

# THE WORLD COTTON MARKET: PRICES AND DISTORTIONS

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Carlos A. Valderrama Becerra  
Head Economist  
International Cotton Advisory Committee  
Washington, DC, USA

## Introduction

International cotton prices, as measured by the Cotlook A Index, fluctuated around 60 US cents per pound in May and June 2000, marking a 16-cent recovery in 6 months. With the planting in the Northern Hemisphere, which accounts for 93% of world production, virtually complete, world demand is the factor that will drive prices to new levels over the next 14 months as it did during the first part of this calendar year. With less than two months before the end of the 1999/2000 crop year, the Cotlook A Index is averaging 52 cents per pound. With demand for cotton expected to grow more rapidly than production next season, world ending stocks will likely reach a five-year-low and the Cotlook A Index is expected to exceed 60 cents per pound in 2000/01.

In 1999/00, prices declined for the fifth year. In 1995/96 and 1996/97 prices declined due to increased production. Scant growth of demand in 1997-1999 and larger production (in relation to price levels) contributed to further downward pressures on prices. One factor that is likely to have contributed to lower prices is the level of direct subsidies provided to cotton production. In 1998/99, as international prices deteriorated, direct subsidies to production increased. The level of direct assistance to production worldwide increased from US\$3.7 billion in 1997/98 to US\$4.7 billion in 1998/99. Despite efforts to remove agricultural subsidies, cotton growers in 8 countries received direct government assistance in 1998/99.

A partial simulation that utilizes a version of the ICAC Price Model and a measure of the supply elasticity for the USA developed by the FAO and ICAC suggests that the average Cotlook A Index would have been 3 cents higher in 1999/00 and could be 6 cents higher than currently expected in 2000/01. Nonetheless, it should be noted that the simulation does not include the full response of other producing countries to higher prices.

## Fundamentals Behind Current Price Projections

Reports on plantings in the Northern Hemisphere and the strengthening of world consumption are placing upward pressure on prices. With two months left in the current season the average season-to-date Cotlook A Index is 52 cents per pound. With prices expected to remain at current levels, or even increase at the pace of the last four months, the average Cotlook A Index for 1999/00 is likely to be near 53 cents per pound.

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\* The projections provided here are as of June 2000. More current projections can be found at <http://www.icac.org>

Planting in the Northern Hemisphere is virtually complete and world cotton production is expected to decline by 100,000 tons to 19.1 million tons in 2000/01. Cotton production is expected to decline in 29 countries, with the most important declines taking place in Pakistan and China (Mainland). Nonetheless, production is expected to increase in 28 other countries, most notably in the USA and Brazil, which account for 600,000 tons of additional world production. In both the USA and Brazil, the government provides direct subsidies to cotton production. Cotton production is expected to increase by 160,000 tons in another 26 countries combined.

Despite the fact that season-average prices are reaching a 15-year low this season, production is not expected to decline as it did in 1992/93, a year when prices declined to 58 cents per pound. In addition, fewer countries are expected to register production declines in 2000/01. In 1992/93, cotton production declined in 46 countries. The better response of production to prices supports the expectation that the price recovery in 2000/01 and 2001/02 will not register the rapid pace it registered in 1993/94 and 1994/95.

Even with production declines expected for 2000/01, world production is still expected to be above 19 million tons and the outlook for prices depends on the rate of growth of consumption as much as it depends on the evolution of the 2000/01 crop.

World cotton consumption will increase for the second consecutive year and is expected to reach 19.9 million tons in 2000/01. In 1992/93, world consumption was stagnant and remained around 18.5 million tons through 1995/96. In contrast, world consumption is increasing by a vigorous 3.4% in 1999/00 and is expected to continue to increase by 1.4% in 2000/01. In 1992/93, mill consumption of cotton declined in 68 countries (mainly in Russia, Japan and the Republic of Korea) and increased in 51 [mainly in China (Mainland), India and the USA]. In contrast, declines in mill consumption are expected to take place in 2000/01 in 19 countries [mainly in China (Mainland), the USA and Germany] and increases in mill consumption are expected to take place in 63 countries, with the bulk of the increase concentrated in India, Turkey, Pakistan and an other 9 countries.

### **China (Mainland) Signals Higher International Cotton Prices in 2000/01**

High domestic cotton prices in China (Mainland) may be a signal of higher international prices. Prices for upland cotton in China (Mainland) increased to more than 70 U.S. cents per pound during March, and Xinjiang extra-fine cotton reached US\$ 1.55 per pound in the same period. The government released large quantities of cotton from the state reserve in April, and prices of upland cotton declined to the mid-60s. Between April 11 and May 16, the National Cotton Exchange Market of China (Mainland) auctioned 256,000 tons of cotton from state reserve stocks. Given the current role of China as the biggest producer and consumer of cotton, a large discrepancy between Chinese (Mainland) and international prices may cause abrupt movements in cotton prices around the globe. Of course, high domestic cotton prices will probably stimulate production and may put pressure on Chinese (Mainland) cotton consumption.

Reports indicate that Chinese (Mainland) farmers will devote more area to cotton than initial official expectations of 3.3 million hectares. Chinese (Mainland) consumption is

increasing from 4.6 million tons in 1998/99 to an estimated 4.8 million tons in 1999/00, mainly due to an increase of the price differential of chemical fiber prices to cotton prices in the second half of 1999. Given the current level of cotton prices in the Chinese (Mainland) market, the share of chemical fibers is expected to increase next season and consumption may decline to 4.7 million tons. However, Chinese (Mainland) stocks may still decline by about 1 million tons next season. These stocks contain two to eight-year-old cotton, dispersed in different warehouses across China (Mainland). Assuming that a proportion of these stocks might be of low quality and that stock allocation to textile mills might involve time-consuming logistical problems, domestic prices may reach higher levels unless the government allows generous imports of high quality cotton. Imports of 200,000 tons may be necessary to meet the needs of textile mills. The government of China (Mainland) has already issued licenses to import 100,000 tons of cotton for domestic textile firms, but this cotton will probably be shipped after July.

A change in the status of China (Mainland) from net exporter in 1999/00 to net importer in 2000/01 is expected to contribute to higher international prices. In addition, the change in Chinese (Mainland) policy has another significant implication for long-term fundamentals. During the last two seasons, the possibility that Chinese (Mainland) stocks would flood the market in the event of higher prices discouraged price rallies. The threat that high prices may cause an immediate stock liquidation is now removed from the cotton market. Higher prices may provoke a supply response only in the long run through higher production. Consequently, it is reasonable to expect that international cotton prices will move again to over 60 cents per pound until farmers around the world adjust their production plans. Several periods of high prices might be necessary to restore the trust of farmers in developing countries in the profitability of cotton production since international cotton prices have declined for five consecutive seasons.

## **Price Distortions**

Over the last year, the Secretariat has been gathering information regarding government measures affecting cotton production, ginning and trade. A document on the subject was presented to member governments during the 58<sup>th</sup> Plenary Meeting in Charleston, United States and an update will be presented during the 59<sup>th</sup> Plenary Meeting in Cairns.

In most cotton producing countries, the government provides some form of assistance to cotton growers. Research and technical assistance are perhaps the most common form of assistance provided by governments. Other forms of assistance are discounted prices of inputs, credit at lower interest rates, and promotional activities. All of these forms of assistance are indirect and, unlike direct subsidies to production and trade, are virtually impossible to document worldwide. Over the last 15 years, international negotiations, in particular those that led to the creation of the World Trade Organization, resulted in the gradual decline of direct subsidies. Nonetheless, direct production and trade subsidies persist in several countries.

## **Direct Subsidies to Production**

In 1986, 25 countries had production subsidies in the form of price or income programs. That year, an estimated 69% of world production was subject to government subsidies. During the 1990s, income and price support programs were discontinued in several developing countries. Information gathered by the Secretariat suggests that 53% of world cotton production benefited in 1998/99 from direct income or price support programs. Of 76 cotton producing countries in 1998/99, support programs directed at cotton production were in place in eight countries: Brazil, China (Mainland), Egypt, Greece, Mexico, Spain, Turkey and the USA. The level of assistance provided by governments in these eight countries was US\$5.4 billion in 1998/99. Subsidies in 1998/99 ranged from an estimated US\$15 million provided by Mexico to US\$2.7 billion provided by China (Mainland). Assistance per pound of lint in 1998/99 ranged from 89 U.S. cents in Spain to 3 U.S. cents in Mexico. Production estimates and additional information gathered by the Secretariat suggest that 52% of world cotton production is benefiting in 1999/00 from direct income or price support programs. The overall level of assistance is estimated to have decreased to US\$4.8 billion. In 1999/00, the government of Egypt discontinued its minimum price mechanism and only seven countries have direct support programs in place.

### ***European Union***

Under the Common Agricultural Policy of the European Union, support payments are made to ginneries who are required to pass the subsidy in the form of higher prices to growers. Advance payments are based on estimates of seed cotton production and the difference between market prices and a published guide price. The policy also influences the quantity of cotton produced by a maximum guaranteed quantity of seed cotton for which assistance is provided. The maximum guaranteed quantity is 782,000 tons of seed cotton for Greece and 249,000 tons for Spain. The maximum assistance provided to cotton growers in the EU is ECU\$770 million per season, equivalent to US\$864 million in 1998/99. This amount is usually allocated in its entirety.

The European Union reformed the existing cotton subsidy program in late 1999. While the guide price level and the maximum guaranteed quantity of seed cotton for which assistance is provided have been maintained, penalties for excess production over the maximum guaranteed quantity increased. Under the new system, for each 1% excess production, the level of subsidy is lowered by 0.6% of the guide price (as opposed to 0.5% in previous years).

### ***China (Mainland)***

The Government of China (Mainland) provided an estimated US\$2.7 billion in assistance to growers 1998/99. However, there have been recent reforms to the cotton price and distribution systems. As of September 1, 1999, new policies in China (Mainland) allow domestic cotton prices to be influenced by market factors. The government still sets a reference price for cotton. Nonetheless, actual prices are now negotiated between buyers and sellers and can go below the reference price. For 1999/00, the government has set the reference price at 10,000 yuan per ton, comparable to 55 U.S. cents per pound. This reference price is 22% lower than the

procurement price for 1998/99 and 30% lower than in 1997/98. The Government of China (Mainland) is seeking to reduce large stocks of cotton and plans to broaden marketing channels by allowing state mills to procure cotton directly from farmers. With the new system, the government is attempting to reduce production in eastern provinces and stabilize output in the western Xinjiang Autonomous Region. It is estimated that growers in China (Mainland) will obtain US\$1.5 billion in assistance in 1999/00.

## **USA**

In the USA, a support program was implemented in 1996 to replace previous programs. Typically, a U.S. grower is given direct assistance through two different mechanisms. One mechanism is a Loan Deficiency Payment (LDP), calculated each week as the difference between the average loan rate and a weekly Adjusted World Price (AWP). The other mechanism is a Production Flexibility Contract Payment (PFCP), a fixed payment to compensate growers for the loss of previous assistance linked to prices. Total LDP for 1999/00 are estimated at US\$1.1 billion. The flexibility payment provided to growers is estimated at US\$623 million in 1999/00. An additional payment under the PFCP mechanism, which accounts for disaster relief, is estimated at US\$616 million. As the AWP is below the average loan rate, there will be additional payments to growers in 1999/00 estimated at US\$113 million, which will cover storage and interest costs on the cotton in the loan.

## **Turkey**

Since 1998/99, the government has implemented a procurement price set at the prevailing world market price. All growers are entitled to a premium payment calculated on the basis of seed cotton deliveries to either cooperatives or private gins. The premium was set at 10 U.S. cents per kilogram of seed-cotton. For 1998/99, government support was US\$220 million. With the premium set at the same level, government support in Turkey is estimated at US\$212 million for 1999/00.

## **Egypt**

The government of Egypt announced that the floor price mechanism offered to growers in the past was to be discontinued for 1999/00. The Government of Egypt provided an estimated US\$66 million in 1998/99. No subsidy is to be provided in 1999/00. Nonetheless, the government of Egypt continues to license exports of cotton in order to guarantee a minimum quantity of fiber for the domestic textile industry.

## **Brazil**

The support price in Brazil for 1999/00 remained unchanged at R\$7 per arroba. The minimum guaranteed price for 1998/99 was 55 U.S. cents per pound, 5.3 U.S. cents above market prices. In 1999/00, it is estimated that minimum prices will be 8 cents above market prices. Based on this average price differential and the level of production, it is estimated that assistance by the Brazilian government to the cotton sector through the price support program amounted to US\$61 million in 1998/99 and will likely increase to US\$100 million in 1999/00.

## **Mexico**

In 1998/99, the Mexican government provided assistance to growers at a rate of US\$63 per hectare dedicated to cotton, equivalent to about three U.S. cents per pound with an average yield. Total direct assistance provided by the Mexican government was US\$15 million in 1998/99. Other provisions of the support program in Mexico include technical assistance, assistance for growers that choose to buy price risk coverage instruments, and assistance for crop insurance. Given the financial difficulties faced by the Mexican government after a domestic financial crisis in 1994, and the current global financial crisis, additional assistance was not granted early in the season and with lower prices growers reduced area dedicated to cotton in 1999/00 by 36%. Nonetheless, on November 11 1999, the government announced additional assistance at a rate of P\$1200 per hectare, which will place government assistance at US\$188 per hectare in 1999/00.

### **Direct Assistance to Exports**

Information gathered by the Secretariat suggests that 28% of world cotton exports benefited from government assistance in 1997/98 and 20% in 1998/99. Of 51 cotton producing and exporting countries, support programs directed at exports of cotton are in place in two countries: China (Mainland) and the USA. Overall assistance provided by the governments of China (Mainland) and the USA amounted to US\$158 million in 1998/99 and is expected to increase to US\$261 million in 1999/00. Exports are subsidized in China (Mainland) through direct payments made by the central government to exporting agencies. The direct payments are designed to bridge the difference between international market prices and the internal cost of buying, ginning and transporting cotton to an export location. Assistance in the USA averaged 6 cents per pound in 1998/99 and is expected to average 6 cents per pound in 1999/00.

As of October 1, 1999, the US government approved legislation making available about US\$10 million for Pima cotton. The mechanism by which a payment rate is made compares the difference between a five-day average spot U.S. Pima price with the lowest priced competitor in Northern Europe adjusted for quality and transportation.

### **A Measure of the Impact of Subsidies on Prices**

Its is not a simple task to measure the impact of direct subsidies upon cotton prices. It is certain that a removal of subsidies would result in lower production and, thus, higher prices in the short term, but such impact would be offset, either partially or totally, by shifting world production to non-subsidizing countries in the medium and long terms. Similarly, higher prices would reduce the consumption of cotton.

Since no model is likely to capture all of the effects, a number of assumptions have to be made. First. Given that there is no measurement of the supply response to prices in all subsidizing countries, a measure of the impact of an eventual elimination of all direct subsidies cannot be assessed. A joint study by FAO and ICAC suggests the price supply elasticity for a number of countries, but the elasticity for the USA is the only one with a good degree of accuracy. Second. Demand response to higher prices resulting from a removal of subsidies can be measured by the price demand elasticity provided

by the ICAC World textile Demand Model. Third. A measurement of the response of other countries to the higher prices resulting from a removal of subsidies has to be assumed. Further, if only the impact of US subsidies is to be simulated, a reasonable measure of potential US production without subsidies has to be assumed.

In an effort to explore the likely impact of a removal of US subsidies it was assumed that given the historically high international prices that season, US production in 1994/95 was a good measure of the potential production without subsidies. A price supply elasticity (0.47) for the following years was applied to production, which resulted in 2.6 million tons of cotton production in 1999/00, one million lower than actual production, and 2.9 million tons expected for 2000/01, 1.3 million tons less than currently expected. When applied to the ICAC Price Model, the decline in US production would result in average international cotton prices 6 cents higher than realized in 1999/00 and 12 cents higher than expected in 2000/01.

Higher levels of prices would have an impact upon demand for cotton. The ICAC World Textile Model suggests that a 20% increase in cotton prices would result in a 1% decline in world demand for cotton. The application of the resulting levels of demand were applied to the price model suggesting the lower levels of demand would lessen the initial impact by 1 cent in 1999/00 and 2 cents in 2000/01.

There is no doubt that with higher prices production in non-subsidizing countries would increase. However, there is no measure to assess the impact. With relatively high prices (above the long-term average of 74 cents), area dedicated to cotton in non-subsidizing countries increased to 22 million hectares in 1998/99. Area declined to 20.7 million hectares in 1999/00. If prices had been 6 cent higher in 1998/99, the price decline would have been only half compared to 1997/98 and thus it is reasonable to expect that area would have decline just by half. Such response would offset half of the production decline that would have resulted from an elimination of subsidies in the US. As a result, the impact of a removal of the US subsidies would have a maximum net effect of 3 cents greater than average cotton prices in 1999/00 and 6 cents greater in 2000/01.

It is reasonable to expect that a removal of subsidies would result in less variation in season average prices from year to year, but little effect would take place in the long-term as production would be shifted to other countries.

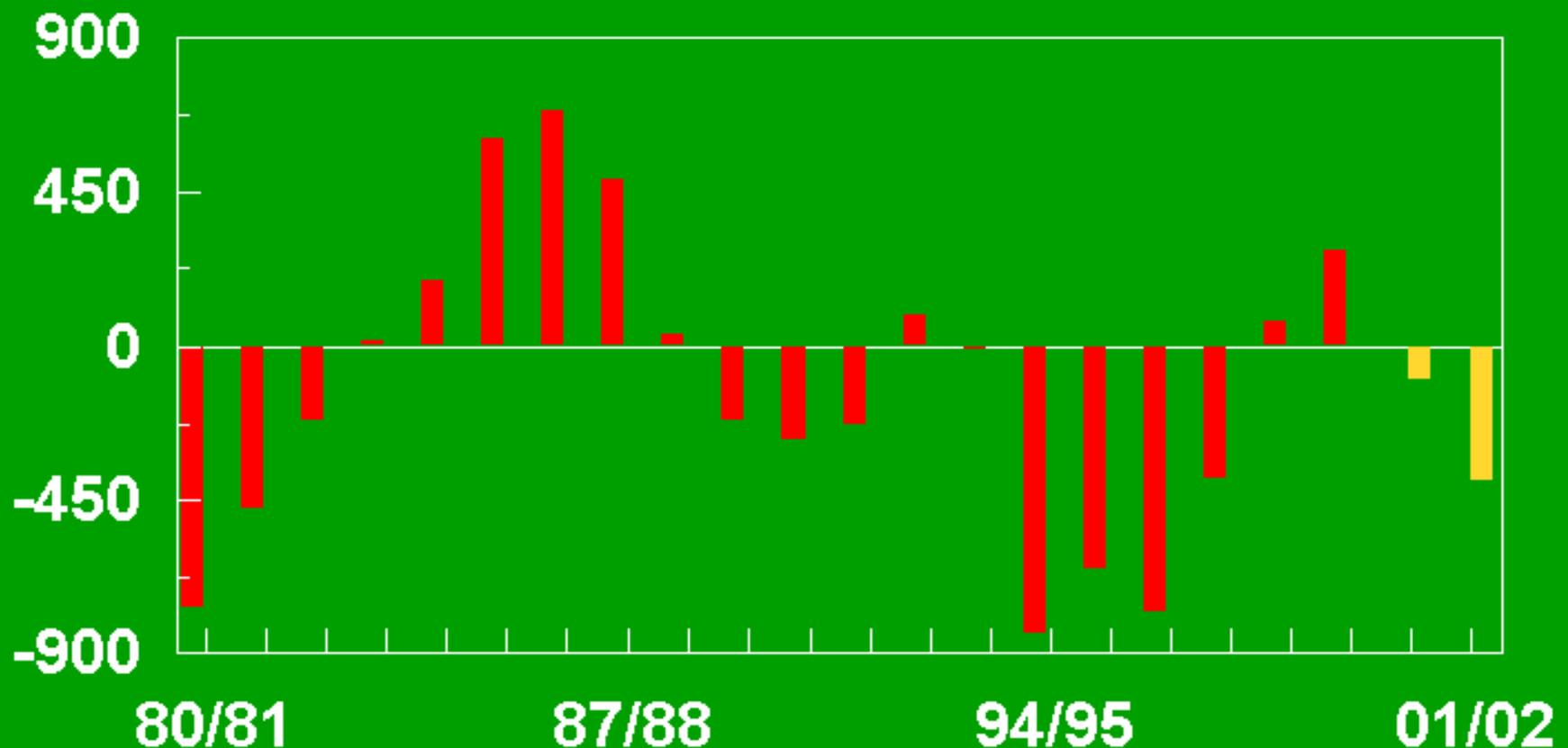
# COTLOOK A INDEX

US Cents per pound



# NET TRADE: CHINA (M)\*

Thousand tons



\* Exports - Imports

# STOCKS-TO-USE RATIO: WORLD LESS CHINA (M)

Ratio

0.60

0.50

0.40

0.30



80/81

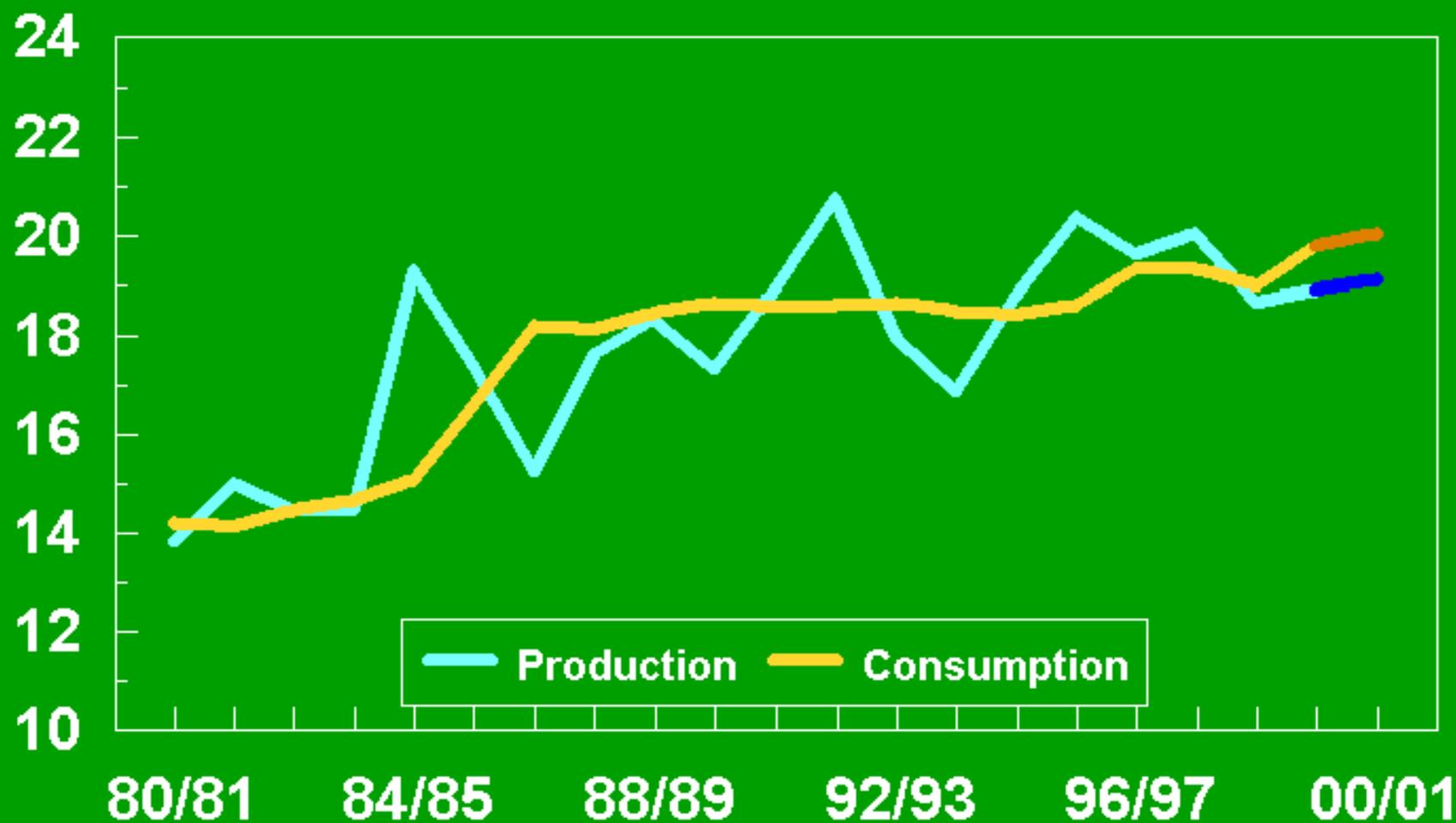
87/88

94/95

01/02

# WORLD MARKET

Million tons



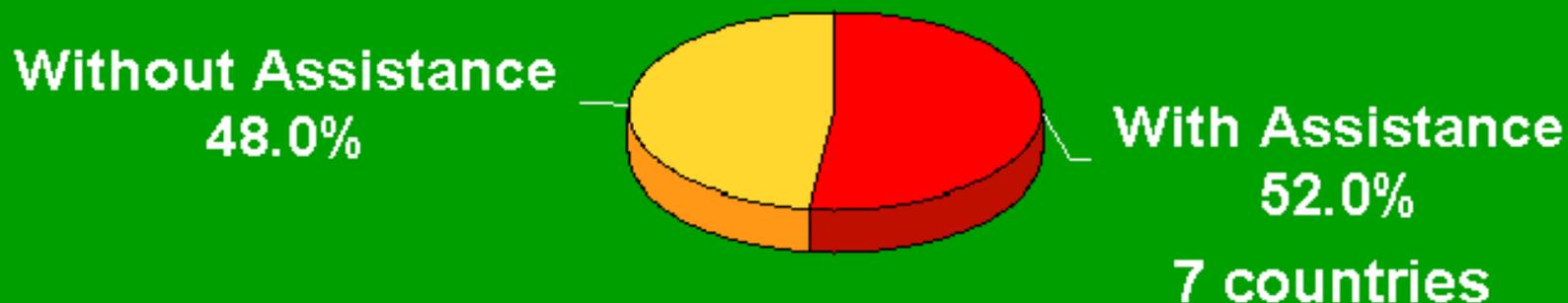
# COTLOOK A INDEX

US Cents per pound

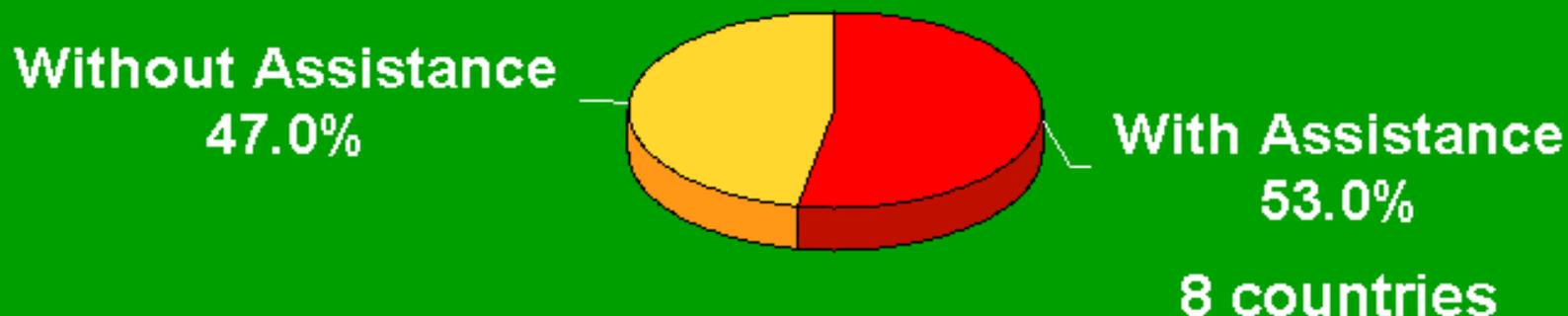


# WORLD PRODUCTION SUBJECT TO DIRECT INCOME AND/OR PRICE SUPPORT ASSISTANCE

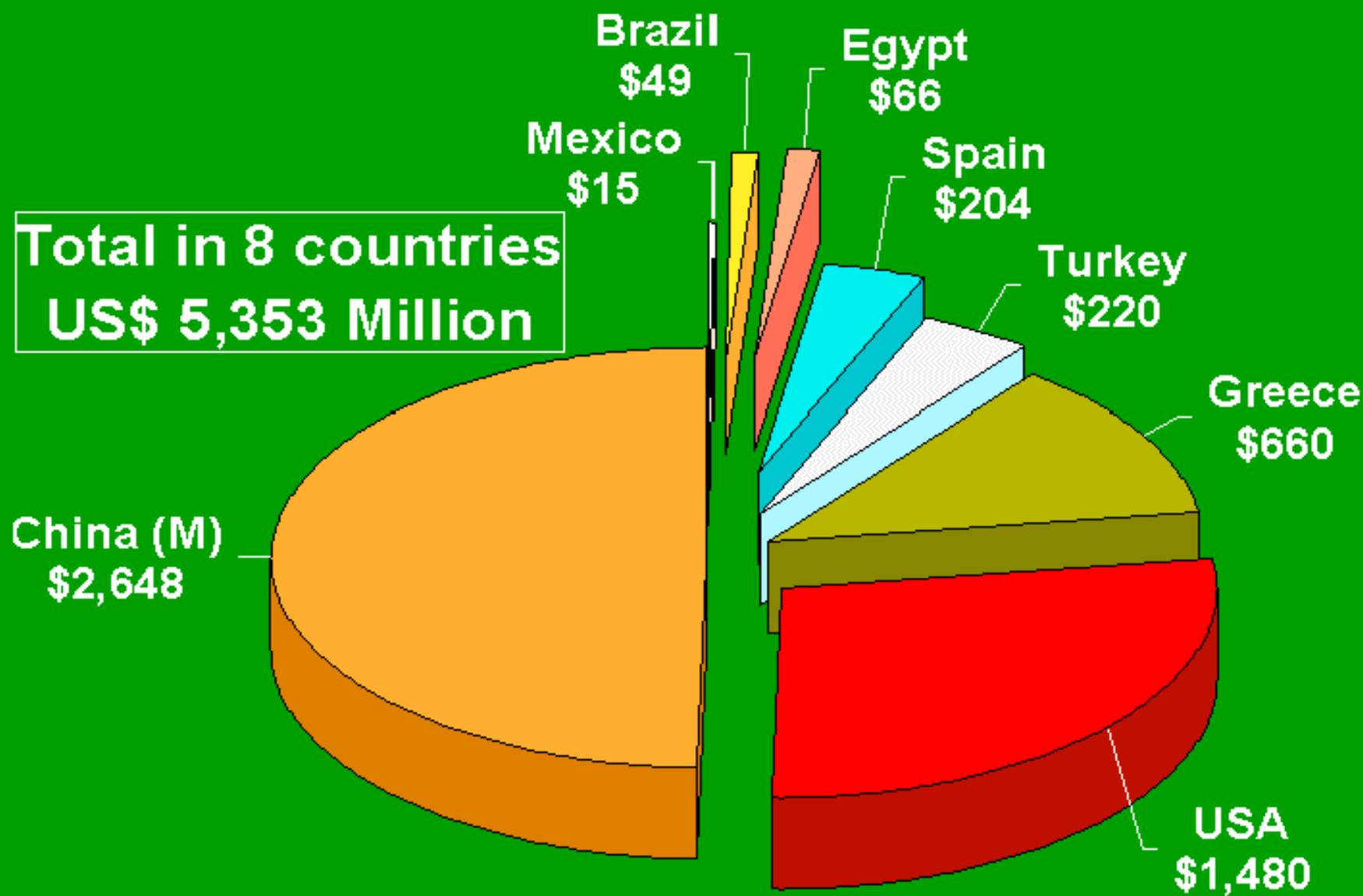
1999/00



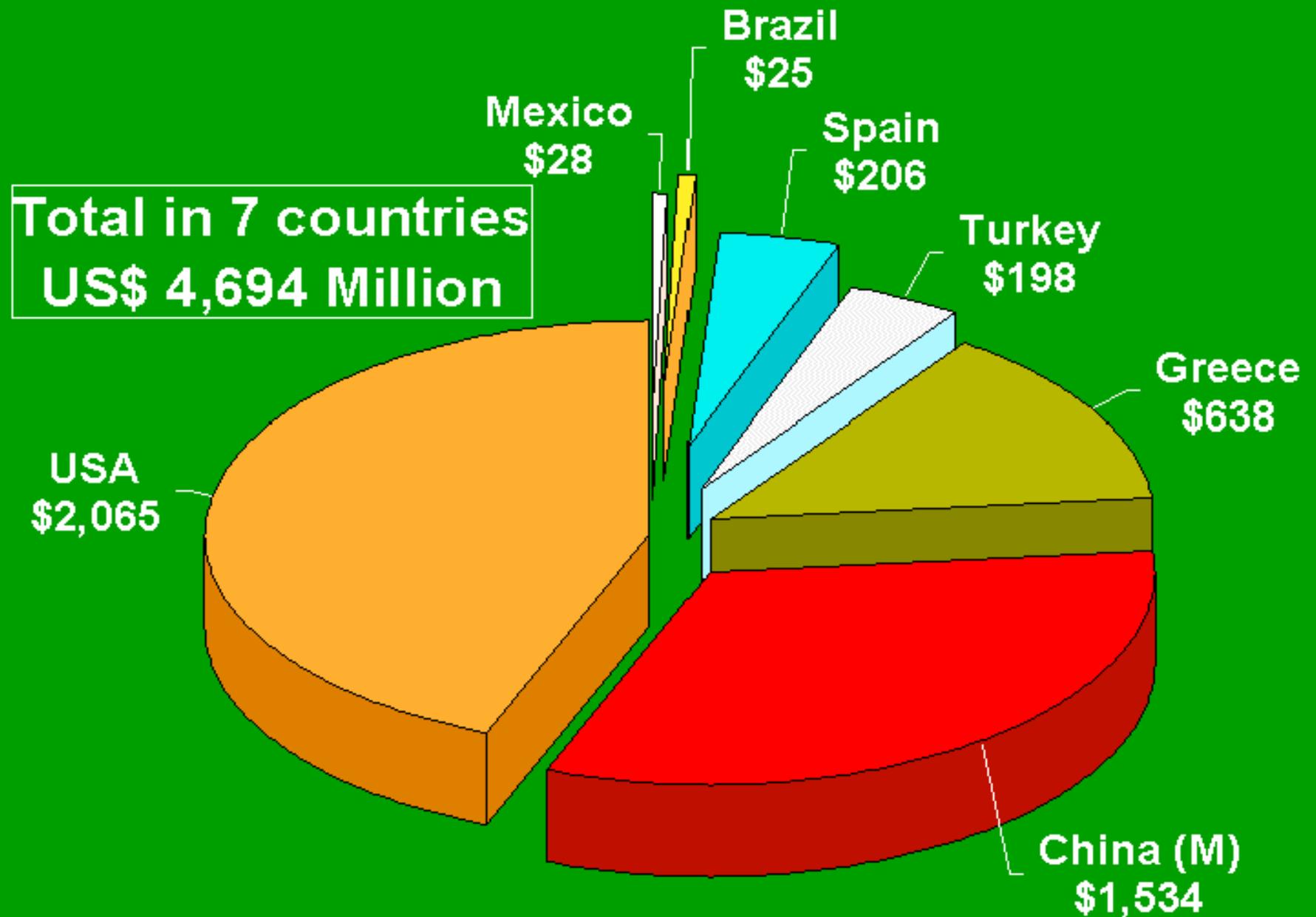
1998/99



# ASSISTANCE TO PRODUCTION IN 1998/99



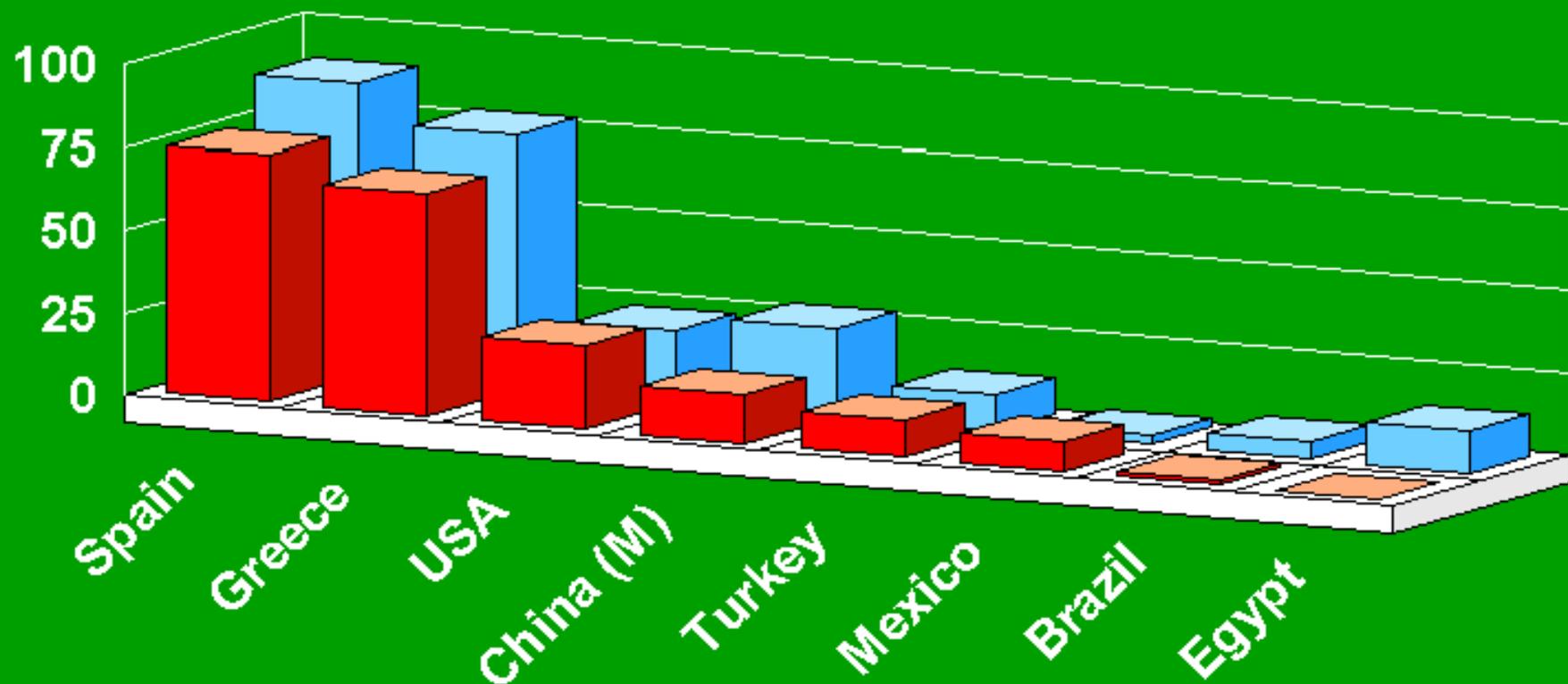
# ASSISTANCE TO PRODUCTION IN 1999/00



# AVERAGE DIRECT ASSISTANCE PER POUND OF PRODUCTION

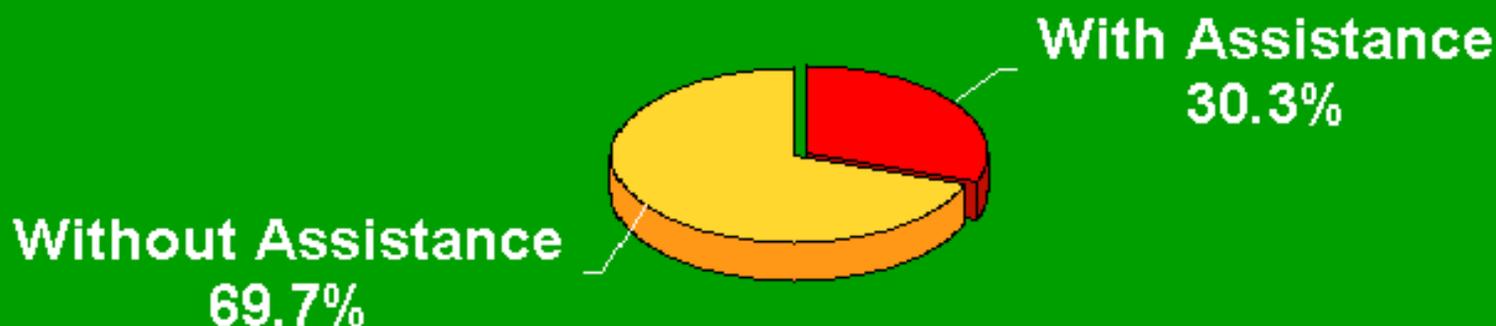
99/00 98/99

US cents per pound

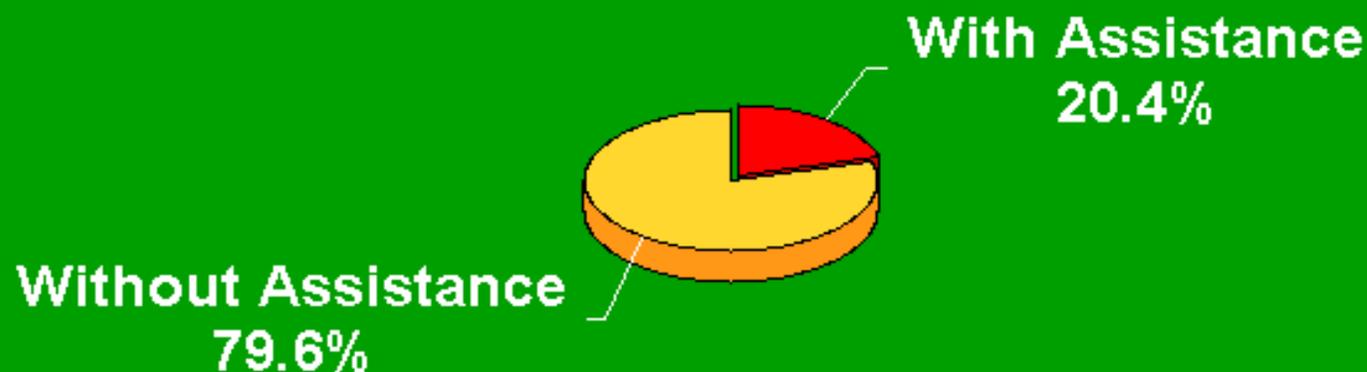


# WORLD EXPORTS SUBJECT TO GOVERNMENT ASSISTANCE

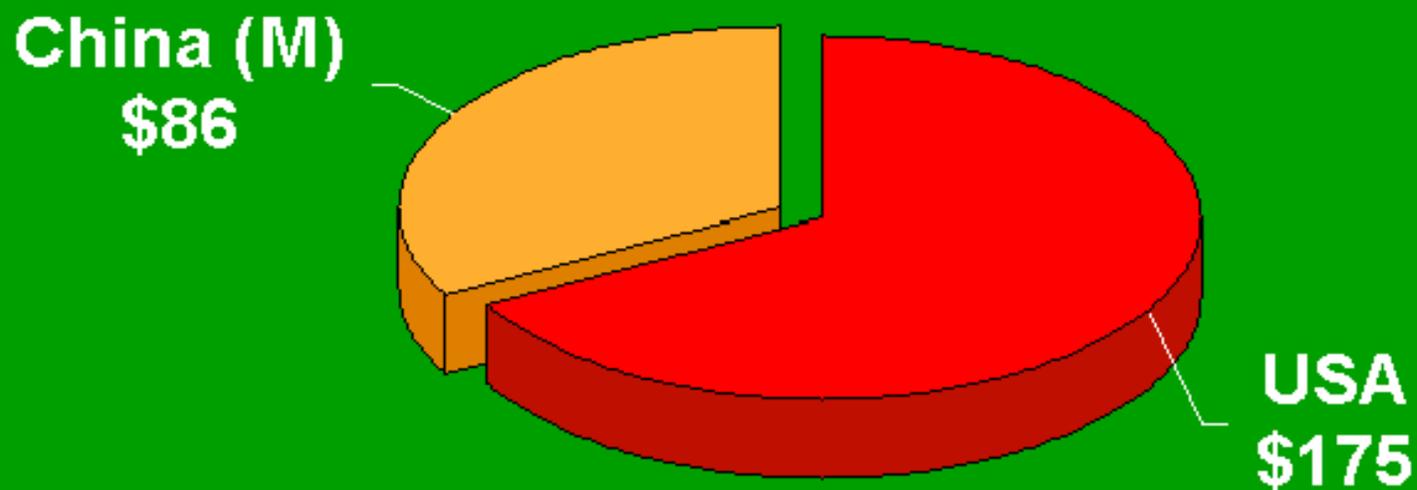
1999/00



1998/99

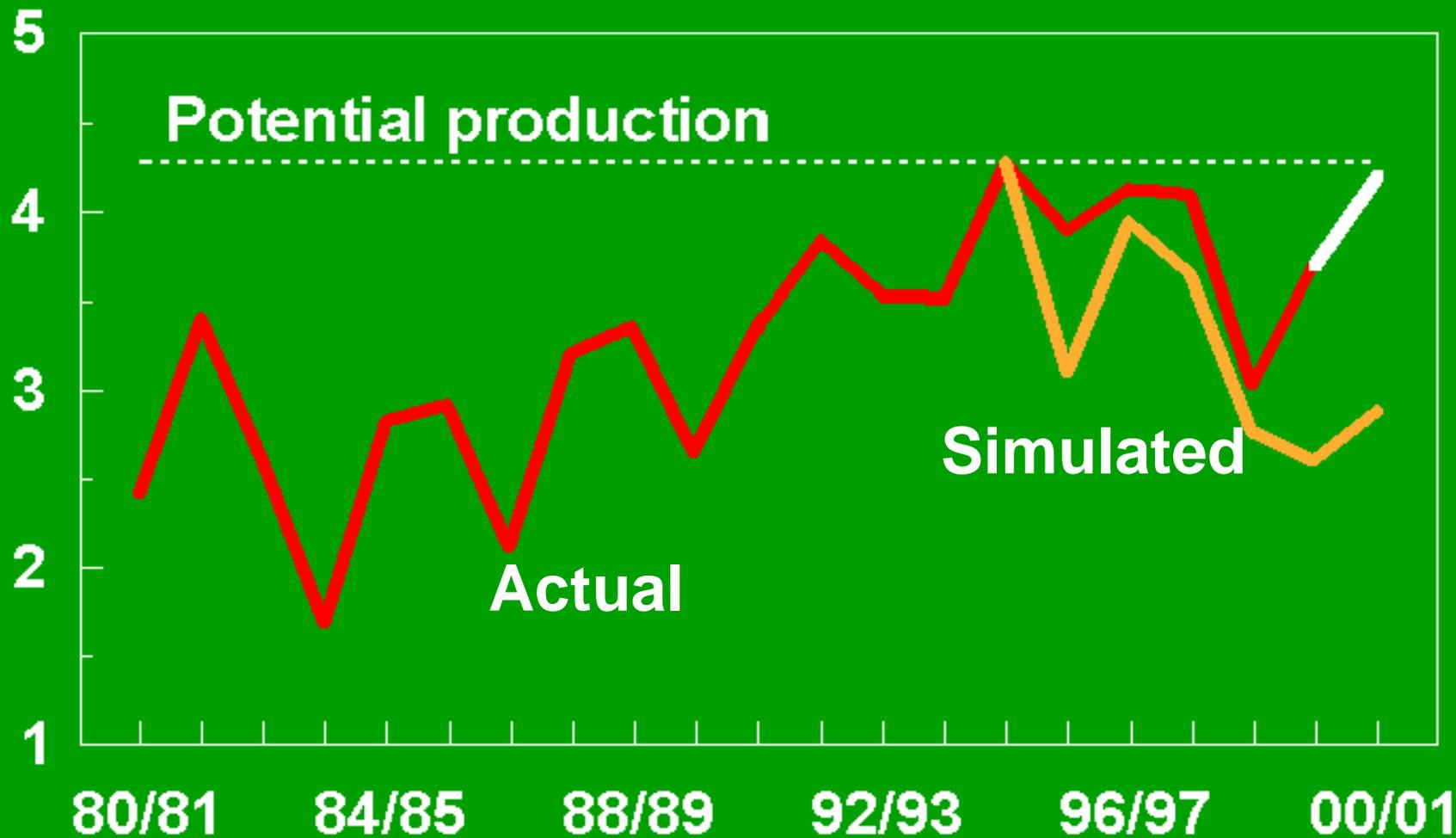


# ASSISTANCE TO EXPORTS IN 1999/00



# PRODUCTION: USA

Million tons



# COTLOOK A INDEX

US Cents per pound

