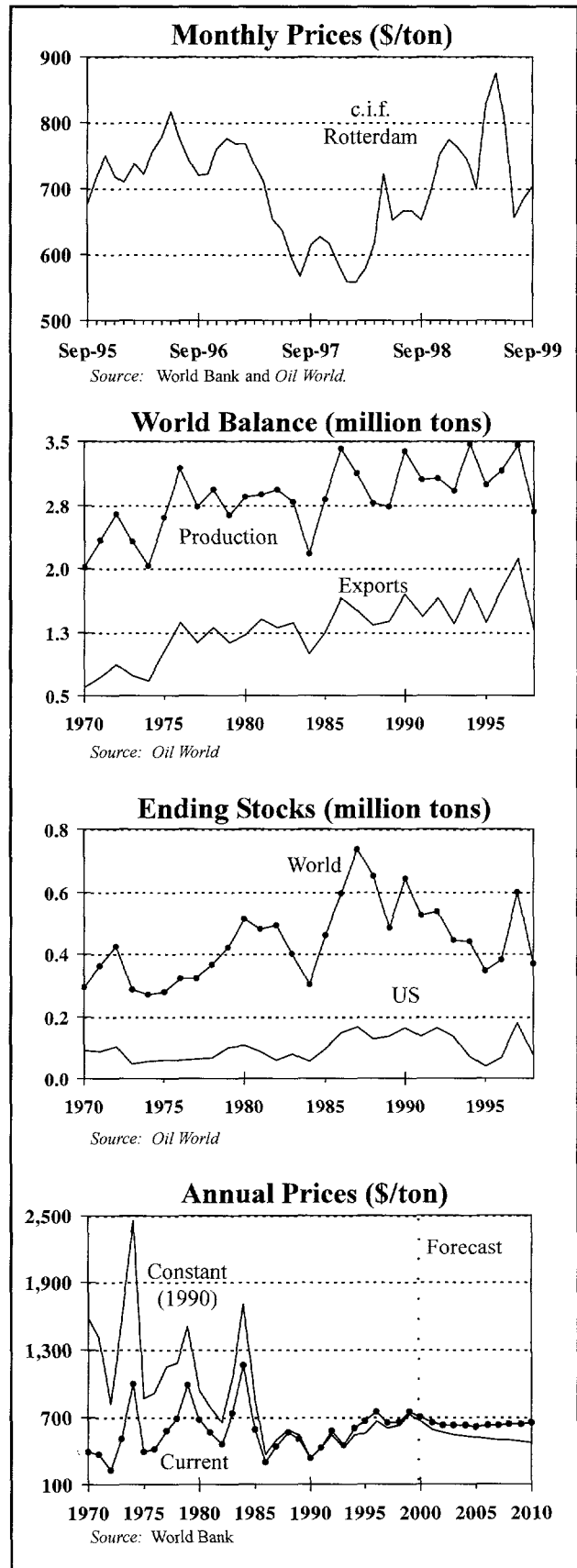
*Following a 15-year record high in May, prices retreated in July but picked up again in September on news of drought in the Philippines. India's Cochin Oil Merchants Association plans to relaunch the coconut oil futures contract.*

Following last May's 15-year record high of \$874/ton, coconut oil prices fell to \$656/ton in July but recovered to \$704/ton in September on news of extensive drought in the Philippines. The third quarter average was \$681.3/ton, 18.1% lower than the second quarter. However, prices later picked up. Prices of palm kernel oil, a close substitute to coconut oil, averaged \$675.7/ton during the third quarter, down 9.9% from second quarter and 5.4% lower than a year ago.

According to the latest *Oil World* estimates, new season's coconut oil production (October 1999 to September 2000) is expected to be 3.16 million tons, up 23% from last season (the year when the El Niño's full impact was felt), but still 8% lower than the 1997/98 season. Early estimates projected a full recovery from El Niño; however, extensive drought in the Philippines, the dominant producer, lowered its 1999/00 output by almost 25%, according to the United Coconut Associations of the Philippines. Full recovery, however, is expected in Indonesia with a projected output of 0.79 million tons, up from 0.51 million tons in 1998/99. Global coconut oil exports are expected to reach 1.65 million tons, with the Philippines and Indonesia accounting for almost 85%.

Global palm kernel oil production, which follows the same pattern as palm oil, is expected to reach 2.53 million tons, up 9% from last season's output, with Malaysia and Indonesia, the top producers, experiencing each 8% and 19% increases. Exports of palm kernel oil are expected to increase 13% over 1998/99 with the EU accounting for almost half the imports.

Following improved production prospects in both top producing countries and buyers willingness to switch to palm kernel oil, prices are likely to average about \$700/ton in the year 2000, down from \$750/ton currently projected for 1999. We should also stress that large premiums of lauric over other vegetable oils (of the magnitude observed earlier this year) usually are not sustained for long periods.





## Other Developments

• India's Cochin Oil Merchants Association (Coma) and the First Commodity Clearing Corporation of India have signed an agreement to jointly launch a coconut oil futures contract according to *The Public Ledger*. Coma, which currently handles spot transactions, used to operate a coconut oil futures contract since 1931. In 1956 the Indian government took control of futures operations and in 1971 banned coconut futures

trading altogether. India is the third largest coconut oil producer, accounting for 14% of global production.

• Rainfall in the Philippines, the most significant factor in copra production has improved significantly in the first part of 1999 following the 1997 and 1998 drought. Given that copra crushings follow with a 15-month lag, coconut oil output is expected to actually pick up in early 2000, according to *Oil World*.

Coconut Oil					Palm Kernel Oil				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Production (000 tons)</b>				
Philippines	1,257	1,628	913	1,161	Malaysia	1,157	1,127	1,230	1,325
Indonesia	756	652	509	788	Indonesia	506	543	557	661
India	419	439	431	440	Nigeria	181	180	183	187
Mexico	134	128	123	125	Thailand	36	35	37	40
Vietnam	57	69	73	87	Colombia	33	33	36	39
<b>World</b>	<b>3,151</b>	<b>3,451</b>	<b>2,572</b>	<b>3,168</b>	<b>World</b>	<b>2,167</b>	<b>2,189</b>	<b>2,313</b>	<b>2,527</b>
<b>Ending Stocks (000 tons)</b>					<b>Ending Stocks (000 tons)</b>				
Philippines	87	32	70	90	Malaysia	144	149	167	155
US	68	178	60	70	Indonesia	40	35	47	60
Indonesia	35	40	45	65	US	23	29	27	35
India	31	32	30	31	EU	15	23	19	35
<b>World</b>	<b>382</b>	<b>598</b>	<b>347</b>	<b>460</b>	<b>World</b>	<b>263</b>	<b>281</b>	<b>300</b>	<b>322</b>
<b>Exports (000 tons)</b>					<b>Exports (000 tons)</b>				
Philippines	950	1,386	575	820	Malaysia	483	476	545	630
Indonesia	603	511	365	600	Indonesia	435	474	467	540
<b>World</b>	<b>1,753</b>	<b>2,119</b>	<b>1,153</b>	<b>1,651</b>	<b>World</b>	<b>1,036</b>	<b>1,067</b>	<b>1,120</b>	<b>1,270</b>
<b>Imports (000 tons)</b>					<b>Imports (000 tons)</b>				
EU	639	755	555	610	EU	427	419	464	531
US	539	653	380	520	US	178	163	160	190
China	42	34	46	52	Japan	54	53	54	58
Korea, Rep.	44	40	39	42	Brazil	51	45	47	49
<b>World</b>	<b>1,695</b>	<b>2,114</b>	<b>1,203</b>	<b>1,650</b>	<b>World</b>	<b>1,055</b>	<b>1,047</b>	<b>1,123</b>	<b>1,255</b>

Source: *Oil World*

Source: *Oil World*

Global Summary	Actual						Annual Growth Rate (%)			
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98	
<b>Coconut Oil (000 tons)</b>										
Production	2,020	2,842	3,377	3,451	2,572	3,168	3.4	1.7	-2.2	
Consumption	2,021	2,688	3,169	3,230	2,874	3,054	2.9	1.6	-0.8	
Exports	608	1,215	1,701	2,119	1,153	1,651	6.9	3.4	-3.1	
Ending Stocks	292	509	641	598	347	460	5.6	2.3	-4.9	
<b>Palm Kernel Oil (000 tons)</b>										
Production	378	570	1,449	2,189	2,313	2,527	4.1	9.3	3.7	
Consumption	387	528	1,375	2,151	2,296	2,490	3.1	9.6	4.1	
Exports	160	402	907	1,067	1,120	1,270	9.2	8.1	1.7	
Ending Stocks	45	134	256	281	300	322	10.9	6.5	1.3	
		Actual			Forecast					
<b>Prices - Coconut (\$/ton)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>	
Current	669.7	751.6	656.8	657.9	750.0	700.0	650.0	620.0	650.0	
Constant 1990	561.7	659.3	606.1	631.5	724.2	659.4	597.4	518.8	481.2	

Note: Crop year begins October 1.

Source: *Oil World* and World Bank.

# Palm Oil

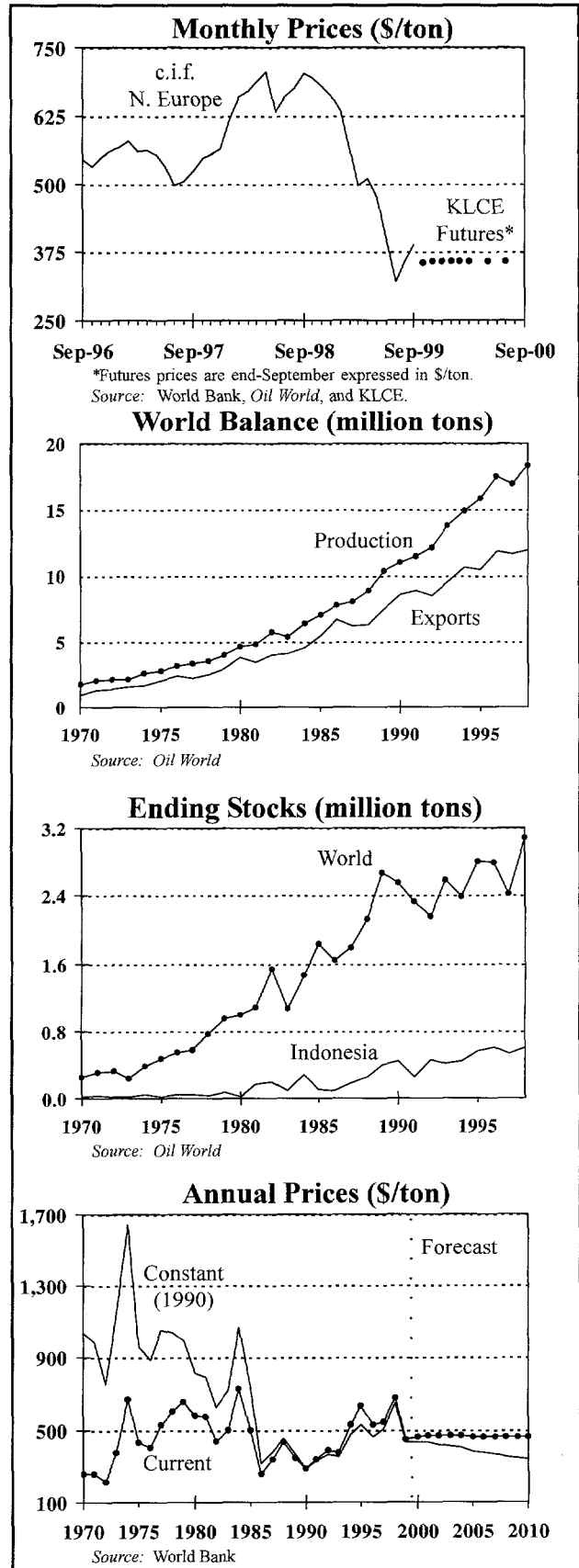
*With another record crop becoming a reality, the weakness in prices is expected to persist throughout the 1999/00 season. India has emerged as the dominant palm oil importer ahead of the EU and China.*

Palm oil prices reached a low of \$319/ton in July (down from \$703/ton 9 months earlier) but picked up in August and especially in September thanks to strong buying activity by India. Third quarter's average stood at \$353.7/ton, 23% lower than the second quarter average and almost 50% lower than a year ago. Palm oil a close substitute to soybean oil, is expected to account for 18.2% of global production and 39% of global trade of the 17 major fats and oils. About 68% of global production is internationally traded.

The new figures regarding the 1999/00 crop published last month by *Oil World* indicate that the industry is heading towards another record output, estimated at 19.8 million tons, 5% higher than season's level. Both major producers are expected to register increases: Malaysia 2% and Indonesia 11%. Minor producers (Colombia, Côte d'Ivoire, Ecuador, Nigeria, PNG, and Thailand) are expected to follow suit.

On the demand side, India has emerged as the dominant player in the import market. During 1999/00 it is expected to import 2.75 million tons, up from last season's 2.55 million tons. India's palm oil import growth has been impressive, more than doubling in the last four seasons. According to the USDA, during the eighth month period ending May 1999, India imported 2.16 million tons of vegetable oils versus 0.74 million tons over the same period of last year. Palm oil imports grew from 0.66 to 1.17 million tons. China, the third palm oil importer following the EU, is expected to increase imports by 13% in 1999/00, which although considerable, is below earlier expectations according to many analysts. Because of import quotas designed to protect the domestic crushing industry, China is turning from a vegetable oil importer to an oilseed importer.

We expect palm oil prices not to exceed \$450/ton in 1999. Unless some weather anomalies take place – not unlikely given the sporadic drought spells in Malaysia earlier this year – we expect the 2000 average to be about \$465/ton, the same forecast as in our last report.



## Other Developments

- Following the low palm oil prices in July, a number of palm oil importers, particularly from India, defaulted on their contracts. According to the *Financial Times*, the defaults may be as high as Rs30 billion (\$689 million). Many of the contracts were signed when palm oil was traded close to \$700/ton, while at delivery the spot price was just above \$300/ton. In the absence of contract enforcing mechanisms (such as margin calls in the organized futures exchanges), breaching of contracts is not an unlikely outcome.
- The UK's Commonwealth Corporation (CDC) signed a \$32 million investment agreement with an Indonesian Palm oil plantation and processing company, according to *The Public Ledger*. CDC currently manages a portfolio of \$200 million in Indonesia.
- According to *Oil World*, global palm oil area is expected to be 6.3 million hectares in the year 2000, another record high. Between 1996 and 2000, mature area in Indonesia and Malaysia is expected to increase by 49% and 23%, respectively. Yields, however, have remained constant at around 3.36 tons/hectare, thus all production growth has been accounted for by area expansion.

Production and Stocks					Trade and Ending Stocks				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
Malaysia	9,000	8,509	9,691	9,883	Malaysia	7,794	7,847	8,350	8,720
Indonesia	5,078	5,086	5,661	6,279	Indonesia	2,419	2,416	2,710	3,280
Nigeria	678	688	705	733	PNG	281	228	242	265
Colombia	440	437	453	489	Singapore	286	253	264	225
Thailand	386	363	389	427	<b>World</b>	<b>11,875</b>	<b>11,693</b>	<b>12,458</b>	<b>13,450</b>
Côte d'Ivoire	250	266	270	274	<b>Imports (000 tons)</b>				
PNG	276	232	247	270	India	1,395	1,684	2,550	2,750
Ecuador	201	203	215	238	EU	1,957	2,028	2,164	2,265
<b>World</b>	<b>17,487</b>	<b>16,957</b>	<b>18,828</b>	<b>19,839</b>	China	1,851	1,490	1,435	1,680
<b>Consumption (000 tons)</b>					Pakistan	1,020	1,210	1,010	1,120
Indonesia	2,699	2,770	2,859	2,919	Egypt	374	374	463	500
India	1,275	1,797	2,395	2,763	Singapore	402	351	420	380
EU	1,897	1,951	2,067	2,165	Japan	382	355	362	370
China	1,663	1,545	1,507	1,620	Myanmar	290	246	275	290
Malaysia	1,217	1,088	1,155	1,203	<b>World</b>	<b>11,729</b>	<b>11,820</b>	<b>12,316</b>	<b>13,420</b>
Pakistan	1,087	1,175	1,015	1,110	<b>Ending Stocks (000 tons)</b>				
Nigeria	728	775	769	801	Malaysia	907	719	1,160	1,240
Egypt	367	364	433	483	Indonesia	605	535	630	740
Colombia	384	381	375	393	India	285	180	340	340
Thailand	387	363	355	388	China	280	175	100	150
<b>World</b>	<b>17,090</b>	<b>17,671</b>	<b>18,035</b>	<b>19,480</b>	<b>World</b>	<b>3,009</b>	<b>2,422</b>	<b>3,072</b>	<b>3,400</b>

Source: *Oil World*

Source: *Oil World*

Global Summary									
World Balance (000 tons)	Actual					—Est.—	—Annual Growth Rate (%)—		
	1970/71	1980/81	1990/91	1997/98	1998/99		1999/00	1970-80	1980-90
Production	1,742	4,587	10,976	16,957	18,828	19,839	9.7	8.7	4.3
Consumption	1,685	4,822	11,041	17,671	18,035	19,480	10.5	8.3	3.9
Exports	920	3,793	8,639	11,693	12,458	13,450	14.2	8.2	2.9
Ending Stocks	247	992	2,551	2,422	3,072	3,400	13.9	9.4	1.5
<b>Yields</b>	<b>2.50</b>	<b>2.91</b>	<b>3.19</b>	<b>3.33</b>	<b>2.96</b>	<b>3.07</b>	<b>1.5</b>	<b>0.9</b>	<b>-0.6</b>
Prices (\$/ton)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
	Current	628.0	530.9	545.8	671.1	449.0	465.0	470.0	460.0
Constant 1990	526.8	465.8	503.6	644.1	434.0	438.1	432.0	384.9	340.5

Note: Crop year begins October 1.  
Source: *Oil World* and World Bank.

# Soybean Oil

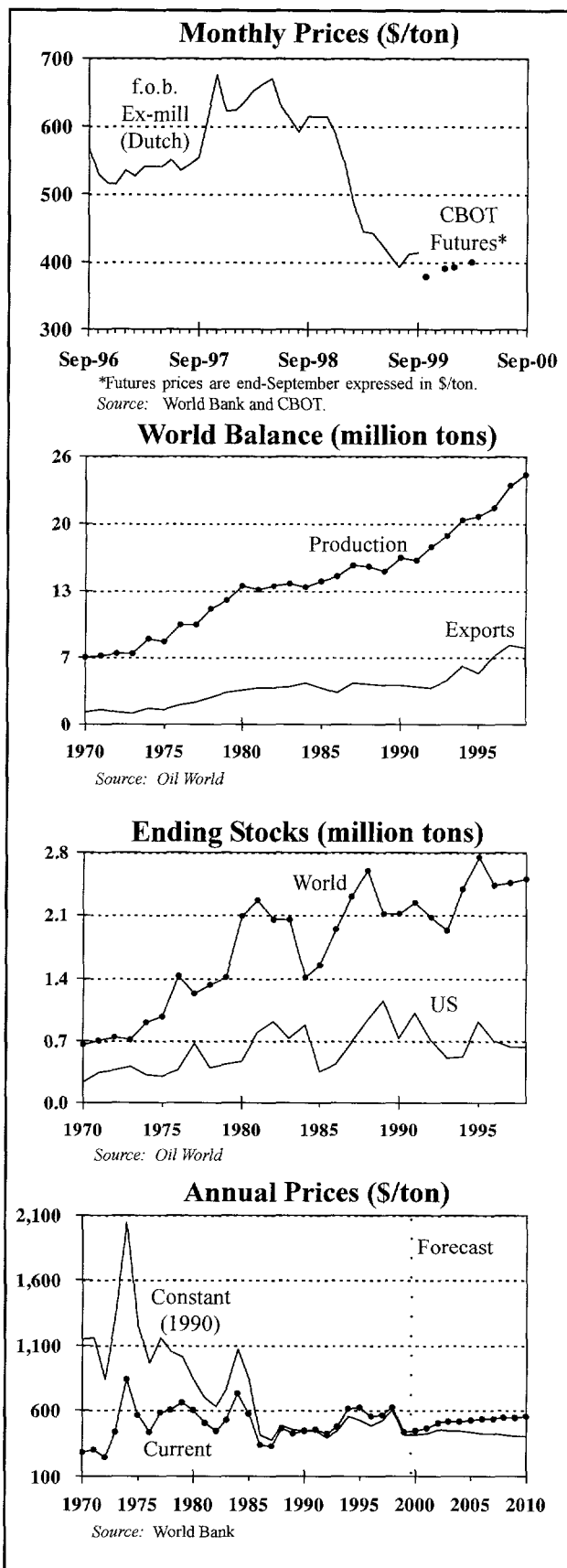
*Despite a small price recovery in August and also some demand growth, plentiful availability of soybean oil and other competing oils are expected to keep prices weak. Trade is expected to shrink 5% this season.*

Third quarter soybean oil prices averaged \$406/ton, down 4.8% from last quarter and 33% lower than the same quarter of 1998/99. Soybean oil, a close substitute to palm oil, accounts for one-quarter of global vegetable oil production – one-third is internationally traded.

The recently released figures by *Oil World* for the 1999/00 season outlook indicate that global soybean oil output will be 24.59 million tons, another record level, about 1% higher than last season's level. Most of the gains are expected to take place in the US which is expected to reach 8.44 million tons, up from 8.13 million tons last season.

Despite increased output, exports of soybean oil are expected to shrink by 5% according to USDA (from 7.46 million tons in 1998/99 to 7.14 million tons in 1999/00), with declines expected to be experienced by both Argentina and Brazil, the leading exporters. On the import side, the Islamic Republic of Iran and Bangladesh will considerably reduce their imports. China, still the dominant importer, absorbed one-third of global exports in 1996/97. This season China is expected to absorb less than 15% of global exports. Because its tariff structure is designed to protect domestic crushers, in recent years China has turned from a major oil importer to an oilseed importer. According to the October USDA update, for example, this season China is expected to import some 4.30 million tons of soybeans (up from 2.94 million tons in 1997/98) and 2.1 million tons of rapeseed (up from 288 thousand tons in 1997/98).

Despite some signs of moderate demand growth (expected to increase between 1% to 2% this season, thus keeping up with production growth), the outlook is still dominated by plentiful availability of soybean oil and other competing oils, especially palm oil. Thus, we expect that the pressure on prices will persist for the rest of 1999 and at least the first half of 2000. Our latest forecasts indicate an average of \$440/ton for 1999 with a small recovery to \$450/ton taking place in 2000.



## Other Developments

• It appears that the debate on the genetically modified organisms (GMOs) has been elevated at a global level and has begun to affect countries other than the dominant-players such as Brazil, EU, and the US. In its recent *FAS Report on Thailand*,

USDA reported that there are growing concerns over GMOs, prompted by EU customers of processed food from Thailand. While having GMO-related regulations for seeds, the country has no such regulations on trade.

Soybean Oil					Soybean Meal				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Production (000 tons)</b>				
US	7,145	8,227	8,133	8,439	US	31,036	34,606	33,995	35,261
Brazil	3,760	3,790	4,038	4,044	Brazil	15,640	15,637	16,592	16,715
Argentina	1,966	2,281	3,137	2,945	Argentina	8,867	10,353	13,959	13,215
EU	2,730	2,936	2,905	2,930	EU	11,998	12,808	12,653	12,678
China	1,410	1,655	1,741	1,848	China	7,069	8,252	8,675	9,106
India	607	787	790	675	India	2,787	3,611	3,627	3,088
<b>World</b>	<b>21,033</b>	<b>23,147</b>	<b>24,361</b>	<b>24,589</b>	<b>World</b>	<b>92,567</b>	<b>100,733</b>	<b>105,550</b>	<b>106,527</b>
<b>Ending Stocks (000 tons)</b>					<b>Ending Stocks (000 tons)</b>				
US	690	627	710	875	Brazil	759	1,124	1,020	1,000
Brazil	311	346	320	345	Argentina	412	700	695	600
China	455	340	190	210	China	755	1,100	450	470
<b>World</b>	<b>2,441</b>	<b>2,453</b>	<b>2,660</b>	<b>2,686</b>	<b>World</b>	<b>4,049</b>	<b>4,985</b>	<b>4,441</b>	<b>4,351</b>
<b>Exports (000 tons)</b>					<b>Exports (000 tons)</b>				
Argentina	2,019	2,128	3,120	2,850	Argentina	8,684	9,705	13,580	12,900
Brazil	1,297	1,228	1,406	1,250	Brazil	10,927	9,818	10,822	10,720
US	924	1,433	1,045	1,150	US	6,345	8,470	6,545	7,670
EU	867	1,040	989	967	India	2,156	2,787	2,850	2,140
<b>World</b>	<b>6,662</b>	<b>7,655</b>	<b>7,525</b>	<b>7,140</b>	<b>World</b>	<b>30,510</b>	<b>33,764</b>	<b>36,953</b>	<b>36,640</b>
<b>Imports (000 tons)</b>					<b>Imports (000 tons)</b>				
China	2,041	1,850	1,030	1,135	EU	11,370	13,025	17,200	16,250
India	84	254	860	893	East Europe	2,140	2,464	2,354	2,431
Iran, Islamic R.	408	699	915	700	China	3,750	3,609	1,530	2,250
Bangladesh	279	240	495	355	Thailand	1,059	956	1,150	1,160
H.K., China	591	767	178	165	Korea, Rep.	818	881	1,140	1,100
<b>World</b>	<b>6,508</b>	<b>7,503</b>	<b>7,625</b>	<b>7,317</b>	<b>World</b>	<b>30,401</b>	<b>33,329</b>	<b>36,779</b>	<b>37,078</b>

Source: Oil World

Source: Oil World

Global Summary									
	Actual						Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
<b>Soybean Oil (000 tons)</b>									
Production	6,477	13,417	16,141	23,147	24,361	24,589	7.3	1.8	3.3
Consumption	6,245	12,730	16,149	22,981	24,254	24,740	7.1	2.4	3.3
Exports	1,140	3,303	3,800	7,655	7,525	7,140	10.6	1.4	5.5
Ending Stocks	653	2,094	2,119	2,453	2,660	2,686	11.7	0.1	1.8
<b>Soybean Meal (000 tons)</b>									
Production	29,265	59,379	70,528	100,733	105,550	106,527	3.1	0.7	3.2
Consumption	29,012	57,744	69,653	99,364	105,919	107,056	3.0	0.8	3.4
Exports	5,636	18,201	26,649	33,764	36,953	36,640	5.1	1.7	2.6
Ending Stocks	602	1,992	3,217	4,985	4,441	4,351	5.2	2.1	2.6
<b>Soybean Oil Prices (\$/ton)</b>									
	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	625.0	551.5	564.8	625.9	440.0	450.0	470.0	525.0	550.0
Constant 1990	524.3	483.8	521.1	600.8	424.9	423.9	432.0	439.3	407.1

Note: Crop year begins October 1.

Source: Oil World and World Bank.

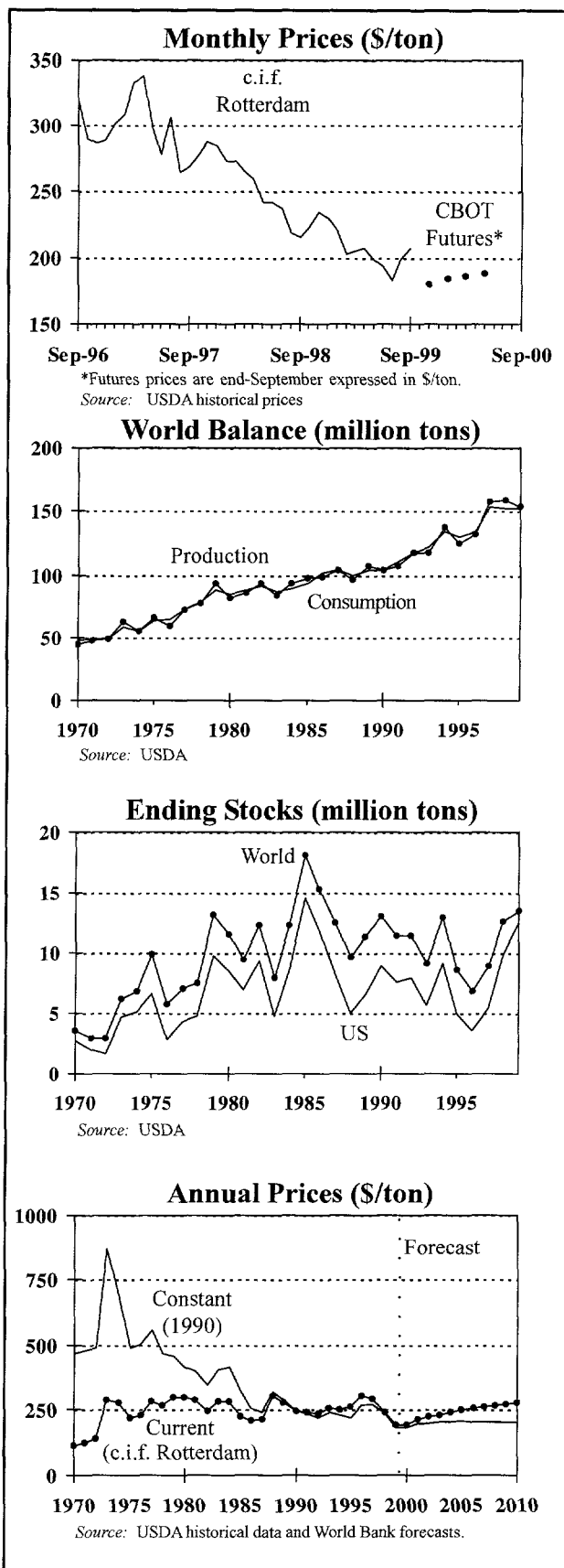
# Soybeans

*Soybean prices fell about 2% in the third quarter, but began to increase toward the end of the quarter on news of a smaller than expected US crop. Global import demand improved and contributed to the price increase.*

Before rising in August and September, soybean prices fell to \$184/ton in July (c.i.f. Rotterdam), the lowest level since December 1972 on the expectation of large US and world soybean crops. However, a late-season drought cut USDA's production estimate for the 1999/00 US crop from 79.9 million tons in June to 75.6 million tons in September. The estimate of global production fell from 159.0 to 155.0 million tons over the same period. Ending stocks are now projected to total 15.5 million tons compared to the June estimate of 19.0 million tons. If ending stocks totaled 15.5 million tons, this would be the largest stocks since 1985, when ending stocks were 18.1 million tons.

Comparing the current marketing year with 1986/87 provides some useful insights and raises the potential that prices will rise more than projected. The level of ending stocks in 1986/87 was 15.3 million tons compared to the projected 15.5 million tons this year. Soybean prices averaged \$208 (per ton) in 1986 compared to an estimated \$202 in 1999. The US held 77.7% of global stocks in 1986/87 and an estimated 80.7% in 1999/00.

The ratio of soybeans to maize prices was 2.37 in 1986 compared to 2.24 in 1999. The ratio of soybean meal to maize prices was 2.11 in 1986 compared to 1.67 in 1999. This suggests that soybeans are cheap relative to maize, and soybean meal is especially cheap relative to maize. Soybean prices averaged \$216 in 1987 compared to our projected \$194 in 2000. If the ratio of soybeans to maize prices were to return to the recent 10-year average and maize prices rose to \$95/ton as projected, then soybean prices would increase to \$226/ton rather than the \$194 we forecast. Soybean meal prices would rise to \$184/ton in 2000 if they returned to their 10 year average relative to maize compared to the estimated 1999 price of \$150/ton and the projected price of \$160/ton in 2000. Prices do not always follow historical relationships in the short-run, but they tend to in the long-run.



## Other Developments

- Global soybean yields fell slightly in 1999/00 from the previous year, but are still expected to remain above the long-term trend. Since 1980, world soybean yields have increased by an average of 1.48% per year, while yields in the US have increased by 1.50% per year over the same period and yields in Brazil have increased by 2.05% per year.
- Thailand is one of the most recent soybean importers to express concern over genetically modified crops.

There is growing public debate over the use of genetically modified soybeans. These concerns are partly prompted by worries expressed by EU customers of Thai processed foods. Although Thai importers are trying to ensure their customers that soybeans are not genetically modified, the country does not currently have policies or regulations governing the use or trade of GMs. Consequently, future trade of soybeans may be affected.

Production and Crush					Trade and Ending Stocks				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
US	64,780	73,176	74,598	73,381	US	23,999	23,687	22,099	23,950
Brazil	27,300	32,500	31,000	30,500	Brazil	8,340	9,300	9,500	9,300
Argentina	11,200	19,200	19,000	18,000	Argentina	750	3,231	3,300	2,500
China	13,220	14,728	15,000	14,000	Paraguay	2,150	2,390	2,500	2,250
India	4,100	5,350	6,000	5,500	<b>World</b>	<b>36,886</b>	<b>40,976</b>	<b>40,355</b>	<b>40,879</b>
Paraguay	2,771	2,988	3,100	2,850	<b>Imports (000 tons)</b>				
EU	1,144	1,570	1,535	1,413	EU	15,311	16,297	16,143	16,153
Indonesia	1,460	1,306	1,300	1,300	Japan	5,043	4,873	4,650	4,600
<b>World</b>	<b>132,193</b>	<b>157,752</b>	<b>158,371</b>	<b>153,859</b>	China	2,309	2,975	3,735	4,335
<b>Crush (000 tons)</b>					Mexico	2,680	3,479	3,600	3,700
US	39,080	43,464	43,332	44,361	Taiwan, China	2,632	2,387	2,200	2,300
Brazil	18,910	21,800	20,400	20,600	Korea, Rep.	1,486	1,340	1,450	1,500
Argentina	10,550	16,800	16,000	15,300	Brazil	1,450	500	700	900
China	8,690	10,728	11,700	11,500	Indonesia	684	810	1,150	1,200
India	3,650	4,770	5,400	4,900	<b>World</b>	<b>37,135</b>	<b>38,790</b>	<b>39,461</b>	<b>41,288</b>
Mexico	2,690	3,600	3,720	3,785	<b>Ending Stocks (000 tons)</b>				
Japan	3,810	3,720	3,680	3,520	US	3,588	5,438	9,471	10,491
Taiwan, China	2,362	2,043	1,900	2,000	Brazil	475	585	595	455
Korea, Rep.	1,246	1,100	1,150	1,200	Argentina	266	407	254	344
<b>World</b>	<b>113,853</b>	<b>131,653</b>	<b>130,747</b>	<b>131,406</b>	<b>World</b>	<b>6,814</b>	<b>8,869</b>	<b>12,661</b>	<b>13,472</b>

Source: USDA

Note: All quantities are in local marketing years. Prices are in calendar year.

Global Summary	Actual					Est. 1999/00	Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1997/98	1998/99		1970-80	1980-90	1990-98
<b>World Balance (mil. tons)</b>									
Production	44.3	81.0	104.2	157.8	158.4	153.9	7.1	2.5	5.3
Consumption	48.0	84.3	104.0	153.6	152.6	152.8	6.7	2.3	4.9
Ending Stocks	3.6	11.5	13.0	8.9	12.7	13.5	14.3	1.6	-3.2
<b>Crop Area (mil. hectares)</b>	30.0	49.9	54.3	69.0	70.7	70.0	5.4	1.2	3.3
<b>Yields (tons/hectares)</b>	1.48	1.63	1.92	2.29	2.23	2.21	1.6	1.3	2.0
	Actual					Forecast			
<b>Prices (\$/ton)</b>	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	259.3	304.8	295.4	243.3	202.0	215.0	225.0	250.0	275.0
Constant 1990	217.3	267.4	272.6	233.5	195.1	202.5	206.8	208.8	202.8

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 World Bank price forecasts.

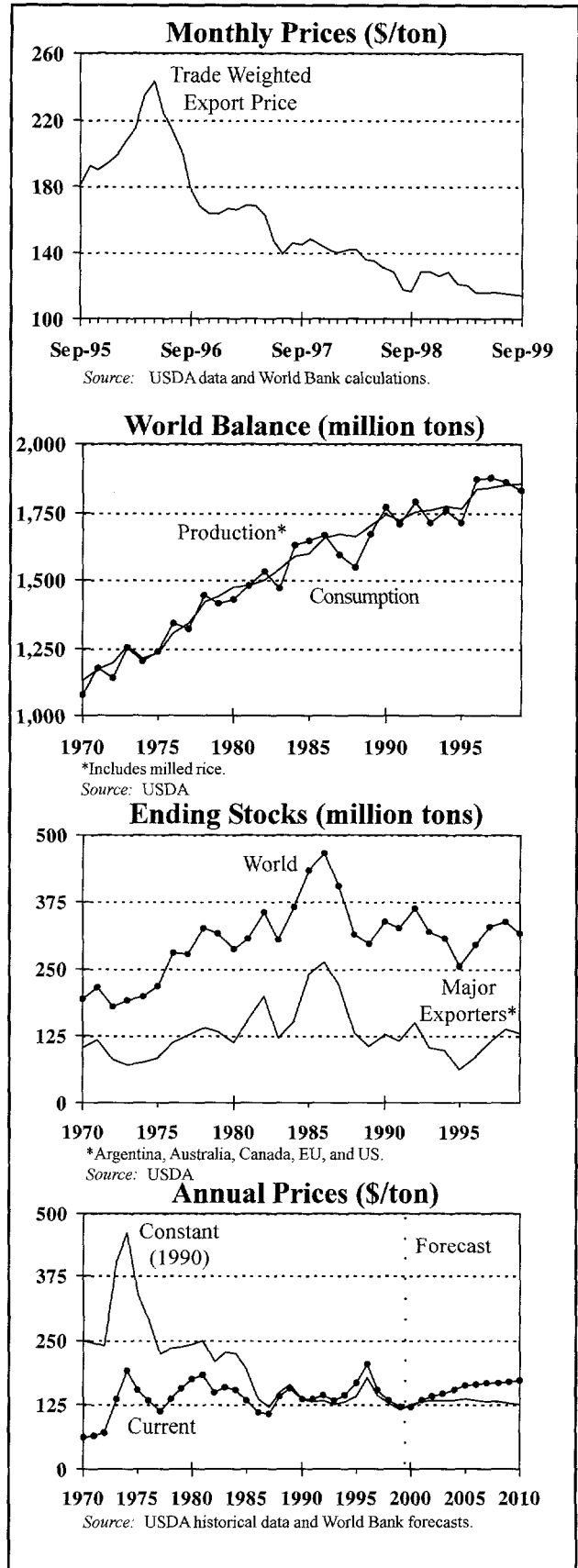
# Grains

*World grain production is projected to be down 1.6% in the 1999/00 marketing year and ending-stocks are expected to fall 6.5%. This should cause prices to rise over the next year.*

World grain export prices are expected to average \$116/ton on a trade weighted basis in calendar year 1999 compared to \$131/ton last year and a recent high of \$201/ton in 1996. World production has fallen for the second consecutive year in response to the lower prices. However, the decline in production has been small compared to the price changes. Total grain production was only down 30.0 million tons in 1999/00 compared to 1998/99, and most of the decline was due to cuts by the two largest exporters – US production fell 15.6 million tons and EU production fell 10.7 million tons.

Ending-stocks are a key measure of the demand/supply balance in the world grain markets. In recent years, the critical levels which have caused grain prices to rise have been about 280-300 million tons of world stocks and 90-100 million tons of stocks in the major exporting countries. Total world grain ending-stocks are expected to total 316 million tons at the end of the 1999/00 marketing year. Stocks in the major grain exporters (Argentina, Australia, Canada, EU, and US) are expected to total 129 million tons. These stocks are above critical levels and provide reasonable assurance that grain prices will not rise significantly this year. However, the margins are not large enough to ensure two years of low prices. If the next crop, which is harvested in the fall of 2000 in the Northern Hemisphere, were reduced significantly because of drought or other natural disaster, prices could begin to rise as soon as mid-2000.

Over the medium-term, global production capacity appears adequate to meet likely demand increases. The five major grain exporting countries have reduced grain area by 15 million tons since 1996 and the production capacity of this land is about 70 million tons based on current yields. Exports have been stagnant at about 210 million tons for nearly two decades. Most of this idled land could quickly be returned to production. Therefore, our forecast is for grain prices to remain low during the next decade, except for the occasional increase which accompanies a poor harvest.





## Other Developments

- Consumer resistance to genetically modified (GM) crops continues to grow. European consumers have strongly resisted GM crops, and the Japanese government has recently decided that GM foods should be labeled. The Republic of Korea is expected to require labeling of GM crops in the near future. The decision to require labeling will cause importers and exporters to segregate GM crops or buy from countries which do not use GM seeds.
- Exports subsidies are expected to come under pressure

in the next round of World Trade Organization (WTO) negotiations in Seattle. Canadian agricultural minister Lyle Vancleif said Canada will try to obtain an agreement to eliminate all agricultural export subsidies as quickly as possible according to *The Public Ledger*. Mr. Vancleif said that Canada would also urge that other forms of government export credit, credit guarantee programs, export market promotions, food aid, and other forms of export assistance not become a substitute for export subsidies.

Production and Stocks					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
China	388,458	378,443	390,150	389,100	US	81,333	76,352	87,029	86,148
US	333,154	333,730	347,101	331,498	EU	62,472	55,413	61,701	64,516
EU	203,991	205,356	210,205	199,493	Australia	24,298	19,374	20,715	21,290
India	177,758	182,602	181,731	186,500	Canada	24,899	23,880	17,490	20,825
Russian Fed.	66,799	85,265	46,065	53,115	Argentina	22,525	24,941	17,050	19,600
Canada	57,995	49,395	50,896	50,625	China	5,884	11,076	5,810	7,650
Brazil	46,260	39,465	43,142	44,087	Thailand	5,296	6,474	5,825	5,775
Indonesia	38,034	36,334	38,600	37,900	<b>World</b>	<b>214,390</b>	<b>213,840</b>	<b>217,430</b>	<b>216,000</b>
Argentina	35,611	40,125	30,315	33,545	<b>Imports (000 tons)</b>				
Australia	34,921	29,892	30,967	31,105	EU	41,580	43,888	42,465	43,568
Mexico	29,865	27,031	28,075	29,250	Japan	27,469	27,653	27,173	27,010
Turkey	26,110	26,270	29,307	26,735	Korea, Rep.	12,185	11,591	12,794	13,165
Poland	25,296	25,403	27,150	25,580	Mexico	7,634	10,454	11,520	11,315
<b>World</b>	<b>1,872,253</b>	<b>1,876,631</b>	<b>1,861,742</b>	<b>1,831,729</b>	Egypt	10,184	10,490	11,215	11,275
<b>Ending Stocks (000 tons)</b>					Iran, Isl. Rep.	10,030	7,307	4,306	9,600
China	96,261	87,190	91,330	88,430	Brazil	7,258	9,431	7,850	8,250
US	39,949	58,693	75,520	77,160	Saudi Arabia	7,633	5,145	6,975	6,850
EU	27,514	38,941	44,544	36,222	Algeria	4,869	6,482	6,040	6,245
India	17,520	21,301	22,478	25,778	Taiwan, China	7,057	5,788	5,778	5,428
<b>World</b>	<b>293,258</b>	<b>328,445</b>	<b>338,635</b>	<b>316,863</b>	<b>World</b>	<b>214,390</b>	<b>213,840</b>	<b>217,430</b>	<b>216,000</b>

Source: USDA

Source: USDA

Global Summary									
	Actual						Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-97
<b>World Balance (mil. tons)</b>									
Production	1,078.7	1,429.6	1,768.8	1,876.7	1,861.8	1,831.7	2.8	1.6	0.9
Consumption	1,130.8	1,475.5	1,743.2	1,841.4	1,851.5	1,853.5	2.6	1.7	0.9
Exports	109.6	214.7	202.1	213.8	217.4	216.0	6.6	0.1	0.1
Ending Stocks	192.8	287.9	338.9	328.4	338.6	316.9	6.0	1.0	-2.2
<b>Crop Area (mil. hectares)</b>	663.0	722.1	694.3	689.5	683.0	672.8	0.9	-0.5	-0.1
<b>Yields (tons/hectare)</b>	1.78	2.16	2.79	2.99	3.00	3.01	1.9	2.3	1.1
	Actual						Forecast		
<b>Prices (\$/ton)</b>	1995	1996	1997	1998	1999	2000	2001	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	125.7	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.

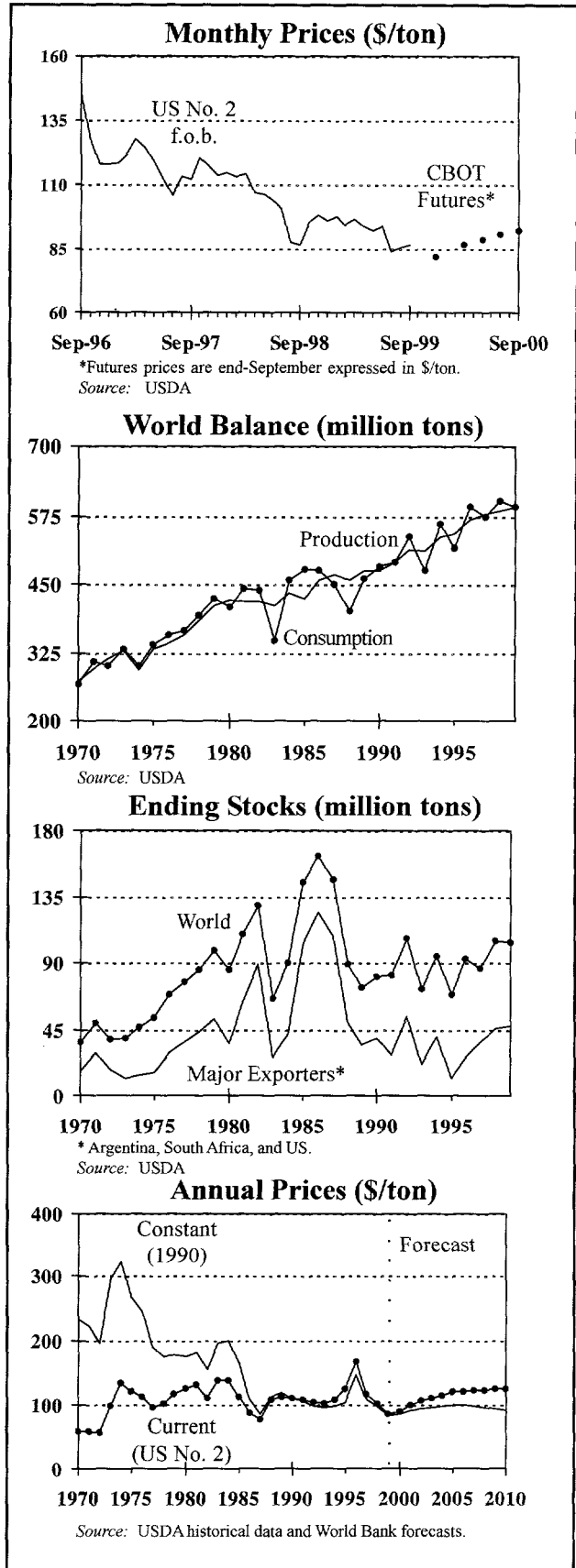
# Maize

*Maize prices are near 12-year lows, with weak import demand and surplus capacity adding to the recent price weakness. Ending-stocks are expected to remain about constant this year compared to last, but prices are expected to increase slightly in 2000 due to higher soybeans and wheat prices.*

US maize export prices fell to a 12-year low of \$84/ton in July before increasing slightly to \$86.5/ton in September (f.o.b. US Gulf). The prospects for a significant price recovery in the next year remain small with adequate global production, moderately large stocks and stagnant import demand. Nevertheless, slightly higher prices are expected as prices of major substitute crops such as wheat and soybeans are expected to increase.

World maize production in the 1999/00 marketing year is expected to be down slightly from the previous year but still adequate to meet expected consumption. Production of other coarse grains, which account for about 32% of total coarse grains production, will also be slightly lower. Global ending-stocks of maize are expected to remain constant in 1999/00 compared to 1998/99 while total coarse grain stocks should fall because of lower barley stocks. Ending-stocks of coarse grain, held by the traditional grain exporters (Argentina, Australia, Canada, EU and US), are expected to total 78 million tons compared to an average of 62.5 million tons over the previous 10 years and 80 million tons last year.

The global demand for coarse grain imports has remained stagnant at an average of 93 million tons since the late 1970s. During this time, production capacity has increased substantially in the major exporting countries as yields have increased. Coarse grain yields in the US, the largest exporter, increased by 1.9% per year from 1978 to 1998 while domestic consumption grew by only 1.5% per year. As a result, coarse grain area fell by 16%. The second largest exporter, the EU, saw yields grow by 1.8% per annum and coarse grain area fall 25% over the same period. With stagnant import demand and increasing yields, the surplus capacity far exceeds likely import demand for the medium-term; and therefore prices are not likely to increase significantly. The five largest exporters have reduced area by 19 million hectares since 1978 and the production potential of this land is about 110 million tons – more than twice the current level of world exports.



## Other Developments

- In addition to low prices and near record maize production, US farmers face a new problem. They must decide whether to separate their maize crops into the portion grown using genetically modified (GM) seeds and the portion grown with traditional seeds. The resistance to GM crops by some consumers in Europe and Japan has made it necessary to segregate crops in order to export to those countries. Only 20% of US maize production will be exported this year compared with 60% of US production grown from traditional seeds. This means there could be an abundance of maize grown from traditional varieties if farmers segregate their production. Farmers who segregate their crops expect a higher price.
- The EU is forecast to export a record 9.0 million tons of barley in 1999/00 according to the USDA's *Grain: World Markets and Trade* (August). Exports will go to the Middle East which has been hit hard by drought.

Production and Stocks					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
US	234,518	233,864	247,943	238,287	US	45,655	38,214	50,421	46,992
China	127,470	104,300	133,000	125,000	Argentina	10,203	12,756	8,200	8,500
EU	34,794	38,470	34,486	35,785	China	3,892	6,173	3,500	5,000
Brazil	35,700	30,080	32,110	34,000	Hungary	1,122	1,289	1,800	1,700
Mexico	18,922	16,934	17,800	19,000	S. Africa, Rep.	2,200	1,041	1,000	750
Argentina	15,500	19,360	13,500	15,500	<b>World</b>	<b>67,074</b>	<b>62,891</b>	<b>68,175</b>	<b>65,795</b>
India	10,612	10,852	10,780	10,500	<b>Imports (000 tons)</b>				
Romania	9,610	12,680	8,500	9,000	Japan	15,963	16,422	16,500	16,250
Canada	7,380	7,180	8,900	8,500	Korea, Rep.	8,336	7,528	7,750	8,250
S. Africa, Rep.	10,136	7,544	7,100	8,000	Mexico	3,141	4,376	5,500	5,000
<b>World</b>	<b>591,940</b>	<b>573,423</b>	<b>602,802</b>	<b>591,843</b>	Taiwan, China	5,741	4,474	4,500	4,200
<b>Ending Stocks (000 tons)</b>					Egypt	3,196	3,259	4,100	4,000
US	22,433	33,220	43,154	45,337	EU	2,595	2,065	3,000	2,500
China	45,000	26,000	38,850	38,850	Malaysia	2,485	2,145	2,100	2,100
EU	3,280	4,343	3,685	2,830	Colombia	1,674	1,694	1,700	1,800
S. Africa, Rep.	2,450	1,550	1,400	1,250	Saudi Arabia	1,272	1,234	1,500	1,500
Brazil	2,633	809	844	1,144	Venezuela	1,494	1,161	1,200	1,250
Argentina	750	1,612	713	714	Peru	840	1,228	1,150	1,200
Thailand	222	134	284	134	Brazil	513	1,324	1,000	1,000
<b>World</b>	<b>92,940</b>	<b>86,354</b>	<b>104,697</b>	<b>104,298</b>	<b>World</b>	<b>67,074</b>	<b>62,891</b>	<b>68,175</b>	<b>65,795</b>

Source: USDA

Source: USDA

Global Summary									
World Balance (mil. tons)	Actual					— Est. —	— Annual Growth Rate (%) —		
	1970/71	1980/81	1990/91	1997/98	1998/99		1999/00	1970-80	1980-90
Production	268.1	408.5	482.4	573.4	602.8	591.8	4.2	1.2	2.7
Consumption	273.0	421.9	475.0	580.0	584.5	592.2	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	86.4	104.7	104.3	10.8	-0.7	1.5
Crop Area (mil. hectares)	112.5	131.1	128.5	135.3	138.3	138.7	1.5	-0.1	0.9
Yields (tons/hectare)	2.38	3.12	3.75	4.24	4.36	4.27	2.7	1.3	1.8
Prices (\$/ton)	Actual								
	1995	1996	1997	1998	1999	2000	Forecast		
	123.5	165.8	117.1	102.0	85.0	90.0	2001	2005	2010
Constant 1990	103.6	145.5	108.0	97.9	82.1	84.8	91.9	100.2	92.2

\*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

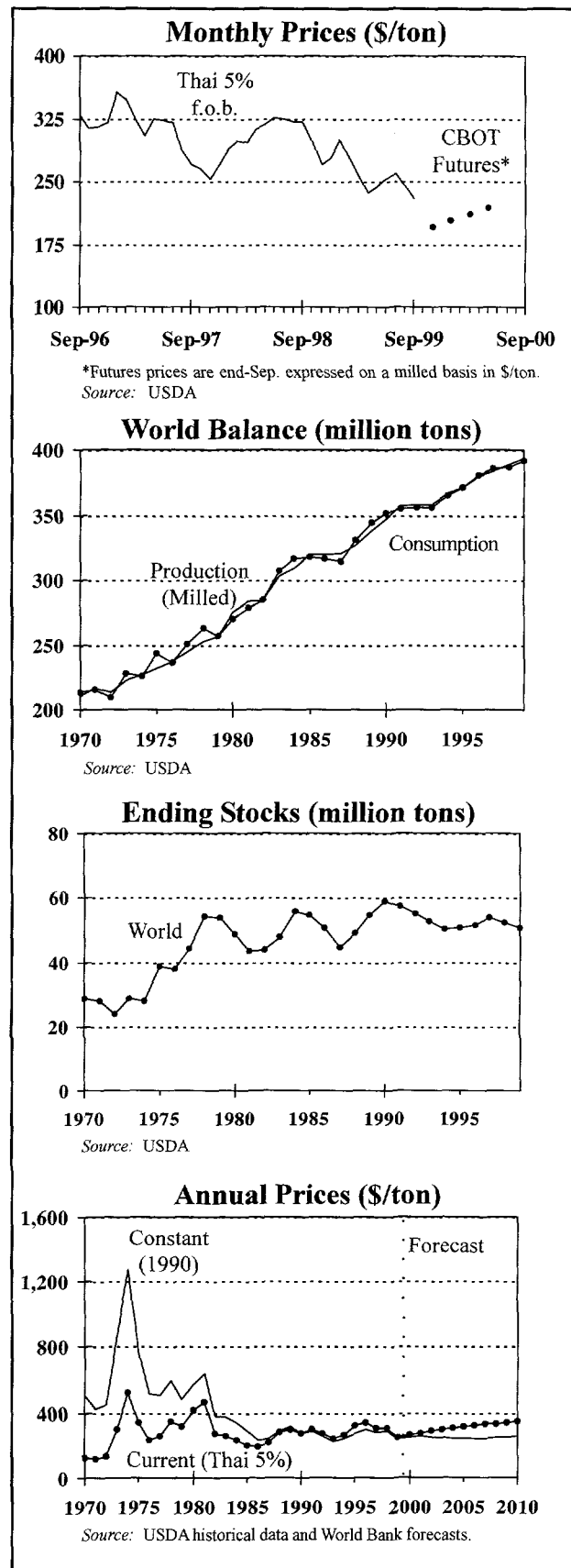
*Rice prices fell to new lows in September as import demand weakened. Prices are expected to remain low in 2000 as most major exporters and importers are expecting good-to-excellent crops. Concern remains that global stocks are at 26-year lows relative to consumption, but this is not expected to support prices.*

Thai 5% broken white rice prices fell to \$229/ton, f.o.b. Bangkok in September – the lowest level since mid-1993. The price decline was due mostly to the unexpected ban by the Indonesian government of private sector imports of low and medium quality rice. The ban, announced in early September, was in response to larger than expected government purchases of rice under its price support program and the concern that some of the rice was actually imported by the private sector and sold to the government as domestic production. The ban on Indonesian imports comes at a time when global export supplies are plentiful.

Most of the major rice exporting countries have record or near record crops and are expected to have large supplies available for export. Thailand, the largest exporter, is expected to harvest a near record crop and export roughly 6.0 million tons. Vietnam, expects a record harvest and exports of about 3.8 million tons. Other exporters such as China, India, Pakistan, and the United States are all expected to have large exports.

Imports are not expected to increase enough to absorb the abundant export supplies, and prices are likely to remain depressed in the coming year. Indonesia, the largest importer in recent years, is expected to import about 3.0 million tons of rice in 2000 compared to 3.2 million tons in 1999 and more than 6.0 million tons in 1998 when production was affected by El Niño. Bangladesh and Philippines, both historically large importers, are expecting good harvests and smaller imports.

Prices are expected to average \$250/ton in 1999 for Thai 5% broken, f.o.b. Bangkok, and increase slightly in 2000. The longer-term rice price forecast is being reduced in light of continued weakness in rice prices relative to wheat and other grains, the devaluation of the Thai baht which has reduced the US dollar price of rice and made Thailand a more competitive exporter, and the emergence of China and India as regular exporters.



## Other Developments

- The European Union is funding the development of a new variety of rice which will help prevent severe vitamin A deficiency in countries which rely on rice as their basic staple. The new rice, called Carotene Plus, has been genetically modified to incorporate the production of B-carotene. Free access to the seed is to be given to subsistence farmers in developing countries following testing. The new rice variety has a distinctive yellow color as a result of the carotene content, according to *The Public Ledger*.
- Varieties of basmati rice are being DNA tested by the UK Ministry of Agriculture to make sure they have the genetic characteristics of basmati rice according to *The Public Ledger*. If they don't meet the test, then they cannot be sold as basmati rice in the UK. Two popular varieties – Pusa No. 1 from India and Pak-385 from Pakistan have failed the test, along with Texmati from the US.

Production and Stocks					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons of paddy)</b>					<b>Exports (000 tons)</b>				
China	195,100	200,700	192,857	197,143	Thailand	5,216	6,367	5,700	5,700
India	121,980	123,462	127,123	126,763	Vietnam	3,327	3,776	3,700	3,850
Indonesia	49,360	48,472	50,791	50,791	US	2,292	3,165	2,750	3,000
Vietnam	27,277	28,390	29,289	29,394	India	1,954	4,491	2,750	2,200
Bangladesh	28,326	28,296	28,653	29,253	China	938	3,734	2,000	2,100
Thailand	20,700	23,500	22,800	23,333	Pakistan	1,982	1,800	2,000	2,000
Myanmar	15,517	15,345	16,034	16,466	Uruguay	640	639	725	700
Philippines	11,177	9,982	10,268	11,385	<b>World</b>	<b>18,788</b>	<b>27,428</b>	<b>22,965</b>	<b>22,981</b>
Japan	12,930	12,532	11,201	10,989	<b>Imports (000 tons)</b>				
Brazil	9,504	8,551	11,353	10,551	Indonesia	808	6,081	3,200	3,000
US	7,783	8,301	8,529	9,622	Bangladesh	44	2,499	1,800	1,000
Pakistan	6,461	6,500	7,012	7,201	Brazil	845	1,457	850	1,000
<b>World</b>	<b>563,722</b>	<b>573,036</b>	<b>574,472</b>	<b>582,155</b>	Philippines	814	2,187	1,200	900
<b>Ending Stocks (000 tons)</b>					Iran, Islamic R.	973	500	650	900
China	25,556	26,723	23,173	21,473	Nigeria	731	800	800	800
India	9,500	10,500	11,000	11,000	Saudi Arabia	660	775	750	800
Indonesia	1,530	3,045	2,841	2,241	Japan	546	479	725	750
Philippines	1,590	1,273	1,747	1,847	EU	839	800	700	750
Thailand	708	851	1,099	1,599	Iraq	684	610	700	700
Korea, Rep.	390	805	980	1,360	Malaysia	645	593	650	675
<b>World</b>	<b>51,187</b>	<b>53,719</b>	<b>52,000</b>	<b>50,489</b>	<b>World</b>	<b>18,788</b>	<b>27,428</b>	<b>22,965</b>	<b>22,981</b>

Source: USDA

Source: USDA

Global Summary	Actual			Est.			Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
<b>World Balance (mil. tons)</b>									
Production (milled)	213.0	270.0	352.0	386.1	386.8	392.0	2.6	2.5	1.4
Consumption	210.6	275.0	347.4	383.5	388.6	393.6	2.5	2.3	1.4
Exports*	8.6	12.7	12.2	27.4	23.0	23.0	4.9	2.6	7.0
Ending Stocks	28.8	48.5	59.1	53.7	52.0	50.5	8.4	1.8	-1.5
<b>Crop Area (mil. hectares)</b>	132.7	144.5	146.6	151.2	152.0	153.4	0.9	0.2	0.2
<b>Yields (tons/hectare)</b>	2.35	2.75	3.55	3.79	3.78	3.79	1.7	2.3	1.0
	Actual			Forecast					
<b>Prices (\$/ton)</b>	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	321.0	338.9	303.5	304.2	250.0	260.0	275.0	315.0	345.0
Constant 1990	269.2	297.3	280.0	291.9	241.4	244.9	252.8	263.0	254.4

\*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 year. 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.

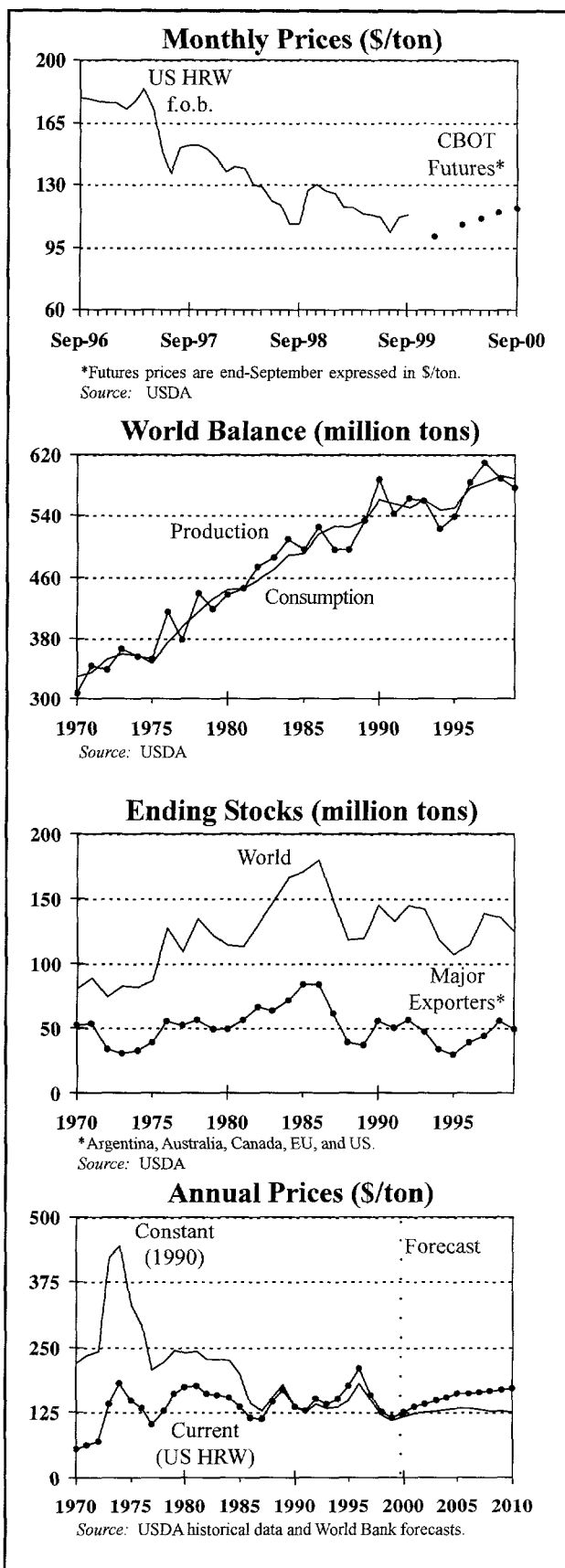
# Wheat

*Wheat prices are expected to increase about \$10/ton next year because of lower global production and stocks. However, stocks held by the major exporters remain high and will dampen the price recovery.*

World wheat production is estimated to be down about 2.0% in the current marketing year (1999/00) while consumption is about unchanged from the previous year. This will cause global stocks to fall about 12 million tons to 124.4 million tons and should lead to higher wheat prices. Global imports are not expected to increase significantly from the very narrow range of 98-102 million tons over the last several years. Stocks of the five major grain exporters (Argentina, Australia, Canada, EU, and US) are expected to fall from 55.2 million tons at the end of the 1998/99 marketing year to 48.7 million tons at the end of the 1999/00 marketing year. Both global stocks and the stocks of the major exporters are well above the levels which caused prices to rise in 1994-96 and this largely precludes a significant price increase in the remainder of 1999 or in the first half of 2000.

Imports are expected to remain stagnant for another year as few countries have major production shortfalls. The Middle East, which has suffered a major drought, is expected to increase imports by about 4 million tons. The Islamic Republic of Iran was the most affected by drought and is expected to import 3.0 million tons more than in the previous year. Production was also lower in Eastern Europe and this region is expected to increase imports, but only marginally. Offsetting these increases are lower imports into South Asia following a record wheat harvest in India.

Wheat prices are expected to continue rising for several years beyond the 1999/00 marketing year as production and stock levels fall in response to current low prices. By 2001, we project the US HRW#1 export price to be \$135/ton compared to \$115/ton in 1999. However, surplus capacity in major exporting countries combined with stagnant exports will prevent prices from rising sharply. Wheat area in the major exporters has declined by 6.1 million hectares since 1997 and the production potential of this land is about 20 million tons – more than enough to meet likely demand increases.



## Other Developments

- Russia is requesting 5 million tons of food aid from the United States according to US Agriculture Secretary Dan Glickman. The Russian grain harvest is expected to total 60 million tons compared to last years disastrous 47.8 million tons, but this is still not enough to rebuild stocks according to *The Washington Post*.
- The Australian Wheat Board (AWB) was privatized on July 1st, 1999 and is now the Australian Wheat Board Ltd. reports the USDA's *Grain: World Mar-*

*kets and Trade* (August). The AWB is transforming itself from a statutory authority to a grower owned and controlled organization. It has a parent company responsible for all funding of shared business and corporate services, and two subsidiaries which focus on domestic and international operations. AWB (Australia) Limited will be responsible for domestic wheat and other grain trading as well as the export of other grains.

Production and Stocks					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
China	110,570	123,300	110,000	115,000	US	27,039	28,090	29,035	30,500
EU	98,506	94,181	103,471	96,350	Australia	18,223	15,398	16,000	17,500
India	62,097	69,350	65,907	71,500	Canada	18,167	21,283	14,500	17,500
US	61,980	67,534	69,410	62,777	EU	17,834	14,196	16,000	16,000
Russian Fed.	34,900	44,200	26,900	31,000	Argentina	10,073	9,566	8,700	9,000
Canada	29,801	24,280	24,400	25,000	Kazakhstan	2,250	1,889	1,000	1,800
Australia	23,702	19,417	21,000	22,500	Turkey	967	1,306	3,000	1,500
Pakistan	16,907	16,650	18,700	18,000	<b>World</b>	<b>101,533</b>	<b>100,896</b>	<b>100,202</b>	<b>100,685</b>
Turkey	16,000	16,000	18,500	16,500	<b>Imports (000 tons)</b>				
Ukraine	13,550	18,404	14,937	14,000	Egypt	6,897	7,156	7,300	7,200
Argentina	15,900	14,800	11,500	12,700	Brazil	5,573	6,194	6,300	6,500
Kazakhstan	7,700	8,950	4,700	6,500	Iran, Islamic R.	7,048	3,587	3,000	6,000
Mexico	3,107	3,639	3,250	3,100	Japan	6,264	6,200	5,883	5,900
<b>World</b>	<b>583,551</b>	<b>609,897</b>	<b>588,185</b>	<b>576,850</b>	Korea, Rep.	3,465	3,917	4,689	4,500
<b>Ending Stocks (000 tons)</b>					Algeria	3,628	5,221	4,400	4,500
China	24,166	33,366	28,106	27,106	Pakistan	3,012	3,562	3,200	3,000
US	12,073	19,663	25,717	24,483	Mexico	1,940	2,166	2,500	2,500
EU	14,758	16,050	20,447	15,703	Iraq	1,135	2,707	2,500	2,500
India	7,000	10,081	10,638	14,188	Russian Fed.	2,548	2,631	2,500	2,200
Canada	9,047	6,009	7,365	6,865	Yemen, Rep.	2,292	2,366	2,100	2,000
Australia	2,395	1,348	1,400	1,325	China	2,692	1,914	1,000	1,500
<b>World</b>	<b>113,849</b>	<b>139,198</b>	<b>135,846</b>	<b>124,388</b>	<b>World</b>	<b>101,533</b>	<b>100,896</b>	<b>100,202</b>	<b>100,685</b>

Source: USDA

Source: USDA

Global Summary	Actual			— Est. —			Annual Growth Rate		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
<b>World Balance (mil. tons)</b>									
Production	306.5	436.3	588.0	609.9	588.2	576.9	3.3	2.2	0.6
Consumption	329.5	444.0	561.9	584.5	591.5	588.3	3.0	2.4	0.7
Exports	55.0	94.1	101.1	100.9	100.2	100.7	4.7	0.6	-1.1
Ending Stocks	80.5	113.9	145.0	139.2	135.8	124.4	5.3	1.1	-1.4
<b>Crop Areas (mil. hectares)</b>	207.0	237.1	231.4	228.3	224.9	218.4	1.2	-0.7	0.1
<b>Yields (tons/hectare)</b>	1.48	1.84	2.54	2.67	2.61	2.64	2.0	2.9	0.5
	Actual			Forecast					
<b>Prices (\$/ton)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Current	177.0	207.6	159.5	126.1	115.0	125.0	135.0	160.0	170.0
Constant 1990	148.5	182.1	147.2	121.1	111.1	117.8	124.1	133.6	125.4

Note: Quantities are in local marketing 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

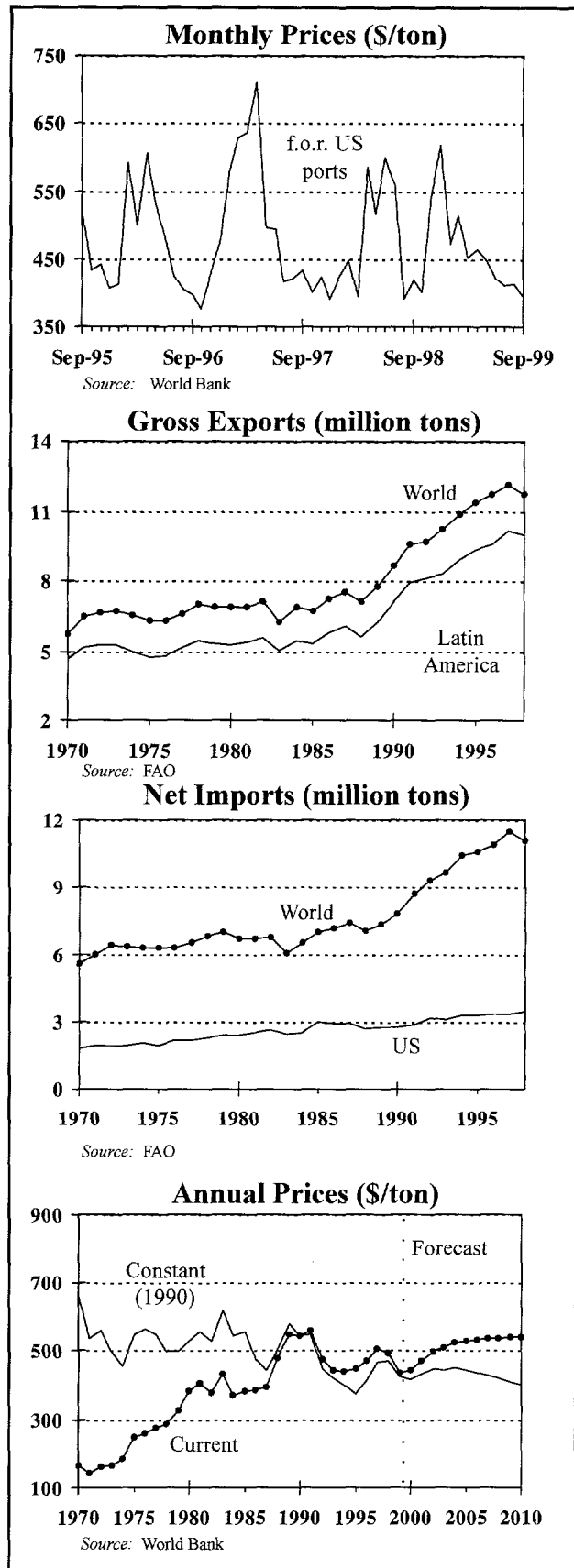
*Prices fell for the third consecutive quarter and probably reached bottom; mild recovery is projected for 2000. Following the failure of the EU ministers to reach agreement on the banana dispute, the Commission warned that "the only solution will be to opt for a tariff only system".*

Banana prices (f.o.r. US ports) averaged \$406/ton during the third quarter, down from last quarter's average of \$444/ton, and 11% lower than the third quarter of 1998. Prices appear to have reached bottom for this year and if the past cyclical behavior is any guide, prices are expected to remain at this level during the next quarter.

During the first 8 months of 1999, banana exports from Ecuador, the world's dominant exporter, dropped 1.6% (from 2.57 to 2.53 million tons), according to *Sopisco News*. Because of lower prices, however, Ecuador's banana export earnings declined by 13% during the same period (from \$725 million to \$642 million), which added more stress to Ecuador's woes.

Ecuadorian banana exports to Russia increased by 11% this August (from 9,882 to 11,141 tons), the second monthly increase (following the one in March) since the financial crisis hit the country last year. While it is too early to tell whether such a turnaround will be sustained for long, it is as good as it could get, according to several analysts. In 1997 Russia imported 623 thousand tons from Ecuador while its 1998 imports dropped to 290 thousand tons. Russia is the fourth largest banana importer following the US, EU, and Japan. On the other hand, Ecuadorian exports to South America appear to be healthy this year. In the first 8 months of 1999 South America imported 223 thousand tons, 18% higher than the same period of last year. According to *FAO* data, South America imported 317 thousand tons of bananas in 1997 and 304 thousand tons in 1998.

We expect prices to average \$435/ton for 1999. For 2000, a small recovery (pushing prices to over \$440/ton) is expected to take place as exports from Ecuador may decline a little due to a cold weather caused by *La Niña*.





## Other Developments

- Following the EU foreign ministers' failure to reach a consensus on how to reform the controversial banana import policy on their September 13 meeting, the Commission warned that in the absence of an agreement, "the only solution will be to opt for a tariffs only system." A tariff-only regime, however, has been rejected by France, Italy, Spain, Portugal, and the UK. Meanwhile, the \$191 million worth of tariffs imposed by the US on imported items from the EU – following the WTO ruling last April – is still in effect. Although some hope that the newly appointed EU Trade Commissioner, Pascal Lamy, will push for a final solution before the next round of WTO talks start this November, this seems unlikely.
- Hurricane Mitch and low banana prices, in addition to taking a toll on the export earnings of banana producing countries, are taking a toll on multinational corporations. Dole Food Co. reported that its operations will break even at best during the third quarter *Sopisco News*. Chiquita also said that it will cut its staff by 15% (about 200 jobs).
- The European Court dismissed two cases of banana wholesalers claiming compensation due to losses supposedly attributed to the import quota system. The cases were dismissed on the grounds that when the fruit-ripening facilities were built, the companies were well aware of the quota system, *Sopisco News* reported.

Gross Exports (000 tons)					Net Imports (000 tons)				
	1995	1996	1997	1998		1995	1996	1997	1998
Ecuador	3,737	3,842	4,446	3,848	US	3,266	3,368	3,354	3,498
Costa Rica	2,033	1,933	1,835	2,099	EU	3,125	3,164	3,139	3,094
Colombia	1,336	1,407	1,509	1,436	Japan	874	819	885	868
Philippines	1,213	1,253	1,154	1,128	Russian Fed.	503	307	658	470
Guatemala	646	611	659	855	Canada	400	408	417	417
Panama	693	634	602	463	China	160	513	565	360
Honduras	522	637	557	433	Poland	227	238	242	282
Mexico	110	163	240	280	Saudi Arabia	173	156	156	170
Cameroon	171	191	180	220	Argentina	202	248	241	230
Côte d'Ivoire	173	193	191	200	F. Yugoslavia	117	155	194	155
Nicaragua	54	78	70	103	Czech, Rep.	158	148	147	151
Saint Lucia	113	102	74	71	Chile	145	151	137	134
Brazil	13	30	40	69	Iran	120	120	120	120
Dominican R.	94	80	64	65	Turkey	88	97	111	103
Jamaica	85	86	79	63	Korea, Rep.	122	124	136	83
Belize	52	65	63	60	Switzerland	75	74	74	73
China	47	57	52	52	New Zealand	72	70	74	72
Venezuela	32	40	62	45	UAE	60	69	70	66
St. V. & Gren.	44	50	35	43	Hungary	66	35	44	63
Suriname	34	27	38	33	Slovakia	56	77	63	60
Malaysia	35	27	26	30	Norway	60	61	58	58
Dominica	32	40	35	29	Syrian Arab R.	53	48	60	54
<b>World</b>	<b>11,364</b>	<b>11,701</b>	<b>12,128</b>	<b>11,736</b>	<b>World</b>	<b>10,567</b>	<b>10,867</b>	<b>11,455</b>	<b>11,077</b>

Source: FAO and World Bank.

Source: FAO and World Bank.

### Global Summary

World Balance (000 tons)	Actual					Est.	Annual Growth Rate (%)			
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-98	
Production	31,777	36,969	47,177	56,688	58,778	58,618	1.5	2.4	1.7	
Gross Exports	5,731	6,886	11,364	11,701	12,128	11,736	1.8	5.0	0.3	
Net Imports	5,585	6,680	10,567	10,867	11,455	11,077	1.8	4.6	0.4	
Prices (\$/ton)	Actual					Forecast				
	1995	1996	1997	1998	1999	2000	2001	2005	2010	
	Current	445.1	469.6	502.7	490.5	435.0	440.9	468.5	529.1	540.1
Constant 1990	373.4	412.0	463.8	470.8	420.0	415.4	430.6	442.7	399.8	

Source: FAO and World Bank.

# Shrimp

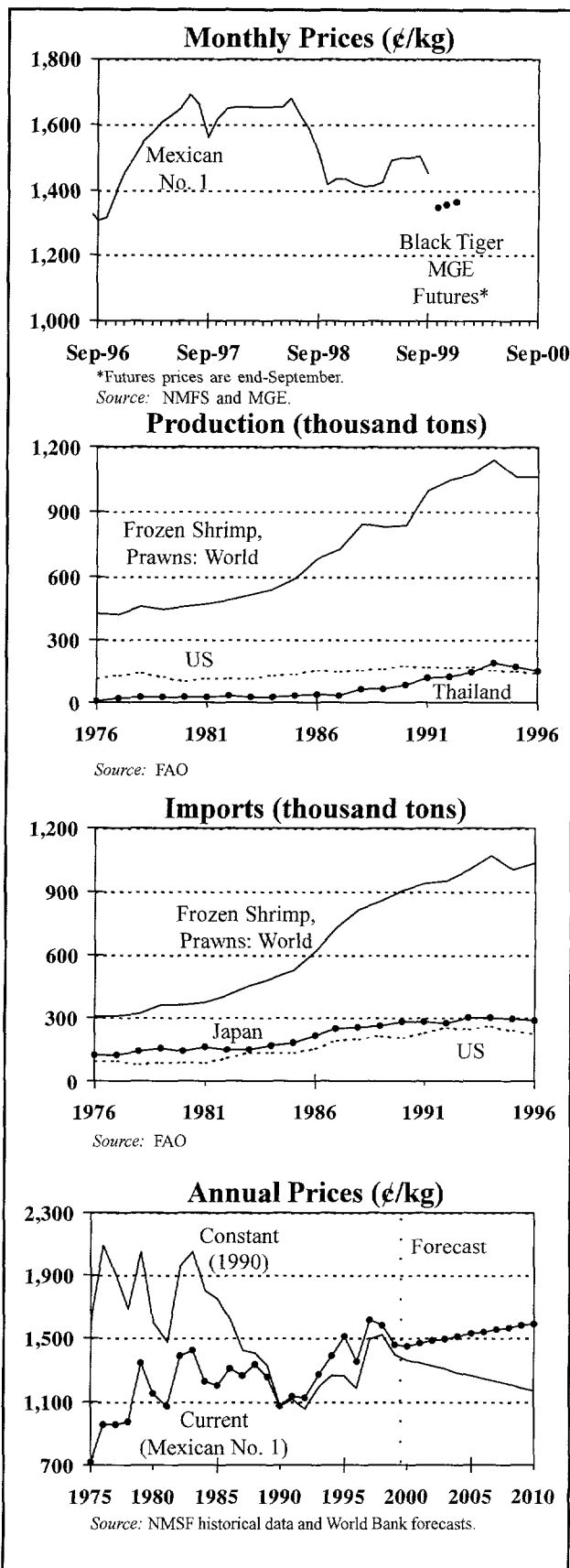
*Shrimp prices generally remained stable during the quarter as demand continued strong in the US but weak in Japan. Higher prices are expected through the remainder of the year as holiday season demand increases.*

Shrimp prices rose 1% on average during the quarter. The prices of Mexican white 26/30 count rose to 1,504¢/kg in August and then fell to 1,452¢/kg in September.

Demand has remained low in Japan despite the recent strength of the yen and improving economic outlook. Importers have reduced inventories in response to the weak demand and this has kept imports low. The normal price increase which occurs at the year-end holiday season may be stronger than last year because of the improved economic situation.

US shrimp imports rose 22% in July relative to June, with imports higher from most major exporting countries. The exporters, ranked by exports to the US, and their July-June change were: Thailand (+27%), Ecuador (+21%), India (-15%), Indonesia (-9%), Mexico (+821%) and Venezuela (+25%). Imports are expected to remain strong during the fourth quarter. US per capita consumption has increased by 3.4% per year – from 3.12 pounds in 1993, to 3.68 pounds in 1998. Current consumption levels exceed last year's levels by 1%. Supplies of medium and larger shrimp sizes are abundant but supplies of smaller sizes are lower due to disease in Latin America and changes in water temperatures in Mexico. Lower supplies of smaller sizes have shifted domestic and foreign demand to black tiger and brown shrimp. Prices may weaken once shrimp from the Mexican West Coast and Louisiana enter the market.

Demand in Europe, the third largest import market, remains moderate. Cold water shrimp supplies are large and prices are weak. Prices of tropical shrimp from Ecuador, the main exporter to the EU, are rising due to supply shortages (*Globefish*). Ecuador has been hit hard by the white spot virus and estimated exports will reach US\$70 million this year compared with US\$200 million in 1998. Vietnam is expected to export US\$950 of shrimp.



## Other Developments

- With increasing growth of the shrimp farming industry, a growing number of cases of infectious diseases have appeared from Latin America, to South and Southeast Asia, reducing production, exports, and employment. One shrimp health management tool used by Nicaraguan farmers was to introduce wild shrimp larvae resistant to the white spot virus. Survival rates of 70% have been registered and optimum export sizes have been reached by using 90% wild shrimp larvae. Observers are waiting to see how the industry reacts to this and other health management techniques.
- As the shrimp industry uses twin-rig trawlers, the introduction of the new and valuable trawl-mounted symmetry sensor, will allow for more efficient trawl control thus ensuring a greater volume of water and therefore fish to pass through the trawl's mouth, giving a better catch.

Production					Trade				
	1994	1995	1996	1997		1994	1995	1996	1997
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
US	153.0	148.8	143.5	152.2	Ecuador	72.0	86.4	85.7	109.0
India	107.9	101.8	128.4	134.0	India	110.5	98.5	110.7	105.4
Ecuador	72.7	84.9	85.7	109.0	Thailand	178.5	165.7	152.0	79.4
Thailand	191.0	165.7	152.0	79.4	Indonesia	83.8	76.6	79.6	77.6
Indonesia	88.7	78.2	79.6	77.6	Denmark	40.6	34.0	46.7	47.9
Vietnam	63.1	38.7	38.8	41.6	Vietnam	63.1	37.4	35.8	41.6
Mexico	45.9	51.6	44.1	41.4	Mexico	24.4	35.9	35.8	35.7
Greenland	35.0	33.0	34.7	30.8	Bangladesh	31.3	27.7	27.6	31.4
Bangladesh	22.1	26.3	26.5	25.7	Greenland	34.3	33.0	34.7	30.8
Spain	19.4	19.0	21.9	25.3	Canada	18.2	21.2	17.7	21.8
Pakistan	13.8	14.8	16.8	17.7	Pakistan	15.5	14.9	15.6	17.7
Iceland	31.2	35.1	38.7	15.6	Malaysia	12.9	14.6	14.9	16.6
Norway	25.0	16.1	17.8	15.2	<b>World</b>	<b>1,050.4</b>	<b>978.0</b>	<b>1,013.2</b>	<b>n.a.</b>
Colombia	12.7	11.0	9.8	13.8	<b>Imports (000 tons)</b>				
Panama	9.2	12.2	12.2	13.6	Japan	303.5	293.1	289.0	267.6
Australia	11.1	14.9	10.8	13.5	US	263.1	245.2	230.3	259.5
China, PR	61.0	48.0	56.9	13.5	Spain	108.2	80.5	82.7	77.0
Philippines	21.7	17.8	21.8	10.1	Denmark	49.9	40.4	53.1	52.8
Korea, Rep	10.0	9.8	7.6	9.8	France	48.3	53.1	55.1	51.6
Mozambique	8.2	8.0	6.9	9.5	Canada	16.4	22.6	50.8	34.8
Myanmar	n.a.	4.5	8.7	9.1	Italy	28.8	28.2	33.1	28.1
Venezuela	4.7	5.2	7.0	8.6	UK	27.8	26.6	25.1	25.9
Taiwan, China	4.3	2.6	2.1	7.5	HK, China	33.2	28.8	29.7	23.0
Faeroe Islands	8.6	6.2	7.5	7.3	Belgium	19.7	22.2	21.2	20.7
Nicaragua	3.3	4.7	4.9	7.2	Netherlands	14.5	17.2	14.3	14.4
Honduras	2.0	3.7	7.8	6.1	Australia	8.3	7.9	8.1	13.5
<b>World</b>	<b>1,143.3</b>	<b>1,060.7</b>	<b>1,063.7</b>	<b>n.a.</b>	<b>World</b>	<b>1,068.9</b>	<b>1,003.3</b>	<b>1,033.5</b>	<b>n.a.</b>

Source: FAO

Source: FAO

Global Summary									
World Balance (000 tons)	Actual					Annual Growth Rate (%)			
	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	2.2	7.6	3.3
Imports	361.9	524.1	905.5	1068.9	1,003.3	1,033.5	5.1	10.6	2.4
Prices (¢/kg)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	1,509.2	1,351.6	1,611.6	1,578.9	1,460.0	1,450.0	1,465.0	1,525.0	1,590.0
Constant 1990	1,266.1	1,183.6	1,487.0	1,515.4	1,392.9	1,361.5	1,342.4	1,264.7	1,166.0

Note: Production, trade, exports and imports are for the calendar year for frozen shrimp and prawns.

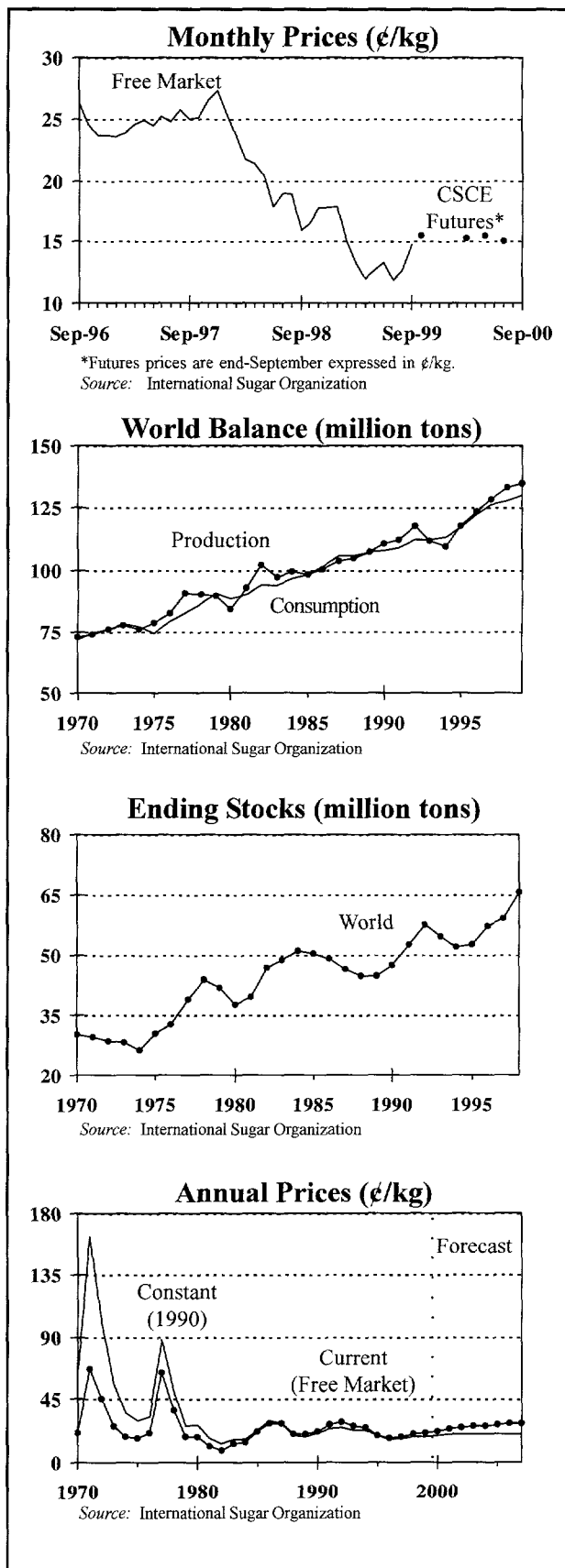
Source: FAO, NMFS historical data, and World Bank forecasts.

# Sugar

*Sugar prices were up about 3% for the quarter, but the market faces a mountain of stocks which block a price recovery. Prices are expected to turn lower over the next few months and remain low for several years.*

The International Sugar Organization (ISO) just released its 1998 calendar year sugar stock estimate and raised its prior year estimates. According to the new figures, sugar stocks rose to 65.8 million tons (raw equivalent) at the end of the 1998 calendar year compared to 59.0 million tons in 1997. These new figure raise the magnitude of the oversupply problem and suggests it may take several years before price recover from extremely depressed levels. On an October/September year, the 1999/00 stock estimate from the ISO shows beginning stocks of 52.8 million tons compared to 47.4 million tons at the beginning of the 1998/99 marketing year. Either way, world stocks rose more than 5.0 million tons last year, while consumption grew only 2.2 million tons.

Overproduction in Brazil is the main cause of low sugar prices according to Tony Hannah, head of the Economics & Statistics division at the ISO, as reported in the *Public Ledger* (July 19). According to Hannah, the liberalization of the country's alcohol sector has allowed cane producers to increase sugar output. With the development of the pro-alcohol program in 1975, Brazil planted vast areas of cane to produce alcohol. Its cane areas tripled, producing enough to meet total world demand. Until 1990, this potential did not disturb the world sugar market, but in 1990 there was a shortage of alcohol and the Brazilian government dropped the policy of requiring 95% of new cars to be alcohol powered. Without this requirement, Brazilians bought their preferred gasoline cars and demand for hydrous alcohol began to level off and then fall. By 1995, a surplus of alcohol had developed and the situation was exacerbated by the liberalization of the alcohol sector in 1998 and 1999. As a result, cane began to be diverted into sugar production and new mills were built. Brazilian exports have reached nearly 9 million tons – 25% of world exports. Brazil, aided by its recent currency devaluation, continues to expand sugar production while low prices may force other producers out of the market.



## Other Developments

- Latvia is considering a law which would regulate domestic production and consumption in an attempt to avoid overproduction according to *The Public Ledger*. The proposal involves government set production quotas based on prior year production and sales. The quotas would be allocated among the countries' three sugar factories. Last year, Latvia's three mills produced 68,200 tons of white sugar.
- Indian sugar producers are pressing the government to announce the levy price of sugar – the price paid

by the government for sugar purchased for distribution under the public distribution system. The industry is required to sell sugar to the government at prices which are typically lower than the market price (*The Public Ledger*, September 6, 1999).

- Thailand, the fourth largest producer, is expected to raise production 27% for the year ending June 2000 due to timely rains which have raised the sugar content of cane (Bloomberg). Thailand provides almost two-thirds of Asia's sugar exports.

Production and Consumption					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
Brazil	15,269	18,134	20,450	19,750	Brazil	5,995	8,483	9,995	10,475
EU	18,756	18,900	17,900	19,000	EU	5,064	6,158	4,930	6,225
India	13,898	13,859	16,550	17,250	Australia	4,415	4,514	4,142	4,322
China	7,323	8,747	9,700	8,900	Thailand	4,129	2,570	3,570	4,060
US	6,537	7,274	7,465	7,900	Cuba	3,597	2,569	3,030	3,245
Thailand	6,099	4,325	5,475	6,000	Guatemala	1,047	1,324	1,165	1,235
Mexico	4,822	5,492	5,025	5,475	S. Africa, Rep.	939	1,078	1,100	1,130
Australia	5,793	5,395	5,200	5,400	Mexico	742	1,137	605	975
Cuba	4,316	3,284	3,780	4,000	Colombia	808	849	875	850
Pakistan	2,460	3,800	3,775	3,575	Pakistan	0	519	525	275
<b>World</b>	<b>123,698</b>	<b>127,501</b>	<b>133,231</b>	<b>134,970</b>	<b>World</b>	<b>35,410</b>	<b>36,647</b>	<b>37,348</b>	<b>39,261</b>
<b>Consumption (000 tons)</b>					<b>Imports (000 tons)</b>				
India	15,195	15,425	16,050	16,600	Russian Fed.	3,060	4,395	5,400	4,025
EU	14,605	14,100	14,300	14,600	EU	1,902	1,896	1,825	1,825
Brazil	8,800	9,150	9,175	9,275	Japan	1,726	1,660	1,610	1,630
US	8,838	8,923	9,125	9,275	US	2,620	2,106	1,775	1,550
China	8,050	8,300	8,625	8,800	Korea, Rep.	1,446	1,376	1,445	1,470
Russian Fed.	5,325	5,450	5,975	5,995	Canada	1,064	1,068	1,115	1,145
Mexico	4,140	4,416	4,420	4,500	Egypt	1,295	1,210	1,025	1,085
Pakistan	2,910	3,130	3,250	3,300	Iran, Islamic R.	1,390	1,075	1,025	1,050
Indonesia	3,280	2,930	3,000	3,025	Malaysia	1,122	1,010	970	990
Japan	2,478	2,530	2,500	2,525	Indonesia	1,690	1,080	1,410	975
<b>World</b>	<b>122,231</b>	<b>124,598</b>	<b>127,838</b>	<b>130,040</b>	<b>World</b>	<b>35,425</b>	<b>36,555</b>	<b>37,326</b>	<b>34,145</b>

Source: International Sugar Organization

Source: International Sugar Organization

Global Summary	Actual						Annual Growth Rate		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-98
<b>World Balance (mil. tons)</b>									
Production	72.9	83.9	110.7	127.5	133.2	135.0	2.2	2.0	2.2
Consumption	71.9	88.6	107.9	124.6	127.8	130.0	2.2	2.1	2.3
Ending Stocks	30.0	37.7	47.3	59.0	65.8	n.a.	4.4	1.2	2.7
	Actual					Forecast			
<b>Prices (¢/kg)</b>	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	29.3	26.4	25.1	19.7	13.8	13.2	14.3	22.0	25.0
Constant 1990	24.6	23.1	23.1	18.9	13.3	12.5	13.2	18.4	18.4

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

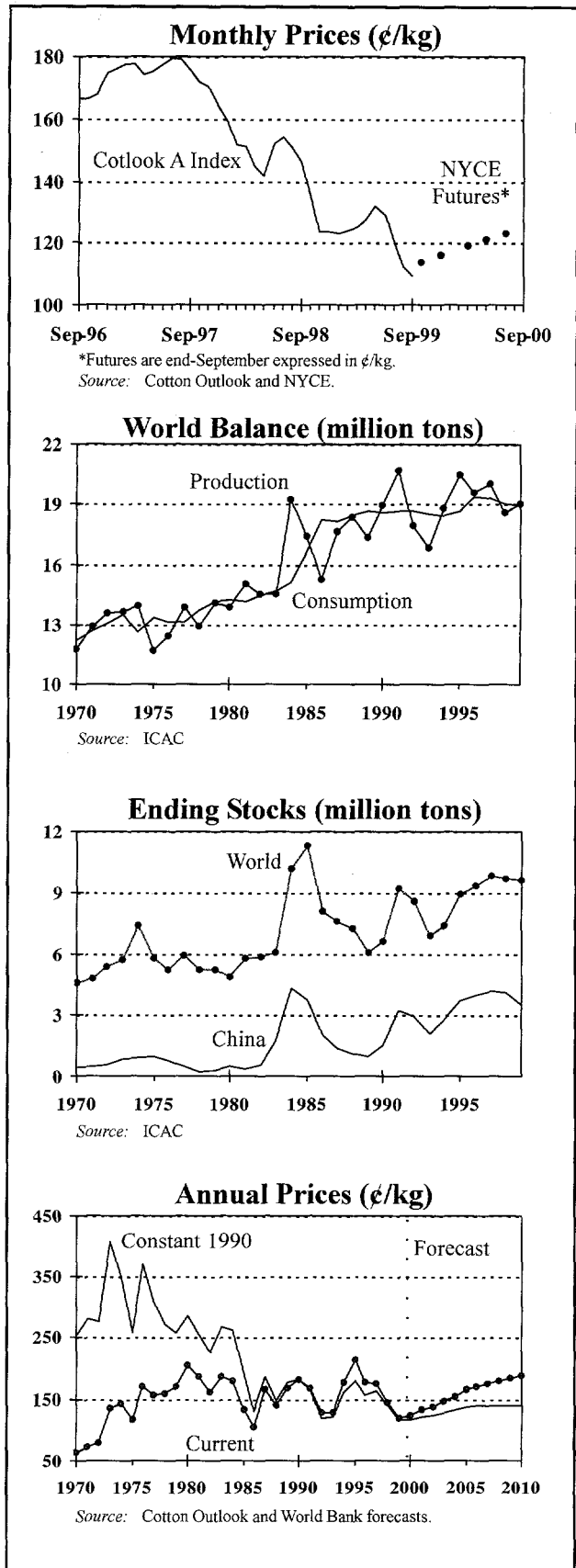
**The Cotlook A Index fell to 109¢/kg in September, a 14-year record low. China took steps to reform its cotton market. US, Mexico, and Pakistan announce price support measures.**

The medium staple cotton price indicator (Cotlook A Index) suffered another setback in September falling to 109.1¢/kg, a 14-year record low. During the third quarter the index averaged 115.8¢/kg, down 12.1% from the second quarter's average and 24.2% lower than the third quarter of last year.

According to the International Cotton Advisory Committee (ICAC), world cotton production for the 1999/00 season (August to July) is expected to be close to 19 million tons, 100,000 tons lower than their earlier estimate but still 2.4% higher than last season's crop. Consumption is expected to recover partially to 18.96 million tons, leading to a balanced year.

Most of the production increase is expected to take place in the US (from 3.03 to 3.80 million tons) and Pakistan (from 1.48 to 1.65 million tons) while China's output will decline by 400,000 tons. Notable increases are also expected in Uzbekistan and West Africa.

The short-term outlook for cotton lacks clear direction. On one hand, demand-side fundamentals are improving considerably. The East Asian countries are expected to increase imports over 1998/99. Substantial import increases are also expected in India and Mexico (31% each), Turkey (53%), and the Russian Federation (25%). Supplies, on the other hand, are plentiful. China's stock policy, however, is expected to be the determining factor. While much uncertainty surrounds the actual level of the Chinese stocks, both ICAC and USDA agree that by the end of the current season, they will be around 3.4 million tons. Although not all of Chinese stock may be of good quality – an issue which has been raised repeatedly by ICAC – if the recently announced reforms by the Chinese government materialize, some of these stocks will inevitably find their way to the world market, and there are reasons to believe that this will be the case: currently, the world stock-to-use ratio (excluding China) is projected at 0.42 while that of China is twice as much. Given this setting, we expect the Cotlook A Index to average about 120¢/kg and possibly go to 125¢/kg in the year 2000.



### Other Developments

- The resumption of the US Step-2 payment program has been postponed. Pakistan imposed a 15% import duty on cotton in order to protect producers. Mexico announced an emergency economic assistance program providing each cotton producer with \$128/hectare according to the USDA.
- The China International Cotton Conference took place in Xi'An, China, on September 1-3, 1999, and was co-sponsored by the FAO and the Chinese Ministry of Agriculture. The conference coincided with the implementation of the Chinese cotton sector reform initiative, effective September 1, 1999. Two important elements of the reform initiative are (a) the creation of the China National Cotton Exchange in Beijing, to be operational some time in October/November and (b) the removal of the state legal monopoly of cotton procurement.
- The Chinese Institute of Genetics developed genetically-modified cotton using domestically developed technology. Experiments conducted in 1998 resulted in improved quality and yields according to *Cotton Outlook*.

Production and Stocks					Trade				
	1996/97	1997/98	1998/99	1999/00		1996/97	1997/98	1998/99	1999/00
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
China	4,100	4,600	4,501	4,100	US	1,550	1,695	915	1,300
US	4,803	4,092	3,030	3,800	West Africa	690	815	843	929
India	2,351	2,450	2,710	2,700	Uzbekistan	1,050	950	900	876
Pakistan	1,800	1,530	1,480	1,650	Australia	467	625	650	645
Uzbekistan	1,198	1,150	1,000	1,050	China	50	40	147	300
West Africa	716	956	897	991	Greece	251	200	230	253
Turkey	792	795	871	820	<b>World</b>	<b>6,076</b>	<b>5,982</b>	<b>5,274</b>	<b>5,628</b>
Australia	552	681	726	700	<b>Imports (000 tons)</b>				
Greece	400	348	405	410	Indonesia	475	425	500	515
Brazil	368	370	420	440	Mexico	161	330	302	397
Syrian Arab R.	223	355	335	350	Turkey	243	280	250	383
Egypt	240	350	230	218	Korea, Rep.	284	265	330	360
<b>World</b>	<b>19,622</b>	<b>20,015</b>	<b>18,551</b>	<b>18,989</b>	Italy	356	350	330	344
<b>Ending Stocks (000 tons)</b>					Taiwan, China	300	275	293	322
China	4,438	4,198	4,124	3,474	Brazil	493	380	292	308
India	760	811	1,011	1,022	Thailand	298	285	271	295
US	829	844	849	954	Japan	270	285	270	250
Pakistan	312	323	353	523	Russia Fed.	406	223	179	224
Australia	229	326	424	438	India	0	180	136	178
Turkey	141	100	269	352	Portugal	164	172	180	170
<b>World</b>	<b>9,419</b>	<b>9,825</b>	<b>9,699</b>	<b>9,634</b>	<b>World</b>	<b>6,160</b>	<b>5,725</b>	<b>5,429</b>	<b>5,628</b>

Source: ICAC

Source: ICAC

Global Summary									
World Balance (000 tons)	Actual						Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	1970-80	1980-90	1990-99
Production	11,740	13,832	18,970	20,015	18,551	18,989	1.6	3.2	0.0
Consumption	12,173	14,215	18,576	18,922	19,046	18,964	1.6	2.7	0.2
Exports	3,875	4,414	5,081	5,982	5,274	5,628	1.3	1.4	0.9
Ending Stocks	4,605	4,895	6,645	9,825	9,699	9,634	0.6	3.1	3.3
<b>Yields (tons/ha)</b>	369	411	574	590	557	572	1.1	3.3	0.0
Prices (¢/kg)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	212.8	177.3	174.8	144.4	120.0	123.5	132.3	165.3	187.4
Constant 1990	178.5	155.6	161.3	138.6	116.0	116.3	121.6	138.3	138.7

Note: Crop year begins August 1.

Source: ICAC and World Bank.

# Rubber

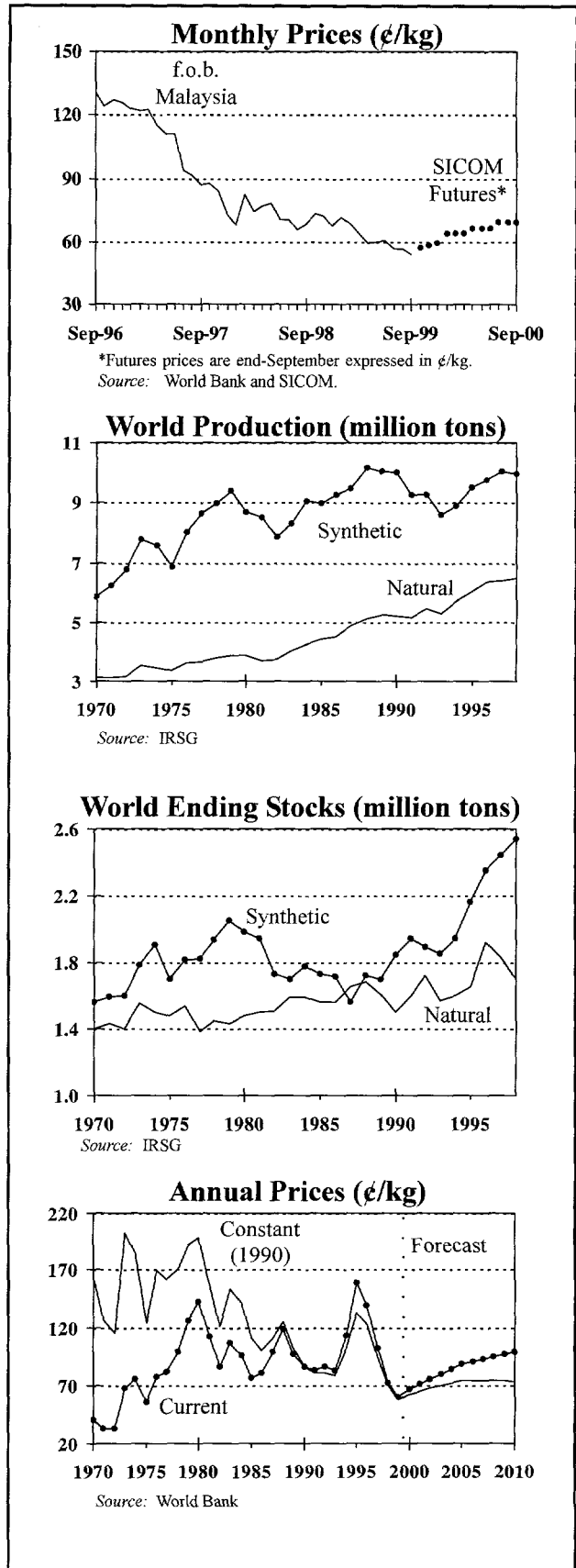
**Prices fell to 54.2¢/kg in September, a 25-year record low. INRO voted to terminate the 1995 International Natural Rubber Agreement while Thailand and Malaysia plan to coordinate their supply control policies.**

The Kuala Lumpur rubber indicator price bottomed to 54.2¢/kg in September, a 25-year record low, bringing third quarter's average down to 55.6¢/kg, 6.9% lower than second quarter's average and 18.1% lower than a year ago. Both New York and Singapore prices declined the third quarter, averaging 3.7% and 6.7% lower than second quarter and 13.4% and 18.2% lower than a year ago.

Consensus estimates discussed at the 102nd International Rubber Study Group (IRSG) meeting indicate that natural rubber output for 1999 will be 6.68 million tons, just 10 thousand tons lower than 1998 while consumption is expected to increase by 2.6% (from 6.61 million tons in 1998 to 6.78 million tons in 1999). Production and consumption increases for synthetic rubber are projected at 2.5% each.

On the demand side, following a relatively weak start natural rubber consumption picked up later in the year. According to IRSG figures, during the 12-month period ending in August global natural rubber consumption increased by 4.4%. Apart from China, demand increased in all major importing countries with the UK, US, and Italy leading the way with increases of 13.5%, 8.1%, and 4.1%, respectively.

Given the recent developments in the rubber market, it unlikely that prices will pick up considerably any time soon; we thus expect the 1999 average to be around 60¢/kg. For the year 2000, however, the fundamentals certainly justify some price increase; for example, consensus estimates indicate that for the year 2000 consumption growth, which is projected at 3.7% will outpace production growth, currently projected at 1.6%. But, as we stressed in our last report, any price increase will crucially depend on Malaysia's and Thailand's effectiveness in exercising supply controls. To this uncertainty, one must add question on when and how INRO's stocks (currently estimated at 140 thousand tons) will be disposed.





### Other Developments

- INRO voted to terminate the 1995 International Natural Rubber Agreement (INRAIII), effective October 13. The outcome was expected after Malaysia and Thailand submitted their formal withdrawal notices. Following INRA III's termination, Malaysia and Thailand intensified their efforts to negotiate a "post-INRO" arrangement, under which the two countries will coordinate their supply control policies in order to prop up rubber prices. Some

traders have speculated that the two countries may even buy INRO's stocks, according to *The Public Ledger*.

- The 102nd Group Meeting of the Member Governments of IRSG was held in Veracruz, Mexico from October 4-8, 1999. Topics discussed during the meeting included the outlook for elastomers, substitutability issues between natural and synthetic rubber, as well as environmental issues.

Natural Rubber					Synthetic Rubber				
	1995	1996	1997	1998		1995	1996	1997	1998
<b>Production (000 tons)</b>					<b>Production (000 tons)</b>				
Thailand	1,805	1,970	2,033	2,206	US	2,530	2,486	2,589	2,610
Indonesia	1,455	1,527	1,505	1,740	Japan	1,497	1,520	1,592	1,520
Malaysia	1,089	1,083	971	886	France	618	583	595	606
India	500	540	580	591	Russian Fed.	837	775	725	599
China	424	430	444	450	China	493	553	580	589
Vietnam	159	189	201	219	Germany	480	548	555	580
Côte d'Ivoire	74	91	108	109	Korea, Rep.	372	516	540	530
Sri Lanka	106	113	106	96	Taiwan, China	365	376	408	472
<b>World</b>	<b>6,040</b>	<b>6,370</b>	<b>6,380</b>	<b>6,690</b>	<b>World</b>	<b>9,490</b>	<b>9,770</b>	<b>10,040</b>	<b>10,030</b>
<b>Consumption (000 tons)</b>					<b>Consumption (000 tons)</b>				
US	1,004	1,002	1,044	1,157	US	2,172	2,187	2,323	2,354
China	780	810	910	839	Japan	1,085	1,125	1,163	1,116
Japan	692	715	713	707	China	760	870	995	1,000
India	517	558	572	580	Germany	426	478	501	529
Germany	212	193	212	248	Russian Fed.	424	438	450	420
<b>World</b>	<b>5,990</b>	<b>6,150</b>	<b>6,510</b>	<b>6,610</b>	<b>World</b>	<b>9,250</b>	<b>9,590</b>	<b>9,950</b>	<b>9,840</b>
<b>Net Exports (000 tons)</b>					<b>Gross Exports (000 tons)</b>				
Thailand	1,636	1,763	1,837	1,839	US	667	732	769	742
Indonesia	1,324	1,434	1,404	1,640	France	481	462	507	497
Malaysia	778	710	587	425	Japan	451	477	494	490
Vietnam	117	141	151	165	Germany	389	403	423	456
Liberia	13	30	67	80	Korea, Rep.	120	177	266	342
<b>World</b>	<b>4,290</b>	<b>4,500</b>	<b>4,460</b>	<b>4,520</b>	<b>World</b>	<b>4,390</b>	<b>4,540</b>	<b>4,980</b>	<b>5,130</b>

Source: IRSG

Source: IRSG

Global Summary									
	Actual						Annual Growth Rate (%)		
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-98
<b>Natural Rubber (000 tons)</b>									
Production	3,140	3,820	5,080	6,370	6,380	6,690	2.0	2.9	2.2
Consumption	3,090	3,770	5,190	6,150	6,510	6,610	2.0	3.2	1.9
Net Exports	2,820	3,280	3,950	4,500	4,460	4,520	1.5	1.9	1.1
Ending Stocks	1,440	1,480	1,500	1,920	1,800	1,860	0.3	0.1	1.7
<b>Synthetic Rubber (000 tons)</b>									
Production	5,880	8,640	9,840	9,770	10,040	10,030	3.8	1.3	0.2
Consumption	5,610	8,830	9,620	9,590	9,950	9,840	4.5	0.9	0.2
Gross Exports	1,460	2,320	3,370	4,540	4,980	5,130	4.6	3.7	3.4
Ending Stocks	1,560	1,740	1,890	2,360	2,450	2,460	1.1	0.8	2.1
<b>Prices-Natural (¢/kg)</b>									
	Actual			Forecast					
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	158.0	139.4	101.8	72.1	60.0	66.1	70.5	88.2	99.2
Constant 1990	132.5	122.3	93.9	69.2	58.0	62.3	64.8	73.8	73.4

Source: IRSG and World Bank.

# Tropical Timber

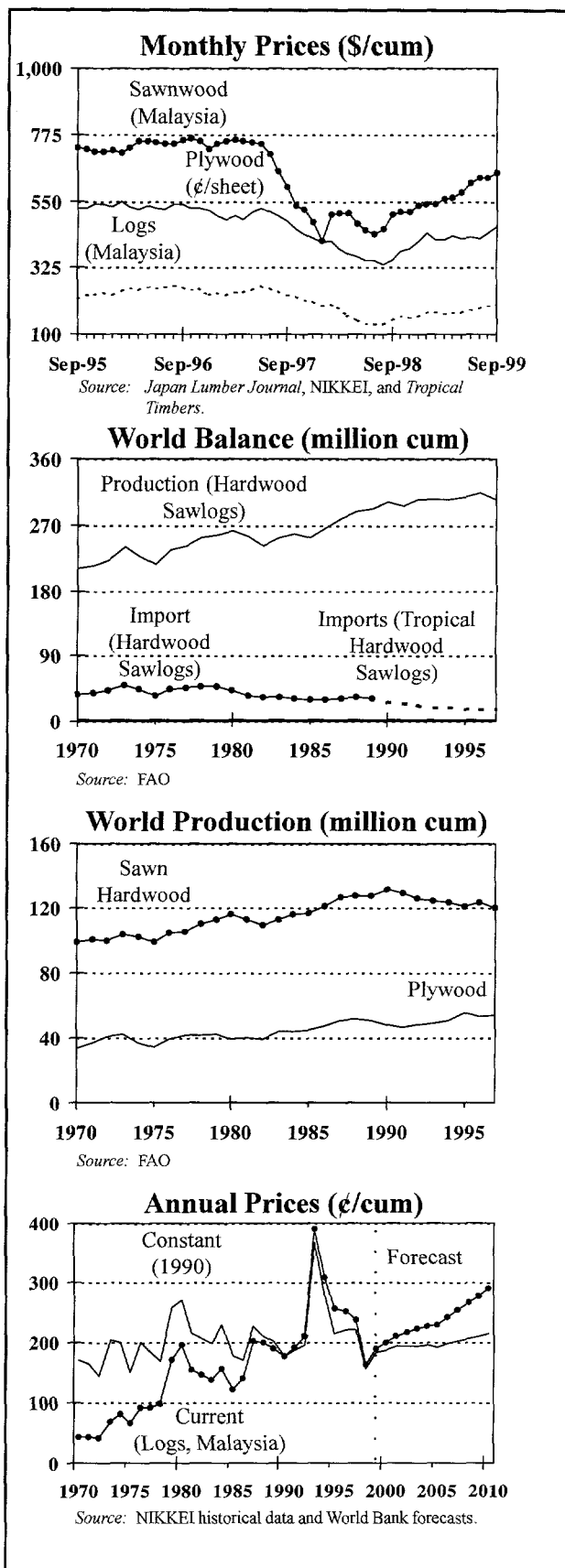
*Tropical timber prices continued to recover from the sharp fall in 1997. Supplies are relatively tight due to policy changes and poor weather conditions which have slowed logging in several countries. Further price recovery is expected as Asia's economic outlook improves.*

Malaysian log prices rose by an average of 9.8% relative to the second quarter, while sawnwood prices were up by an average of 6.8%. Plywood prices remained weak, rising only 3.1% during the quarter. Cameroon's sawnwood prices rose 4.1% compared to the second quarter, while prices for Cameroon Sapele logs were not available in September due to the uncertainty regarding the ban imposed on exports by Cameroon.

Demand has begun to recover in Asia, but both Japan and the Republic of Korea remain timid importers despite the improving economic situation in both countries. China has become a larger importer of both Asian and African hardwoods in 1999, and has been a major factor leading to the price recovery in Asian timber. Log and sawnwood imports by China were up about 72% in the first five months of 1999, according to ITTO.

Tropical plywood market remains subdued compared to the logs and sawnwood markets, especially in Japan where supply far exceeds demand. Plywood export in Brazil has been unexpectedly brisk this quarter, due in part to the real devaluation in August, increased demand from the US, and producers shifting to veneer exports in response to high cost plywood production, *Tropical Timbers* reported.

Supplies of Asian and African hardwood are relatively tight and this has contributed to the recovery of prices following the 1997 Asian crisis. Asian hardwood supplies are still affected by disruptions caused by the Asia crisis and by unfavorable weather conditions. Heavy rains slowed logging in much of 1998 and the first half of 1999; now, too little rains are hampering the river transport of logs. The heavy rains also caused an increase in insect damage which has reduced the quality of some timber supplies. Reforms in Indonesia also contributed to the shortage of logs, as new regulations led to revoking or not renewing concession felling licenses for eleven companies which affect about 3 million hectares of forest.



### Other Developments

- Effective July 1, Sabah State government increased export royalties on high quality logs (Class C) by 50% to RM 150 per cubic meter (cum) or about US \$39.5 per cum. The State also imposed a RM 10 per cum, about US\$ 2.65 per cum, royalty on logging residues, ITTO reported. Sabah export volumes reportedly fell by 50%.
- A report on the application of reduced impact logging (RIL) in Eastern Amazon by the Tropical Forest Foundation was released. The RIL operations are intended for reducing ground disturbance and forest damages by heavy machinery during harvest operations.
- On July 1 the Cameroon government introduced a ban on log exports of endangered species. Sapele is not among that list, but its export prices would likely be increased subjected to a rating system. So far, implementation has remain unclear; no quotation was available in September.

Hardwood Logs (000 cum)			Sawn Hardwood (000 cum)			Plywood (000 cum)		
	1996	1997		1996	1997		1996	1997
<b>Prod. of Sawlogs &amp; Veneer</b>			<b>Production</b>			<b>Production</b>		
US	70,116	70,721	US	29,650	29,972	US	16,975	15,897
Malaysia	33,980	33,980	India	14,960	14,960	Indonesia	9,575	9,600
Indonesia	32,250	32,250	Brazil	10,500	10,500	China, PR	4,900	7,580
Brazil	26,000	26,000	China, PR	10,211	10,211	Malaysia	4,100	4,100
China, PR	22,000	22,000	Malaysia	8,232	8,232	Japan	4,311	3,830
India	15,812	15,812	Indonesia	7,200	7,100	Brazil	1,900	1,900
<b>World</b>	<b>314,658</b>	<b>305,000</b>	<b>World</b>	<b>123,174</b>	<b>120,000</b>	<b>World</b>	<b>52,870</b>	<b>53,500</b>
<b>Exports of Tropical Hardwood</b>			<b>Exports</b>			<b>Exports</b>		
Malaysia	6,987	6,593	Malaysia	3,660	3,007	Indonesia	8,564	8,500
PNG	2,962	2,165	US	2,692	2,890	Malaysia	4,068	3,825
Gabon	2,231	2,082	Brazil	906	885	US	1,384	1,624
Cameroon	1,307	1,373	Canada	850	1,022	Canada	872	859
Solomon Isl.	765	755	France	844	684	Russian Fed.	612	615
<b>World</b>	<b>17,324</b>	<b>15,930</b>	<b>World</b>	<b>16,713</b>	<b>16,525</b>	<b>World</b>	<b>20,375</b>	<b>20,715</b>
<b>Imports of Tropical Hardwood</b>			<b>Imports</b>			<b>Imports</b>		
Japan	6,185	5,795	Thailand	2,200	1,360	Japan	5,381	5,422
Taiwan, China	1,600	1,600	Japan	1,954	1,789	US	1,866	1,868
Korea, Rep.	1,211	1,181	Taiwan, China	1,098	1,098	China, PR	1,775	1,607
Thailand	883	816	Canada	930	1,024	Germany	975	1,083
Philippines	776	680	China, PR	870	1,050	HK, China	962	1,074
<b>World</b>	<b>16,701</b>	<b>16,900</b>	<b>World</b>	<b>19,054</b>	<b>20,273</b>	<b>World</b>	<b>19,145</b>	<b>19,000</b>

Source: FAO and World Bank estimates.

#### Global Summary

	Actual						Annual Growth Rate (%)		
	1970	1980	1990	1995	1996	1997	1970-80	1980-90	1990-97
<b>World Balance (mil. cum)</b>									
Hardwood logs prod.*	210	262	300	308	315	305	2.1	1.8	0.6
Hardwood logs imports*	36.1	42.2	25.1	17.4	16.7	16.9	1.7	-2.0	-6.0
Sawn hardwood prod.	98.5	115.8	131.7	120.8	123.2	120.0	1.5	1.7	-1.2
Sawn hardwood imports	7.1	13.2	16.1	19.5	19.1	20.3	6.7	3.9	3.6
Plywood production	33.4	39.4	48.2	55.5	52.9	53.5	1.4	2.9	2.2
Plywood imports	4.9	6.0	14.9	19.0	19.1	19.0	2.2	10.1	4.1
		Actual			Forecast				
<b>Prices (\$/cum)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Logs, current	255.6	252.1	238.3	162.4	190.0	200.0	210.0	230.0	290.0
Logs constant 1990	214.4	220.8	219.8	155.9	183.5	188.4	193.0	192.5	214.7
Sawn hardwood, current	740.0	741.4	663.8	484.1	600.0	620.0	645.0	750.0	900.0
Sawn hardwood constant	620.8	649.2	612.4	464.7	579.4	584.1	592.8	627.6	666.2

\*Imports for 1970-89 and production 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.

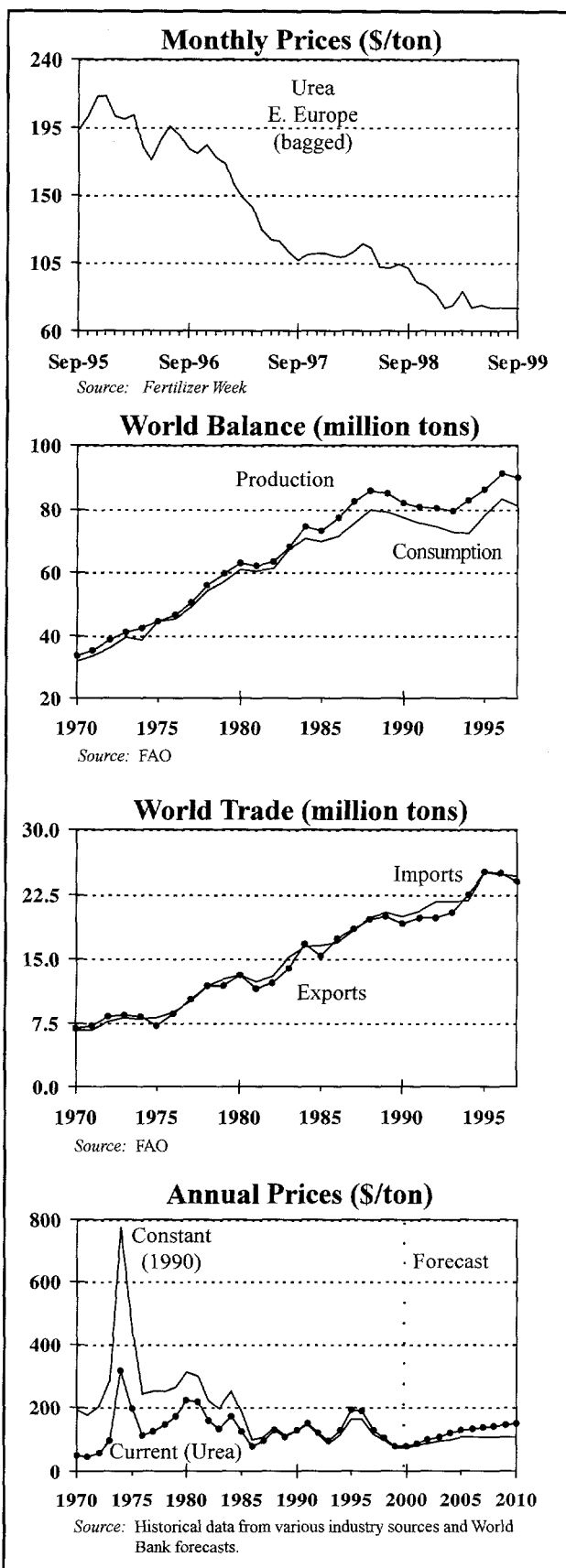
# Nitrogen

*Urea fertilizer prices have stabilized after falling for nearly three years. However, demand is not expected to increase enough to push prices higher, and supplies continue to flood the market.*

Urea prices were slightly higher during the third quarter, averaging \$77.40/ton, bagged Eastern Europe, compared to \$75.92/ton during the second quarter. However, prices began to weaken again in September due to the temporary withdrawal of India from the import market and continued strong production from Ukraine (up 30% in the first half of 1999 vs. 1998). Prices are expected to decline in October and probably will not sustain a rally in the near-term.

The FAO/World Bank/UNIDO/Industry Working Group met in June to prepare its annual assessment of the world fertilizer situation and project demand and supply to the 2003/04 marketing year. In its report released in September, the Working Group forecasted world nitrogen fertilizer consumption to increase by 1.9% per year from 1997/98 to 2003/04. All regions are expected to have demand growth except Western Europe, where a decline of 0.7 million tons is expected. Most of the growth will occur in Asia (76%), Latin America (12%), and North America (6%). Africa and Oceania are expected to have demand growth of 4% and 2%, respectively. Demand in Eastern Europe and the former Soviet Union is expected to eventually recover and increase by 2-4% over the period.

Additional production capacity is scheduled for completion in all regions in 1999 according to the Working Group. About 1.0 million tons of new capacity is expected in North America by 2000. New supply capacity is projected to grow at 2.5% per year from 1997/98 to 2003/04 and more than keep pace with the growth in consumption. This will cause surplus capacity in nitrogen fertilizer to increase from 3.260 million tons in 1997/98 to 7.017 million tons in 2003/04. The largest increases in supply capacity are in North America (+2.127 million tons), Asia (+7.368 million tons), and Latin America (+3.302 million tons). The balance of the increase of 3.441 million tons in new capacity will come from Africa, Europe, and Oceania.



## Other Developments

- India's Department of Fertilizers temporarily suspended imports of urea for agricultural use in late August. The move was prompted by high urea stocks, estimated to total 3.0 million tons on August 1st, according to *Fertilizer Week*. Stocks are expected to continue rising, partly as a result of reduced urea usage during the monsoon season. The decision does not affect urea imports on behalf of NPK blenders, which are allowed to continue as planned.
- World production of urea for all uses totaled 101 million tons in 1998 according to *Fertilizer Week*. Production is estimated to have risen 5% over 1997. The largest increase was in Asia and the Middle East, where production was up 20%. Production fell 40% in Central Europe and there were smaller declines in the former Soviet Union, Western Europe, and Latin America.

Production and Consumption					Trade				
	1994/95	1995/96	1996/97	1997/98		1994/95	1995/96	1996/97	1997/98
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
China	16,689	18,633	21,042	20,538	Russian Fed.	2,814	3,661	3,646	3,122
US	14,017	14,244	15,226	15,372	US	2,902	2,997	2,989	3,038
India	7,944	8,769	8,593	10,083	Canada	1,955	2,179	2,090	1,878
Russian Fed.	4,027	4,713	4,900	4,293	Netherlands	1,480	1,457	1,505	1,435
Canada	3,801	4,019	4,049	4,122	Ukraine	1,301	1,231	1,464	1,418
Indonesia	2,565	2,858	3,045	3,059	Indonesia	740	914	711	1,087
Ukraine	1,935	1,871	2,083	2,022	Bel-Lux	1,001	978	1,043	1,074
Netherlands	1,785	1,595	1,772	1,848	Saudi Arabia	911	788	845	806
Pakistan	1,547	1,693	1,682	1,661	Poland	457	637	520	590
Poland	1,269	1,469	1,549	1,545	Germany	630	831	676	561
<b>World</b>	<b>82,746</b>	<b>86,004</b>	<b>90,973</b>	<b>90,092</b>	<b>World</b>	<b>22,433</b>	<b>25,157</b>	<b>24,894</b>	<b>23,957</b>
<b>Consumption (000 tons)</b>					<b>Imports (000 tons)</b>				
China	19,216	23,383	25,277	23,260	US	4,702	4,569	4,132	4,697
US	10,631	11,161	11,206	11,163	China	2,577	4,897	4,423	2,955
India	9,507	9,823	10,302	10,905	India	1,473	2,008	1,156	1,375
France	2,309	2,392	2,525	2,518	Germany	1,249	1,218	1,165	1,224
Pakistan	1,738	1,984	1,985	2,088	France	1,218	1,306	1,222	1,112
Indonesia	1,649	1,844	2,084	1,838	Vietnam	903	785	937	952
Germany	1,787	1,769	1,758	1,788	Italy	679	600	736	787
Canada	1,456	1,576	1,671	1,708	Thailand	687	780	811	779
Brazil	1,225	1,151	1,197	1,306	Brazil	494	426	495	686
UK	1,339	1,328	1,438	1,251	Australia	428	493	628	679
<b>World</b>	<b>72,247</b>	<b>77,986</b>	<b>83,017</b>	<b>81,177</b>	<b>World</b>	<b>21,815</b>	<b>25,097</b>	<b>24,838</b>	<b>24,646</b>

Source: FAO

Source: FAO

Global Summary	Actual						Annual Growth Rate		
	1970/71	1980/81	1990/91	1995/96	1996/97	1997/98	1970-80	1980-90	1990-96
<b>World Balance (mil. tons)</b>									
Production	33.3	62.8	81.9	86.0	91.0	90.1	6.5	3.6	1.7
Consumption	31.8	60.8	77.2	78.0	83.0	81.2	6.8	3.0	0.9
Imports	6.8	13.2	20.0	25.1	24.9	24.6	6.5	5.7	5.1

Urea Prices (\$/ton)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	193.9	187.5	127.9	103.1	78.0	80.0	90.0	130.0	150.0
Constant 1990	162.7	164.5	118.0	98.9	75.3	75.4	82.7	108.6	110.6

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 historical data and World Bank forecasts.

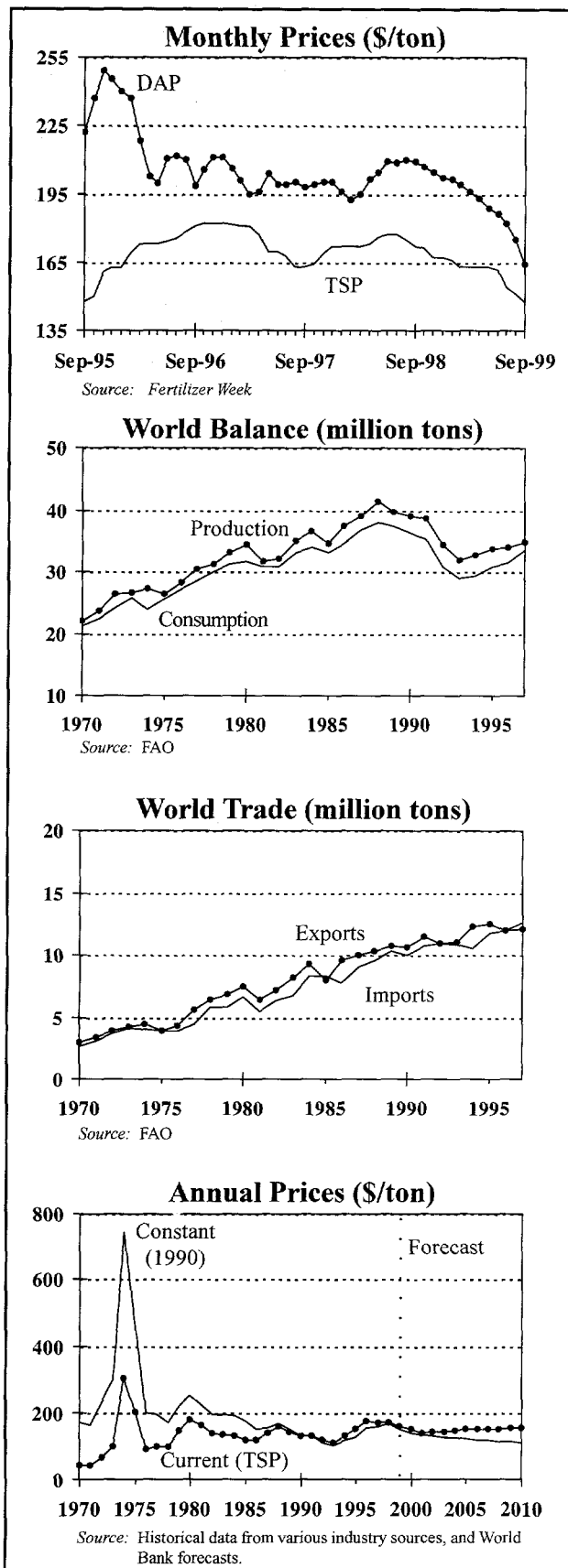
# Phosphates

*Phosphate fertilizer prices fell despite supply cuts by several large producers. Further price declines are expected before the demand/supply balance is restored.*

Phosphate fertilizer prices fell sharply this quarter, with DAP down 8.3% and TSP down 7.2% when compared on a quarter-on-quarter average basis. The decline was due to weak US demand, surplus capacity, and building stocks. Several companies cut production in an effort to reduce supplies and ease downward pressure on prices. Inventories in the US, the largest producer and exporter, were up 24% in August compared to August 1998 according to The Fertilizer Institute. US exporters were also aggressively competing for recent sales to Pakistan and that contributed to lower prices.

The FAO/World Bank/UNIDO/Industry Working Group met in June to prepare its annual assessment of the world fertilizer situation and project demand and supply to the 2003/04 marketing year. In its report, released in September, the Working Group forecasted world phosphate fertilizer consumption to increase by 1.7% per year from 1997/98 to 2003/04. Most of the growth will occur in Asia (55%), while demand in Western Europe is expected to fall 9.5%. Consumption in Eastern Europe is expected to increase by 3.4% per year and consumption in the former Soviet Union is expected to rise by approximately 4.3% per year. Consumption in Western Europe is expected to fall a total of 9.0%.

According to the Working Group, phosphate fertilizer supply capacity is expected to increase substantially by the year 2003/04, growing by 4.5% per year from 1997/98 to 2003/04. This will more than keep pace with the projected 1.7% per year growth in consumption, and could cause supply capacity in phosphate fertilizer to shift from a deficit relative to consumption of 1.357 million tons in 1997/98 to a surplus of 1.974 million tons by 2003/04. The largest increases in production capability are forecast for Asia (2.718 million tons), Africa (1.078 million tons), and North America (1.044 million tons), and the former Soviet Union (0.933). The balance of the global increase of 0.81 million tons will come from Europe, Latin America and Oceania.



## Other Developments

- China had been mostly absent from the import market in recent months and this contributed to the recent price declines. However, Cargill recently signed a long-term contract with China's CNAMPGC. According to *Fertilizer Week*, CNAMPGC has agreed to buy 1.0 million tons of DAP from Cargill, with shipments to begin in October and continue for 15 months. China is believed to have about 1.5 million tons of DAP in inventory, according to *Fertilizer Week*. The supplies of DAP may come from the WMC project in Australia when it comes on-stream in late 1999 or early 2000.
- India's Rashtriya Chemicals and Fertilizers has signed a memorandum of understanding with Hindustan Zinc and Rajasthan State Mines and Minerals to build a 300,000 ton/year DAP plant in Rajasthan state, north-west India, according to *Fertilizer Week*. The new plant will rely mostly on domestic phosphate rock. The facility is expected to take three years to complete and will reduce imports.

Production and Consumption					Trade				
	1994/95	1995/96	1996/97	1997/98		1994/95	1995/96	1996/97	1997/98
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
US	11,055	10,500	10,900	10,765	US	6,335	5,838	5,679	5,716
China	5,045	6,091	5,822	6,482	Russian Fed.	1,397	1,525	1,130	1,294
India	2,587	2,626	2,615	3,090	Morocco	769	811	858	846
Russian Fed.	1,716	1,933	1,575	1,777	Tunisia	674	686	703	637
Brazil	1,429	1,265	1,305	1,353	Mexico	81	267	273	343
Morocco	894	936	979	921	Bel-Lux	194	270	282	333
France	667	668	682	687	Netherlands	459	390	285	320
Tunisia	721	741	790	673	Jordan	318	318	328	256
Spain	422	413	478	488	Norway	179	207	207	208
Mexico	373	427	433	469	Poland	91	175	135	197
<b>World</b>	<b>32,808</b>	<b>33,847</b>	<b>34,020</b>	<b>34,925</b>	<b>World</b>	<b>12,329</b>	<b>12,568</b>	<b>11,994</b>	<b>12,146</b>
<b>Consumption (000 tons)</b>					<b>Imports (000 tons)</b>				
China	7,020	8,913	8,521	9,339	China	2,023	2,936	2,803	2,950
US	4,014	4,107	4,184	4,195	Australia	519	612	651	716
India	2,932	2,898	2,977	3,917	India	376	686	219	707
Brazil	1,931	1,575	1,705	1,943	Brazil	517	341	446	703
France	1,030	1,032	1,052	1,120	France	600	568	561	568
Australia	923	965	985	1,100	Italy	500	538	524	508
Canada	628	658	704	705	Pakistan	283	272	381	416
Japan	703	631	611	594	Thailand	379	453	436	380
Turkey	444	580	578	592	UK	377	349	343	345
Pakistan	429	494	419	551	Canada	286	292	377	343
<b>World</b>	<b>29,271</b>	<b>30,908</b>	<b>31,428</b>	<b>33,466</b>	<b>World</b>	<b>10,543</b>	<b>11,738</b>	<b>12,005</b>	<b>12,629</b>

Source: FAO

Source: FAO

Global Summary	Actual							Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1995/96	1996/97	1997/98	1970-80	1980-90	1990-96	
<b>World Balance (mil. tons)</b>										
Production	22.0	34.5	39.0	33.8	34.0	34.9	4.1	2.3	-2.6	
Consumption	21.1	31.7	36.3	30.9	31.4	33.5	4.0	2.1	-2.7	
Exports	2.9	7.5	10.7	12.6	12.0	12.1	9.1	5.0	2.4	
	Actual						Forecast			
<b>TSP Prices (\$/ton)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>	
Current	149.6	175.8	171.9	173.1	155.0	145.0	140.0	150.0	155.0	
Constant 1990	125.5	154.3	158.6	166.1	149.7	136.6	128.7	125.3	114.3	

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.

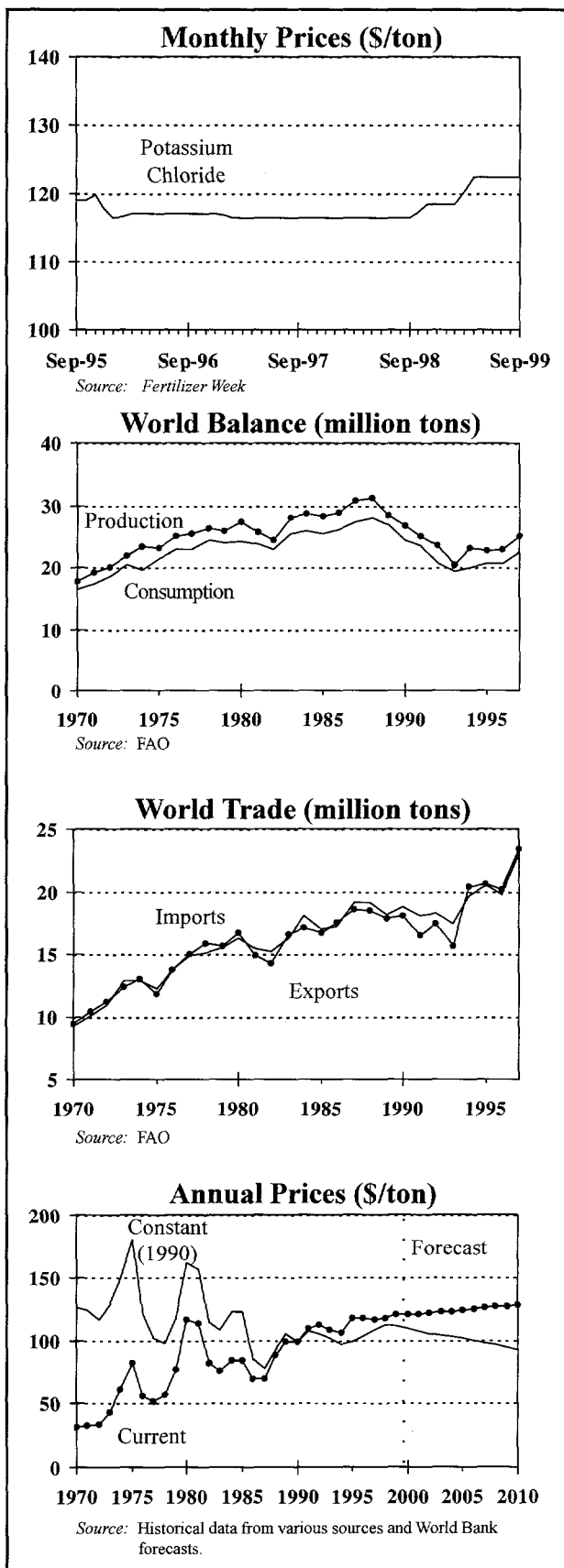
# Potash

*Potash prices remained steady due to drastic production cuts and a willingness of major producers to store product rather than cut prices. However, surplus production capacity and weak demand do not make for a strong market, and prices could fall.*

Inventory management programs in Canada have achieved a degree of success, according to *Fertilizer Week*. Canadian firms slashed production by 36% for July and August in an attempt to bring stocks into line with demand. This has kept prices steady, however, weak demand in the US (the largest consumer of potash) due to falling grain prices, makes it unlikely that potash prices can be held at current levels. New capacity planned or underway in Chile, Israel, Jordan, and Thailand will also contribute to the surplus and come at the expense of Canadian exporters.

The FAO/World Bank/UNIDO/Industry Working Group met in June to prepare its annual assessment of the world fertilizer situation and project demand and supply to the 2003/04 marketing year. In its report, released in September, the Working Group forecasted world potash fertilizer consumption to increase by 1.9% per year from 1997/98 to 2003/04. About 72% of the growth is expected to occur in Asia, as consumption grows by 4.0% per year. Demand in Eastern Europe and North America is expected to increase by 6% over the period and consumption in Western Europe is expected to fall about 1%. The developing countries of East and South Asia are expected to increase potash consumption as they expand food production to feed their growing populations.

The world potash industry is currently operating at 60-70% of its potential supply capacity, according to the Working Group's report. And, according to the report, supply capacity is expected to grow at twice the rate of consumption causing surplus in production capacity of 3.472 million tons by 2003/04. The largest increases in capacity are forecast for North America (3.634 million tons), Asia (1.910 million tons), and the former Soviet Union (1.163). The balance of the global increase of 0.712 million tons will be in Europe and Latin America.





## Other Developments

- Potash Corporation of Saskatchewan (PCS) announced plant closures and shutdowns in its phosphate and nitrogen operations in mid-August because of weak market conditions. PCS is the world's largest potash company by capacity, the third largest phosphate producer and the second largest nitrogen producer.
- China's State Economic and Trade Commission has released import quotas for the second half of 1999. Initial reports suggest the total quantity of imports is set at between 4.2 and 4.5 million tons, according to *Fertilizer Week*.
- Jordan's production of potash increased 40% in the first half of 1999 compared to 1998, according to *Fertilizer Week*.
- Brazilian buyers have returned to the import market following reduced imports in the first half of 1999. This has kept prices firm in Latin America according to *Fertilizer Week*.

Production and Consumption					Trade				
	1994/95	1995/96	1996/97	1997/98		1994/95	1995/96	1996/97	1997/98
<b>Production (000 tons)</b>					<b>Exports (000 tons)</b>				
Canada	9,060	8,065	8,151	9,029	Canada	8,216	7,851	8,077	9,015
Germany	3,286	3,278	3,334	3,423	Germany	2,802	2,446	2,549	2,838
Russian Fed.	2,493	2,814	2,618	3,403	Russian Fed.	2,027	2,317	1,947	2,830
Belarus	2,510	2,789	2,716	3,247	Belarus	1,917	2,189	1,978	2,506
Israel	1,260	1,326	1,500	1,488	Israel	1,327	1,286	1,203	1,632
US	827	843	834	883	Jordan	910	1,058	1,052	861
Jordan	930	1,068	1,059	849	US	538	523	597	846
France	870	802	751	665	France	596	538	538	588
Spain	684	637	681	639	Spain	410	489	470	498
UK	580	582	618	565	UK	385	374	371	373
<b>World</b>	<b>23,077</b>	<b>22,767</b>	<b>22,876</b>	<b>24,947</b>	<b>World</b>	<b>20,348</b>	<b>20,634</b>	<b>20,128</b>	<b>23,370</b>
<b>Consumption (000 tons)</b>					<b>Imports (000 tons)</b>				
US	4,652	4,770	4,921	4,847	US	4,759	5,181	5,073	5,784
China	2,444	2,887	2,337	3,390	China	2,261	2,870	2,258	3,291
Brazil	1,866	1,791	1,941	2,242	Brazil	1,643	1,539	1,826	2,132
France	1,373	1,491	1,488	1,434	India	1,282	1,424	667	1,437
India	1,125	1,156	1,030	1,373	France	1,274	1,230	1,341	1,418
Malaysia	700	603	646	670	Malaysia	708	660	631	701
Germany	668	652	646	659	Poland	386	456	502	509
Spain	417	415	451	479	Italy	439	461	440	447
UK	475	473	485	450	Japan	485	490	439	431
Belarus	300	250	422	425	Korea, Rep.	333	353	417	407
<b>World</b>	<b>20,084</b>	<b>20,690</b>	<b>20,675</b>	<b>22,611</b>	<b>World</b>	<b>19,906</b>	<b>20,472</b>	<b>19,717</b>	<b>23,043</b>

Source: FAO

Source: FAO

Global Summary	Actual						Annual Growth Rate (%)		
	1970/71	1980/81	1990/91	1995/96	1996/97	1997/98	1970-80	1980-90	1990-96
<b>World Balance (mil. tons)</b>									
Production	17.6	27.5	26.7	22.8	22.9	25.0	4.3	1.1	-2.4
Consumption	16.4	24.2	24.5	20.7	20.7	22.6	4.2	1.2	-2.8
Exports	9.5	16.7	18.1	20.6	20.1	23.4	5.6	2.0	3.3
	Actual						Forecast		
<b>Prices (\$/ton)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Current	117.8	116.9	116.5	116.9	121.0	121.0	122.0	124.0	128.0
Constant 1990	98.8	102.6	107.5	112.2	114.4	113.6	111.8	102.8	93.9

Note: Quantities are for total potash fertilizer in marketing years and prices are for potassium chloride, f.o.b. Vancouver, in calendar years.

Source: FAO and World Bank.

# Aluminum

*Prices rise on expectations of a shrinking market surplus, but stocks remain high and production continues to climb. Strengthening demand is expected to support prices of \$1500/ton next year.*

Aluminum prices rose 10% in the third quarter on expectations of improving fundamentals and strong investment fund buying, despite high stocks and rising production. Prices eclipsed \$1500/ton late in the quarter, the highest level since the beginning of 1998 and 30% higher than in March. Stronger than expected demand and the possibility of supply disruptions contributed to the rally, but the market remains in surplus.

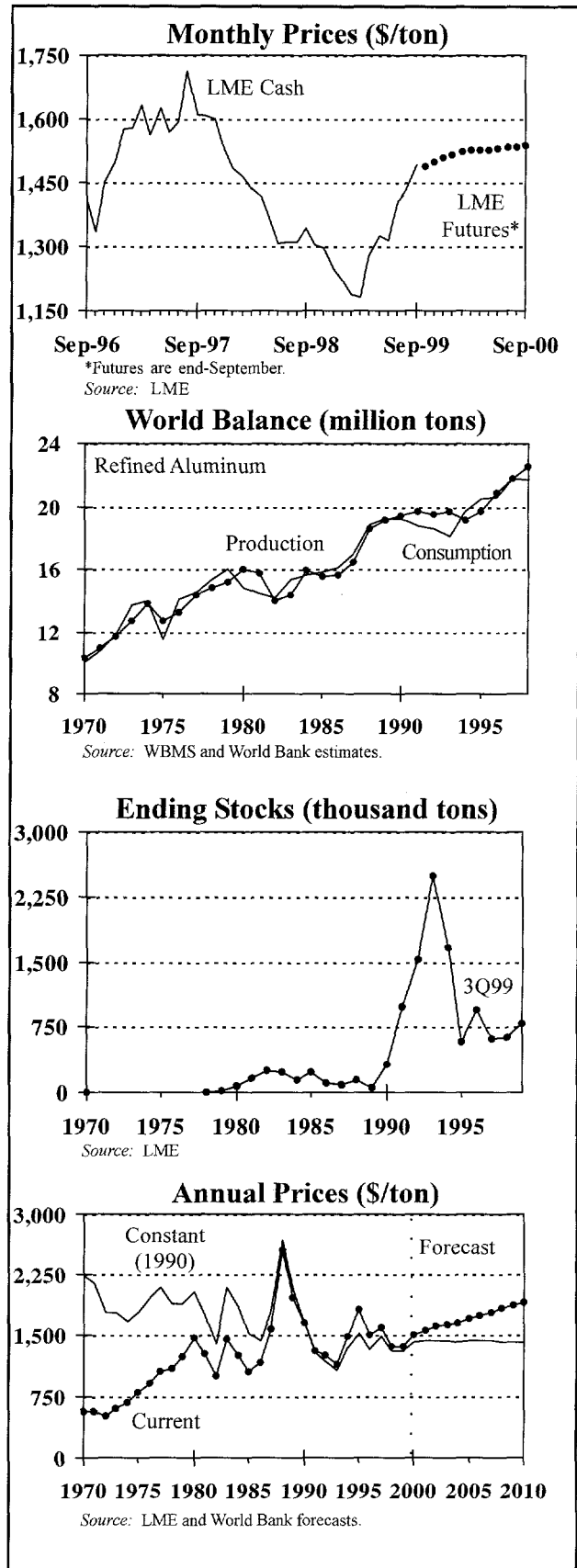
LME stocks, which had declined 10% from end-March levels of 818,000 tons, rose sharply in August, and have since hovered near 800,000 tons.

Aluminum demand remains strong in the US, especially in the auto sector where the industry is on track to produce a record number of vehicles this year. Modest economic recovery in Europe is boosting demand in the auto and construction sectors. Japanese consumption remains weak, but elsewhere in Asia demand is relatively strong, led by the surge in growth in the Republic of Korea.

Aluminum production is increasing in all main regions, and global output is expected to grow by 3.5% this year. However, planned idling of capacity, labor disputes, and possible shortfalls out of Russia could tighten the balance somewhat. The Krasnoyarsk smelter in Russia is reportedly short of alumina deliveries from the Achinsk refinery which is undergoing various labor and management disputes. And the accident at the Grammercy alumina refinery in Louisiana has left the alumina market extremely tight.

Two large mergers of Alcoa and Reynolds, and Alcan, Pechiney, and Alusuisse will undoubtedly result in rationalization of operations. It will also improve efficiency and lower costs, adding to the downward trend of recent years.

Although the market remains vulnerable to a sell-off, the speculative run-up in prices could continue given strengthening demand, possible supply disruptions, and potential "Y2K" stocking. However, higher prices will lead to significant forward selling by producers and also induce companies to restart idle capacity. The market is expected to remain in surplus next year, but strengthening demand is expected to help support average prices of around \$1,500/t.



## Other Developments

- Canada's Alcan Aluminum Ltd., France's Pechiney SA, and Switzerland's Algroup announced August 11 an agreement to merge, and entered into a definitive three way combination agreement in mid-September following successful completion of discussions with labor groups in France. The merger will be accomplished by two independent exchange offers initiated by Alcan, valued at approximately \$11.5 billion: 1.718 Alcan shares for each Pechiney A share, and 20.6291 Alcan shares for each Algroup share. Algroup must demerge its specialty chemical and energy businesses prior to the merger. The new company, provisionally referred to as APA, will be led by Jacques Bougie (Alcan) as CEO and Jean-Pierre Rodier (Pechiney) as President and COO.
- Alcoa Inc. agreed to a merger with Reynolds Metals Co. on August 19, under which Alcoa will acquire all outstanding shares of Reynolds in a tax free stock-for-stock transaction. Reynolds shareholders will receive 1.06 shares of Alcoa common stock for each share of Reynolds, placing the value of the transaction at approximately \$4.5 billion. The combined company will have about 300,000 employees and will operate in 300 locations in over 36 countries. Alcoa expects to achieve cost and efficiency savings of about \$200 million (pre-tax) by the end of the second year. With the merger, Alcoa withdrew its earlier US\$65 per share cash tender offer for Reynolds. The deal is subject to stockholder approval and antitrust clearances.

Production of Refined Aluminum (000 tons)					Consumption of Refined Aluminum (000 tons)				
	1995	1996	1997	1998		1995	1996	1997	1998
US	3,375	3,577	3,603	3,713	US	5,055	5,348	5,390	5,814
Russian Fed.	2,724	2,874	2,906	3,005	China	1,942	2,135	2,260	2,376
China	1,676	1,771	2,035	2,285	Japan	2,336	2,393	2,434	2,080
Canada	2,172	2,283	2,327	2,374	Germany	1,491	1,355	1,558	1,518
Australia	1,293	1,370	1,490	1,626	France	744	672	724	687
Brazil	1,188	1,197	1,189	1,208	UK	620	600	619	668
Norway	847	862	919	996	India	581	585	553	567
S. Africa, Rep.	233	617	683	693	Canada	612	620	628	734
Germany	575	577	572	612	Brazil	501	497	479	521
Venezuela	627	635	641	584	Korea, Rep.	675	674	666	506
India	537	531	547	542	Spain	350	360	430	435
Bahrain	454	461	490	501	Belgium	336	331	345	396
Spain	362	362	360	360	Russian Fed.	476	444	469	489
UAE	247	259	378	387	Australia	343	322	352	367
New Zealand	273	285	310	318	Taiwan, China	363	310	374	301
Netherlands	216	227	232	264	Italy	665	585	654	675
UK	238	240	248	258	Greece	163	156	204	213
Tajikistan	230	198	189	196	Turkey	144	136	161	181
France	365	380	399	424	Venezuela	183	207	193	180
Other	2,037	2,130	2,281	2,212	Other	2,894	2,897	3,261	3,037
<b>World</b>	<b>19,668</b>	<b>20,836</b>	<b>21,799</b>	<b>22,556</b>	<b>World</b>	<b>20,473</b>	<b>20,627</b>	<b>21,756</b>	<b>21,743</b>

Source: WBMS

Global Summary									
World Balance (000 tons)	Actual						Annual Growth Rate (%)		
	1970	1980	1990	1996	1997	1998	1970-80	1980-90	1990-98
Production	10,257	16,027	19,362	20,836	21,799	22,556	4.1	2.6	1.8
Consumption	9,996	14,771	19,244	20,627	21,756	21,743	4.1	3.3	2.1
LME Ending Stocks	n.a.	68	311	951	622	636	n.a.	-0.3	-1.5
Prices (\$/ton)	Actual					Forecast			
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	1,806	1,506	1,599	1,357	1,350	1,500	1,550	1,700	1,900
Constant 1990	1,515	1,318	1,476	1,303	1,304	1,413	1,425	1,422	1,406

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

# Copper

*Prices rose sharply following US production cuts, but stocks remain near all-time highs. While further price gains cannot be ruled out given strengthening demand, consolidation is likely given the current market surplus.*

Copper prices were 15% higher in the third quarter following announced US production cutbacks in late June and early July. Prices surged to \$1,800/ton in late September, up 30% from 12-year lows in March, on expectations of tighter markets due to higher demand and lower supply. However, the market remains in surplus – albeit diminishing – and a price correction is likely from investment fund liquidation and forward selling by producers.

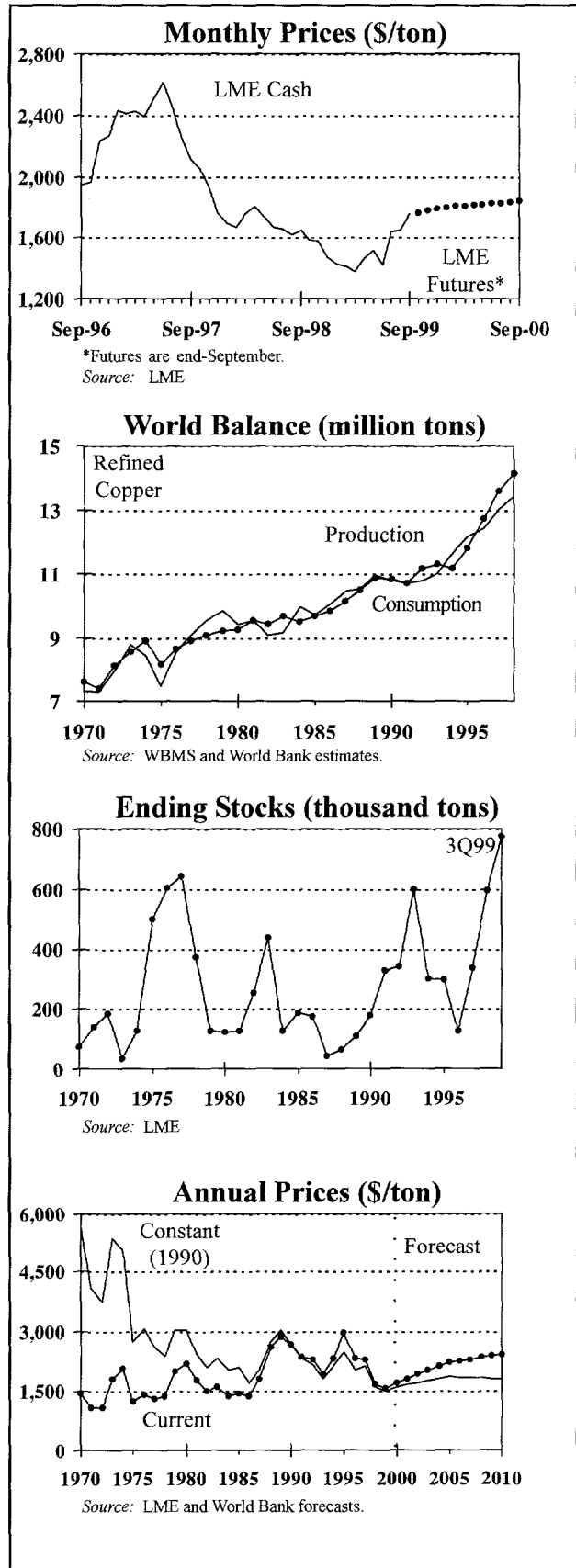
LME inventories rose to an all-time high of 795,000 tons in mid-August on weak summer demand, but receded to 774,000 at end-September. Large withdrawals have occurred in US warehouses because of recent refinery production cutbacks.

Global demand is expected to rise by more than 3.5% this year, led by a rebound in Asia. Strong recovery in the Republic of Korea has led to rising domestic and export demand for semiconductors, automobiles and office equipment, but the construction sector remains depressed. US copper demand remains steady in the construction and auto sectors, while economic recovery in Europe is providing a modest lift to demand.

While the US has made substantial cuts in refinery output, production continues to rise significantly elsewhere, particularly in Chile where production rose nearly 20% during the first eight months. Canada's Highland Valley mine resumed production in September, but supplies will not be available until early next year because of depleted stockpiles.

Merger activity has dominated the US industry, but is also taking place in Europe. These transactions will likely lead to further rationalization of operations, but will also result in lower costs.

Further price gains are possible this year given strengthening demand and investment fund activity, but stocks remain high and the market is expected to remain in modest surplus this year and next. Higher prices will induce producer forward selling and could cause idle capacity to be quickly reactivated.



## Other Developments

- Phelps Dodge agreed to purchase Cyprus Amax Minerals at end-September for \$1.8 billion, and also upped its bid to \$2.1 billion for Asarco. But in early October, just two days after accepting Phelps Dodge's offer, Asarco said it will consider a revised offer of \$2.2 billion offer from Grupo Mexico, which already owns 10% of Asarco. Cyprus Amax and Asarco had agreed to merge in July, but they amended their agreement in September to consider other offers following rival bids from Phelps Dodge and Grupo Mexico. Phelps Dodge had already received antitrust approval in September for takeover of both companies.
- In Europe, Norddeutsche Affinerie intends to purchase another German producer, Huttenwerke Kayser. Both companies rely heavily on scrap material for feed to their smelters, which has not been easy to secure the past year due to low prices. The new company hopes to reduce its dependency on scrap feed, with Norddeutsche Affinerie intending to use only concentrate at its Hamburg plant.
- Chile's copper production rose 19.5% in the first eight months to 2.9 million tons.
- The International Copper Study Group reported that copper supply exceeded demand by 203,000 tons during the first seven months of this year, in part because of higher mine output.

Production of Refined Copper (000 tons)					Consumption of Refined Copper (000 tons)				
	1995	1996	1997	1998		1995	1996	1997	1998
US	2,280	2,347	2,450	2,460	US	2,534	2,621	2,790	2,883
Chile	1,492	1,748	2,117	2,335	China	1,143	1,193	1,270	1,397
Japan	1,188	1,251	1,279	1,277	Japan	1,415	1,480	1,441	1,255
China	1,080	1,119	1,179	1,211	Germany	1,066	960	1,039	1,138
Germany	616	671	674	696	Italy	498	504	521	590
Russian Fed.	560	599	640	656	Taiwan, China	563	544	588	584
Canada	573	559	561	563	France	540	518	558	583
Poland	406	425	441	447	Korea, Rep.	540	598	621	560
Mexico	208	246	297	445	UK	398	396	408	374
Peru	282	342	384	411	Mexico	172	192	252	341
Korea, Rep.	233	246	265	369	Belgium	362	332	329	324
Belgium	376	386	373	368	Brazil	198	233	258	301
Kazakhstan	256	267	301	325	Poland	213	226	230	266
Zambia	314	317	328	306	Canada	190	218	225	246
Spain	164	264	292	304	Spain	175	191	203	235
Australia	266	311	271	285	Turkey	139	160	188	208
Brazil	165	172	172	167	India	116	140	160	200
Philippines	158	156	147	152	Russian Fed.	187	165	165	165
Sweden	111	126	128	125	Saudi Arabia	125	145	150	160
Other	1,086	1,178	1,294	1,244	Other	1,579	1,585	1,626	1,584
<b>World</b>	<b>11,813</b>	<b>12,732</b>	<b>13,592</b>	<b>14,147</b>	<b>World</b>	<b>12,152</b>	<b>12,401</b>	<b>13,021</b>	<b>13,394</b>

Source: WBMS

Source: WBMS

Global Summary									
World Balance (000 tons)	Actual						Annual Growth Rate (%)		
	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	2.1	1.6	3.6
Consumption	7,294	9,400	10,780	12,401	13,021	13,394	2.9	1.8	3.1
LME Ending Stocks	72	123	179	125	338	592	11.3	-6.3	3.7
Prices (\$/ton)	Actual						Forecast		
	1995	1996	1997	1998	1999	2000	2001	2005	2010
Current	2,936	2,295	2,277	1,654	1,550	1,700	1,800	2,200	2,400
Constant 1990	2,463	2,010	2,101	1,588	1,497	1,602	1,654	1,841	1,777

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

**Gold**

*Prices soared above \$300/toz at end-September following an agreement by European central banks to limit their gold sales, leasing, and derivative activity for five years. Markets will remain volatile but prices are expected to settle back below \$300/toz.*

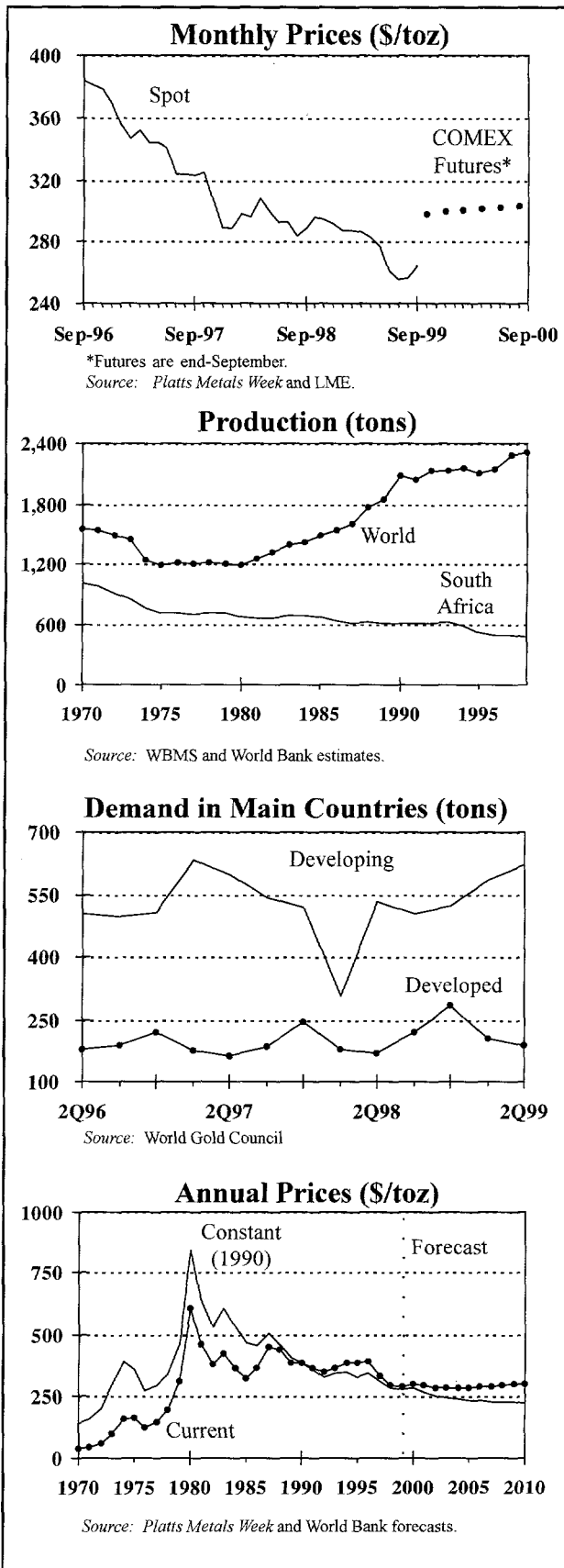
Prices surged above \$300/toz in late September following announcement by 15 European central banks to limit gold sales to 2000 tons over the next five years. Prices rose above \$325/toz in early October because of investment and speculative buying, and by short-covering by gold producers. Although prices are apt to remain volatile in the near term, long term market fundamentals have not changed significantly, and prices are expected to eventually settle under \$300/toz.

At end-September, the IMF Board agreed to re-value 14 million ounces of its gold reserves at market value, and conduct off-market transactions to some central banks of member countries to help fund the debt relief initiative to poor countries.

The sudden sharp rise in prices caught short sellers by surprise, and some producers unwound their hedge positions. Ashanti Goldfields obtained temporary agreement from creditor banks in early October not to demand margin calls (around \$250 million) on its forward sales. Not all companies were forced to liquidate positions, as some had hedged at gold prices well above recent spot market levels.

Demand rose by 16% in second quarter, led by a 17% increase in the main developing countries. In Southeast Asia and the Republic of South Korea, demand tripled from the low levels last year, and has returned to 90% of pre-crisis levels. Demand in India, the largest consuming country, rose 6%.

Despite the surge in prices, it will be difficult for gold prices to be sustained much above \$300/toz. Central bank sales will continue, including 400 tons scheduled by the UK and 1300 tons by Switzerland. Only 19 tons were sold by all central banks in the first half of this year. In addition, global mine production will continue to expand, as average cash costs of the industry are around \$200/toz, with new low-cost capacity coming on stream well below this level. Although gold lease rates have shot up, forward selling is apt to re-continue when they recede. Finally higher prices will curb demand growth, particularly in price-sensitive Asian economies.



## Other Developments

- Eleven central banks of the Eurosystem plus central banks of Sweden, Switzerland and the UK agreed in late September to limit annual sales to approximately 400 tons over the next five years, with total sales not exceeding 2,000 tons.
- On September 21, the UK Bank of England auctioned 25 tons of gold at \$255.75/toz, fractionally above the spot market price. The next auctions are scheduled for November 29 and January 25.

Mine Production (tons)					Consumption in Main Markets (tons)				
	1995	1996	1997	1998		1995	1996	1997*	1998
S. Africa, Rep.	522.4	494.6	492.5	473.8	India	477.2	507.8	736.7	815.0
US	316.9	326.2	362.3	366.4	US	314.7	331.7	362.0	428.4
Australia	253.5	289.5	311.0	309.3	China	223.9	210.7	213.8	191.6
Canada	150.9	166.4	171.4	165.9	Turkey	139.4	153.0	202.0	172.0
China	136.4	120.6	149.6	158.2	Saudi Arabia	193.1	184.9	199.0	208.4
Indonesia	63.3	83.6	90.0	124.0	Taiwan, China	160.2	123.3	142.1	91.2
Russian Fed.	127.8	119.9	123.9	113.1	Korea, Rep.	121.0	125.5	114.4	-162.5
Peru	56.5	65.1	74.3	93.8	Italy	110.0	105.3	110.8	112.2
Uzbekistan	63.6	71.0	82.0	82.0	Japan	272.1	152.2	107.1	110.4
Brazil	64.4	60.0	58.5	65.0	Egypt	67.0	75.7	97.6	104.4
Ghana	53.1	49.3	54.7	63.1	Indonesia	119.0	129.0	92.5	-40.0
PNG	51.7	51.6	48.5	60.3	Pakistan	43.2	53.7	81.8	98.2
Chile	44.2	51.8	47.8	43.8	Germany	88.6	73.1	74.0	70.2
Mexico	19.9	23.1	26.4	25.4	UAE	39.2	52.6	71.6	79.4
Zimbabwe	24.0	24.7	24.3	25.2	UK	46.2	47.1	58.8	66.8
Kyrgyz Republic	4.0	4.1	15.6	20.1	Brazil	54.0	59.0	58.0	64.0
Argentina	0.8	0.7	2.3	19.5	H.K., China	43.2	40.4	51.0	31.8
Kazakhstan	10.9	10.2	9.7	18.0	France	50.4	47.5	49.4	59.4
Colombia	22.1	21.5	16.2	14.8	Mexico	31.0	41.0	49.0	55.0
Guyana	9.0	12.0	13.6	14.6	Vietnam	36.0	41.0	45.0	44.0
Bolivia	14.4	12.6	13.3	14.4	Kuwait	35.1	34.7	35.4	33.0
Philippines	12.8	8.1	11.2	8.7	Malaysia	29.6	33.6	30.1	14.4
Japan	9.2	8.6	8.4	8.6	Singapore	24.1	20.0	22.4	14.1
New Zealand	12.1	11.5	11.4	7.7	Oman	16.5	16.5	17.8	15.3
Mongolia	4.5	4.9	8.5	7.3	Thailand	116.0	106.0	14.0	19.0
<b>World</b>	<b>2,107.8</b>	<b>2,155.7</b>	<b>2,302.5</b>	<b>2,356.2</b>	<b>World</b>	<b>2,459.1</b>	<b>2,731.8</b>	<b>2,629.8</b>	<b>2,851.1</b>

Source: WBMS

Source: World Gold Council \*Ranked for 1997.

### Global Summary

World Balance (tons)	Actual								-% p.a. -
	1991	1992	1993	1994	1995	1996	1997	1998	
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.
<b>Total Demand</b>	<b>3,128</b>	<b>3,518</b>	<b>3,442</b>	<b>3,305</b>	<b>3,606</b>	<b>3,518</b>	<b>4,228</b>	<b>4,123</b>	<b>4.0</b>
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.
<b>Total Supply</b>	<b>3,128</b>	<b>3,518</b>	<b>3,442</b>	<b>3,305</b>	<b>3,606</b>	<b>3,518</b>	<b>4,228</b>	<b>4,123</b>	<b>4.0</b>
	Actual				Forecast				
<b>Prices (\$/toz)</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2005</b>	<b>2010</b>
Current	384	388	331	294	285	300	290	280	300
Constant 1990	322	339	305	282	275	283	267	234	222

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

# Iron Ore and Steel

*Steel prices continue to rise from a series of production cuts, trade sanctions, and destocking. Demand is also recovering in Asia, helping to raise prices.*

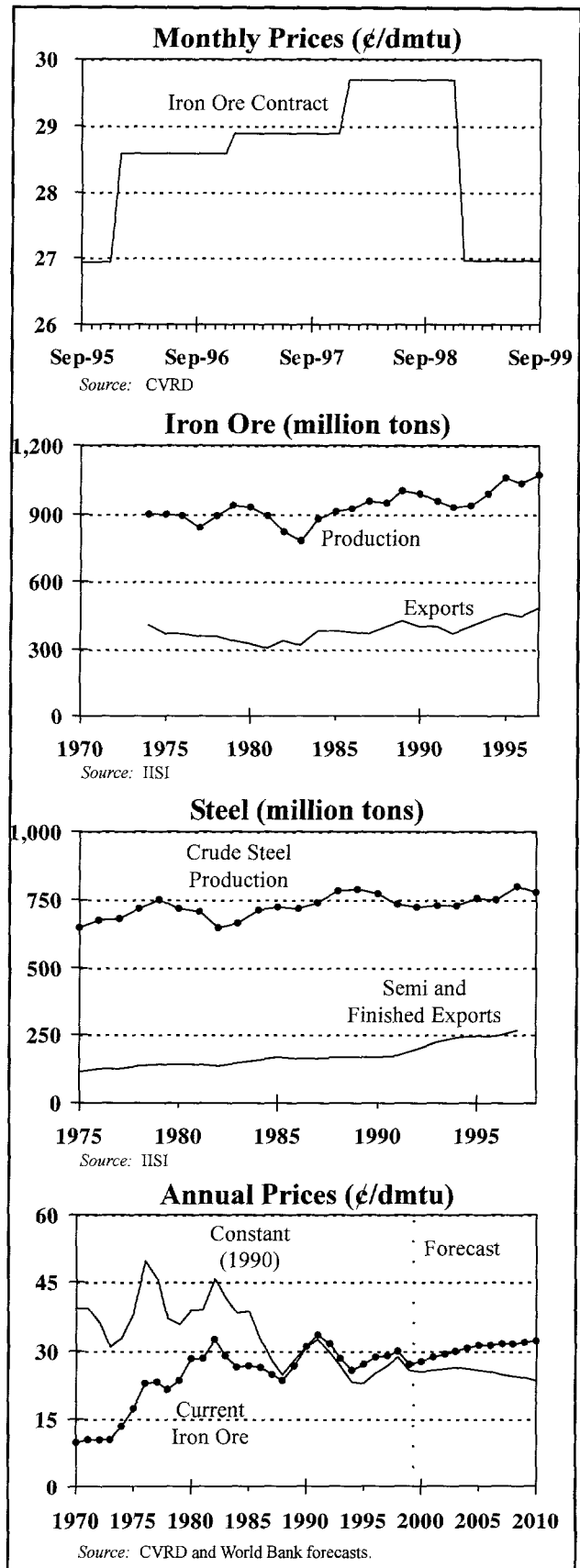
Steel prices rose 6% in the third quarter mainly a result of supply reductions, but demand is recovering in Asia which is also helping to firm prices. However, the key factor has been reductions in domestic output and imports into the large consuming countries of North America and Europe. Stocks have been reduced and demand is expected to continue to increase into next year. Steel prices are expected to strengthen, providing demand does not falter.

Trade sanctions and threats of further actions have reduced imports into the US and other countries. For the first seven months, US steel imports fell by nearly 10%, with most of the declines from the CIS and Japan. Preliminary August data shows a further 5% reduction in US steel imports.

Those products where trade action has been initiated have seen the greatest price gains, e.g., the price of hot rolled coil – a product protected by anti-dumping duties in the US and bilateral trade agreements – increased by 17% in the third quarter. For some products unprotected by trade action, production and exports to consuming regions continue to rise and prices remain weak, e.g., coated sheet.

Steel production, as reported by the IISI for the 63 largest producing countries, was down 2.7% for the first 8 months of this year from the same period last year. However, August production rose 2.7% and it was the second monthly increase following 15 consecutive months of decline.

Iron ore markets are gradually improving given the slowdown in destocking and recovery in steel demand. Earlier in the year there was widespread price discounting because of the slump, but this practice is expected to be reduced as demand improves and the time approaches for next year's contract negotiations. Global iron ore production is expected to record another decline this year, but both production and exports are expected to increase more than 2% next year. Despite the recovery in demand it will be difficult for producers to achieve much of an increase in prices, and a rollover is likely.





**Iron Ore Production (000 tons)**

	1994	1995	1996	1997
China	250,695	261,919	252,283	268,612
Brazil	167,810	178,380	179,870	187,950
Australia	128,662	139,067	147,200	160,889
Russian Fed.	73,259	78,348	72,136	69,906
India	58,390	62,000	67,264	69,400
US	58,382	62,645	62,132	63,000
Ukraine	51,464	50,741	47,745	52,541
Canada	37,710	37,629	37,042	37,313
S. Africa, Rep.	32,321	32,650	30,830	33,230
Sweden	19,909	21,663	21,288	21,893
Venezuela	18,216	19,452	18,720	18,660
Mexico	13,521	12,910	14,202	14,500
Iran, Islamic R.	4,600	9,080	9,850	12,750
Kazakhstan	24,915	36,512	25,000	12,627
Mauritania	10,443	11,330	11,400	11,700
Chile	7,600	7,950	8,480	8,090
Peru	6,943	5,975	4,740	5,030
Turkey	5,079	5,510	5,150	4,800
Egypt	2,460	2,099	2,700	3,000
New Zealand	2,480	2,570	2,600	2,500
Other	11,792	21,695	13,726	10,418
<b>World</b>	<b>986,651</b>	<b>1,060,125</b>	<b>1,034,358</b>	<b>1,068,809</b>

Source: IISI

**Crude Steel Production (000 tons)**

	1995	1996	1997	1998
China	95,360	101,237	108,911	114,347
US	95,191	95,535	98,485	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	48,442	43,822
Korea, Rep.	36,772	38,903	42,554	39,896
Italy	27,767	24,285	25,770	25,798
Brazil	25,076	25,237	26,153	25,760
Ukraine	22,309	22,332	25,627	24,445
India	22,003	23,753	24,579	23,863
France	18,100	17,633	19,767	20,126
UK	17,604	17,992	18,489	17,319
Taiwan, China	11,605	12,350	15,994	16,886
Canada	14,415	14,735	15,554	15,930
Spain	13,802	12,154	13,683	14,821
Mexico	12,147	13,172	14,254	14,211
Turkey	13,183	13,552	14,491	14,144
Belgium	11,606	10,818	10,784	11,425
Poland	11,890	10,432	11,591	9,916
Australia	8,460	8,415	8,831	8,801
Other	99,787	100,118	105,459	99,599
<b>World</b>	<b>752,357</b>	<b>750,500</b>	<b>798,970</b>	<b>776,356</b>

Source: IISI

**Exports of Iron Ore (000 tons)**

	1994	1995	1996	1997
Australia	119,285	130,223	128,606	144,914
Brazil	125,000	131,358	129,740	140,419
Canada	29,993	28,833	27,920	32,340
India	30,638	32,332	31,700	31,900
S. Africa, Rep.	19,605	21,847	19,300	20,700
Ukraine	21,135	21,015	20,570	20,000
Sweden	15,386	17,083	16,071	18,282
Russian Fed.	18,846	20,218	17,126	17,000
Mauritania	10,342	11,514	11,158	11,700
Venezuela	10,691	10,609	9,580	9,322
Kazakhstan		1,180	3,747	9,270
Chile	6,631	6,114	6,911	7,052
US	4,972	5,270	6,256	6,336
Philippines	4,329	4,744	4,546	4,500
Peru	6,547	6,008	4,029	3,712
Bahrain	3,000	3,200	2,800	3,000
New Zealand	1,279	1,316	1,382	1,300
France	2,443	2,185	1,297	580
Norway	2,064	1,018	611	271
Korea, D.R.	300	300	200	200
Other	2,056	2,388	1,766	209
<b>World</b>	<b>434,542</b>	<b>458,755</b>	<b>445,316</b>	<b>483,007</b>

Source: IISI

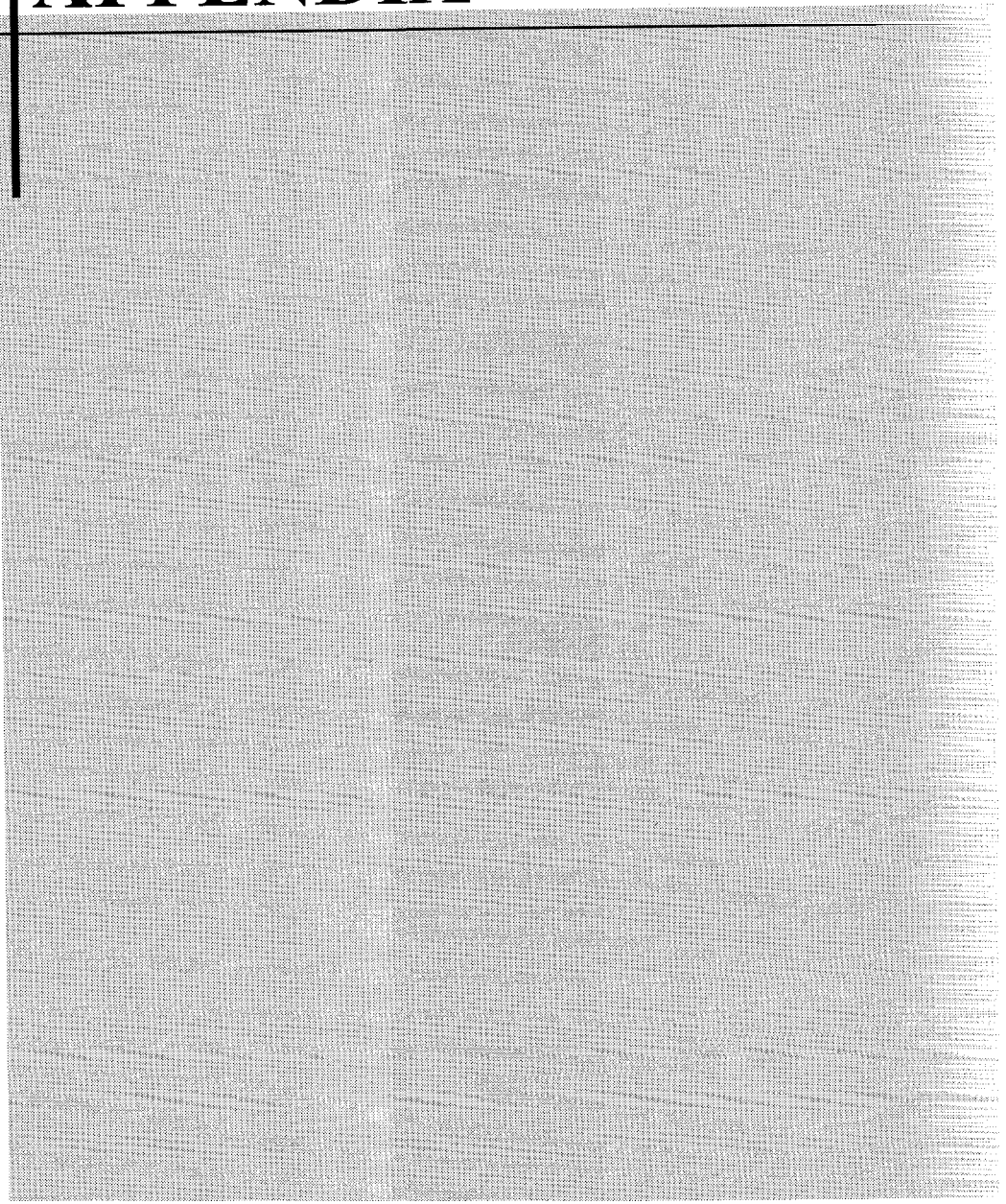
**Exports of Semi-finished and Finished Steel (000 tons)**

	1994	1995	1996	1997
Russian Fed.	25,645	27,371	26,994	26,120
Germany	19,785	20,324	20,437	23,663
Japan	22,407	22,129	19,262	22,892
Bel-Lux	14,926	14,190	14,673	16,459
France	12,826	12,796	13,124	14,884
Ukraine	11,638	11,653	11,780	14,406
Korea, D.R.	10,029	9,795	10,438	11,739
Italy	10,722	10,173	10,922	10,695
UK	8,829	8,896	9,336	9,371
Brazil	11,078	9,655	10,257	9,163
China	2,566	10,745	7,131	8,765
Turkey	8,340	6,211	6,697	7,227
Netherlands	6,609	6,317	6,481	6,819
US	3,656	6,623	4,641	5,568
Spain	5,994	4,947	5,486	5,556
Mexico	2,246	5,930	5,352	5,452
Taiwan, China	2,817	3,027	3,765	5,119
Canada	4,445	4,716	4,929	4,787
Poland	4,119	3,622	3,709	4,176
Czech Rep.	4,298	3,703	3,808	4,000
Other	45,982	45,654	47,039	48,796
<b>World</b>	<b>238,957</b>	<b>248,477</b>	<b>246,261</b>	<b>265,657</b>

Source: IISI



# APPENDIX



# APPENDIX

TABLE A1 Commodity Price Data

Commodity	Unit	Annual Averages			Quarterly Averages					Monthly Averages		
		Jan-Dec 1997	Jan-Dec 1998	Jan-Sep 1999	Jul-Sep 1998	Oct-Dec 1998	Jan-Mar 1999	Apr-Jun 1999	Jul-Sep 1999	Jul 1999	Aug 1999	Sep 1999
<b>Energy</b>												
Coal, Australia	\$/mt	35.10	29.23	26.10	27.76	26.43	26.10	26.10	26.10	26.10	26.10	26.10
Coal, US	\$/mt	36.39	34.38	33.22	34.04	33.50	33.50	33.17	33.00	33.00	33.00	33.00
Crude oil, avg. spot*	\$/bbl	19.17	13.07	16.18	13.01	11.85	11.79	16.10	20.65	18.99	20.27	22.70
Crude oil, Brent*	\$/bbl	19.09	12.72	15.73	12.42	11.09	11.24	15.40	20.54	19.01	20.22	22.40
Crude oil, Dubai*	\$/bbl	18.10	12.12	15.34	12.41	11.56	11.07	15.26	19.69	17.88	19.34	21.84
Crude oil, W. TX Int'l*	\$/bbl	20.33	14.35	17.48	14.16	12.90	13.05	17.66	21.73	20.07	21.25	23.86
Natural gas, Europe	\$/mmbtu	2.74	2.42	1.99	2.37	2.15	1.99	1.89	2.09	2.00	2.08	2.20
Natural gas, US	\$/mmbtu	2.48	2.09	2.19	2.01	1.91	1.81	2.23	2.55	2.31	2.79	2.54
<b>Non-Energy</b>												
<b>Agriculture</b>												
<b>Beverages</b>												
Cocoa**	¢/kg	161.9	167.6	119.6	169.5	159.1	139.4	113.6	105.7	111.3	99.8	106.1
Coffee, arabica**	¢/kg	416.8	298.1	224.1	259.2	252.4	238.0	235.5	198.8	209.1	201.4	185.9
Coffee, robusta**	¢/kg	173.6	182.3	152.4	173.5	179.7	172.7	149.1	135.4	135.7	139.1	131.3
Tea, Calcutta auctions**	¢/kg	214.5	216.5	203.1	214.5	190.0	162.3	223.4	223.6	241.4	212.5	217.0
Tea, Colombo auctions**	¢/kg	202.0	207.5	158.1	197.3	181.4	160.3	145.9	168.2	160.3	167.8	176.6
Tea, Mombasa auctions**	¢/kg	201.5	189.9	177.1	171.2	164.6	180.3	175.1	175.8	166.5	166.4	194.5
<b>Food</b>												
<b>Fats and Oils</b>												
Coconut oil**	\$/mt	656.8	657.9	749.9	662.0	740.3	736.0	832.3	681.3	656.0	684.0	704.0
Copra	\$/mt	433.8	411.1	470.9	404.7	459.3	457.7	521.3	433.7	449.0	431.0	421.0
Groundnut meal	\$/mt	221.0	116.2	n.a.	108.0	105.0	102.3	n.a.	n.a.	n.a.	n.a.	n.a.
Groundnut oil**	\$/mt	1010.4	909.4	781.8	862.7	857.7	808.0	755.7	781.7	766.0	782.0	797.0
Palm oil**	\$/mt	545.8	671.1	458.6	679.3	679.3	563.3	458.7	353.7	319.0	354.0	388.0
Palmkernel oil	\$/mt	651.8	686.7	696.8	694.3	741.0	704.7	729.0	656.7	571.0	689.0	710.0
Soybean meal**	\$/mt	275.8	170.3	146.0	149.0	160.7	145.7	140.0	152.3	138.0	152.0	167.0
Soybean oil**	\$/mt	564.8	625.9	441.8	606.3	606.3	492.3	426.7	406.3	392.0	413.0	414.0
Soybeans**	\$/mt	295.4	243.3	202.2	224.3	229.0	210.3	200.0	196.3	183.0	199.0	207.0
<b>Grains</b>												
Maize**	\$/mt	117.1	102.0	91.6	91.6	96.5	95.9	93.4	85.4	84.0	85.7	86.5
Rice, Thai, 5%**	\$/mt	303.5	304.2	255.8	322.3	282.2	278.7	244.5	244.3	259.0	244.5	229.3
Rice, Thai, 25%	\$/mt	257.1	259.9	223.0	273.7	257.7	239.6	211.6	217.9	231.0	220.3	202.5
Rice, Thai, 35%	\$/mt	246.8	249.7	217.1	262.1	251.6	232.9	205.9	212.7	225.0	215.3	197.8
Rice, Thai, A1.Special	\$/mt	210.4	213.0	201.6	225.6	238.5	214.2	189.5	201.1	216.0	202.8	184.5
Sorghum**	\$/mt	109.6	98.0	86.0	90.5	90.0	90.9	87.6	79.5	76.9	81.6	80.0
Wheat, Canada	\$/mt	181.4	162.9	152.4	153.0	164.7	160.7	148.2	148.2	146.8	147.6	150.1
Wheat, US, HRW**	\$/mt	159.5	126.1	113.9	111.6	127.7	119.9	112.8	109.2	103.0	111.3	113.2
Wheat, US, SRW	\$/mt	143.7	111.5	96.4	95.3	109.0	99.5	96.4	93.4	85.3	92.8	102.1
<b>Other Food</b>												
Bananas**	\$/mt	502.7	491.6	443.2	456.5	520.1	479.3	444.0	406.4	411.6	412.1	395.5
Beef**	¢/kg	185.5	172.6	181.7	166.7	166.2	177.1	175.6	192.5	179.6	207.3	190.7
Fishmeal	\$/mt	606.3	661.9	388.7	670.3	601.3	453.3	343.3	369.3	355.0	371.0	382.0
Lamb	¢/kg	339.3	275.0	259.1	251.1	264.2	247.0	263.2	267.1	264.0	269.2	268.0
Oranges**	\$/mt	459.0	442.4	451.3	516.3	415.1	420.3	458.6	474.8	460.3	492.4	471.9
Shrimp	¢/kg	1611.6	1578.9	1456.4	1574.1	1427.1	1413.4	1470.5	1485.4	1499.1	1504.7	1452.3
Sugar, EU, domestic**	¢/kg	62.72	59.75	59.01	58.59	60.88	59.72	58.78	58.55	57.54	58.75	59.35
Sugar, US, domestic**	¢/kg	48.36	48.64	48.78	49.10	48.27	49.45	49.88	47.01	49.82	46.85	44.36
Sugar, world**	¢/kg	25.06	19.67	13.70	17.92	17.34	15.40	12.63	13.06	11.86	12.63	14.70
<b>Raw Materials</b>												
<b>Timber</b>												
Logs, Cameroon	\$/cum	284.8	286.4	261.6	279.4	295.9	282.3	255.3	247.2	243.8	250.5	n.a.
Logs, Malaysia**	\$/cum	238.3	162.4	183.2	140.7	162.0	175.3	178.4	195.9	186.5	198.4	202.8
Plywood	¢/sheet	485.0	376.1	433.2	344.3	395.2	426.4	429.9	443.4	423.6	441.8	464.8
Sawnwood, Cameroon	\$/cum	563.6	526.3	442.5	519.2	532.0	461.5	424.4	441.8	424.7	444.4	456.2
Sawnwood, Malaysia**	\$/cum	664.5	484.2	586.6	465.5	519.8	544.3	582.8	632.9	625.9	629.4	643.4
Woodpulp	\$/mt	556.5	508.4	483.1	507.5	458.3	447.6	491.5	510.1	507.4	511.5	511.5

Continued

TABLE A1 Commodity Price Data (continued)

Commodity	Unit	Annual Averages			Quarterly Averages			Monthly Averages				
		Jan-Dec	Jan-Dec	Jan-Sep	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Jul	Aug	Sep
		1997	1998	1999	1998	1998	1999	1999	1999	1999	1999	1999
<b>Non-Energy (continued)</b>												
<b>Other Raw Materials</b>												
Cotton**	¢/kg	174.8	144.5	122.4	150.2	127.5	123.9	129.4	113.8	120.0	112.4	109.1
Jute	\$/mt	304.6	258.0	268.3	260.0	270.0	250.0	260.0	295.0	290.0	290.0	305.0
Rubber, Malaysia**	¢/kg	101.8	72.2	61.1	68.0	70.6	68.0	59.7	55.6	56.6	56.2	54.2
Rubber, US	¢/kg	121.6	89.5	78.6	86.1	87.0	83.7	77.5	74.6	74.1	74.1	75.7
Rubber, Singapore	¢/kg	101.0	70.9	60.4	68.3	69.0	65.5	59.9	55.9	55.9	54.9	56.9
Sisal	\$/mt	776.6	820.8	719.4	850.0	850.0	779.2	731.7	647.5	680.0	650.0	612.5
Wool	¢/kg	430.3	336.3	306.1	313.0	307.2	301.4	307.8	309.0	310.0	316.47	300.64
<b>Fertilizers</b>												
DAP	\$/mt	199.9	203.4	187.6	209.5	204.4	199.3	189.7	173.9	182.3	175.0	164.5
Phosphate rock**	\$/mt	41.0	43.0	44.0	43.0	43.0	44.0	44.0	44.0	44.0	44.0	44.0
Potassium chloride	\$/mt	116.5	116.9	121.4	116.5	118.1	119.1	122.5	122.5	122.5	122.5	122.5
TSP**	\$/mt	171.9	173.1	159.2	175.0	168.9	164.1	162.6	150.9	153.9	151.3	147.5
Urea, E. Europe, bagged	\$/mt	127.9	103.1	77.6	102.3	88.0	79.5	75.9	77.4	74.8	78.9	78.4
Urea, E. Europe, bulk	\$/mt	114.0	83.1	66.1	84.8	68.3	67.6	64.6	66.1	63.6	68.0	66.7
<b>Metals and Minerals</b>												
Aluminum**	\$/mt	1599.3	1357.5	1314.6	1320.8	1282.7	1195.6	1305.7	1442.5	1403.8	1431.3	1492.5
Copper**	\$/mt	2276.8	1654.1	1517.6	1639.9	1544.6	1406.8	1466.6	1679.3	1640.0	1647.6	1750.3
Gold	\$/toz	331.1	294.2	273.1	288.7	293.9	286.8	273.5	259.2	256.1	256.7	264.7
Iron ore**	¢/dmtu	28.88	29.69	26.96	29.69	29.69	26.96	26.96	26.96	26.96	26.96	26.96
Lead	¢/kg	62.4	52.9	50.9	53.4	49.6	50.5	51.9	50.2	49.6	50.3	50.7
Nickel**	\$/mt	6927.4	4629.5	5420.1	4169.4	3960.7	4635.5	5232.3	6392.4	5700.1	6448.7	7028.4
Silver	¢/toz	489.2	553.4	524.2	522.0	495.8	530.2	515.6	526.7	522.8	529.4	527.9
Steel products (8) index***	1990=100	89.1	74.9	67.0	73.4	69.0	64.1	66.4	70.4	68.5	70.7	72.1
Steel, cold rolled coilsheet	\$/mt	448.2	370.8	328.3	360.0	320.0	306.7	328.3	350.0	340.0	350.0	360.0
Steel, hot rolled coilsheet	\$/mt	337.3	279.2	231.1	270.0	236.7	206.7	223.3	263.3	240.0	270.0	280.0
Steel, rebar	\$/mt	325.2	257.5	233.3	233.3	240.0	230.0	230.0	240.0	240.0	240.0	240.0
Steel, wire rod	\$/mt	382.7	332.1	291.1	336.7	326.7	293.3	290.0	290.0	290.0	290.0	290.0
Tin**	¢/kg	564.7	554.0	531.7	561.0	538.9	524.6	543.6	526.8	523.0	523.0	534.3
Zinc**	¢/kg	131.6	102.5	104.9	102.3	95.6	99.3	102.0	113.2	107.2	113.1	119.4
<b>World Bank's Commodity Price Indices for Low- and Middle-income Countries (1990 = 100)</b>												
Petroleum		83.8	57.1	70.7	56.9	51.8	51.5	70.4	90.3	83.0	88.6	99.2
Non-Energy Commodities		117.6	99.2	88.0	95.2	94.5	89.8	87.8	86.3	85.6	86.2	87.2
Agriculture		128.6	107.8	93.4	102.6	102.7	97.6	93.4	89.0	88.7	89.1	89.3
Beverages		170.7	140.6	107.5	129.0	124.9	116.0	109.3	97.2	101.0	96.7	93.8
Food		116.1	105.0	89.5	101.1	102.6	95.3	88.6	84.6	81.3	85.2	87.2
Fats and Oils		147.7	132.8	106.1	127.2	131.5	115.6	106.0	96.7	89.3	97.1	103.9
Grains		112.1	101.3	88.3	98.3	96.5	94.3	86.8	83.8	84.3	84.4	82.6
Other Food		92.4	84.2	76.6	81.4	82.4	79.3	75.3	75.1	73.1	75.9	76.2
Raw Materials		113.7	87.3	87.9	84.9	86.4	86.9	88.0	88.7	89.1	88.5	88.6
Timber		125.8	90.9	109.2	86.3	96.7	101.7	108.2	117.7	115.8	117.3	119.9
Other Raw Materials		105.5	84.9	73.3	83.9	79.4	76.8	74.2	68.9	70.8	68.8	67.2
Fertilizers		119.7	122.1	116.3	123.0	120.1	118.7	118.0	112.3	113.8	112.5	110.7
Metals and Minerals		90.2	75.7	72.1	74.5	72.0	67.7	71.2	77.3	75.3	76.7	79.9
*Included in the Petroleum Index												
**Included in the Non-Energy Index												
***Steel not included in the Non-Energy Index												
\$ = U.S. dollar ¢ = U.S. cent bbl = barrel cum = cubic meter dmtu = Dry Metric Ton Unit kg = kilogram mmbtu = million British thermal units												

# APPENDIX

Table A2: Commodity Prices and Price Projections in Current Dollars

Commodity	Unit	Actual					Projections				
		1970	1980	1990	1997	1998	1999	2000	2001	2005	2010
<b>Energy</b>											
Coal, US	\$/mt	n.a.	43.10	41.67	36.39	34.38	33.25	33.00	33.50	35.50	38.00
Crude oil, avg. spot	\$/bbl	1.21	36.87	22.88	19.17	13.07	18.00	18.50	18.00	18.00	19.00
Natural gas, Europe	\$/mmbtu	n.a.	3.40	2.55	2.74	2.42	2.15	2.70	2.60	2.60	2.70
Natural gas, US	\$/mmbtu	0.17	1.55	1.70	2.48	2.09	2.30	2.50	2.40	2.45	2.70
<b>Non-Energy Commodities</b>											
<b>Agriculture</b>											
<b>Beverages</b>											
Cocoa	¢/kg	67.5	260.4	126.7	161.9	167.6	117.0	125.0	130.0	170.0	190.0
Coffee, other milds	¢/kg	114.7	346.6	197.2	416.8	298.1	215.0	209.4	220.5	254.0	265.0
Coffee, robusta	¢/kg	91.0	324.3	118.2	173.6	182.3	148.0	147.7	158.7	186.1	192.0
Tea, 3-auction average	¢/kg	83.5	165.9	205.8	206.0	204.6	183.0	174.0	177.0	179.0	198.0
<b>Food</b>											
<b>Fats and Oils</b>											
Coconut oil	\$/mt	397.2	673.8	336.5	656.8	657.9	750.0	700.0	650.0	620.0	650.0
Copra	\$/mt	224.8	452.7	230.7	433.8	411.1	461.0	415.0	425.0	460.0	483.0
Groundnut meal	\$/mt	102.2	240.3	184.8	221.0	116.2	118.5	123.5	132.3	165.4	180.0
Groundnut oil	\$/mt	378.6	858.8	963.7	1,010	909.4	786.0	800.0	800.0	820.0	850.0
Palm oil	\$/mt	260.1	583.7	289.8	545.8	671.1	449.0	465.0	470.0	460.0	460.0
Soybean meal	\$/mt	102.6	262.4	200.2	275.8	170.3	150.0	160.0	170.0	205.0	226.0
Soybean oil	\$/mt	286.3	597.6	447.3	564.8	625.9	440.0	450.0	470.0	525.0	550.0
Soybeans	\$/mt	116.9	296.2	246.8	295.4	243.25	202.0	215.0	225.0	250.0	275.0
<b>Grains</b>											
Maize	\$/mt	58.4	125.3	109.3	117.1	102.0	90.0	95.0	105.0	125.0	130.0
Rice, Thai, 5%	\$/mt	126.3	410.7	270.9	303.5	304.2	250.0	260.0	275.0	315.0	345.0
Sorghum	\$/mt	51.8	128.9	103.9	109.6	98.0	85.0	90.0	100.0	120.0	125.0
Wheat, US, HRW	\$/mt	54.9	172.7	135.5	159.5	126.1	115.0	125.0	135.0	160.0	170.0
<b>Other Food</b>											
Bananas	\$/mt	166.1	377.3	540.9	502.7	491.6	435.0	440.9	468.5	529.1	540.1
Beef	¢/kg	130.4	276.0	256.3	185.5	172.6	184.0	184.0	185.2	200.0	220.0
Oranges	\$/mt	168.0	400.2	531.1	459.0	412.4	456.0	500.0	525.0	565.0	600.0
Shrimp, Mexican	¢/kg	n.a.	1,152	1,069	1,612	1,579	1,455	1,465	1,475	1,525	1,590
Sugar, world	¢/kg	8.2	63.16	27.67	25.06	19.67	13.75	13.23	14.33	22.00	25.00
<b>Raw Materials</b>											
<b>Timber</b>											
Logs, Cameroon	\$/cum	43.0	251.7	343.5	284.8	286.4	260.0	275.0	287.0	340.0	420.0
Logs, Malaysia**	\$/cum	43.1	195.5	177.2	238.3	162.4	190.0	200.0	210.0	230.0	290.0
Sawnwood, Malaysia**	\$/cum	175.0	396.0	533.0	664.5	484.2	600.0	620.0	645.0	750.0	900.0
<b>Other Raw Materials</b>											
Cotton	¢/kg	67.6	206.2	181.9	174.8	144.5	120.0	123.5	132.3	165.4	187.4
Rubber, RSS1, Malaysia	¢/kg	40.7	142.5	86.5	101.8	72.2	60.0	66.0	70.6	88.2	99.2
Tobacco	\$/mt	1,076	2,276	3,392	3,529	3,342	3,060	3,000	3,000	3,250	3,300
<b>Fertilizers</b>											
DAP	\$/mt	54.0	222.2	171.4	199.9	203.4	182.0	170.0	175.0	205.0	210.0
Phosphate rock	\$/mt	11.00	46.71	40.50	41.00	43.00	44.00	44.00	44.00	44.00	46.00
Potassium chloride	\$/mt	32.0	115.7	98.1	116.5	116.9	121.7	118.0	118.0	122.0	126.0
TSP	\$/mt	43.0	180.3	131.8	171.9	173.1	155.0	145.0	140.0	150.0	155.0
Urea, E. Europe, bagged	\$/mt	48.0	222.1	130.7	127.9	103.1	78.0	80.0	90.0	130.0	150.0
<b>Metals and Minerals</b>											
Aluminum	\$/mt	556	1,456	1,639	1,599	1,357	1,350	1,500	1,550	1,700	1,900
Copper	\$/mt	1,416	2,182	2,661	2,277	1,654	1,550	1,700	1,800	2,200	2,400
Gold	\$/toz	36.0	608.0	383.5	331.1	294.2	285.0	300.0	290.0	280.0	300.0
Iron ore	¢/dmtu	9.84	28.09	30.80	28.88	29.69	26.96	27.00	28.00	31.00	32.00
Lead	¢/kg	30.3	90.6	81.1	62.4	52.9	50.5	51.0	54.0	60.0	64.0
Nickel	\$/mt	2,846	6,519	8,864	6,927	4,630	5,700	5,500	5,600	6,000	6,800
Silver	¢/toz	177.0	2,064	482.0	489.2	553.4	525.0	520.0	515.0	525.0	550.0
Tin	¢/kg	367	1,677	608.5	564.7	554.0	530.0	530.0	550.0	590.0	610.0
Zinc	¢/kg	29.6	76.1	151.4	131.6	102.5	106.0	110.0	111.0	115.0	120.0

n.a. = not available

Note: Projections as of October 19, 1999

Source: World Bank, Development Economics, Development Prospects Group

Table A3. Confidence Intervals for Price Projections in Current Dollars (70% probability)

Commodity	Unit	1999		2000		2001		2005	
<b>Energy</b>									
Coal, US	\$/mt	31.50	- 35.00	26.50	- 39.50	25.00	- 42.00	22.00	- 49.00
Crude oil, avg. spot	\$/bbl	16.00	- 20.00	13.75	- 23.25	12.75	- 23.25	10.50	- 25.50
Natural gas, Europe	\$/mmbtu	2.00	- 2.30	2.05	- 3.35	1.85	- 3.35	1.60	- 3.60
Natural gas, US	\$/mmbtu	2.10	- 2.50	1.90	- 3.10	1.70	- 3.10	1.50	- 3.40
<b>Non-Energy Commodities</b>									
<b>Agriculture</b>									
<b>Beverages</b>									
Cocoa	¢/kg	112	- 123	99	- 152	89	- 172	93	- 248
Coffee, other milds	¢/kg	203	- 227	161	- 259	144	- 298	134	- 373
Coffee, robusta	¢/kg	140	- 156	115	- 182	107	- 213	113	- 261
Tea, 3-auction average	¢/kg	173	- 191	146	- 202	139	- 215	131	- 232
<b>Food</b>									
<b>Fats and Oils</b>									
Coconut oil	\$/mt	713	- 792	558	- 915	494	- 927	452	- 1,050
Copra	\$/mt	440	- 483	326	- 505	318	- 535	296	- 613
Groundnut meal	\$/mt	113	- 124	104	- 143	98	- 166	106	- 223
Groundnut oil	\$/mt	750	- 822	628	- 978	621	- 1,009	583	- 1,138
Palm oil	\$/mt	430	- 469	380	- 600	370	- 644	333	- 733
Soybean meal	\$/mt	143	- 158	120	- 200	122	- 224	133	- 291
Soybean oil	\$/mt	418	- 466	360	- 589	366	- 643	388	- 823
Soybeans	\$/mt	192	- 212	161	- 269	162	- 297	163	- 355
<b>Grains</b>									
Maize	\$/mt	86	- 95	74	- 120	78	- 137	81	- 179
Rice, Thai, 5%	\$/mt	235	- 265	198	- 338	198	- 371	189	- 473
Sorghum	\$/mt	81	- 89	70	- 113	74	- 130	78	- 172
Wheat, US, HRW	\$/mt	109	- 121	98	- 158	100	- 176	104	- 229
<b>Other Food</b>									
Bananas	\$/mt	411	- 461	345	- 539	341	- 597	339	- 721
Beef	¢/kg	175	- 193	138	- 230	133	- 237	130	- 280
Oranges	\$/mt	420	- 493	360	- 645	368	- 683	379	- 752
Shrimp, Mexican	¢/kg	1,382	- 1,528	1,099	- 1,831	1,062	- 1,947	991	- 2,166
Sugar, world	¢/kg	13	- 14	10	- 17	10	- 19	15	- 33
<b>Raw Materials</b>									
<b>Timber</b>									
Logs, Cameroon	\$/cum	244	- 270	206	- 330	201	- 362	204	- 435
Logs, Malaysia**	\$/cum	181	- 198	160	- 246	151	- 273	140	- 315
Sawnwood, Malaysia**	\$/cum	564	- 627	477	- 763	464	- 839	458	- 1,028
<b>Other Raw Materials</b>									
Cotton	¢/kg	113	- 127	104	- 143	98	- 166	106	- 223
Rubber, RSS1, Malaysia	¢/kg	57	- 63	57	- 75	56	- 85	61	- 116
Tobacco	\$/mt	2,938	- 3,182	2,250	- 3,750	2,160	- 3,840	2,178	- 4,323
<b>Fertilizers</b>									
DAP	\$/mt	173	- 191	133	- 214	130	- 228	133	- 277
Phosphate rock	\$/mt	43	- 45	37	- 51	35	- 53	33	- 55
Potassium chloride	\$/mt	118	- 125	92	- 149	87	- 153	79	- 165
TSP	\$/mt	147	- 163	110	- 183	101	- 182	98	- 210
Urea, E. Europe, bagged	\$/mt	73	- 83	61	- 104	65	- 120	91	- 189
<b>Metals and Minerals</b>									
Aluminum	\$/mt	1,225	- 1,475	1,125	- 1,875	1,025	- 2,075	1,020	- 2,380
Copper	\$/mt	1,400	- 1,700	1,275	- 2,125	1,200	- 2,400	1,300	- 3,100
Gold	\$/toz	255	- 315	225	- 375	190	- 390	170	- 390
Iron ore	¢/dmtu	26	- 28	22	- 32	21	- 35	21	- 41
Lead	¢/kg	47	- 53	38	- 64	36	- 72	36	- 84
Nickel	\$/mt	5,200	- 6,200	4,100	- 7,000	3,700	- 7,500	3,600	- 8,400
Silver	¢/toz	480	- 570	390	- 650	340	- 690	315	- 735
Tin	¢/kg	500	- 560	400	- 660	365	- 735	355	- 825
Zinc	¢/kg	100	- 112	83	- 137	74	- 148	69	- 161

Note: Projections as of October 19, 1999.

Source: World Bank, Development Economics, Development Prospects Group

# APPENDIX

Table A4: Commodity Prices and Price Projections in Constant 1990 Dollars

Commodity	Unit	Actual					Projections				
		1970	1980	1990	1997	1998	1999	2000	2001	2005	2010
<b>Energy</b>											
Coal, US	\$/mt	n.a.	59.88	41.67	33.58	33.00	32.11	31.09	30.79	29.70	28.13
Crude oil, avg. spot	\$/bbl	4.82	51.22	22.88	17.69	12.54	17.38	17.43	16.54	15.06	14.06
Natural gas, Europe	\$/mmbtu	n.a.	4.72	2.55	2.53	2.32	2.08	2.54	2.39	2.18	2.00
Natural gas, US	\$/mmbtu	0.68	2.15	1.70	2.29	2.00	2.22	2.36	2.21	2.05	2.00
<b>Non-Energy Commodities</b>											
<b>Agriculture</b>											
<b>Beverages</b>											
Cocoa	¢/kg	269.1	361.7	126.7	149.4	160.9	113.0	117.8	119.5	142.3	140.7
Coffee, other milds	¢/kg	457.2	481.6	197.2	384.6	286.1	207.6	197.3	202.6	212.5	196.2
Coffee, robusta	¢/kg	362.8	450.6	118.2	160.2	174.9	142.9	139.2	145.9	155.7	142.1
Tea, 3-auction average	¢/kg	332.9	230.5	205.8	190.1	196.4	176.7	163.9	162.7	149.8	146.6
<b>Food</b>											
<b>Fats and Oils</b>											
Coconut oil	\$/mt	1,584	936.1	336.5	606.1	631.5	724.2	659.4	597.4	518.8	481.2
Copra	\$/mt	896.5	629.0	230.7	400.2	394.6	445.2	391.0	390.6	384.9	357.5
Groundnut meal	\$/mt	407.4	333.9	184.8	203.9	111.5	114.4	116.3	121.6	138.4	133.2
Groundnut oil	\$/mt	1,509	1,193	963.7	932.3	872.8	759.0	753.7	735.3	686.1	629.2
Palm oil	\$/mt	1,037	810.9	289.8	503.6	644.1	433.6	438.1	432.0	384.9	340.5
Soybean meal	\$/mt	409.0	364.6	200.2	254.4	163.5	144.8	150.7	156.3	171.5	167.3
Soybean oil	\$/mt	1,142	830.2	447.3	521.1	600.8	424.9	423.9	432.0	439.3	407.1
Soybeans	\$/mt	466.2	411.5	246.8	272.6	233.5	195.1	202.5	206.8	209.2	203.6
<b>Grains</b>											
Maize	\$/mt	232.9	174.0	109.3	108.0	97.9	86.9	89.5	96.5	104.6	96.2
Rice, Thai, 5%	\$/mt	503.6	570.6	270.9	280.0	291.9	241.4	244.9	252.8	263.6	255.4
Sorghum	\$/mt	206.5	179.0	103.9	101.2	94.1	82.1	84.8	91.9	100.4	92.5
Wheat, US, HRW	\$/mt	218.9	240.0	135.5	147.2	121.1	111.1	117.8	124.1	133.9	125.8
<b>Other Food</b>											
Bananas	\$/mt	662.2	524.1	540.9	463.8	471.8	420.1	415.4	430.6	442.7	399.8
Beef	¢/kg	520.1	383.4	256.3	171.2	165.6	177.7	173.3	170.2	167.4	162.9
Oranges	\$/mt	670.0	556.0	531.1	423.5	424.6	440.3	471.0	482.5	472.8	444.2
Shrimp, Mexican	¢/kg	n.a.	1,600	1,069	1,487	1,515	1,405	1,380	1,356	1,276	1,177
Sugar, world	¢/kg	32.8	87.8	27.7	23.1	18.9	13.3	12.5	13.2	18.4	18.5
<b>Raw Materials</b>											
<b>Timber</b>											
Logs, Cameroon	\$/cum	171.5	349.7	343.5	262.7	274.9	251.1	259.1	263.8	284.5	310.9
Logs, Malaysia**	\$/cum	172.0	271.6	177.2	219.8	155.9	183.5	188.4	193.0	192.5	214.7
Sawnwood, Malaysia**	\$/cum	697.8	550.2	533.0	613.1	464.7	579.4	584.1	592.8	627.6	666.2
<b>Other Raw Materials</b>											
Cotton	¢/kg	269.7	286.5	181.9	161.3	138.7	115.9	116.3	121.6	138.4	138.7
Rubber, RSS1, Malaysia	¢/kg	162.4	197.9	86.5	93.9	69.3	57.9	62.2	64.8	73.8	73.4
Tobacco	\$/mt	4,290	3,162	3,392	3,256	3,207	2,955	2,826	2,757	2,719	2,443
<b>Fertilizers</b>											
DAP	\$/mt	215.3	308.7	171.4	184.5	195.2	175.7	160.2	160.9	171.5	155.5
Phosphate rock	\$/mt	43.9	64.9	40.5	37.8	41.3	42.5	41.5	40.4	36.8	34.1
Potassium chloride	\$/mt	127.6	160.8	98.1	107.5	112.2	117.5	111.2	108.5	102.1	93.3
TSP	\$/mt	171.5	250.4	131.8	158.6	166.1	149.7	136.6	128.7	125.5	114.7
Urea, E. Europe, bagged	\$/mt	191.4	308.6	130.7	118.0	98.9	75.3	75.4	82.7	108.8	111.0
<b>Metals and Minerals</b>											
Aluminum	\$/mt	2,217	2,023	1,639	1,476	1,303	1,304	1,413	1,425	1,422	1,406
Copper	\$/mt	5,645	3,032	2,661	2,101	1,588	1,497	1,602	1,654	1,841	1,777
Gold	\$/toz	143.5	844.7	383.5	305.5	282.3	275.2	282.6	266.5	234.3	222.1
Iron ore	¢/dmtu	39.2	39.0	30.8	26.7	28.5	26.0	25.4	25.7	25.9	23.7
Lead	¢/kg	120.8	125.8	81.1	57.6	50.7	48.8	48.1	49.6	50.2	47.4
Nickel	\$/mt	11,348	9,056	8,864	6,392	4,443	5,504	5,181	5,147	5,021	5,034
Silver	¢/toz	705.7	2866.9	482.0	451.4	531.2	507.0	489.9	473.4	439.3	407.1
Tin	¢/kg	1,465	2,330	608.5	521.0	531.8	511.8	499.3	505.5	493.7	451.6
Zinc	¢/kg	118.0	105.8	151.4	121.4	98.3	102.4	103.6	102.0	96.2	88.8

n.a. = not available

Note: Projections as of October 19, 1999

Source: World Bank, Development Economics, Development Prospects Group



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

Commodity	Unit	1999		2000		2001		2005	
<b>Energy</b>									
Coal, US	\$/mt	30.42	- 33.80	24.96	- 37.21	22.98	- 38.60	18.41	- 41.00
Crude oil, avg. spot	\$/bbl	15.45	- 19.31	12.95	- 21.90	11.72	- 21.37	8.79	- 21.34
Natural gas, Europe	\$/mmbtu	1.93	- 2.22	1.93	- 3.16	1.70	- 3.08	1.34	- 3.01
Natural gas, US	\$/mmbtu	2.03	- 2.41	1.79	- 2.92	1.56	- 2.85	1.26	- 2.84
<b>Non-Energy Commodities</b>									
<b>Agriculture</b>									
<b>Beverages</b>									
Cocoa	¢/kg	108	- 118	93	- 143	81	- 158	78	- 207
Coffee, other milds	¢/kg	196	- 219	151	- 244	132	- 274	112	- 312
Coffee, robusta	¢/kg	135	- 150	108	- 172	98	- 195	95	- 219
Tea, 3-auction average	¢/kg	167	- 185	137	- 191	128	- 198	110	- 194
<b>Food</b>									
<b>Fats and Oils</b>									
Coconut oil	\$/mt	689	- 765	526	- 862	454	- 852	379	- 879
Copra	\$/mt	425	- 466	307	- 476	292	- 491	248	- 513
Groundnut meal	\$/mt	109	- 120	98	- 135	90	- 152	89	- 187
Groundnut oil	\$/mt	725	- 793	592	- 921	571	- 927	488	- 952
Palm oil	\$/mt	415	- 453	358	- 565	340	- 592	279	- 614
Soybean meal	\$/mt	138	- 152	113	- 188	113	- 206	112	- 244
Soybean oil	\$/mt	403	- 450	339	- 555	337	- 591	325	- 689
Soybeans	\$/mt	185	- 205	152	- 253	149	- 273	136	- 297
<b>Grains</b>									
Maize	\$/mt	83	- 91	70	- 113	71	- 125	68	- 150
Rice, Thai, 5%	\$/mt	227	- 256	186	- 318	182	- 341	158	- 395
Sorghum	\$/mt	78	- 86	66	- 107	68	- 119	65	- 144
Wheat, US, HRW	\$/mt	106	- 117	92	- 148	92	- 161	87	- 191
<b>Other Food</b>									
Bananas	\$/mt	397	- 445	325	- 507	314	- 549	284	- 603
Beef	¢/kg	169	- 187	130	- 217	123	- 218	109	- 234
Oranges	\$/mt	405	- 476	339	- 608	338	- 627	317	- 629
Shrimp, Mexican	¢/kg	1,335	- 1,475	1,035	- 1,725	976	- 1,790	829	- 1,812
Sugar, world	¢/kg	12.5	- 13.8	9.3	- 15.5	9.2	- 17.7	12.3	- 27.6
<b>Raw Materials</b>									
<b>Timber</b>									
Logs, Cameroon	\$/cum	236	- 261	194	- 311	185	- 332	171	- 364
Logs, Malaysia**	\$/cum	174	- 191	151	- 232	139	- 251	117	- 264
Sawnwood, Malaysia**	\$/cum	545	- 605	450	- 718	427	- 771	383	- 860
<b>Other Raw Materials</b>									
Cotton	¢/kg	109	- 122	98	- 135	90	- 152	89	- 187
Rubber, RSS1, Malaysia	¢/kg	55	- 61	54	- 71	52	- 78	51	- 97
Tobacco	\$/mt	2,837	- 3,073	2,120	- 3,533	1,985	- 3,529	1,822	- 3,617
<b>Fertilizers</b>									
DAP	\$/mt	167	- 185	125	- 202	119	- 209	112	- 232
Phosphate rock	\$/mt	41	- 44	35	- 48	32	- 49	28	- 46
Potassium chloride	\$/mt	114	- 121	87	- 140	80	- 141	66	- 138
TSP	\$/mt	142	- 157	104	- 172	93	- 167	82	- 176
Urea, E. Europe, bagged	\$/mt	71	- 80	57	- 98	60	- 110	76	- 158
<b>Metals and Minerals</b>									
Aluminum	\$/mt	1,183	- 1,424	1,060	- 1,766	942	- 1,907	853	- 1,991
Copper	\$/mt	1,352	- 1,642	1,201	- 2,002	1,103	- 2,206	1,088	- 2,594
Gold	\$/toz	246	- 304	212	- 353	175	- 358	142	- 326
Iron ore	¢/dmtu	25	- 27	21	- 30	19	- 32	18	- 34
Lead	¢/kg	45	- 51	36	- 60	33	- 66	30	- 70
Nickel	\$/mt	5,021	- 5,987	3,862	- 6,594	3,401	- 6,893	3,012	- 7,029
Silver	¢/toz	463	- 550	367	- 612	313	- 634	264	- 615
Tin	¢/kg	483	- 541	377	- 622	335	- 676	297	- 690
Zinc	¢/kg	97	- 108	78	- 129	68	- 136	58	- 135

Note: Projections as of October 19, 1999

Source: World Bank, Development Economics, Development Prospects Group

# APPENDIX

Table A5: Weighted Indices of Commodity Prices and Inflation

	Actual					Projections*				
	1970	1980	1990	1997	1998	1999	2000	2001	2005	2010
<b>Current Dollars</b>										
Petroleum	5.3	161.1	100.0	83.8	57.1	78.7	80.9	78.7	78.7	83.0
Non-Energy Commodities**	43.9	125.8	100.0	117.6	99.2	88.1	90.6	94.4	108.1	117.4
Agriculture	45.8	138.1	100.0	128.6	107.8	93.1	95.2	99.4	114.9	125.0
Beverages	56.9	181.4	100.0	170.7	140.6	104.4	103.7	108.8	127.9	136.2
Food	46.7	139.3	100.0	116.1	105.0	90.3	92.9	96.6	108.5	113.6
Fats and oils	64.4	148.7	100.0	147.7	132.8	106.1	109.7	112.3	121.2	128.6
Grains	46.7	134.3	100.0	112.1	101.3	87.2	92.2	99.4	116.3	124.4
Other food	32.2	134.3	100.0	92.4	84.2	79.0	79.6	82.1	93.9	95.4
Raw materials	36.4	104.6	100.0	113.7	87.3	88.3	91.7	96.0	113.5	131.2
Timber	31.8	79.0	100.0	125.8	90.9	111.9	115.9	120.7	139.3	168.2
Other Raw Materials	39.6	122.0	100.0	105.5	84.9	72.3	75.2	79.2	95.9	106.0
Fertilizers	30.4	128.9	100.0	119.7	122.1	114.3	109.5	107.1	111.9	116.1
Metals and minerals	40.7	95.1	100.0	90.2	75.7	73.3	77.7	80.8	91.2	98.9
<b>Current 1990 Dollars***</b>										
Petroleum	21.1	223.8	100.0	77.3	54.8	76.0	76.2	72.3	65.8	61.5
Non-Energy Commodities**	175.2	174.7	100.0	108.5	95.2	85.1	85.4	86.7	90.5	86.9
Agriculture	182.6	191.9	100.0	118.7	103.5	89.9	89.6	91.3	96.1	92.5
Beverages	226.8	252.1	100.0	157.5	134.9	100.8	97.7	100.0	107.0	100.9
Food	186.2	193.5	100.0	107.1	100.7	87.1	87.6	88.8	90.8	84.1
Fats and oils	256.6	206.6	100.0	136.3	127.5	102.5	103.3	103.2	101.4	95.2
Grains	186.3	186.6	100.0	103.4	97.2	84.2	86.9	91.3	97.3	92.1
Other food	128.5	186.6	100.0	85.2	80.8	76.3	75.0	75.5	78.5	70.6
Raw materials	145.2	145.3	100.0	104.9	83.8	85.3	86.4	88.3	95.0	97.1
Timber	126.7	109.8	100.0	116.1	87.3	108.0	109.1	110.9	116.5	124.5
Other Raw Materials	157.8	169.5	100.0	97.3	81.5	69.8	70.9	72.8	80.2	78.5
Fertilizers	121.2	179.1	100.0	110.5	117.2	110.4	103.2	98.4	93.6	86.0
Metals and minerals	162.2	132.1	100.0	83.3	72.6	70.8	73.2	74.3	76.3	73.2
<b>Inflation indices: 1990=100****</b>										
MUV index*****	25.08	71.98	100.00	108.38	104.19	103.56	106.15	108.80	119.51	135.09
% change per annum		11.12	3.34	1.16	-3.87	-0.60	2.50	2.50	2.37	2.48
US GDP deflator	32.69	64.53	100.00	119.20	120.41	121.97	123.80	126.03	136.95	151.80
% change per annum		7.04	4.48	2.54	1.01	1.30	1.50	1.80	2.10	2.08

\*Commodity price projections as of October 19, 1999.

\*\*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 materials 13.6.

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

\*\*\*\*Inflation indices for 1998-2010 are projections as of October 12, 1998. Data for 1998 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) weight 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), 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, c.i.f. Europe

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

**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

**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

## DESCRIPTION OF PRICE SERIES

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**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 to 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 fol-

low: 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 unpackaged 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** (Mombasa/Nairobi auctions), African origin, all tea, arithmetic averages of weekly quotes

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

**TSP** (triple superphosphate), 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, sulphate, bleached, air-dry weight, c.i.f. North Sea ports

**Wool** (Dominion), crossbred, 56'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 Notes

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.

Current prices are actual market prices which are not adjusted for inflation or exchange rate changes.

Dollars are US dollars unless otherwise specified.

Futures prices shown in this report are closing prices as of the date noted. 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 by many commodity analysts.

Growth rates, except where noted, are computed by least squares regression.

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 World Bank 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 also by country. Other commodities such as metals use a calendar year.

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

## ACRONYMS AND ABBREVIATIONS

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







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