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Ten-Year International Agricultural Outlook

FAPRI Staff Report #4-87
July 1987

Food and Agricultural Policy Research Institute
Iowa State University
University of Missouri-Columbia

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FOOD AND AGRICULTURAL POLICY RESEARCH INSTITUTE

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TEN-YEAR SUMMARY REPORT

The Macroeconomic Environment

The macroeconomic environment over the 10-year projection period contrasts sharply with that of the last five years. During the last five years, low or negative real Gross Domestic Product (GDP) growth was experienced in many countries. This low-growth period followed high growth in the 1970s.

The projected recovery of the world economies from the performance in the recent past has a major impact on the level of demand and trade in the 10-year projection period. By comparison with the past five years, the rate of real GDP growth, while substantially improved, is not as robust as during the 1970s. Demand and trade recover substantially, therefore, but do not approach the levels observed in the boom years of the 1970s.

The purchasing power of the U.S. dollar relative to many developed country currencies is projected to continue declining, but at a lower rate for one or two more years, and then recover marginally thereafter. However, over the projection period the U.S. dollar remains weak relative to many foreign currencies, and this supports the U.S. competitive position in export markets.

The Policy Environment

The Food Security Act of 1985 (FSA85) was designed to sustain the net farm income levels experienced during the 1981 Farm Bill while improving the competitive position of the United States in agricultural trade. This was achieved by holding target prices close to the prevailing levels while allowing the loan rates to fall substantially. The decline in loan rates, a marketing loan program for rice and cotton, the liberal use of generic payment-in-kind certificates, and aggressive export enhancement programs have reduced world commodity prices and made the United States more competitive in international trade.

The FSA85 and the management strategy adopted to implement it have resulted in very high costs during the first two years of the program. This was an inevitable result of the excess capacity in U.S. agriculture and the desire to maintain income protection while improving competitiveness.

Commodity Markets

The FSA85 policies and implementation strategies have resulted in substantial declines in commodity market prices during the first year of the program. Throughout the projection period crop prices increase only slightly in nominal terms but continue to decline in real terms . The lower grain prices stimulate the expansion of the livestock industry because of increased profitability in the short run. The herd expansion leads, in the early 1990s, to lower livestock prices just as feed costs begin to rise. The result is a cost-price squeeze for livestock producers in the early 1990s. Consumers, however, benefit from lower retail meat prices as total meat production increases over the projection period.

Trade

The combination of a more competitive domestic policy, more favorable exchange rates, and an increased rate of real GDP growth around the world causes a noticeable turnaround in the volume and value of agricultural exports. The five major export crops increase in value by 35 percent by 1991/92 and continue the increase throughout the evaluation period. While this turnaround in direction of export value is favorable, it is not until 1995 that the projected value of exports exceeds the level that existed in 1984/85 before the FSA85 and associated management strategy were implemented.

Acreage

The acreage planted to the five major program crops declines until 1988/89 and then increases as prices increase and acreage reduction provisions of the FSA85 are relaxed. It is expected that corn acreage will begin to increase after 1988/89, soybeans and rice after 1987/88, and wheat after 1990/91. Cotton acreage is

expected to increase in 1988/89, and then change little thereafter.

A comparison of projected planted and idled acreage clearly demonstrates a long-term excess capacity problem in U.S. agriculture. By comparison with the 1960s, when large acreage reduction programs were also required to contain the growth in surplus stocks, the future holds even greater excess production capacity. The brief period in the 1970s was an aberration in a long-term situation with growth in supply exceeding the growth rate of demand. The long-term conservation reserve plays an important role in keeping land out of production and reducing supplies well into the next decade.

Stocks

After the boom years of the 1970s, the problem of burdensome stocks developed rapidly during the 1981 Farm Bill. In the inaugural year of the FSA85, the acreage equivalent of the ending stock level had reached 123 million acres compared with 223 million planted. With the reduction in commodity and crop prices and the aggressive efforts by the government to reduce stocks through the various instruments of the FSA85, stock levels are reduced substantially over the projection period. However, even in 1996/97 the level of stocks relative to production and consumption still remains relatively high.

Costs

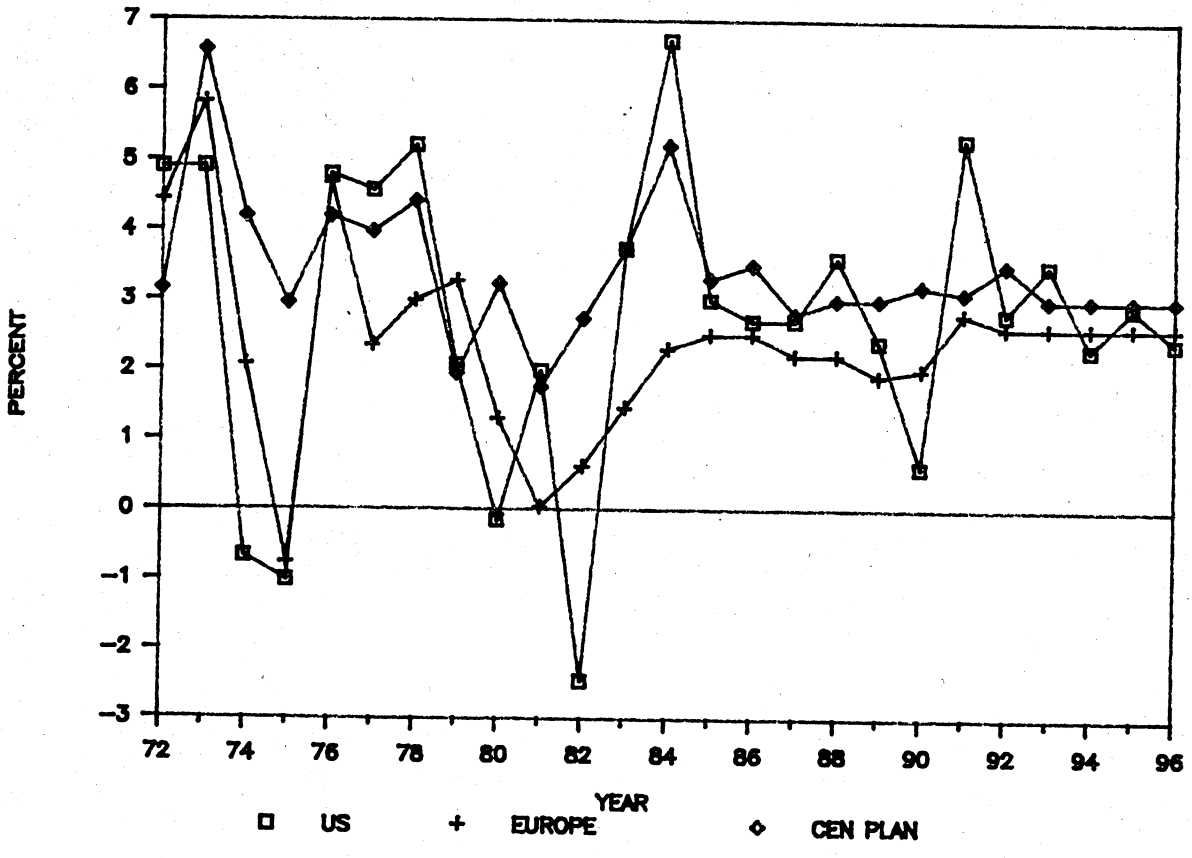
Government program costs, which were low in the 1970s because of strong foreign demand and relatively high commodity prices, increased sharply during the later years of the 1981 Farm Bill, in large part because of the high volume of loans that remained outstanding.

The FSA85, and the management strategy adopted, has increased the level and changed the composition of cost. Under the current programs, a larger proportion of the cost is in the form of direct payments and a lower proportion in the form of outstanding loans than for the 1981 Farm Bill. Costs were $25.8 billion in fiscal year 1986 and are estimated to be $23.8 billion in 1987. The cost projections suggest that these high levels of expenditures are transitory. After FY87, nominal government costs decline $2 to $3 billion annually until FY91 and then remain fairly constant. The flattening of government cost is a consequence of the assumption that target prices will remain constant at the level that exists at the end of the current farm legislation. If the farm legislation subsequent to the FSA85 implements a continuing decline in the target prices, the costs will decline in the last five years of the projection.

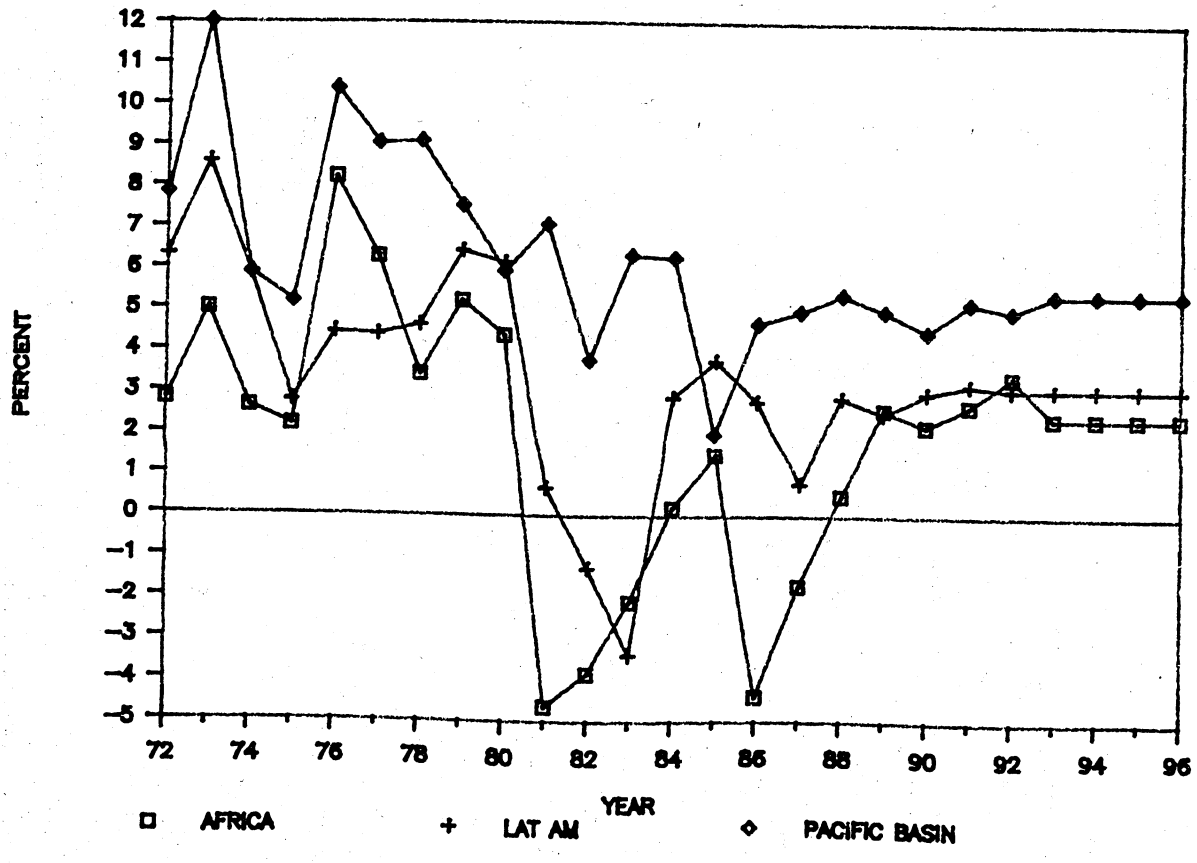
Net Farm Income

After the sharp increase in net farm income during the current year, nominal net farm income declines gradually over the projection period, as target prices are reduced and livestock profitability declines. Net farm income remains approximately constant in nominal terms for the five years preceding 1996 due to the assumption that target prices are held constant following the FSA85. Because of the reliance of the current programs on direct government payments as a means of maintaining cash receipts with declining loan rates, direct payments continue to represent about 50 percent of net farm income throughout the projection period.

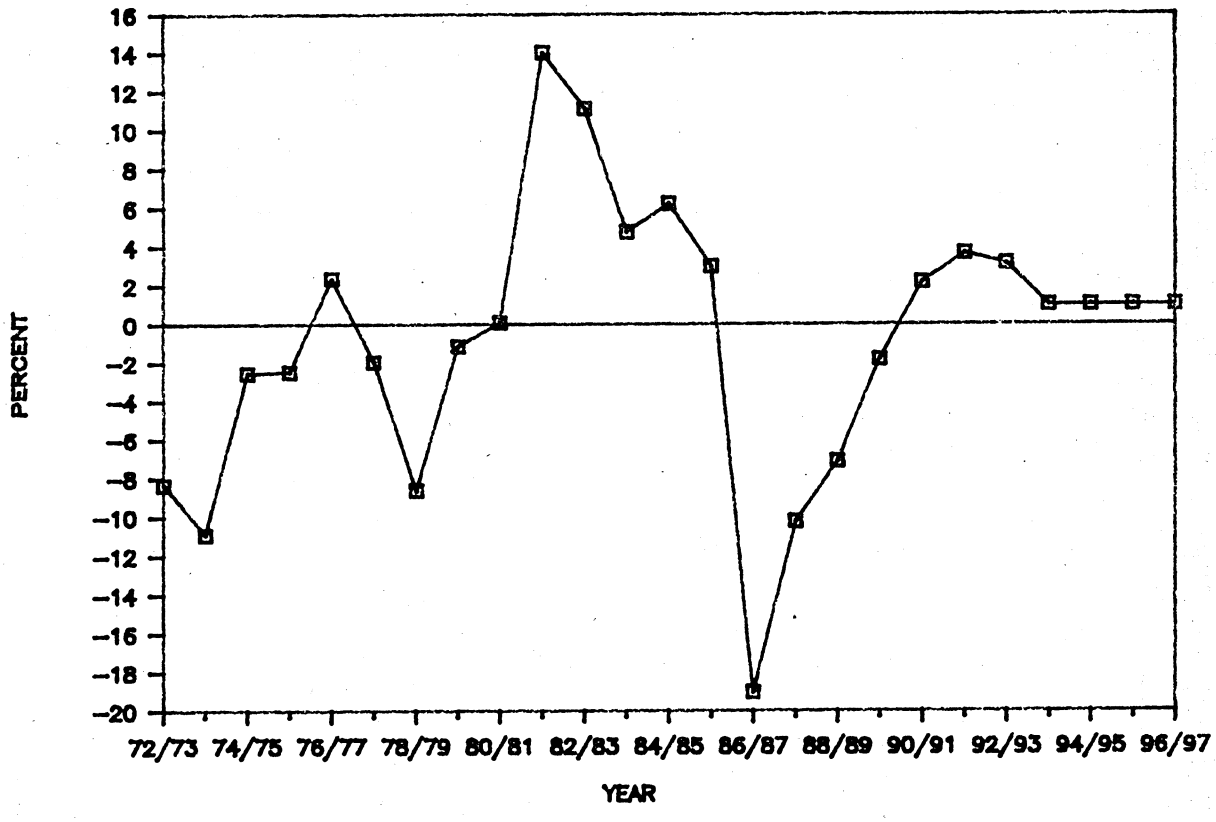
REAL GDP PERCENT CHANGE



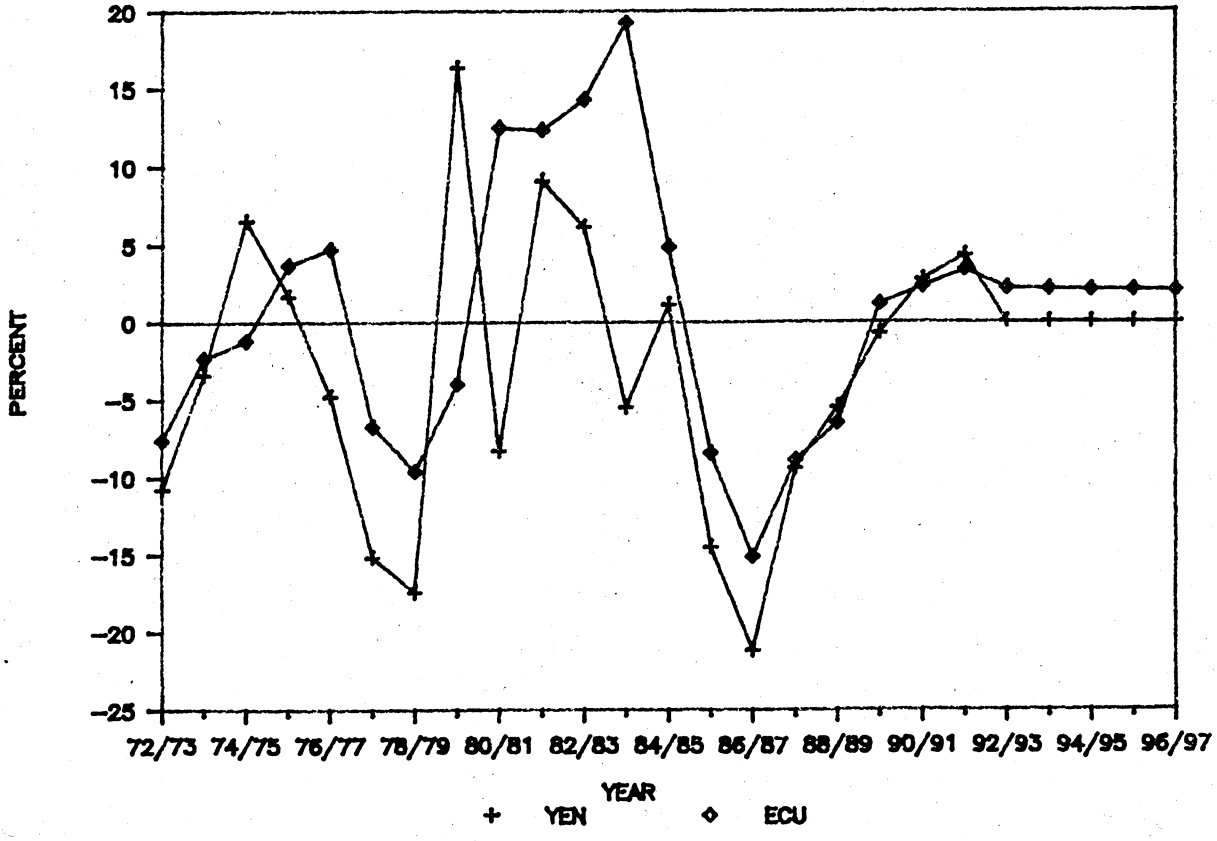
REAL GDP PERCENT CHANGE



MERM EXCHANGE RATE INDEX

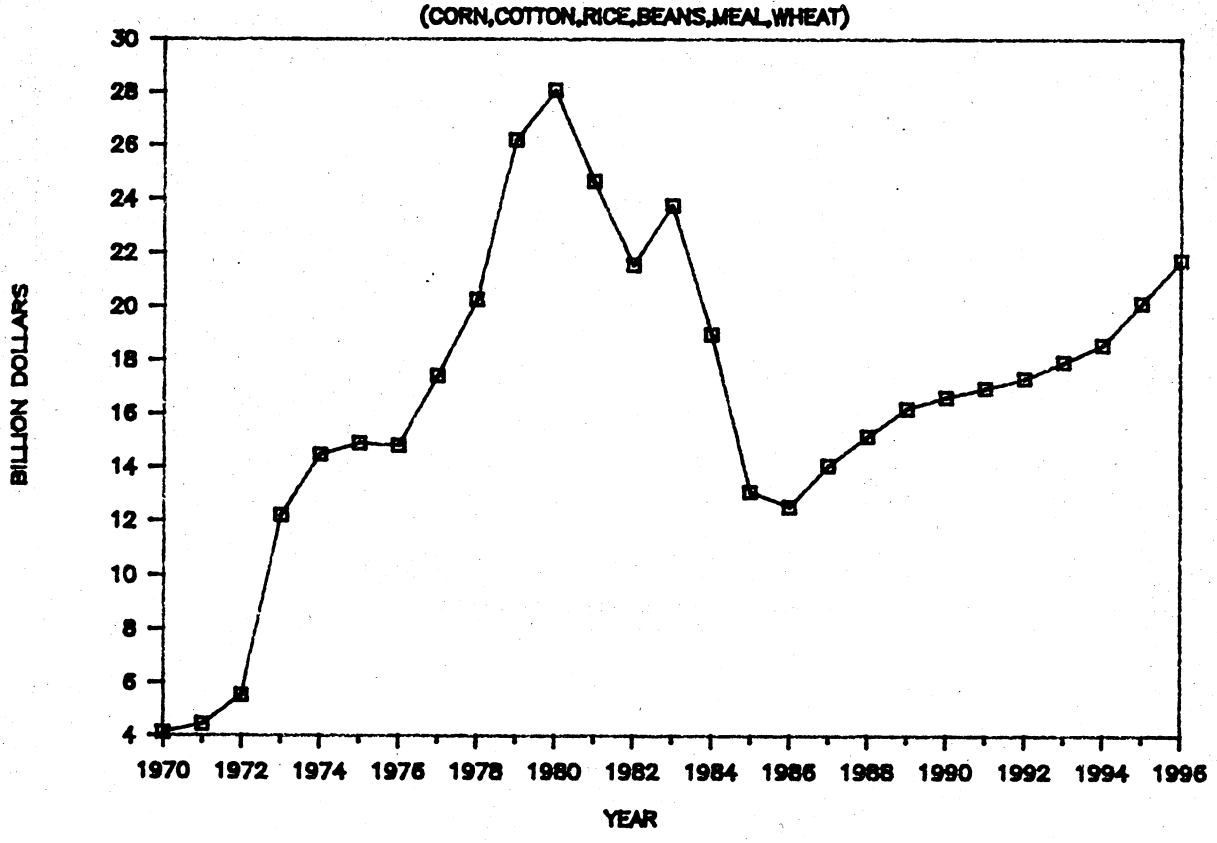


EXCHANGE RATES



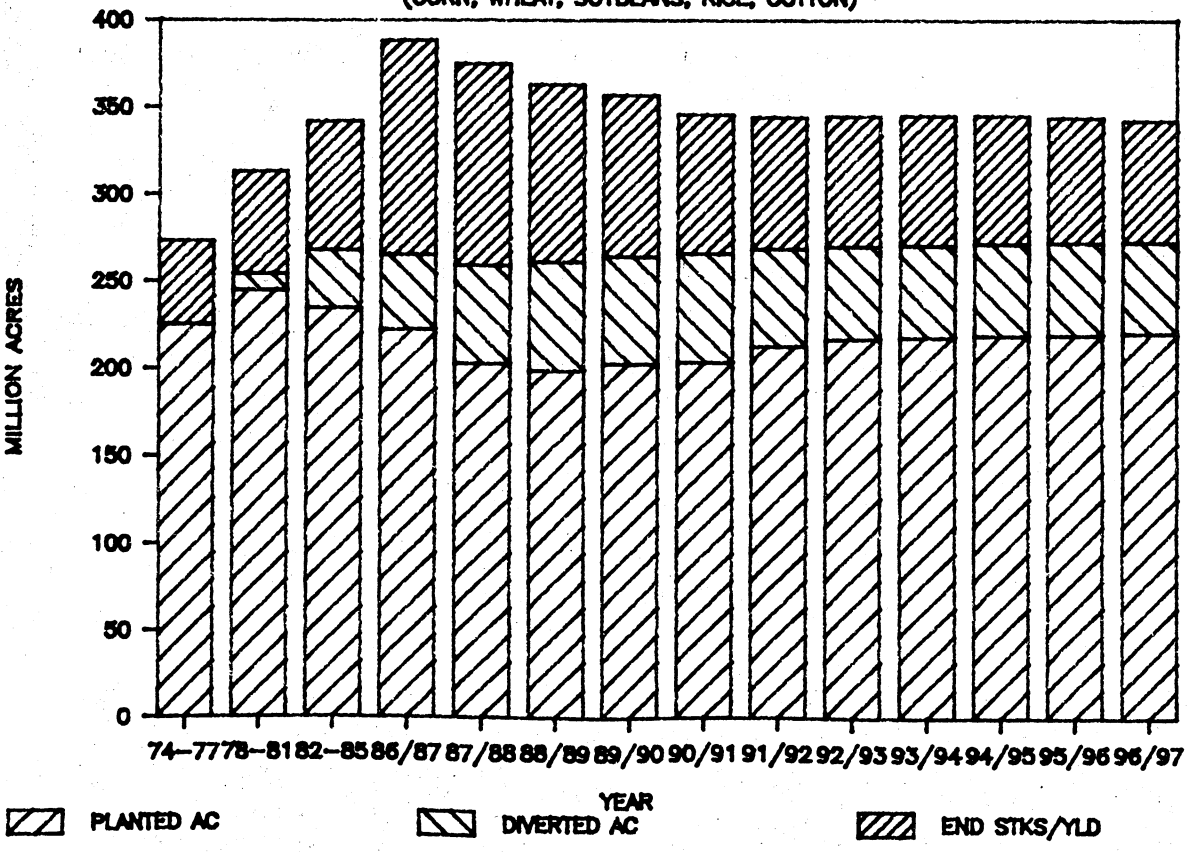
VALUE OF U.S. AG EXPORTS

(CORN,COTTON,RICE,BEANS,MEAL,WHEAT)

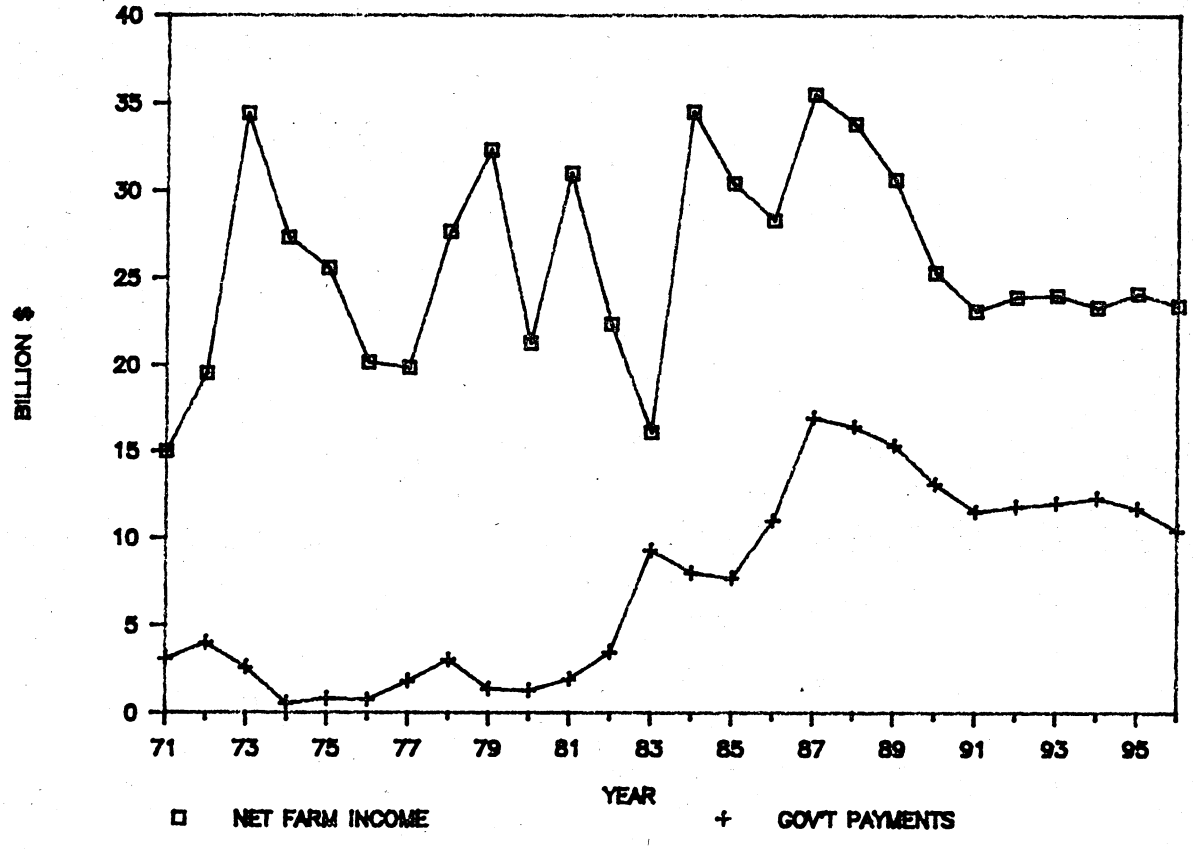


PLANTED, IDLED ACRES, AND STOCKS

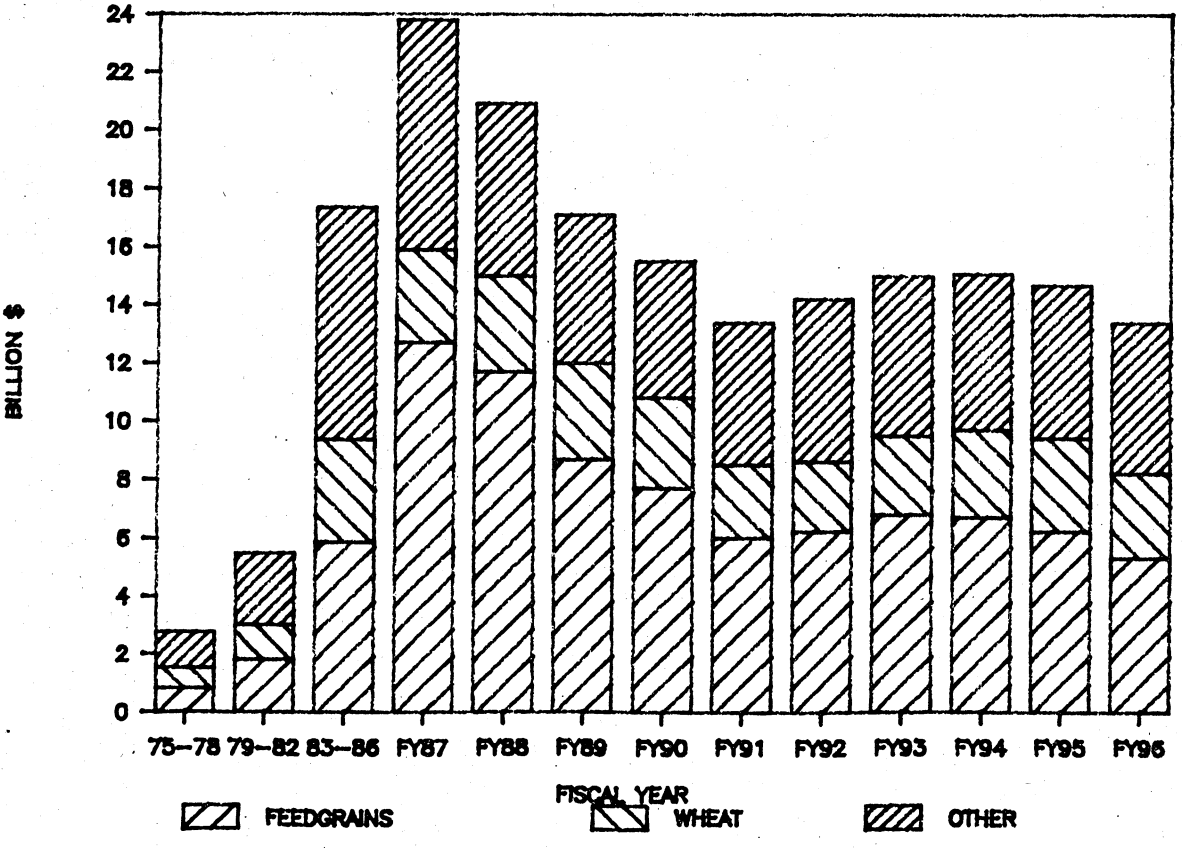
(CORN, WHEAT, SOYBEANS, RICE, COTTON)



NET FARM INCOME AND GOVERNMENT PAYMENTS



GOVERNMENT COSTS



MACRO ECONOMIC SUMMARY

- World real GDP growth for 1987 has been reduced to 2.4%, due largely to weak growth in Germany, Japan, and major debtor LDCs.
- Brazil's suspension of interest payments on commercial debt marks the beginning of the new stage in the debt crisis, resulting in downward revisions in LDC growth rates.
- The U.S. current account deficit will persist at a high level, and further declines in the value of the dollar are expected.
- Continuing weakness in oil markets and persistent gluts in world commodity markets are key elements in the projection.
- Protectionism remains a threat to world trade, but protectionist forces are assumed to be held under control.

MACRO ECONOMIC SUMMARY*

Stagnation is the most likely projection for the world economy, with world real GDP growth reduced from 2.7% to 2.4% since the previous projections last December. The major issues included in this outlook are:

1. With Brazil suspending interest payments on commercial debt, LDC debt reemerges as a major source of global economic uncertainty. The required domestic adjustments have led to downward revisions of LDC growth rates from 2.4% to 1.6%. This is a key element in the outlook for slower growth.
2. There has been little progress in reducing structural deficits in the United States.
3. Past declines in petroleum prices affect the ability of oil-producing countries to import. Weaker export markets also result in declining growth prospects for Japan and Western Europe.
4. World commodity markets experience continuing glut.
5. Because the dollar continues to slide, dollar block countries (United States, Canada, and Asian NICs) are expected to capture a larger share of a slowly growing world trade market.
6. Protectionism continues to threaten world trade.

Weak Global Expansion Continues

The current projection for world economic growth in 1987 is slightly weaker than that of the December outlook: 2.4% growth versus 2.7%.

The nominal U.S. deficit persists at a high level throughout the forecast period. To reconcile this with the rest of the projection, a further 19% decline of the dollar (1987-89) and relatively high real U.S. long-term interest rates are assumed.

The various imbalances that have plagued the world economy since 1980 should be alleviated but not fully resolved by the end of the projection period (1996). There have been significant price adjustments, resulting in lower interest rates, a cheaper dollar, and lower oil and commodity prices. But a large imbalance of payments between the United States and its trading partners, high unemployment and excess capacity in Europe, and the possibility of a debt crisis in individual developing countries all remain as potential problems.

There have been few major changes in the global outlook from the previous forecast. Several revisions, however, stand out: (1) a slightly stronger dollar vis-a-vis the yen and the West German mark; (2) a slightly weakened dollar against some Asian currencies; (3) slightly higher dollar-based commodity prices in the near term; (4) a new emphasis on revenue-neutral tax reform in Canada, Japan, Germany, and Sweden; (5) minor increases in fiscal stimulus in Japan and Germany; and (6) a resurgence of debt crisis fever because of Brazil's moratorium on interest payments. The outlook is influenced by assumptions about oil and nonoil commodity prices, international debt, exchange rates, fiscal and monetary policies, and the determination of export prices. The baseline implicitly assumes that protectionist forces are held in check at their historical level of influence.

Economic Growth

Recent indicators of economic activity, such as industrial production, have shown weakness in the U.S. economy since early 1985 and in Japan since mid-1985. The outlook for slow growth is worldwide in 1987, but is especially marked in Germany and Japan. This reflects a decline in real net exports rather than in domestic demand as both countries adjust their economies to the new high value of their currencies.

Overall, the downward revisions for GDP growth in 1987 can be attributed to the sluggish U.S. economy and the effects of this sluggishness on Japanese exports. Among the major countries, Germany's GDP has suffered the largest downward revision. This is primarily a result of declining real net exports;

domestic demand in Germany is fairly strong. In addition, the renewed debt crisis in Brazil will dampen Latin American growth this year.

The pattern of economic activity in developing market economies will be much more fragmented relative to developed economies. Several oil-exporting debtor countries, e.g. Mexico, Venezuela, Nigeria and Indonesia, will continue to stagger under the growing weight of external debt; however, slightly higher oil prices and lower interest rates should ease their plight somewhat from 1987 on. A reduction in external assets has cushioned some of the impact of lower oil prices for the oil exporting countries in the Middle East and Africa, but the bulk of the adjustment is expected to be accomplished through a decline in domestic demand and imports. For the oil importing developing economies, such as the Asian NICs, prospects are good. Lower oil prices, lower global interest rates, and continued expansion of the developed economies will combine to boost growth above the average for the developing world as a whole.

The outlook for the non-market economies has not changed much, although the recent campaign against excessive liberalization in the People's Republic of China may lead to more restrained growth this year, just as the current account deficit of 1985 led to more restraint last year.

Structural Deficits and the Dollar

After the news of the $19 billion U.S. trade deficit for November 1986, Treasury Secretary James Baker began talking the dollar down. Because of Baker's comments and the exchange market's perception of continued deficits, the dollar plummeted some 4% in less than three weeks.

This rapid fall and the subsequent realignment of the EMS led the finance ministers and central bankers of the six most industrialized countries to meet in Paris. The statement issued at the meeting's conclusion made these declarations:

- The dollar had fallen far enough and the major currencies were within ranges broadly consistent with underlying economic fundamentals. The G-6 countries were prepared to intervene to stabilize exchange rates.

- Further substantial exchange rate shifts could endanger world economic growth.

- Germany and Japan pledged that they would introduce stimulative economic measures, and theUnited States reaffirmed its determination to reduce its federal deficit. Germany agreed to move DM5 billion of an already planned tax cut to January 1988, despite the apparent current weakness of the economy. This cut represents a stimulus of less than 1% to the economy. The Japanese government is expected to adopt a supplementary package of economic measures, but the measures are likely to have only a marginal impact on their economy. For the United States, Secretary Baker pledged to adhere to the Gramm-Rudman-Hollings (GRH) federal deficit targets. The next day, however, the democratic heads of the two budget committees played down the GRH plan as unrealistic.

The G-6 meeting underscores emerging recognition that the U.S. trade deficit is structural and will not be resolved by currency moves alone. For more than three years, the world economic situation has been dominated by large U.S. current account deficits and corresponding surpluses in Japan, Europe, and some of the Pacific Rim countries. Since the U.S. deficit first reached $100 billion in 1984, neither the market nor two attempts at international policy coordination have cut into trade patterns or pointed to a clear resolution. Although the Plaza accord of September 1984 did succeed in accelerating the dollar decline, to the extent that the dollar has fallen (some 40% against the yen and EMS currencies), the U.S. trade deficit has widened. The second key coordination meeting in Paris, February 1987, failed to foster any substantial policy initiatives.

The implications of these developments are reflected in the projections of exchange rates, interest rates, and other macroeconomic variables.

Exchange Rates

The medium-term outlook for depreciation of the dollar and appreciation of the yen and West German mark (deutschemark) has been modified slightly by recent events. Given the fundamentals of high U.S. current account deficits, relatively sluggish U.S. growth, and higher inflation, the dollar will decline smoothly over the forecast period. It is assumed that high real dollar interest rates and rates of return to capital will avert a crash landing of the dollar.

Among other currencies, the yen and deutschemark will both strengthen in the medium term in the face of large surpluses and low inflation. For the deutschemark, regular readjustments of the EMS parities may be expected throughout the medium term vis-a-vis the French franc and the Italian lira.

On a year-to-year basis, the exchange rate outlook is little changed. After declining 18% in 1986, the dollar is projected to fall 10% in 1987 on an effective basis and 8% in 1988. During the 1985-1990 period, the dollar is expected to fall 34%. The effective-dollar measure masks some near- term swings in 1987 and 1988. The yen and mark are weaker against the dollar: the projected yen rate for the end of 1987 is 140 (versus 130 last December) and the projected deutschemark rate for the end of 1988 is 1.55 (versus 1.49).

Fiscal Policies

As in the previous forecast, the projections assume that fiscal policies in the developed countries will be geared to reducing government borrowing requirements as a percentage of GDP. In addition, combined tax and spending reductions, where possible, will reduce the role of government in the economy. The fiscal assumptions are conservative.

The GRH legislation is all but dead. In spite of some progress in reducing the budget deficit by cutting the defense budget and holding the line on nondefense spending, the GRH target for 1987 and beyond will not be met by a wide margin. It is assumed instead that, after the 1988 election, a new administration and Congress will be forced to resort to increase taxes. Accordingly, taxes are assumed to increase $40 billion in 1989 ($30 billion in personal taxes, $10 billion in indirect taxes). Coupled with higher interest rates, this should induce a growth recession in 1990.

Monetary Policy

The outlook for monetary policies is basically unchanged. The medium-term objective of monetary policy will be an inflation rate that is politically tolerable and economically practicable each country. This objective will be pursued mainly by linking the growth rate of the monetary aggregates to growth of nominal GDP. Intermediate targets of monetary policy may be the level of the interest rate or the exchange rate;targets that the central bank involved can influence.

Historically high real interest rates will continue in the medium term, especially in the United States. This ensures that foreigners will continue to accumulate dollar-denominated assets and, thus finance the large U.S. current account deficits in the face of a falling dollar.

Nonetheless, it is assumed that short-term interest rates decline in 1987. For the United States, this assumption is based upon the Fed's concern over the U.S. slowdown and the relative lack of stimulus from abroad in the form of renewed net export growth.

Energy Matters

In light of the quota agreement reached at the December OPEC meetings in Geneva, prospects for oil prices are more bullish. OPEC is to produce about 15.8 million barrels per day (mbd), a 7.5% cut from the previous quota of 17.1 mbd. But, OPEC's efforts at price fixing are not expected to be a complete success, given that Iraq is excluded from the new quota agreement. In addition, cheating is likely to be as widespread as under the old quota system. The market price of

Saudi Light oil probably will not rise to the new price of $17.50 per barrel on an extended basis in 1987, and possibly not even until late 1988.

Commodities

Many of the fundamental problems that afflicted the world commodity markets during 1986 prevailed in early 1987. And they are exacerbated by increased protectionist sentiments and policies among many of the world's leading exporters.

Despite the fall in the U.S. dollar, world commodity prices (measured by the IFS index of world nonfuel commodity prices) fell 3.8% during 1986. Some rebound for dollar-denominated commodity prices is expected in the medium term as inventories are replenished and demand outside North America is spurred by the dollar's decline. But, the rise in commodity prices is expected to be modest at best, despite the assumption of slightly accelerated inflation. This poses no significant threat to the prospect for continued low inflation.

Debt

The suspension of interest payments by Brazil on $67 billion of outstanding debt to commercial lenders is seen as an aberration in the general cooperative tone of debtor-creditor relations. It is assumed that events in Brazil will have little long-lasting impact on the overall management of the international debt problem. Brazil's action did, however, signal a new stage in the relationship between major Third World debtors and their creditors. Major debtors are primarily interested in defining a new stance for themselves at the bargaining table where concern is about interest rate spreads rather than full-scale default.

The outlook assumes that sufficient sources of new funds for the debtor developing countries will be found to prevent a financial crisis, although the source of funds is unclear. The outlook projects continued structural adjustments of the major debtor economies under conditions of restrained growth. These countries will sacrifice growth to repay past debts, making a net financial transfer to the developed countries throughout the medium term. The IMF's shift from policies of austerity to medium-term structural adjustment with moderate growth is still on track.

As a result of Brazil's action, many U.S. banks are realizing that their LDC loans will have to be written down. These loans are currently being discounted by 20-80% in the secondary market. The events in Brazil and the anticipated write-downs have already battered the earnings and stock prices of many large U.S. banks. But the major money-center banks are now better able to weather this storm than they were in 1982, having dramatically reduced their exposure to Latin American loans.

The current risks are that other debtors might follow Brazil's action, delaying reschedulings, reducing the flow of bank credits, postponing implementation of structural reforms, and provoking more import and capital controls. On the other hand, banks might move faster to improve credit terms, thus reducing the net transfers from debtor countries to developed countries and facilitating faster LDC growth. The latter approach seems more likely.

Country Projections

Brazil

After leading Latin America's GDP growth in 1986 (7.1%), the Brazilian economy is expected to contract this year (-2.5%). The economy became seriously overheated during the second half of 1986 because of lower oil prices and interest rates and a domestic price freeze. Measures to curb domestic demand after the November election were too late; trade surplus fell sharply and hit a four- year low. Foreign interest payments were suspended in February. The economic adjustments necessary to rebuild the trade surplus are expected to push Brazil into recession this year.

Mexico

Mexico's agreement with the IMF allows for economic expansion during the next two years. With the assumed injection of external credit, GDP should grow 2.7% this year. This growths comes,

however, at the risk of higher inflation.

The IMF program for Mexico emphasizes medium-term structural adjustment with explicit commitment to growth targets rather than immediate belt-tightening. All types of lenders are being asked to provide new money to support the program (about $12 billion in 18 months, roughly half from commercial banks with reduced interest-rate spreads). A similar program is being devised for the Philippines. In addition, interest-rate spreads greater than LIBOR are being narrowed in new rescheduling agreements with Chile, Venezuela, and Argentina.

Argentina

Strong GDP growth is accompanied by accelerating inflation. In late February the government announced an emergency program, including a price freeze and a 7% devaluation in the official exchange rate. These measures, together with tighter monetary policy, are expected to cut GDP growth to under 2% this year.

Asia

Asian NICs continue to be the stars of the developing world as a surge in exports fuels economic growth. The surge in exports is directly related to the yen/dollar realignment.

South Korea and Taiwan have been the most significant beneficiaries of the currency shift; they have used the yen's appreciation to compete effectively against the Japanese in both European and U.S. markets. Last years' decline in oil prices, together with the strong export recovery, enabled both Korea and Taiwan to post record current account surpluses. The Koreans paid off more than $2 billion in overseas debt in 1986.

Export momentum is likely to persist through the first half of 1987. Nevertheless, both countries are concerned about prospects of more intense protectionism. In addition, the United States is pressuring South Korea and Taiwan to appreciate their currencies and open import markets. Taiwan is more vulnerable than Korea because its bilateral trade surplus with the United States is larger than Korea's and because Taiwan's exports are concentrated in light manufactured products, which are likely to face the brunt of any adverse trade legislation. Korea has a turbulent political environment that might retard foreign domestic investment. But, its large foreign debt ($44.5 billion) may insulate it from pressure to allow currency appreciation.

Hong Kong and Singapore, also NICs, have not done as well because they are not geared to compete against the Japanese. Hong Kong is subject to protectionism in its chief foreign-exchange earner, textiles, and suffers from the fallout in the import clampdown by neighboring China.

Asia's commodity-exporting LDCs have not been as lucky as the NICs. Indonesia and Malaysia are the hardest hit by the downturn in primary commodity prices--particularly oil--and by fiscal austerity. These nations are both expected to experience slow recoveries and growing political risk as a consequence of lean economic growth. The Philippines seem positioned for a rebound this year because of a stimulative policy stance, last year's large current account surplus, and the strong leadership of President Aquino. Thailand is the healthiest commodity exporter. This is due to an excellent performance in manufactured goods exports, lowered prices, and the large increase in domestic energy production in recent years. The government's budget deficit is a cause for concern, prompting Thai authorities to prolong relatively tight fiscal measures.

Middle East

Even with the strong oil markets at the start of 1987, the financial and economic difficulties faced by oil-producing countries of the Middle East have not diminished. This is because the increase in oil prices was brought about through significant production cuts. Given that any sustained price increase in 1987 will have to occur at the expense of production cuts, no significant increase in export earnings is foreseen this year. Iraq is the exception because of its increased production capacity and exemption from OPEC quotas.

The continued weakness in oil revenues will force another wave of economic contraction, exacerbating the already serious economic dislocation. Public expenditures, imports, and private investment outlays should continue on their downward trend this year throughout the region. Despite this contraction, fiscal and foreign trade balances will generally remain in the red.

The Soviet Block

Growth prospects for the Soviet and East European economies are moderately good for the next few years. Investment is up in Eastern Europe, after several years of cutbacks brought on by balance-of- payments problems. In addition, the Soviet Union has weathered the shock of last year's drop in oil prices rather well.

The most important development in the region at this time is General Secretary Mikhail Gorbachev's effort to restructure the Soviet economy. The initiatives already suggest that fundamental changes are possible if Gorbachev is successful in implementing his programs.

On January 1 the Soviet Union joined most of the Eastern European countries in allowing joint equity ventures with Western firms. None of the Eastern European countries have had much success, however, because few Western firms have been convinced that adequate profits could be made in the region. The main problems are limited marketing prospects in the region and the nonconvertibility of the currency. But the Soviet Union's joint-venture law opens the door to a potentially large new domestic market. And it puts the Soviets in the same position as neighbors in Eastern Europe: searching for ways to enhance earnings in domestic currency or currency from other socialist countries of interest to the foreign partner.

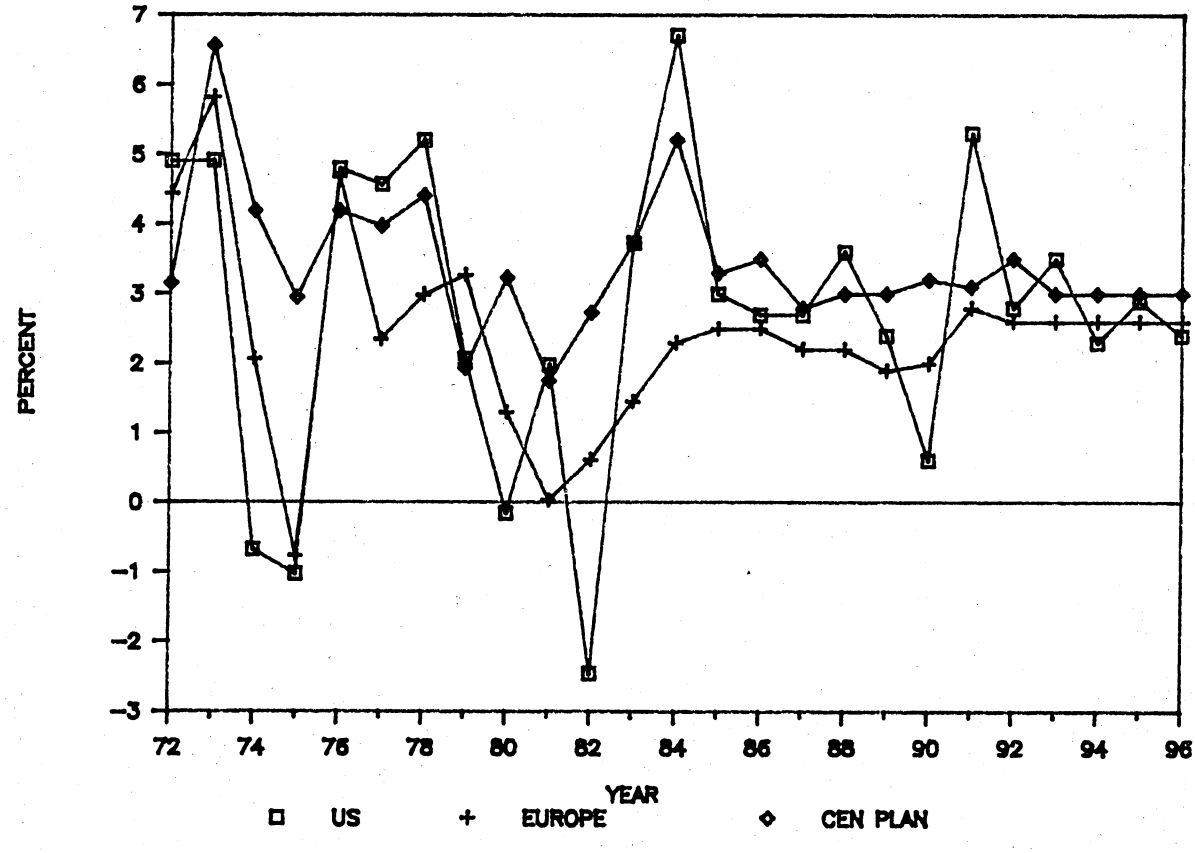
China

The leadership in China has grown more conservative in recent months, continuing a trend that was perceptible last year. The turnabout was due to a rapidly eroding payments position and rampant consumerism that emerged as a series of trade scandals in 1985. The shift in political power toward conservative elements has marked a retreat from economic reforms that became prominent more than two years ago oriented toward the open-door market. With more stringent central control of economic affairs, China is expected to register slower rates of economic growth than those realized in recent years. Import demand will also taper off.

Despite the recent setbacks in reform, China is not expected to abandon its modernization drive and will continue to import priority goods and technology from the West. Because current account deficits are predicted for the medium term, foreign borrowing will rise in the future.

*This summary is based on the Executive Summary and Analysis sections of ***World Economic Outlook,*** Wharton Econometric Forecasting Associates, Vol. 9, No. 1, April 1987.

REAL GDP PERCENT CHANGE



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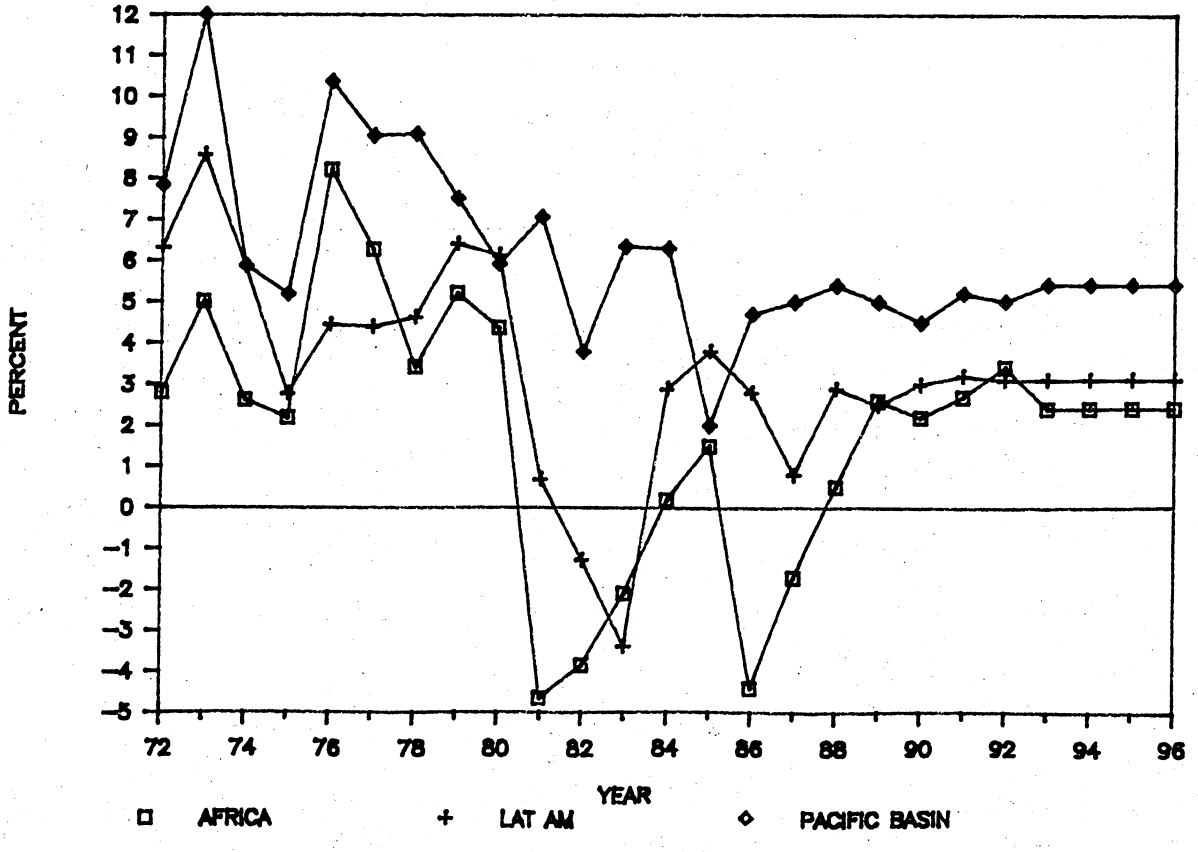
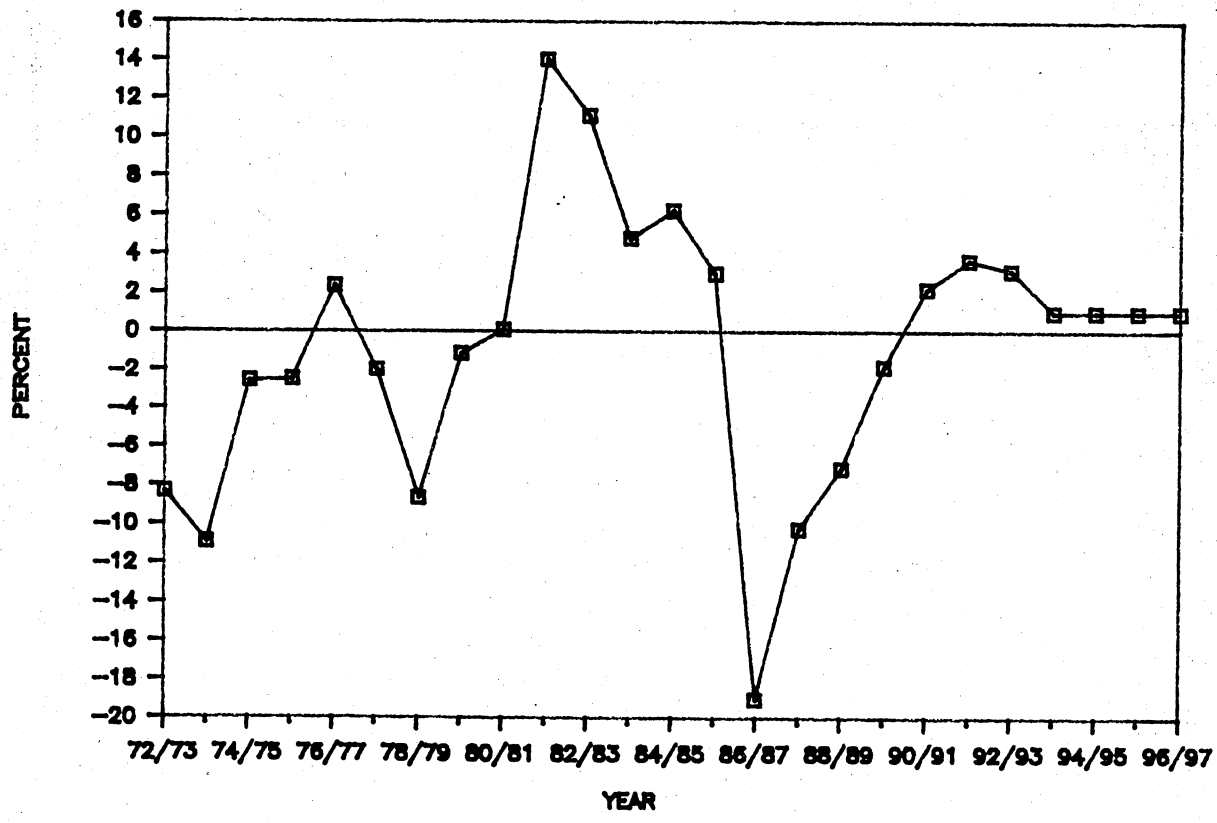
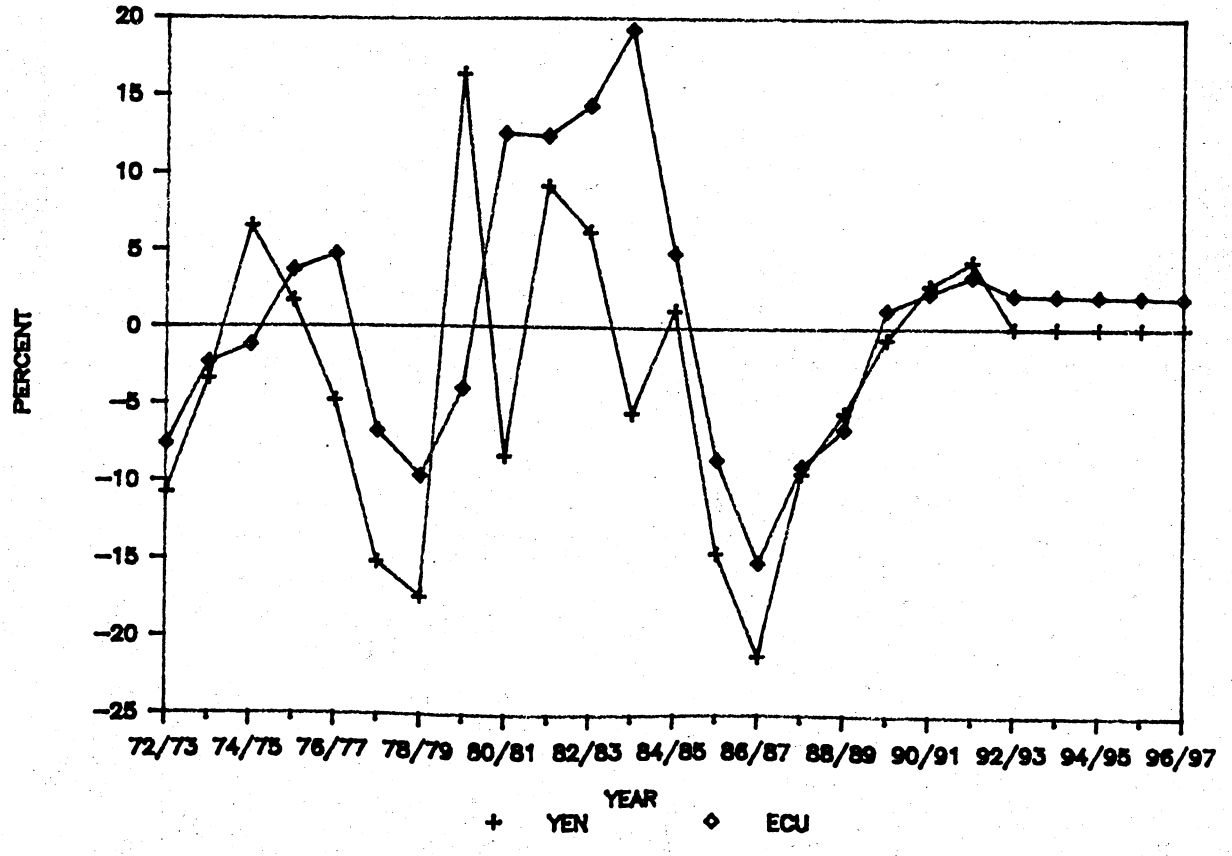


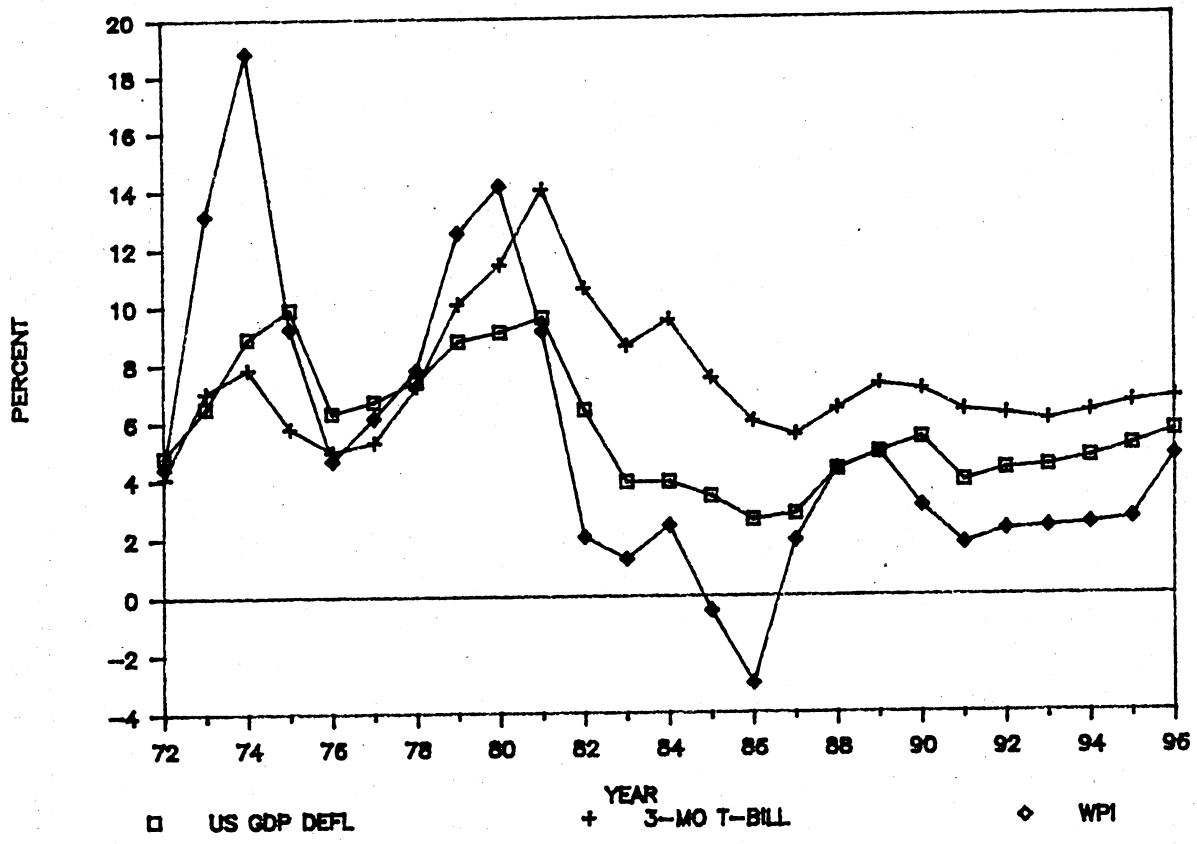
MERM EXCHANGE RATE INDEX



EXCHANGE RATES

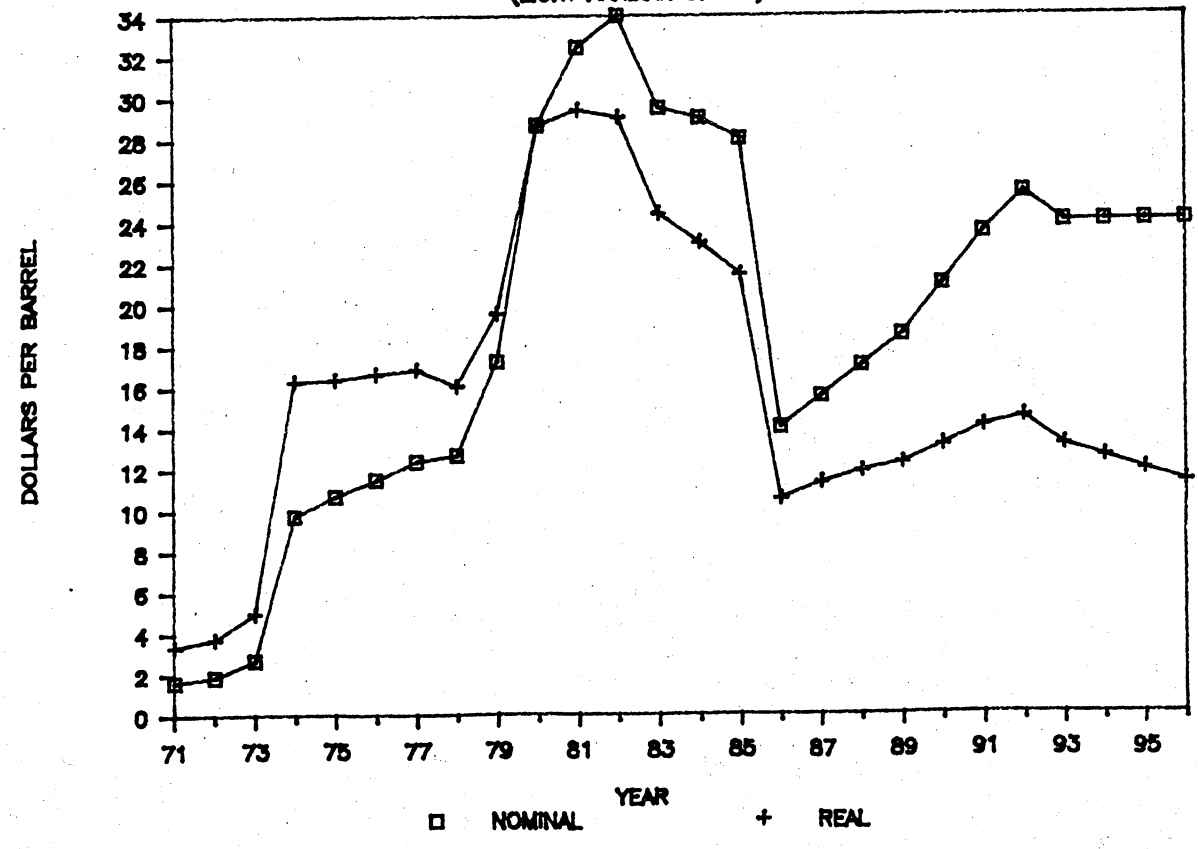


U.S. INTEREST RATES AND INFLATION



OIL PRICE

(LIGHT ARABIAN CRUDE)



Domestic and Foreign Economic Projections

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
United States												
Real GDP (% change)	3.0	2.7	2.7	3.6	2.3	0.6	5.3	2.8	3.5	2.3	2.9	2.4
GDP Deflator (% change)	3.4	2.6	2.8	4.3	4.9	5.4	3.9	4.3	4.4	4.8	5.4	5.5
Civilian Unemployment Rate (%)	7.2	7.0	6.7	6.3	6.4	7.4	6.6	6.0				
3-Month T. Bill Rate (%)	7.5	6.0	5.5	6.4	7.3	7.1	6.3	6.2	6.0	6.3	6.6	6.7
Moody's AAA Corporate Bond Rate (%)	11.4	9.0	8.5	9.7	10.4	9.1	8.3	7.9	7.9	8.0	8.2	8.9
Federal Budget Surplus (Bil. $)	-198.0	-204.6	-179.6	-167.7	-188.7	-226.5	-187.7	-144.8	-108.5	-85.7	-62.7	-38.5
Current Account (Bil. $)	111.7	-142.8	-158.3	-160.9	-147.7	-139.5	-143.5	-127.7				
Foreign and Domestic Variables												
Saudi Light ($ per barrel)	28.0	14.0	15.0	16.7	18.5	21.0	23.5	26.0	26.6	27.3	27.9	28.6
Effective Exchange Rates MERM												
United States (% change)	4.2	-18.2	-9.9	-8.1	-3.0	0.3	2.9	2.5	1.0	1.0	1.0	1.0
Foreign Currency/Dollar (% change) [a]												
Argentina	57.2	87.1	135.5	136.7	140.1	137.8	140.2	135.0	135.0	135.0	135.0	135.0
Brazil	120.3	202.6	509.9	464.6	450.3	445.4	439.6	400.0	400.0	400.0	400.0	400.0
Canada	1.6	-1.1	-3.3	-1.1	1.5	1.1	-0.8	0.8	0.0	0.0	0.0	0.0
Australia	4.2	3.4	-3.9	-6.8	-3.6	-0.8	3.0	-3.2	-0.1	0.3	-0.2	-2.0
Thailand	-3.2	-1.3	0.5	0.8	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Japan	-14.5	-21.2	-9.4	-5.5	-0.7	2.8	4.3	0.0	0.0	0.0	0.0	0.0
EEC	-8.1	-15.1	-8.9	-6.5	1.2	2.3	3.4	2.0	2.0	2.0	2.0	2.0
S. Korea	5.0	-2.0	-4.8	-3.3	-2.7	-1.8	-0.1	0.2	0.2	0.2	0.2	2.0
Taiwan	-2.4	-7.8	-11.8	-8.7	-1.9	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0
Real GDP (% change)												
World	2.9	2.5	2.4	3.0	2.6	2.1	3.7	3.1				
Africa	1.5	-4.4	-1.7	0.5	2.6	2.2	2.7	3.4	2.4	2.4	2.4	2.4
Latin America	3.8	2.8	0.8	2.9	2.5	3.0	3.2	3.1	3.1	3.1	3.1	3.1
Pacific Basin	2.0	4.7	5.0	5.4	5.0	4.5	5.2	5.0	5.4	5.4	5.4	5.4
Western Europe	2.5	2.5	2.2	2.2	1.9	2.0	2.8	2.6	2.6	2.6	2.6	2.6
Centrally Planned	3.3	3.5	2.8	3.0	3.0	3.2	3.1	3.5	3.0	3.0	3.0	3.0

[a] Crop year basis. 1985 is crop year 1985/86.

WORLD FEED GRAINS

- Feed grain production will expand slowly in most regions as world prices remain low relative to other crop prices.
- Consumption of feed grains in the Soviet Union is increasing, but moderate domestic production growth will almost keep pace because of Gorbachev's new agricultural program.
- Japanese consumption will expand as the domestic livestock industries are enlarged, as incomes grow, and consumer preferences for meat and livestock products continue on the upswing.
- Low prices will keep U.S. corn export share around 67%.
- The EC, while not becoming a large net exporter of feed grains, will expand market share at high levels of support prices.

WORLD FEED GRAINS

Net world trade in feed grains increased by 3.7% in 1986/87 as world utilization recovered from the decline experienced during the previous year. But much of the increase in use occurred in importing countries where production also increased. This was especially true in China and the USSR. Consequently, most of the consumption increase did not translate into a trade increase.

With a continuing expansion in world demand, total exports are projected to grow moderately during the next 10 years, reflecting lower prices, moderate income growth, and higher demand for meat and livestock products. Trade patterns also are expected to change as many countries attempt to become more self-sufficient in feed grains and other countries attempt to increase exports.

Global Production

Feed-grain production is projected to increase in all world regions over the next decade. Although different regions do not produce the same feed-grains, there is considerable substitution among these grains so developments in production of one grain will affect the overall feed-grain picture.

The United States is the world's largest feed-grain producer and the major feed-grain produced in the United States is corn. In 1986/87, U.S. corn production reached 209.6 mmt, approximately 44% of world corn production. This occurred in spite of the area-reduction measures of FSA85. Because of continued area-reduction measures projected for the future, corn area is projected to decline even further through 1988/89, then rise through 1991/92, and become fairly stable through 1996/97. This will mean a projected low of 171 mmt of corn produced in 1988/89, increasing to 203 mmt by 1996/97. At this level, production will be 3% less than 1986/87.

Argentina's principal feed grain is corn, but sorghum is also a major crop in that country. Corn area declined in 1986/87 to 3.1 million ha and production totalled 9.5 mmt, 21% less than the previous year. Poor yields and favorable soybean prices are two major reasons for the decline in corn production. As world prices fall, Argentine corn area is projected to remain fairly stable at around 3.1 million ha through 1996/97, giving production of 13.3 mmt, a 39.6% increase over 1986/87. During the same period, sorghum area is projected to fluctuate between 1.1 and 1.3 million ha, but moderately increasing yields boost production to 4.2 mmt in 1996/97, 35% more than 1986/87 levels.

Barley is the major feed grain produced in Canada at 15 mmt in 1986/87. Relatively high wheat prices are expected to keep barley area between 4.7 and 4.9 million ha through the next decade. Barley production will be 14.2 mmt by 1996/97, .8 mmt less than the large 1986/87 crop, but 14% more than the 1985/86 crop. Canada also produced 6.5 mmt of corn in 1986/87, a 12.2% decline from 1985/86. Increasing corn production is projected for Canada as area increases slowly. By 1996/97, corn production is projected to be 9.7 mmt, a 48% increase over the 1986/87 crop.

Australian barley production declined 28.8% in 1986/87, and area harvested dropped by one million ha. Area is projected to decline slightly again in 1987/88 before edging back to around 2.4 million ha in 1991/92. Area will fluctuate around 2.4 million ha throughout the early 1990's, as feed-grains prices remain relatively low compared with wheat. With this low level of barley area, production is projected to increase only to 3.9 mmt, 12.7% more than 1986/87 levels.

Corn and sorghum production in Thailand dropped by one-sixth in 1986/87, mostly due to yield decreases. Area is projected to increase to 3.2 million ha by 1996/97. This will translate into a steady increase in production to 7.6 mmt, an increase of 72% over the low 1986/87 levels, and 33% more than 1985/86.

Expansion of feed-grains area in the EC will be slow over the next decade. Feed grains will compete with other crops for limited area. Barley production is projected to increase slowly from 46.6 mmt in 1986/87 to 56.2 mmt by 1996/97, an increase of less than 20%. This

is mainly due to yield increases. Corn production will grow faster than barley production, as the EC attempt sto become more self-sufficient in corn. Thus, the EC hopes to avoid large exports of barley, which are costly under the CAP during times of low world prices. By 1996/97, corn production is projected to be at 31.8 mmt, a 27% increase over 1986/87.

South Africa's feed-grain production is projected to rise slowly as yields increase. Because South African farmers are insulated from world prices, their area harvested exhibits a level path, and production grows by 12% to 11.2 mmt by 1996/97.

Global Utilization

World utilization of feed grains increased 5% in 1986/87. There were also changes in the relative quantities of different grains used. Total corn use was up by 28.1 mmt, or 6.7%, sorghum use was down 5.7%, or 3.7 mmt, and barley consumption increased by 8.7 mmt, or 5.1%. A significant increase in corn use occurred in China, which had a correspondingly large increase in production. The USSR, on the other hand, had a reduction in production that was absorbed by a similar reduction in utilization. This implies that year-to-year fluctuations in consumption do not necessarily affect the world trade picture, but instead may reflect domestic availabilities of grains. This seems especially true in nonmarket economies.

The United States is the world's largest consumer of feed grains, using an estimated 177.6 mmt in 1986/87, of which 145.6 mmt are estimated to be corn. Of the corn consumed, 79.4% was used for feed, 15.9% for food, and the rest was used for seed, gasohol production, and residual uses. At the end of the forecast period, U.S. corn consumption will only have increased to 149.8 mmt. In 1996/97, feed and gasohol uses are projected to be slightly lower than in 1986/87, while food use is projected at 27% more than this year's level.

The USSR is the world's second largest user of feed grains, using approximately 93 mmt in 1986/87, 1.3% more than 1985/86. By 1996/97, Soviet feed-grain use is projected to increase to more than 116 mmt because of increases in livestock and product demand that in turn, are related primarily to income growth. This translates into a 26% increase in feed-grain use over 1986/87.

Consumption of feed grains in the EC consists largely of barley and corn. Use of these two grains is projected to grow from 72 mmt in 1986/87 to around 84 mmt in 1996/97, a 16% increase. Barley used for livestock feed will increase 15% and corn used for feed will go up 16%. The EC is currently faced with a large surplus of feed-quality wheat and subsidizes its use. This, and increased production of oilseeds and meals, will provide competition for feed grains.

Food use of barley is projected to rise from 10.6 mmt to 11.8 mmt during the projection period, and corn food use is expected to rise from 7.5 to 8.8 mmt.

Corn and sorghum use in Japan is at 19.7 mmt in 1986/87. Increasing incomes and changing preferences toward meat and livestock products will underlie the outward shift in demand for corn and sorghum in Japan during the next decade. During this period, use of these feed grains will increase by 39% to 27.6 mmt.

Corn and barley use in Canada is projected to increase slowly over the projection period. Barley is projected to increase less than 15% from 7.8 mmt in 1986/87 to 9 mmt in 1996/97. Corn use will rise from 7.3 to 9 mmt during the next ten years, an increase of just over 23%.

Corn use in Argentina will show only a slight increase during the decade; most of the increase in corn production will enter the export market. Sorghum use increases marginally, again with most of the increase in production entering the world market.

World Trade

Major Exporters

Relatively few regions dominate production of the various feed grains. Some of these regions, such as the Soviet Union and Eastern Europe, are net importers of feed grains as a whole. This leaves the export

market to a few countries, each of which specializes in one grain, but generally also trades in lesser amounts of the other feed grains. These countries include the United States, Argentina, Canada, Australia, Thailand, and South Africa. In 1985/86, these countries were joined by the EC as a net exporting region. Although currently a relatively minor exporter, the importance of the EC in this market is projected to grow gradually.

The United States is the world's largest exporter of feed grains, and is projected to export 45.6 mmt in 1986/87, of which corn will constitute 36.8 mmt. This is a 16.8% increase over 1985/86 corn exports. During the next decade, U.S. corn exports are projected to climb to 57 mmt, an increase of 54%. The U.S. export market share for feed grains is 65% in 1986/87; it is projected to fluctuate between 67 and 68% during the rest of the projection period, ending nearer 68% in 1996/97.

Argentine exports of feedgrains consist mainly of corn and sorghum. In 1986/87, Argentine corn exports will be 5.2 mmt, a decrease of 29% from the previous year, due to low production. Exports are projected to increase to 6.8 mmt in 1987/88 as yields return to normal levels. As mentioned earlier, most of the increase in production will find its way into export channels. Thus, exports will increase to 8.4 mmt by 1996/97, up 62% from 1986/87, but only 15% more than exports in 1985/86. Sorghum exports are expected to be at .8 mmt this year, down 59% from 1985/86. The decline in sorghum exports is due to decreased production caused by a reduction in area. Exports are not expected to recover to previous levels during the next decade. Argentina's total market share of feed-grains exports is projected to increase slightly from 9.4% in 1986/87 to 10% during the next ten years. Total Argentine feed-grains exports will increase 49% from 6.6 mmt to 9.9 mmt.

Canadian feed-grain exports consist primarily of corn and barley, with barley being the only significant export. Due to increased production, barley exports are expected to rise 75% in 1986/87 to 6.6 mmt. A return to normal yields will decrease Canadian barley exports to 4.4 mmt next year, then exports begin rising to 5.3 mmt by 1996/97 as stronger prices boost production. The Canadian share of the feed-grains export market is 7.9% this year and is projected to drop to 6% during the next ten years.

The EC has made permanent inroads into the feed-grains export market. Net exports of feed grains are near 1.2 mmt in 1986/87, and are projected to rise to 4.4 mmt by 1996/97 because barley production remains ahead of consumption and corn production closes the gap on use. Barley exports are projected to increase from 5.8 mmt this year to 6.5 mmt in 1996/97, an increase of 13%. As production increases, corn imports will decrease; by 1996/97 the EC is projected to be importing only 2.4 mmt of corn, down from 3.2 mmt this year and 4.8 mmt in 1985/86. During this decade, EC feed-grains market share is projected to climb from 1.7% to 42%.

Australia, Thailand, and South Africa together are expected to export 9.7 mmt of feed grains in 1986/87. They are projected to increase exports to 11.2 mmt by the end of the period, due largely to increases in Thai corn exports. Their total market share, 13.9% in 1986/87, is projected to decline to 11.3% by 1996/97.

Major Importers

Major importers include the USSR, Japan, and Eastern Europe. Total net imports increased 3.7% in 1986/87 to 70 mmt and are projected to reach 99.5 mmt by 1996/97, an increase of 42%.

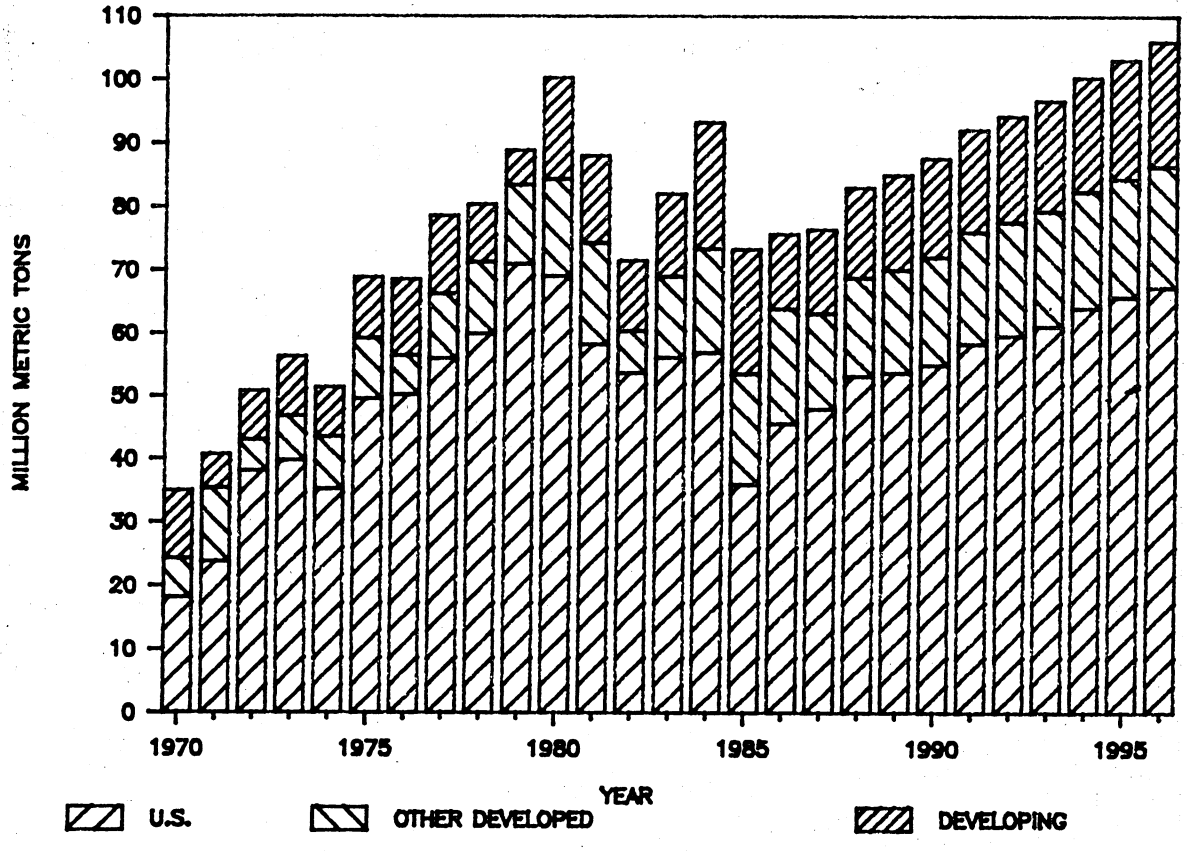
With larger feed-grains production in 1986/87, the USSR is expected to maintain imports near the low level achieved in the previous year. Total feed-grains imports for the Soviet Union are 13.8 mmt this year, a slight increase from 1985/86, a year in which imports were drastically reduced. The USSR is having some success replacing exports with domestic production, but increasing income will push feed demand up faster than production. Thus, net imports of feed grains will again increase, although not to the levels before 1985/86. By 1996/97, Soviet imports are projected to be 16.3 mmt, an 18% increase over 1986/87. But this level is still less than two-thirds of the total feed grains imported in 1984/85.

Japan remained the single largest importer of feed grains in 1986/87 at nearly 21.1 mmt. With a limited agricultural base, Japan must import nearly all the feed grains used. Increasing income and shifts in preferences will increase demand for meat and livestock products. These factor will, in turn, increase demand for feed grains, especially in light of Japan's goal to maintain its livestock industries. By 1996/97, Japan is expected to increase feed-grains imports by 39% to 29.4 mmt.

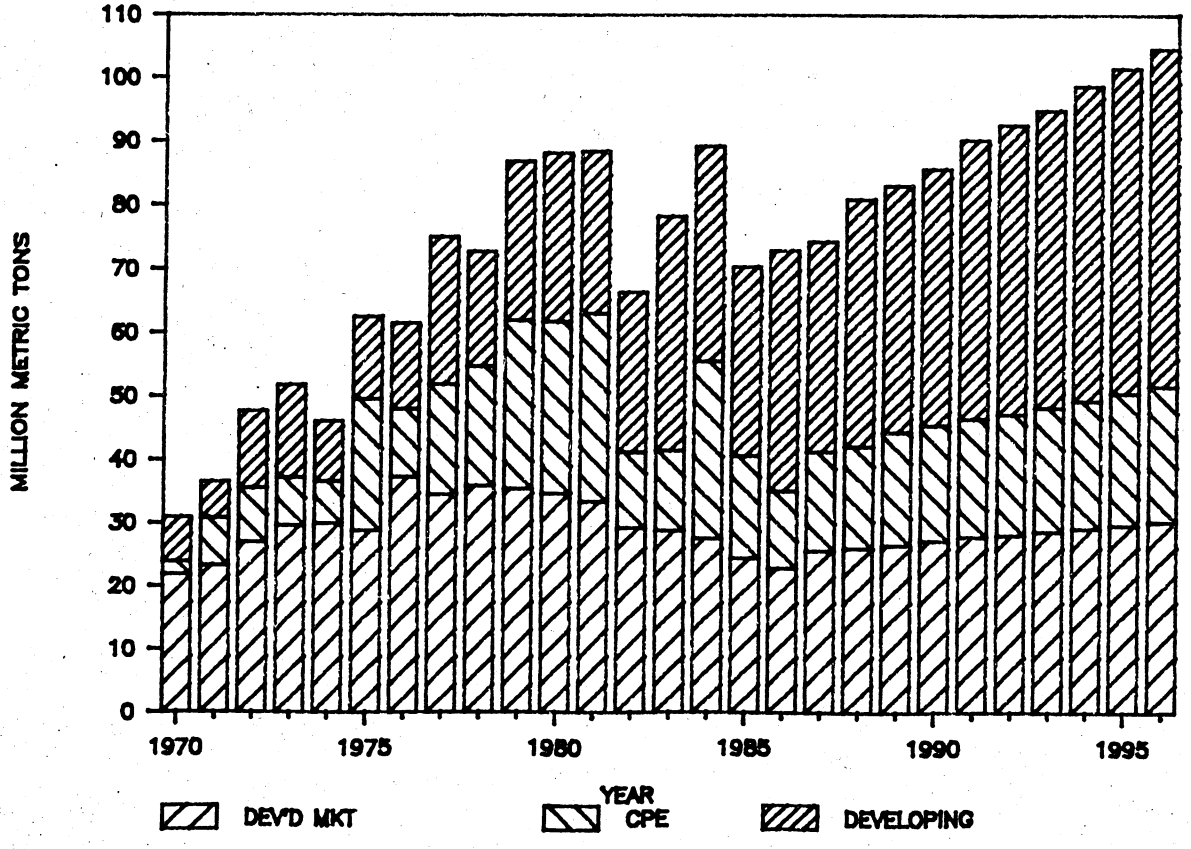
High Income East Asian countries (South Korea, Taiwan, Singapore, Hong Kong) are similar to Japan. Increasing incomes and tastes changing to include more meat and livestock products will increase imports of feed grains. These countries have a constrained land base, so increases in feed-grains utilization must come from imports. Together, these countries are expected to import 10 mmt of feed grains in 1986/87, and increase this by 70% by 1996/97 to 17 mmt.

Virtually all other regions are expected to increase feed-grain imports as demand for feeds outpaces the ability to produce them. These regions as a whole are projected to increase imports of feed grains to 36.1 mmt by 1996/97, up 30% from the level of imports this year.

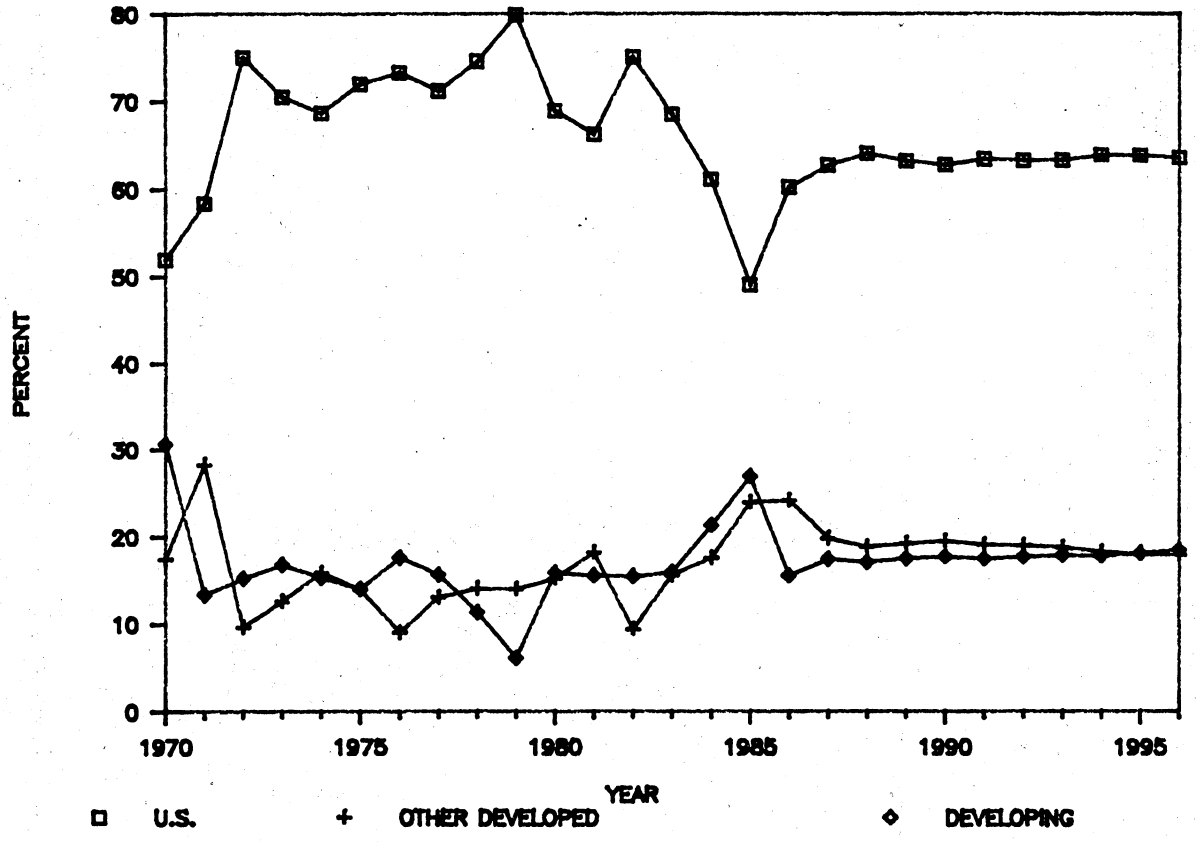
FEEDGRAINS EXPORTS



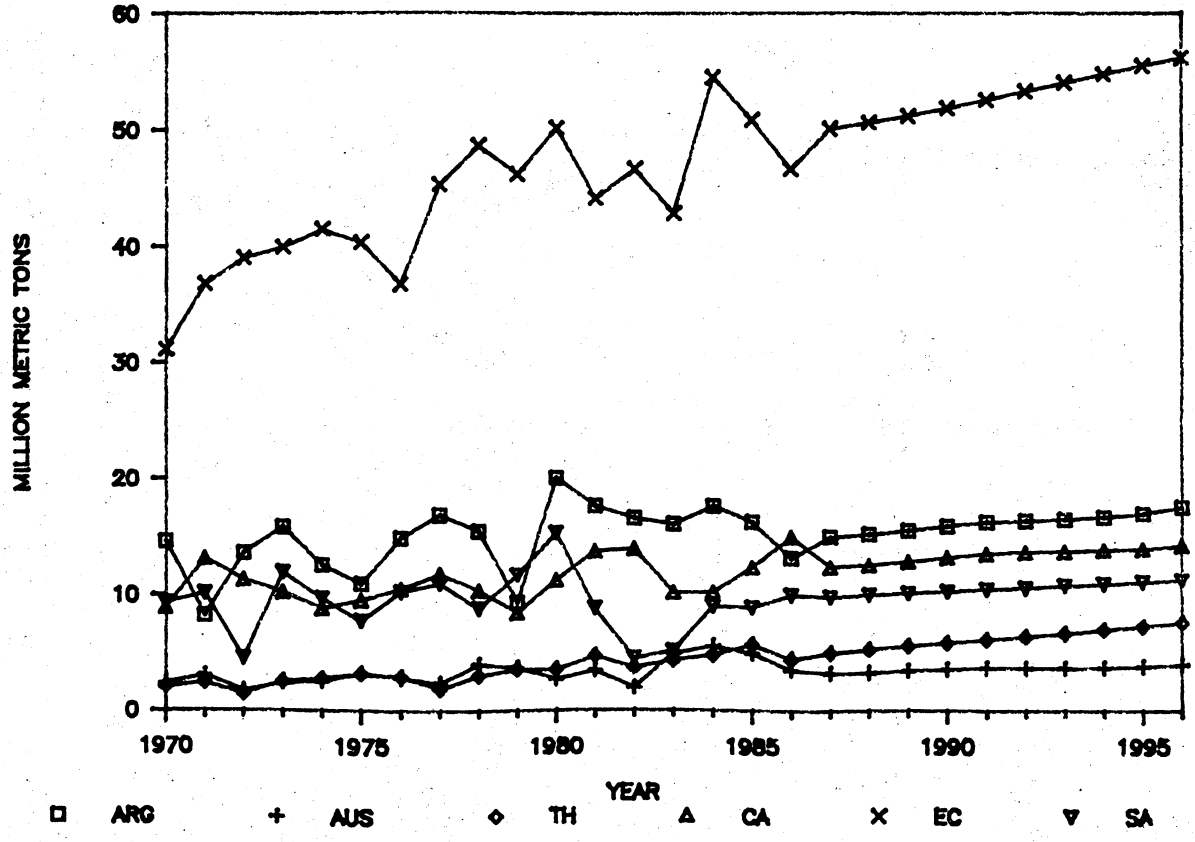
FEEDGRAINS IMPORTS



FEEDGRAINS EXPORT MARKET SHARE



COMP. FEEDGRAINS PRODUCTION



World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Feed Grains Trade											
(1000 mt)											
Net Exporters											
Argentina	6628	7868	8099	8381	8647	8833	8944	9012	9119	9441	9906
Canada	5828	4057	4587	5261	5622	5877	6035	6050	5964	5927	6058
Australia	3965	3317	3417	3597	3737	3815	3812	3844	3917	4102	4293
EC-12	1194	306	806	1153	1144	1512	2278	2855	3435	3928	4369
Thailand	2969	3107	3407	3589	3738	3875	4019	4194	4346	4514	4694
China	2219	2390	2717	2970	3200	3432	3796	4135	4453	4752	5036
South Africa	2745	2758	2466	2380	2310	2220	2223	2259	2269	2265	2257
Total Non-U.S.	25549	23803	25500	27330	28399	29563	31107	32349	33502	34929	36612
United States	45609	47885	53094	53497	54918	58400	59607	61065	64008	65687	67257
(trade share %)	64.1	66.8	67.6	66.2	65.9	66.4	65.7	65.4	65.6	65.3	64.8
Total	71158	71688	78594	80827	83317	87964	90714	93414	97509	100615	103869
(1000 mt)											
Net Importers											
Japan	21135	23134	23756	24374	24848	25561	26298	27063	27870	28625	29410
USSR	11611	14374	14341	15503	15328	15352	15344	15592	15669	15976	16341
Eastern Europe	631	1200	1695	2232	2785	3144	3545	3965	4393	4824	5073
High Inc E. Asi	10007	10508	10957	11648	12283	12975	13667	14413	15222	16070	16982
Other	27774	22471	27845	27070	28073	30930	31858	32380	34355	35120	36063
Total	71158	71688	78594	80827	83317	87964	90714	93414	97509	100615	103869

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
					Argentina						
Corn											
Area Harv.(1000 ha	3300	3176	3140	3110	3127	3143	3130	3106	3088	3061	3091
Yield (mt/ha)	3.03	3.63	3.70	3.78	3.85	3.93	4.00	4.08	4.15	4.22	4.29
					(1000 mt)						
Production	10000	11529	11619	11754	12039	12353	12522	12671	12814	12916	13259
Beg. Stocks	523	223	253	241	225	230	250	255	257	262	231
Total Supply	10523	11752	11871	11995	12264	12583	12771	12926	13070	13178	13491
Domestic Use	4600	4720	4722	4726	4750	4782	4797	4810	4823	4818	4835
Exports	5700	6779	6909	7044	7284	7552	7720	7860	7985	8129	8445
Total Demand	10300	11499	11630	11770	12034	12334	12517	12669	12808	12947	13280
End. Stocks	223	253	241	225	230	250	255	257	262	231	211
Sorghum											
Area Harv.(1000 ha	1100	1146	1177	1215	1223	1204	1184	1162	1158	1206	1247
Yield (mt/ha)	2.91	3.04	3.08	3.12	3.16	3.20	3.24	3.28	3.32	3.36	3.40
					(1000 mt)						
Production	3200	3483	3624	3792	3863	3853	3836	3813	3846	4052	4239
Beg. Stocks	177	177	179	177	173	172	174	174	174	174	168
Total Supply	3377	3660	3803	3969	4037	4025	4010	3987	4020	4227	4408
Domestic Use	2400	2477	2512	2527	2561	2621	2654	2695	2738	2765	2794
Exports	800	1004	1114	1269	1303	1230	1182	1119	1108	1294	1451
Total Demand	3200	3481	3626	3796	3864	3851	3836	3813	3846	4058	4246
End. Stocks	177	179	177	173	172	174	174	174	174	168	162

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
					Canada						
Barley											
Area Harv.(1000 ha	4950	4766	4762	4846	4879	4913	4911	4901	4882	4861	4901
Yield (mt/ha)	3.03	2.62	2.66	2.69	2.72	2.75	2.79	2.82	2.85	2.88	2.91
					(1000 mt)						
Production	15000	12488	12668	13036	13272	13512	13702	13820	13915	14000	14263
Beg. Stocks	3217	3617	3677	3635	3593	3551	3509	3467	3425	3383	3341
Total Supply	18217	16105	16345	16671	16865	17063	17211	17287	17340	17383	17604
Dom. Use	8000	7960	8049	8115	8209	8329	8448	8578	8722	8835	8951
Exports	6600	4468	4661	4963	5104	5224	5297	5284	5234	5207	5354
Total Demand	14600	12428	12710	13078	13314	13554	13744	13862	13957	14042	14305
End. Stocks	3617	3677	3635	3593	3551	3509	3467	3425	3383	3341	3299
Corn											
Area Harv.(1000 ha	1085	1170	1245	1313	1358	1392	1417	1435	1449	1461	1474
Yield (mt/ha)	6.01	6.07	6.13	6.19	6.24	6.30	6.36	6.42	6.47	6.53	6.58
					(1000 mt)						
Production	6522	7100	7630	8128	8473	8768	9010	9215	9378	9540	9701
Beg. Stocks	1923	2000	2154	2342	2541	2717	2875	3009	3124	3220	3302
Total Supply	8445	9100	9784	10471	11014	11485	11885	12225	12502	12761	13003
Dom. Use	7281	7424	7580	7694	7839	8015	8192	8388	8602	8786	8968
Exports	-835	-478	-138	236	458	595	684	713	680	672	658
Total Demand	6445	6946	7442	7930	8296	8610	8875	9100	9282	9459	9627
End. Stocks	2000	2154	2342	2541	2717	2875	3009	3124	3220	3302	3376

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
					EC-12						
Barley											
Area Harv.(1000 ha	12510	12443	12433	12441	12469	12509	12553	12596	12634	12668	12697
Yield (mt/ha)	3.73	4.02	4.07	4.11	4.15	4.20	4.24	4.29	4.33	4.38	4.42
					(1000 mt)						
Production	46660	50061	50562	51124	51794	52517	53261	54004	54736	55451	56149
Beg. Stocks	4910	3610	3703	3659	3597	3547	3506	3470	3434	3398	3358
Total Supply	51570	53671	54265	54783	55390	56064	56767	57474	58170	58849	59508
Feed Use	32934	34343	34650	35044	35411	35785	36169	36566	36975	37396	37831
Food & Other Use	10062	10482	10664	10780	10900	11034	11175	11323	11478	11641	11812
Exports	4964	5143	5293	5361	5533	5739	5953	6151	6320	6453	6549
Total Demand	47960	49968	50606	51186	51844	52558	53297	54039	54773	55491	56191
End. Stocks	3610	3703	3659	3597	3547	3506	3470	3434	3398	3358	3316
Corn											
Area Harv.(1000 ha	4009	4074	4141	4214	4283	4341	4390	4432	4466	4494	4518
Yield (mt/ha)	6.25	6.27	6.34	6.45	6.54	6.61	6.69	6.78	6.86	6.95	7.04
					(1000 mt)						
Production	25051	25529	26262	27178	27991	28709	29385	30026	30638	31224	31793
Beg. Stocks	5049	3767	3839	3908	4024	4098	4156	4212	4266	4318	4369
Imports	3129	4287	4032	3845	4119	4049	3589	3304	2985	2718	2465
Total Supply	33229	33583	34132	34931	36134	36856	37130	37543	37888	38261	38627
Feed Use	21949	22099	22501	23065	24079	24615	24699	24917	25061	25226	25378
Food & Other Use	7513	7645	7723	7842	7957	8085	8219	8360	8509	8665	8829
Total Demand	29462	29744	30224	30907	32036	32699	32918	33277	33570	33891	34207
End. Stocks	3767	3839	3908	4024	4098	4156	4212	4266	4318	4369	4420

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Australia											
Barley											
Area Harv.(1000 ha	2300	2236	2246	2312	2376	2407	2388	2355	2351	2376	2436
Yield (mt/ha)	1.52	1.44	1.46	1.48	1.50	1.52	1.54	1.56	1.58	1.60	1.62
					(1000 mt)						
Production	3500	3220	3279	3422	3564	3658	3677	3674	3714	3801	3946
Beg. Stocks	83	103	135	160	173	186	198	216	226	236	225
Total Supply	3583	3323	3414	3582	3737	3844	3875	3890	3940	4037	4171
Domestic Use	980	1371	1367	1372	1403	1452	1498	1499	1497	1449	1433
Exports	2500	1817	1887	2037	2147	2195	2162	2165	2208	2363	2524
Total Demand	3480	3188	3254	3409	3551	3646	3659	3664	3704	3811	3957
End. Stocks	103	135	160	173	186	198	216	226	236	225	214
Thailand											
Corn/Sorghum											
Area Harv.(1000 ha	2458	2261	2365	2467	2568	2664	2757	2853	2951	3048	3156
Yield (mt/ha)	1.79	2.21	2.23	2.25	2.27	2.29	2.31	2.34	2.36	2.38	2.40
					(1000 mt)						
Production	4400	4997	5273	5550	5829	6100	6368	6676	6965	7255	7574
Beg. Stocks	468	218	357	366	366	369	374	378	380	383	380
Total Supply	4868	5215	5630	5916	6196	6470	6742	7054	7345	7638	7954
Domestic Use	1850	1751	1857	1961	2088	2220	2346	2479	2616	2744	2883
Exports	2800	3107	3407	3589	3738	3875	4019	4194	4346	4514	4694
Total Demand	4650	4859	5264	5550	5826	6095	6365	6674	6962	7258	7577
End. Stocks	218	357	366	366	369	374	378	380	383	380	377

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
South Africa											
Feed Grains											
Area Harv.(1000 ha	4877	4879	4879	4879	4879	4879	4879	4879	4879	4879	4879
Yield (mt/ha)	2.05	2.02	2.05	2.08	2.11	2.14	2.17	2.21	2.24	2.27	2.30
					(1000 mt)						
Production	9997	9855	10002	10149	10295	10441	10588	10783	10929	11076	11222
Beg. Stocks	1198	1356	1173	1207	1249	1291	1333	1375	1430	1473	1515
Total Supply	11196	11211	11175	11355	11543	11732	11920	12158	12360	12549	12737
Domestic Use	7094	7281	7502	7727	7942	8179	8323	8469	8617	8769	8923
Exports	2745	2758	2466	2380	2310	2220	2223	2259	2269	2265	2257
Total Demand	9839	10039	9968	10107	10253	10399	10546	10727	10887	11033	11180
End. Stocks	1356	1173	1207	1249	1291	1333	1375	1430	1473	1515	1557
Japan											
Corn/Sorghum											
					(1000 mt)						
Production	3	3	3	3	3	3	3	3	3	3	3
Beg. Stocks	2222	1925	2237	2526	2790	3033	3258	3469	3665	3849	4011
Imports	19400	21416	22030	22640	23105	23810	24539	25296	26095	26842	27619
Total Supply	21625	23345	24270	25169	25898	26846	27800	28768	29763	30694	31634
Domestic Use	19700	21108	21744	22379	22865	23588	24331	25103	25914	26683	27478
End. Stocks	1925	2237	2526	2790	3033	3258	3469	3665	3849	4011	4156

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
USSR											
Feed Grains											
Area Harv.(1000 ha	46430	49262	50483	51516	52593	53520	54277	55042	55752	56518	57252
Yield (mt/ha)	1.80	1.62	1.64	1.65	1.67	1.68	1.70	1.71	1.73	1.74	1.75
					(1000 mt)						
Production	83575	79805	82792	85001	87830	89913	92271	94122	96451	98341	100191
Imports	11611	14374	14341	15503	15328	15352	15344	15592	15669	15976	16341
Total Supply	95185	94179	97134	100505	103158	105265	107615	109713	112120	114317	116532
Domestic Use	92749	94400	97296	100624	103246	105330	107663	109749	112146	114336	116546
Change in Stocks	2436	-221	-163	-120	-88	-65	-48	-35	-26	-19	-14
Eastern Europe											
Feed Grains											
					(1000 mt)						
Production	60318	60187	61808	63249	64601	65909	67054	68120	69146	70153	71150
Imports	631	1200	1695	2232	2785	3144	3545	3965	4393	4824	5073
Total Supply	60949	61387	63503	65481	67386	69053	70600	72085	73539	74977	76222
Domestic Use	59325	61645	63708	65643	67515	69155	70681	72150	73590	75017	76254
Change in Stocks	1624	-258	-205	-162	-129	-102	-81	-64	-51	-40	-32
China											
Feed Grains											
Area Harv.(1000 ha	23562	24135	24564	24878	25099	25246	25332	25370	25369	25337	25280
Yield (mt/ha)	3.40	3.50	3.60	3.70	3.80	3.90	4.00	4.10	4.20	4.30	4.40
Production	80112	84473	88432	92050	95378	98459	101329	104018	106551	108950	111231
Domestic Use	77893	82083	85714	89080	92178	95026	97533	99883	102099	104198	106196
Net Exports	2219	2390	2717	2970	3200	3432	3796	4135	4453	4752	5036
Total Use	80112	84473	88432	92050	95378	98459	101329	104018	106551	108950	111231

World Feed Grains Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
					High Inc. E. Asia						
Feed Grains											
Area Harv.(1000 ha	436	426	412	395	379	363	345	329	314	299	290
Yield (mt/ha)	2.91	2.96	3.00	3.05	3.10	3.15	3.19	3.24	3.29	3.34	3.39
					(1000 mt)						
Production	1269	1262	1237	1206	1175	1142	1101	1065	1032	999	983
Beg. Stocks	1306	1269	1238	1200	1152	1097	1035	962	882	799	710
Imports	10007	10508	10957	11648	12283	12975	13667	14413	15222	16070	16982
Total Supply	12582	13039	13432	14054	14610	15215	15804	16440	17136	17867	18675
Domestic Use	11312	11801	12232	12901	13513	14180	14842	15558	16338	17157	18049
End. Stocks	1269	1238	1200	1152	1097	1035	962	882	799	710	627
					Other						
Feed Grains											
					(1000 mt)						
Production	150316	147075	141889	141118	139853	139523	141059	142632	144737	147402	150108
Beg. Stocks	13929	14237	12982	12719	12664	12652	12650	12649	12649	12649	12649
Imports	27774	22471	27845	27070	28073	30930	31858	32380	34355	35120	36063
Total Supply	192019	183784	182716	180907	180589	183105	185566	187661	191741	195171	198820
Domestic Use	177782	170803	169997	168243	167937	170455	172917	175012	179092	182522	186171
End. Stocks	14237	12982	12719	12664	12652	12650	12649	12649	12649	12649	12649

U.S. CORN

- Corn prices will remain at or below the loan rate through 1988/89 due to heavy usage of PIK certificates in making program payments.
- Planted corn area will remain below 70 million acres throughout the next decade because of various government programs to reduce acreage.
- Domestic use of corn will increase only slightly, due primarily to stagnant demand from the livestock industry.
- Corn exports will increase substantially over the next decade, but remain below historical highs.
- Participant net returns will fall but remain well above nonparticipant returns so more than two-thirds of farmers will continue to participate in government programs.

U.S. CORN

Carryover stocks of corn were at record levels at the beginning of the 1986/87 crop year. They are projected to be 1.1 billion bushels higher on September 1, 1987. Excess supplies of corn are projected to be reduced during the next five years by maintaining large acreage-reduction programs and keeping prices low through the use of generic Payment-in-Kind (PIK) certificates. Barring poor weather or an unexpected jump in foreign demand, excess capacity in the U.S. corn industry is likely to remain a problem during the next decade.

Excess capacity will remain in spite of the mechanisms provided by the Food Security Act of 1985 (FSA-85) to reduce production. The loan rate was reduced from $2.55 per bushel in 1985/86 to $1.92 per bushel in 1986/87 and $1.82 in 1987/88. Further reductions are expected. These reductions are expected to stimulate more foreign and domestic demand for U.S. corn. In addition, the long-term conservation reserve is expected to remove 6.6 million acres from corn production by 1990/91. Set-aside and paid diversion programs also are authorized to reduce domestic corn supplies.

Supply

Corn target prices are maintained at high levels, more than $1.00 per bushel greater than expected market prices for the next three years. Thus, corn farmers who participate in set-aside programs will earn greater net returns than nonparticipants. Consequently, almost 88% of corn farmers are setting aside 20% of their base acres this year, and over 60% of those farmers also are participating in an optional 15% paid diversion. Participation rates are likely to fall slightly between now and 1990, as the gap between participant and nonparticipant net returns narrows. This occurs due to reductions in target prices, increases in market prices, and the assumption that base yields will remain frozen, while actual yields increase. In addition, soybean production becomes more attractive as an alternative to corn-program participation.

Due to excess supply, it is assumed that the Secretary of Agriculture will require a 20% set-aside, the maximum now allowed by law, throughout the decade. In addition, the 15% paid diversion in effect for the 1987 crop is expected to be extended to the 1988 crop. A 10% diversion is assumed for the 1989 and 1990 crops. Paid diversions are eliminated after 1990 because carry-over stocks are projected to reach more acceptable levels.

As a result of the various programs to reduce corn acreage, planted area is expected to decline by 23% between 1985 and 1988. Corn area is projected to increase slightly between 1988 and 1991, but is not projected to exceed 70 million acres any time during the next ten years. Corn yields are expected to increase approximately 1.4% per year during the decade. Corn production is projected to decline from 8.2 billion bushels in 1986 to 7.0 billion bushels in 1987 and 6.7 billion bushels in 1988. Production is projected to increase after 1988, but even in 1996, production is expected to remain below 1986 levels.

Demand

Feed demand for corn is expected to increase from 4.1 billion bushels in 1985/86 to 4.55 billion bushels in 1986/87, due to lower corn prices and higher livestock prices. Very little change is expected between 1987/88 and 1996/97, as corn feed use is expected to average 4.5 billion bushels per year. Livestock numbers are expected to grow between now and 1990, but higher corn prices and lower livestock prices are projected to result in little effect on corn feed use. Feed use does not expand mostly because poultry accounts for much of the growth in livestock production. Because chickens and turkeys convert feed to meat more efficiently than hogs or cattle, an increase in poultry production has less of an impact on feed demand than an increase in pork or beef production.

Food demand for corn is expected to increase by 5% between 1985/86 and 1986/87, mostly due to the sharp decline in corn prices. Food use is projected to increase more slowly during the next decade. Projected 1996/97

food use of 1.2 billion bushels exceeds 1985/86 levels by 33%. Slower growth rates are expected primarily because demand for high-fructose corn sweeteners is expected to level off after years of rapid growth.

The use of corn in gasohol production is expected to expand at a modest pace until 1990/91. In 1991, however, the tax advantage provided to gasohol producers is scheduled to end. Assuming this actually occurs, gasohol production is likely to be scaled back sharply in 1991/92. Slow growth rates are projected for years after 1991/92, due to expected modest increases in gasoline prices and production.

U.S. corn exports are expected to increase from 1.2 billion bushels in 1985/86 to 2.2 billion bushels in 1996/97, for reasons discussed in the section examining the world coarse grain market. Even in 1996/97, U.S. corn exports are expected to remain below historical highs.

Stocks

Carryover stocks of corn are at record levels, and stock reduction is expected to be a major focus of government programs in the years ahead. Assuming a relatively intensive use of set-aside and diversion programs, the conservation reserve, and PIK certificates, carry-over stocks are projected to fall from 5.1 billion bushels in 1986/87 to 2.9 billion bushels in 1990/91 and 2.2 billion bushels in 1996/97.

Farmer-held reserve stocks are expected to increase sharply from 0.7 billion bushels in 1985/86 to 1.6 billion bushels at the end of the current crop year, as maturing 9-month loan stocks enter the reserve. Stocks owned by the CCC are expected to increase from 0.5 billion bushels in 1985/86 to 1.7 billion bushels in 1989/90, due primarily to loan defaults. Farmer-held reserve stocks are expected to decline to 0.6 billion bushels by 1992/93, and CCC stocks are expected to fall to less than 0.6 billion bushels by 1996/97. Stocks under loan at the end of the crop year are expected to remain above 1.0 billion bushels until 1989/90, when prices are finally expected to exceed the loan rate.

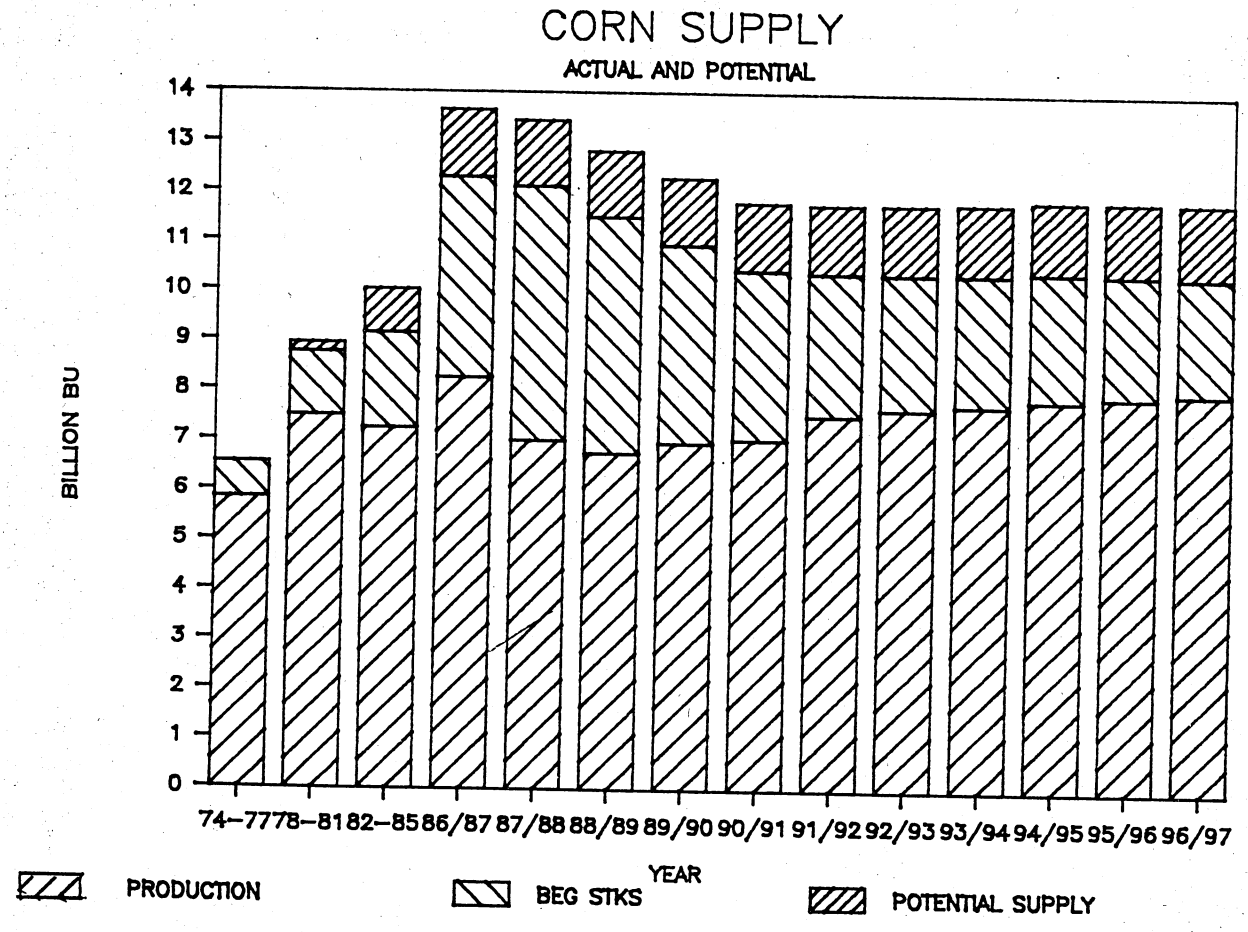
Due in part to the extremely high levels of government-controlled stocks, private stocks not under government programs are expected to remain relatively tight through 1988/89. As government stocks are reduced, however, private stocks are expected to increase, from 90 million bushels at the end of the 1986/87, to 669 million bushels in 1996/97. Government corn stocks will be released onto the market mostly by means of PIK certificates used to pay farmers for diverting land in the set-aside, diversion, and long-term conservation reserve programs. As long as corn prices remain below the loan rate and wheat prices stay above the loan rate, generic PIK certificates issued to make wheat program payments will continue to flow to the corn market, as occurred during the 1986/87 marketing year.

Prices and Returns

Normally, the loan rate acts as a price floor, but the ability to redeem loans with PIK certificates is likely to allow market prices to fall below the loan rate in each of the next three crop years. Only in 1989/90 is price strength in the soybean sector expected to pull corn prices above the loan rate. Between 1989/90 and 1994/95, corn prices are projected to fluctuate in a very narrow range around $1.75 per bushel, before increasing slightly in 1995/96 and 1996/97. Actual price variability may be greater because the projected prices are based on the assumption that "normal" weather will prevail each year. Due to the high levels of carry-over stocks, however, even a drought is unlikely to result in sharp price increases if the government releases stocks and reduces land idling requirements to ease a tight supply situation.

Net returns to producers, not considering land costs, are expected to fall below 1985/86 levels for both participants and nonparticipants in government programs. Participant net returns are expected to decline from $179 per acre in 1985/86 to just $95 per acre in 1996/97. Participant net returns fall because increasing yields are offset by increasing costs and reduced target prices. Due to the sharp drop in prices, nonparticipant net returns are expected to fall from $127 per acre in 1985/86 to $43 in 1986/87. During the next decade,

nonparticipant net returns are expected to vary with market prices, in a range from $24 to $55 per acre.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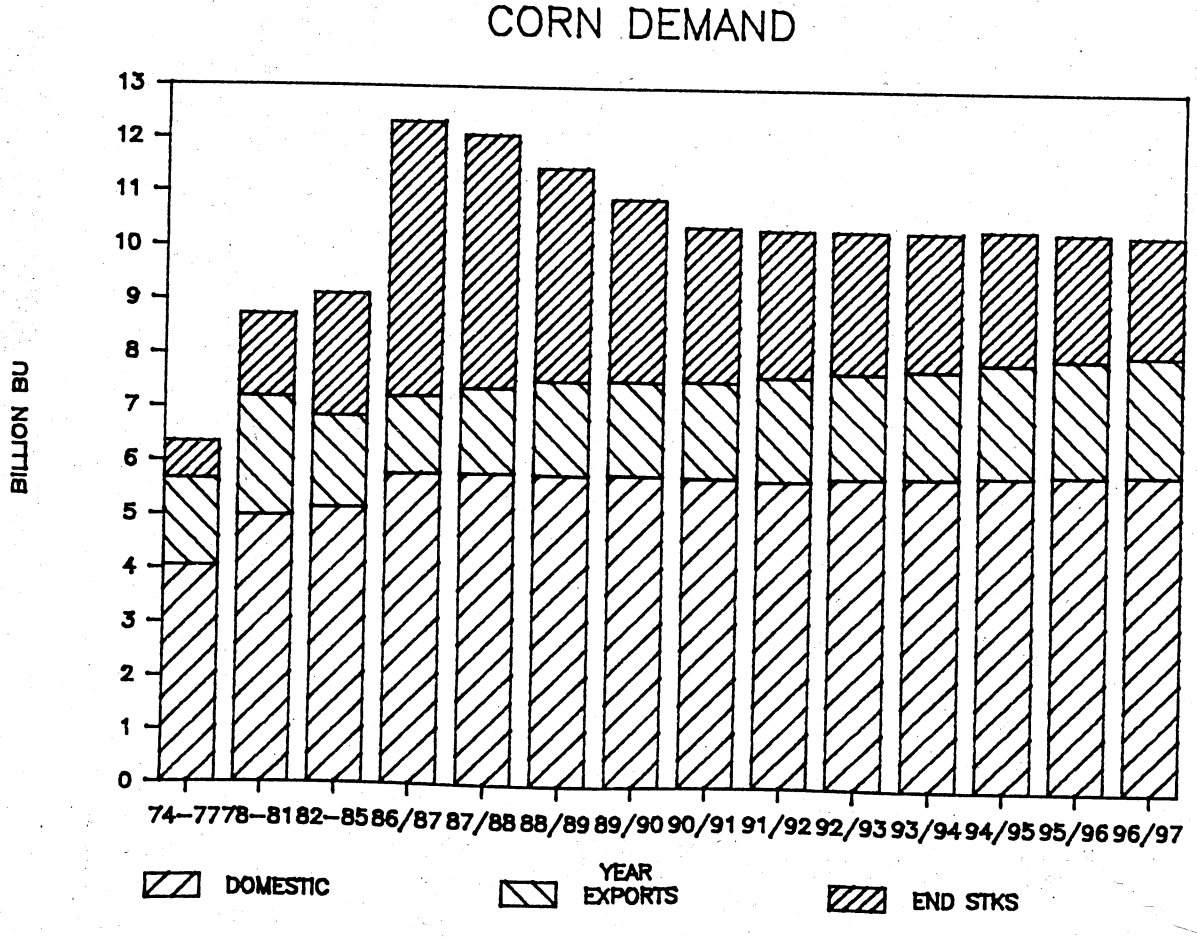
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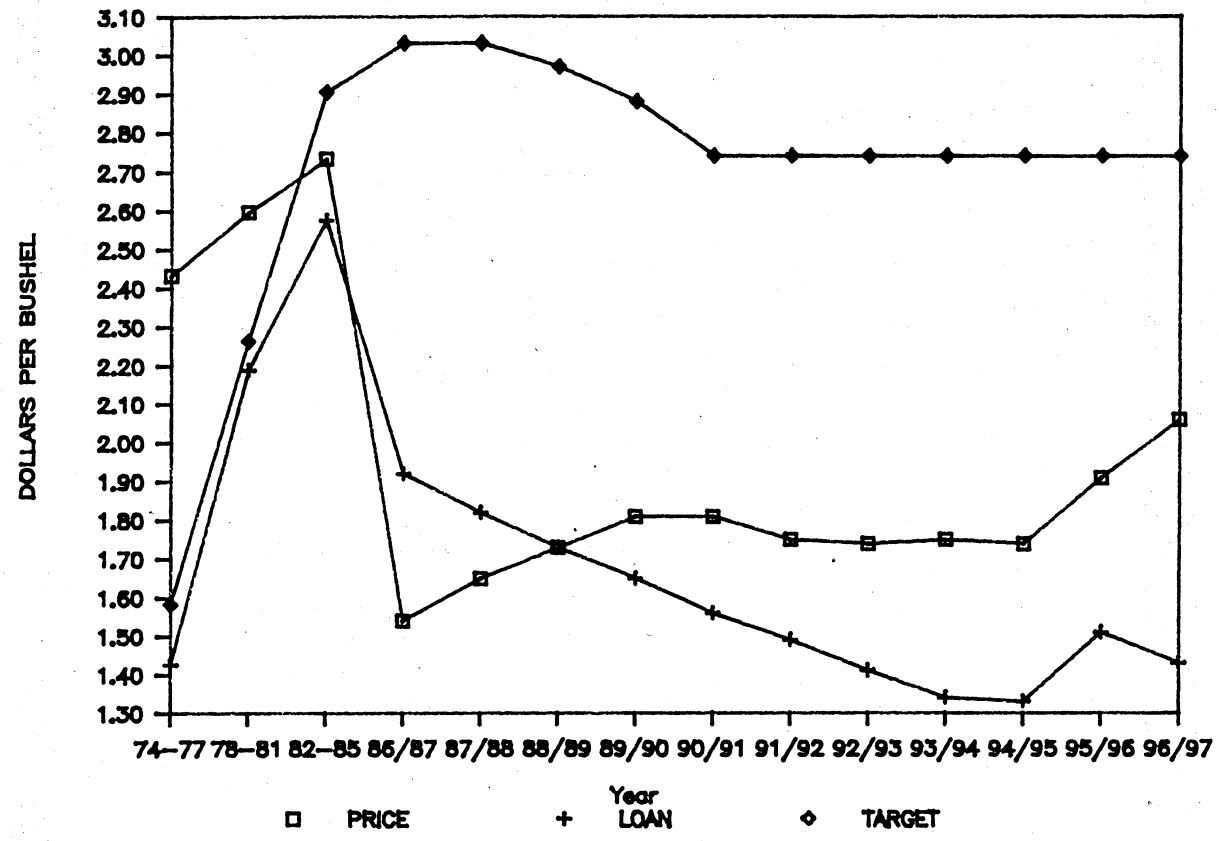
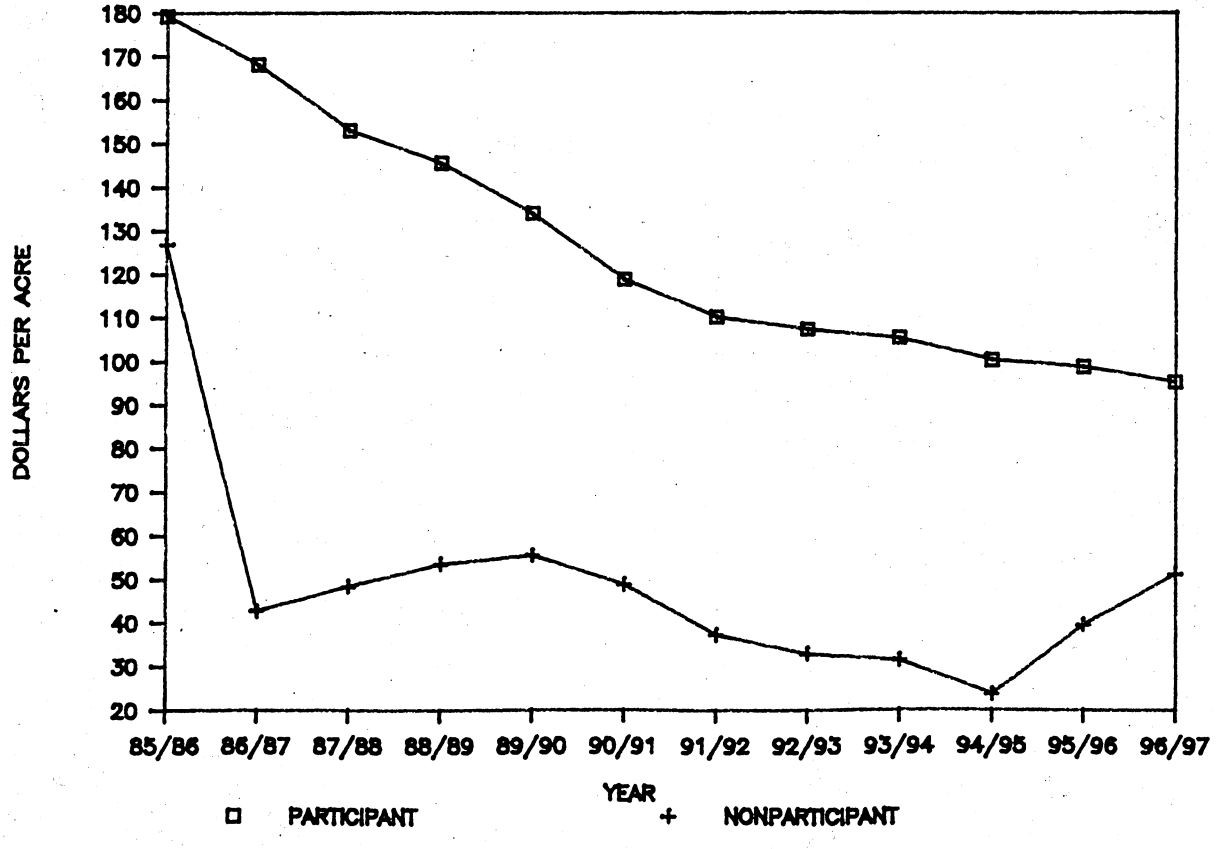
CORN PRICE AND PROGRAM LEVELS



CORN PRODUCER NET RETURNS



U.S. Corn Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
					(Million Acres)							
Base Acreage	84.2	82.4	81.7	81.3	80.6	80.3	80.3	80.3	80.3	80.3	80.3	80.3
Set Aside %	10.0%	17.5%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Diversion %	0.0%	2.5%	15.0%	15.0%	10.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LTCR Acres	0.0	0.2	2.5	4.5	6.0	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Set Aside Acres	6.4	12.3	14.3	13.4	12.4	11.4	11.3	11.6	11.7	11.6	11.6	11.0
Diversion Acres	0.0	1.3	6.8	6.3	3.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Partic. Rate %	68.6%	85.0%	87.8%	82.4%	77.2%	70.9%	70.6%	72.4%	72.6%	72.0%	72.0%	68.2%
Planted Area	83.4	76.7	67.6	64.0	65.5	65.6	69.7	69.7	69.3	69.2	68.6	68.4
Harvested Area	75.2	69.2	60.2	57.1	58.3	58.4	62.0	62.0	61.6	61.5	61.0	60.8
Yield	118.0	119.3	116.2	118.2	119.3	120.4	121.3	123.4	125.6	127.8	129.9	131.7
Base Yield	106.0	106.5	106.5	106.5	106.5	106.5	106.5	106.5	106.5	106.5	106.5	106.5
SUPPLY					(Million Bushels)							
Beg. Stocks	1,648	4,040	5,115	4,743	3,979	3,400	2,871	2,724	2,634	2,567	2,473	2,348
Production	8,877	8,253	6,997	6,745	6,951	7,034	7,521	7,656	7,742	7,860	7,927	8,007
Imports	11	3	2	1	1	1	1	1	1	1	1	1
TOTAL SUPPLY	10,536	12,295	12,113	11,489	10,932	10,435	10,393	10,381	10,377	10,428	10,401	10,356
DOMESTIC												
Feed	4,126	4,550	4,570	4,526	4,524	4,497	4,484	4,496	4,481	4,478	4,488	4,485
Food	868	912	923	943	960	973	1,026	1,061	1,093	1,121	1,138	1,156
Gasohol	240	250	260	270	280	290	200	207	214	222	230	240
Seed	21	18	17	18	18	19	19	19	19	18	18	19
TOTAL	5,255	5,730	5,770	5,757	5,782	5,779	5,728	5,782	5,806	5,839	5,874	5,899
TOTAL EXPORTS	1,241	1,450	1,600	1,753	1,749	1,784	1,940	1,965	2,005	2,116	2,179	2,237
TOTAL DEMAND	6,496	7,180	7,370	7,510	7,532	7,564	7,669	7,747	7,811	7,955	8,053	8,136
ENDING STOCKS	4,040	5,115	4,743	3,979	3,400	2,871	2,724	2,634	2,567	2,473	2,348	2,220
Farmer Held	711	1,600	1,500	1,300	1,100	825	650	600	600	600	600	600
CCC Owned	546	1,700	1,650	1,450	1,200	900	820	760	700	650	600	550
Under Loan	2,589	1,725	1,483	1,030	770	694	678	664	637	575	492	401
"Free" Stocks	194	90	110	199	330	452	576	610	630	648	656	669
PRICES:												
Farm Price	$2.35	$1.54	$1.65	$1.73	$1.81	$1.81	$1.75	$1.74	$1.75	$1.74	$1.91	$2.06
Corn Loan Rate	$2.55	$1.92	$1.82	$1.73	$1.65	$1.56	$1.49	$1.41	$1.34	$1.33	$1.51	$1.43
Target Price	$3.03	$3.03	$3.03	$2.97	$2.88	$2.74	$2.74	$2.74	$2.74	$2.74	$2.74	$2.74
Cost per Acre	$150.38	$140.85	$143.29	$151.11	$160.37	$169.22	$174.95	$182.06	$188.44	$198.62	$208.39	$220.20
Cost per Bushel	$1.27	$1.18	$1.23	$1.28	$1.34	$1.41	$1.44	$1.47	$1.50	$1.55	$1.60	$1.67
Part. Return/Acre	$179.26	$163.08	$153.01	$145.52	$133.91	$118.77	$110.16	$107.37	$105.44	$100.14	$98.48	$94.86
Non-Part. Returns	$126.92	$42.87	$48.37	$53.40	$55.48	$48.77	$37.26	$32.72	$31.36	$23.67	$39.71	$51.15

OTHER U.S. FEED GRAINS

- Prices of sorghum, barley, and oats will remain low relative to levels of the late 1970s and early 1980s as low corn prices depress demand for other feed grains.
- Planted area for all three crops will continue to be tightly restricted for the rest of this decade by acreage reduction programs, paid diversions, and the conservation reserve program.
- Domestic use of barley will increase slightly over the next ten years, but domestic use of sorghum and oats will fall due to competition from corn.
- Sorghum exports will increase by 50 percent over the next decade, while barley exports will fall until the early 1990s.
- Ending stocks of sorghum, barley, and oats will fall more rapidly than corn stocks, as almost all government stocks will be released during the next five years.

U.S. SORGHUM

Mandatory acreage reduction programs (ARPs), long term conservation reserve, and a reduction in ending stocks will be key factors affecting grain sorghum during the next ten years. Lower demand levels due to cross-price effects from the corn industry and a reduction of government stocks keep the sorghum price below $2.00 per bushel for the projection period.

Supply

From 1987/88 to 1993/94, producers are required to set aside 20% of their land to receive target price protection. From 1994/95 to 1996/97 the ARP requirement is assumed to drop to 15%. The target price on which participants receive deficiency payments is expected to drop 2% from $2.88 per bushel in 1988/89, 3% in 1989/90, and an additional 5% to $2.60 for the remainder of the period. Although market prices are expected to be above the loan rate in 1989/90 and years after, nonparticipants face income risks as prices stay well below the target price. As a result, program participation remains relatively high at 70 to 85%.

A 15% voluntary paid diversion program is in effect for 1987/88 and a 10% voluntary paid diversion program is presumed for 1988/89 and 1989/90. The 1985 farm bill also implements a long-term conservation reserve, which is expected to take 3.4 million acres of sorghum cropland out of production by 1990/91. The combined effects of these supply reduction programs is to reduce sorghum planted area to about 11.3 million acres by 1989/90. As supply controls are relaxed due to low ending stock levels and sorghum prices increase relative to corn, sorghum planted acreage is expected to increase to 13.8 million acres in 1996/97. Production estimates range from 623 million bushels in 1989/90 to 837 million bushels in 1996/97.

Domestic Demand

Feed use accounted for approximately 95% of total domestic demand in 1985/86. This demand component is expected to decrease through most of the decade, due primarily to a relatively high sorghum-corn price ratio. An increase in cattle numbers at the end of the period reverses the decline. The food component of domestic demand is expected to remain flat, increasing slightly due to growth in real per capita income.

Export Demand

Sorghum exports have fallen approximately 25% since 1980/81, from 305 million bushels to 225 in 1986/87. This decline in sorghum exports is associated with a loss of U.S. market share of world sorghum trade to Argentina and Australia. Declining exports also reflect strong cross-commodity competition from the corn sector. Lower sorghum prices combined with a weakened U.S. dollar, should have a strong positive influence on sorghum exports. But substitution effects from other feed grains will dampen exports. Thus, sorghum exports are expected to grow about 15% in 1987/88 and 1988/89 as the sorghum-corn price ratio stays relatively low. Export growth will average less than 2% per annum for the rest of the decade. Total sorghum exports are expected to approach 350 million bushels by 1996/97.

Stocks

Total ending stocks for the 1986/87 crop year are projected to be a record-breaking 737 million bushels. This represents about 50% of total demand for the 1986/87 crop year. Total stocks are expected to decrease steadily from 1987/88 to 1992/93 due to acreage reduction and relatively high demand levels. Projected ending stocks for 1992/93 are only 76 million bushels. The need for government stocks decreases as the supply of sorghum tightens. Thus, government stocks are steadily reduced to negligible quantities through 1991/92. This reduction keeps sorghum prices low for the rest of the 1980's despite low production.

Prices and Returns

Prices in 1987/88 are projected to average $1.48 per bushel, slightly more than the $1.40 farm price expected in 1986/87. The

30% decrease in production will be offset by greater carry-over and a 155-million-bushel reduction in government stocks.

Low sorghum ending stocks increase the sorghum-corn price ratio above historical levels from 1990/91 through 1996/97. These high prices relative to corn result in more land being brought into production, alleviating the stock situation somewhat and decreasing the ratio slightly beginning in 1992/93. Sorghum prices reach $2.00 per bushel in 1996/97.

Returns per acre for program participants exceed those for nonparticipants throughout the projection period. Although prices are expected to increase 43% from 1986/87 to 1996/97, costs are expected to increase 63%, eroding the return of both participants and nonparticipants. The higher costs, lower target prices, and frozen base yields reduce participants nominal net return in 1996/97 to less than half that of 1986/87.

U.S. Sorghum Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
ACREAGE:				(Million Acres)								
Base Acreage	19.9	18.8	18.25	17.8	17.4	17.2	17.2	17.2	17.2	17.2	17.2	17.2
Set Aside %	10.0%	17.5%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	15.0%	15.0%	15.0%
Diversion %	0.0%	2.5%	15.0%	10.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LTCR Acres	0.0	0.2	1.30	2.20	3.00	3.40	3.40	3.40	3.40	3.40	3.40	3.40
Set Aside Acres	1.1	2.5	3.0	3.0	2.9	2.8	2.6	2.4	2.4	2.1	2.1	2.1
Diversion Acres	0.0	0.4	2.3	1.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partic. Rate	55%	75%	83%	85%	82%	80%	75%	70%	70%	80%	80%	80%
Base Yield	54.7	59.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
Planted	18.3	15.3	11.8	11.7	11.3	12.7	13.1	13.5	13.6	13.7	13.7	13.8
Harvested	16.8	13.9	10.6	10.0	9.6	11.0	11.4	11.8	11.9	12.0	12.0	12.1
Yield (Bu/Ac)	66.8	67.7	63.7	64.3	64.9	65.5	66.1	66.7	67.3	67.9	68.6	69.2
SUPPLY				(Million Bushels)								
Beg. Stocks	300	549	737	628	447	240	136	90	76	93	109	123
Production	1,120	942	675	640	623	717	754	787	801	815	823	837
Imports	0	0	0	0	0	0	0	0	0	0	0	0
Total Supply	1,420	1,491	1,412	1,267	1,070	958	889	878	877	908	932	960
UTILIZATION												
Feed	662	500	493	488	483	470	454	448	436	443	442	443
Food	27	27	30	30	30	30	30	30	30	30	31	31
Seed	2	2	2	2	2	2	2	2	2	2	2	2
Total Domestic	691	529	525	520	515	502	486	480	468	475	475	476
Total Exports	179	225	259	300	315	320	313	322	316	324	334	347
TOTAL DEMAND	870	754	784	820	830	822	799	802	784	799	809	823
ENDING STOCKS	549	737	628	447	240	136	90	76	93	109	123	137
Farmer Held	75	100	100	80	60	40	20	0	0	0	0	0
CCC Owned	207	420	350	250	140	70	20	0	0	0	0	0
Under Loan	270	215	130	75	27	0	0	0	0	0	0	0
"Free" Stocks	(3)	2	48	42	13	26	50	76	93	109	123	137
PRICES:				($ per Bushel)								
Farm Price	$1.93	$1.40	$1.48	$1.57	$1.68	$1.79	$1.89	$1.88	$1.84	$1.83	$1.92	$2.00
Loan Rate	$2.42	$1.82	$1.74	$1.65	$1.57	$1.49	$1.42	$1.35	$1.60	$1.52	$1.44	$1.40
Target	$2.88	$2.88	$2.88	$2.82	$2.74	$2.60	$2.60	$2.60	$2.60	$2.60	$2.60	$2.60
Reserve Entry	$2.42	$1.82	$1.73	$1.65	$1.56	$1.49	$1.41	$1.76	$1.90	$1.90	$1.90	$1.90
Reserve Release	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10	$3.10
Cost per Acre	$80.16	$75.44	$77.47	$81.69	$86.56	$91.32	$94.95	$99.43	$104.02	$109.98	$116.23	123.31
Cost per Bushel	$1.20	$1.11	$1.22	$1.27	$1.33	$1.39	$1.44	$1.49	$1.54	$1.62	$1.70	$1.78
Returns/Acre:												
Participant	$94.01	$85.93	$77.01	$72.43	$66.40	$56.16	$54.54	$51.83	$48.86	$49.01	$45.21	$40.76
Non-Part.	$48.76	$19.34	$16.78	$19.17	$22.68	$26.16	$29.85	$25.90	$19.72	$14.37	$15.15	$14.79

U.S. BARLEY

A combination of mandatory acreage reduction programs, voluntary diversion programs and the long-term conservation reserve reduce the production of barley sufficiently to allow ending stocks to fall. Reduced ending stocks result in high barley prices relative to corn.

Supply

A 20% acreage reduction requirement is assumed from 1987/88 to 1992/93. This requirement is expected to drop to 15% in 1993/94 and then to 10% in 1994/95 as total ending stocks fall to 170-180 million bushels. The target price, which determines the level of income protection program participants receive, falls 10%, from $2.60 per bushel in 1987/88 to $2.35 per bushel in 1990/91. It is assumed to remain at that level for the remainder of the forecast period. Although market prices are expected to be above the loan rate for the forecast period, they are well below the target price. Therefore, relatively high participation rates of 75-82% are expected as producers seek income protection.

A 15% voluntary paid diversion program is in effect for 1987/88. This program is expected to be reduced to 10% in 1988/89 and eliminated in 1989/90. The long-term conservation reserve is expected to take 3.1 million acres of barley land out of production by 1990/91. These supply reduction programs are expected to cause barley production to fall to 490 million bushels by 1990/91. Production is then expected to climb to 588 million bushels as supply restrictions are relaxed.

Domestic Demand

Domestic demand for barley is expected to be flat over the forecast period, fluctuating only between 469 and 493 million bushels. Feed use, which generally accounts for 55-65% of the domestic use of barley, is the most price elastic component. Feed use is not expected to reach its 1985 record high level of 335 million bushels over the forecast period, but is expected to remain between 300 and 315 million bushels. For most of the forecast period, a relatively high barley-to-corn price ratio dampens the effect of increasing grain consuming animal units (GCAUs) on barley feed use. Alcohol use of barley, which has been falling in the 1980s, is expected to increase slightly with population growth.

Exports

The level of barley exports is governed largely by the strength of the U.S. dollar and the price of barley relative to competing grains, the most important of which is corn. Export enhancement sales to Saudi Arabia resulted in record barley exports for 1986/87. Exports are expected to decline through 1992/93.

Stocks, Prices and Returns

Barley ending stocks are projected to fall from their 326 million bushel high in 1986/87 to a low of 170 million bushels in 1994/95, which is more in line with historical stock levels. This reduction in ending stocks is due primarily to supply reduction programs. Barley market prices that are consistently above the loan rate together with the use of generic certificates cause government-controlled stock levels to fall to minimal levels through 1992/93. There is a corresponding increase in the level of free stocks.

In accordance with the Food Security Act of 1985, the barley loan rate is expected to fall from $1.56 per bushel in 1986/87 to $1.15 per bushel in 1991/92, then increase to $1.36 per bushel in 1993/94 before resuming its decline to $1.20 per bushel in 1996/97. The declining loan rate has little effect on market prices, which remain well above the loan rate throughout the projection period. Barley market prices are expected to be high relative to corn through 1990/91. The barley industry is not burdened with the excessive ending stocks that depress corn prices. The barley-to-corn price ratio then returns to historical levels as corn ending stocks are reduced to more manageable levels.

Participant net returns decline from a high of $95.53 per acre in 1987/88 to $29.33 per acre in 1996/97. Much of the reduction in participant returns is associated with the rise in production costs,

the reduction in target prices, and the freezing of base yields. Nonparticipant net returns are well below those of participants throughout the period. Returns fall to a mere $3.25 per acre in 1996/97. This return path suggests that there is little incentive to plant barley outside of government programs.

U.S. Barley Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
ACREAGE:				(Million Acres)								
Base Acreage	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Set Aside %	10.0%	17.5%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	15.0%	10.0%	10.0%	10.0%
Diversion %	0.0%	2.5%	15.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Set Aside Acres	0.7	1.7	2.2	2.2	2.1	2.1	2.0	2.0	1.5	1.0	1.0	1.0
Diversion Acres	0.0	0.2	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partic. Rate	58.0%	72.7%	82.0%	82.0%	80.0%	80.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Base Yield	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
Planted	13.1	13.3	11.0	10.4	10.3	9.9	10.0	10.0	10.5	11.0	11.0	11.0
Harvested	11.6	12.0	10.0	9.5	9.4	9.0	9.1	9.1	9.6	10.0	10.0	10.0
Yield (Bu/Acre)	51.0	50.8	52.4	53.1	53.8	54.5	55.2	55.9	56.6	57.3	58.0	58.7
SUPPLY:				(Million Bushels)								
Beg. Stocks	247	322	311	279	242	209	186	173	162	160	155	165
Production	589	610	525	502	504	490	503	510	542	574	581	588
Imports	9	5	5	5	5	5	5	5	5	5	5	5
Total Supply	846	937	840	786	751	704	694	688	708	739	741	758
UTILIZATION												
Feed	332	305	300	300	310	300	305	315	310	310	310	315
Food	8	8	7	7	7	7	7	7	7	7	7	7
Alcohol	140	145	145	146	147	148	148	149	150	150	150	151
Seed	22	18	17	17	16	17	17	17	18	18	20	20
Total Domestic	502	476	469	470	480	472	477	488	485	485	487	493
Total Exports	22	150	92	74	62	47	44	38	63	99	89	100
TOTAL DEMAND	524	626	561	544	542	519	521	526	548	584	576	593
ENDING STOCKS	322	311	279	242	209	186	173	162	160	155	165	165
Farmer Held	91	125	90	60	40	20	10	0	0	0	0	0
CCC Owned	57	85	60	40	25	10	0	0	0	0	0	0
Under Loan	137	75	60	40	25	25	25	25	25	20	20	20
Free Stocks	36	26	69	102	119	131	138	137	135	135	145	145
PRICES:				($ per Bushel								
Farm Price	$1.98	$1.58	$1.68	$1.74	$1.78	$1.82	$1.72	$1.67	$1.68	$1.66	$1.74	$1.82
Target	$2.60	$2.60	$2.60	$2.55	$2.47	$2.35	$2.35	$2.35	$2.35	$2.35	$2.35	$2.35
Loan Rate	$2.08	$1.56	$1.49	$1.41	$1.34	$1.27	$1.51	$1.43	$1.36	$1.30	$1.27	$1.27
Cost per Acre	$64.40	$60.77	$62.14	$65.55	$69.49	$73.26	$76.17	$79.72	$83.12	$87.95	$92.75	$98.37
Cost per Bushel	$1.26	$1.20	$1.19	$1.23	$1.29	$1.34	$1.38	$1.43	$1.47	$1.53	$1.60	$1.68
Returns/Acre:												
Participant	$59.38	$66.97	$95.53	$76.40	$45.24	$38.29	$36.72	$34.64	$36.20	$36.12	$33.37	$29.94
Non-Part.	$36.58	$19.71	$25.78	$26.60	$26.51	$25.92	$18.72	$13.52	$11.80	$7.15	$8.30	$8.44

U.S. OATS

Only 385 million bushels of oats were produced in 1986/87, a record low for this century. Oats production has been declining steadily since the 1950s, due in part to the decrease in dairy herds. Dairy cows and horses are the primary consumers of oats, and feed use accounts for 85% of total domestic oats usage. Further reductions in dairy herds will play a large role in the oats industry over the next ten years.

Supply

Because oats are used as a cover crop, a wide gap exists between planted and harvested acreages. This gap widens in years when large acreage reduction programs (ARPs) are in effect. In 1986/87, less than 50% of oats planted was actually harvested. Because of strict ARPs and a growing long-term conservation reserve, it is anticipated that the trend of a low harvested-to-planted acreage ratio will continue.

A 20% ARP is maintained throughout the projection period. In 1987/88, a 15% voluntary paid diversion is in effect. It is assumed that the 15% paid diversion will be continued in 1988/89, then reduce to 10% in 1989/90, and finally be eliminated in 1991/92.

Participation rates in oats programs have always been low, with a preliminary estimate of 44% in 1987/88, the highest participation rate to date. Participation rates are expected to increase to 60% during the decade, due to low market prices for oats.

The low production level in 1986/87 resulted in a 40% decrease in projected oats ending stocks and an oats farm price that is unusually high relative to the corn farm price. This increase in the oats-corn price ratio is expected to result in a 17% increase in oats production in 1987/88. Production is expected to decrease gradually, reaching the level of 1986/87 again in 1995/96. This decrease in production is the result of low demand levels and, in turn, low oats prices that will not generate a reasonable return for oats producers.

Domestic Demand

Domestic feed use is expected to fall nearly 25% from an estimated 400 million bushels in 1986/87 to 309 million bushels in 1996/97. This is a continuation of a downward trend in feed use that has been occurring since the 1950s, as the size of the dairy herd declines. The poultry industry will not mitigate this trend because oats are used in the poultry ration primarily to prevent cannibalism and are not considered to be a major nutritional component of the diet.

Food use of oats has actually grown slightly in recent years due to increased use of oats in breakfast cereals and the popularity of granola bars. Food use is expected to increase modestly during the decade with population growth. Stocks

Government holdings of oats stocks are expected to be negligible, as they have been during the 1980s. Oats ending stocks are expected to increase steadily from a projected low of 112 million bushels in 1986/87, surpassing the 1985/86 level in 1993/94 and reaching a high of 244 million bushels in 1996/97.

Prices and Returns

The oats farm price ranges from $.98 to $1.18 during the projection period. The tight supply of oats pushes the oats-corn price ratio above historical levels for the first half of the period, speeding the drop in demand. As stock levels increase, the ratio returns to normal. The oats loan rate drops 5% per year through 1992/93 to $.73 per bushel. The loan rate is $.07 below the variable cost per bushel in 1988/89. This gap increases to $.63 per bushel in 1996/97. Nonparticipant net returns become negative in 1991/92. It is likely that nonparticipants will continue to contribute to area planted for purposes such as cover crops and grazing.

U.S. Oats Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
ACREAGE:												
Base Acreage	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Set Aside %	10%	17.5%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Diversion %	0%	2.5%	15.0%	15.0%	10.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LTCR Acres	0.1	0.5	0.5	0.8	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Set Aside Acr	0.1	0.6	0.8	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0
Diversion Acr	0.0	0.1	0.6	0.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Partic. Rate	15%	37%	44%	40%	50%	50%	55%	55%	60%	60%	60%	60%
Base Yield	48.0	56.7	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
Planted	13.3	14.7	15.7	16.0	15.0	15.1	14.3	13.5	13.2	13.0	12.7	12.3
Harvested	8.1	6.9	7.5	7.4	7.0	7.0	6.8	6.5	6.3	6.2	6.0	5.8
Yield (Bu/Acr	63.7	56.0	60.3	60.8	61.2	61.7	62.2	62.7	63.1	63.6	64.1	64.5
SUPPLY												
Beg. Stocks	180	184	112	119	129	140	154	163	172	192	217	234
Production	521	385	452	450	429	432	423	407	398	394	384	374
Imports	28	30	30	30	30	30	30	30	25	25	25	25
Total Supply	729	599	594	599	588	602	607	600	595	611	626	634
UTILIZATION												
Feed	460	400	387	384	361	363	361	346	321	312	311	309
Food	44	45	45	45	46	46	46	46	47	47	47	47
Seed	39	40	41	39	39	37	35	34	33	33	32	32
Total Domestic	543	485	473	468	446	446	442	426	401	392	390	388
Total Exports	2	2	2	2	2	2	2	2	2	2	2	2
TOTAL DEMAND	545	487	475	470	448	448	444	428	403	394	392	390
ENDING STOCKS	184	112	119	129	140	154	163	172	192	217	234	244
Farmer Held	1	1	1	1	1	1	1	1	1	1	1	1
CCC Owned	1	1	1	1	1	1	1	1	1	1	1	1
Under Loan	1	1	1	1	1	1	1	1	1	1	1	1
"Free" Stocks	181	109	116	126	137	151	160	169	189	214	231	241
PRICES:												
Farm Price	$1.25	$1.18	$1.14	$1.11	$1.14	$1.08	$1.04	$1.02	$1.00	$0.98	$1.02	$1.02
Loan Rate	$1.31	$0.99	$0.94	$0.90	$0.85	$0.81	$0.77	$0.73	$0.87	$0.82	$0.78	$0.76
Target	$1.60	$1.60	$1.60	$1.57	$1.52	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44
Cost per Acre	$57.40	$54.87	$55.99	$59.13	$62.70	$66.06	$68.91	$72.33	$75.41	$80.13	$84.57	$89.85
Cost per Bushel	$0.90	$0.98	$0.93	$0.97	$1.02	$1.07	$1.11	$1.15	$1.19	$1.26	$1.32	$1.39
Returns/Acre:												
Participant	$33.97	$25.03	$32.16	$29.22	$23.44	$18.22	$10.94	$8.52	$6.34	$2.84	($0.13)	($3.96)
Non-Part.	$22.75	$11.21	$12.64	$8.18	$7.17	$0.51	($4.29)	($8.35)	($12.29)	($17.73)	($19.27)	($23.84)

WORLD WHEAT

- Canadian wheat production will be high because wheat/barley price ratios favor wheat.
- Indian wheat production will allow maintenance of self-sufficiency in that country.
- Wheat production will increase somewhat slower than consumption in the Soviet Union, Eastern Europe, and China.
- Canada will maintain trade share as its exports continue to rise.
- Less developed countries will provide the most rapidly expanding markets for wheat exports.

WORLD WHEAT

Wheat is the most heavily traded agricultural commodity in the world, and accounts for 50% of total grain trade. World wheat trade in 1986/87 is estimated to be 88.2 million metric tons (mmt). This represents a 3.9% increase over 1985/86, but is still well below the record level of 107.0 mmt in 1984/85.

World wheat use in 1986/87 is estimated to be 517.3 mmt, a 6.1% increase over 1985/86. In absolute terms, most of this increase is taking place in regions other than the United States, USSR, and PRC. This demand increase is partly offset by production increases in regions other than the major producers (United States, Canada, Australia, Argentina, EC, USSR, East Europe, China, and India). These smaller producers increased production by 8.6% over 1985/86 to 72.2 mmt. But, while they account for less than half of world wheat use, they will import approximately 61% of the total wheat traded, and account for 72% of the increase in imports over the previous year. Significant changes in production and utilization patterns in these countries can sharply alter the world trade picture.

Major producers such as India, the Soviet Union, China, and Eastern Europe produce large quantities of wheat but are primarily net importers. These regions are attempting to expand their wheat production to meet total domestic use and achieve a greater degree of self-sufficiency. Their future success in this endeavour will have a large effect on world wheat trade patterns.

Global Production

World wheat production for 1986/87 is estimated to be a record 529.2 mmt, a 6% increase over the previous record of 511.6 mmt set in 1984/85. The nine major producing regions accounted for 455.2 mmt, or 86% of total world production.

U.S. wheat production is estimated at 56.8 mmt for the 1986/87 crop year. This 13.9% decrease from 1985/86 reflects a decline in both area harvested and yield. Area harvested declines 6.1% in 1986/87 as a result of low prices and the acreage reduction provisions of the Food Security Act of 1985 (FSA85), while yields declined 8.0%. Area is expected to fall through 1990/91, then set aside requirements will ease slightly and prices will begin to recover. By 1995/96, wheat area is projected to be near 26.1 million hectacres, boosting production by 26.1% over 1986/87 to 71.6 mmt.

The 1986/87 Canadian wheat crop is estimated to be 31.9 mmt,the largest on record and an increase of 7.6 mmt over the previous crop year. The increase is the result of a record yield and a record harvested area of 14.2 million ha. Despite the significant drop in wheat prices in 1986/87, wheat area is expected to drop only slightly in1987/88, to 14.0 million ha. The Canadian Wheat Board (CWB) Initial Price for wheat, a guaranteed price, is sufficiently high so that producers at least break even. Throughout the rest of the decade, wheat area is predicted to remain between 13 and 14 million ha, fluctuating slightly with the wheat-barley price ratio. There are two explanations for this stability in wheat area harvested: in a large proportion of the Canadian Prairies, wheat is the only crop that is profitable and wheat generates a higher net return than other crops because it requires relatively fewer inputs.

Australia's wheat production rose slightly in 1986/87 to 16.7 mmt from 16.1 mmt in the previous year. The 3.4% decline in area harvested in 1986/87 was more than compensated for by a 7.2% increase in yield. Wheat area is expected to increase throughout the period, from 11.3 million ha in 1986/87 to 13.3 in 1996/97. Because this expansion is occurring in areas with unfavorable climatic conditions, however, average yields increase slowly. Consequently, output is just 21.3 mmt in 1996/97 despite the record area harvested. This compares to a record output level of 22.0 mmt in 1983/84.

Wheat production in the EC is estimated to decrease by 0.1 mmt in 1986/87 from 1985/86. The 2.8% decrease in yields is nearly made up for by a 2.6% increase in area harvested. Area harvested is projected to remain virtually unchanged during the decade, so that nearly all production increases

in the EC will be from yield increases. This is because the EC has a constrained land base and can only increase wheat area at the expense of other crops. With efforts under way to increase feed grains and oilseed production, it is unlikely that the EC will expand wheat area, especially in light of its current wheat surplus, but yield increases will push production to approximately 71.8 mmt by 1995/96, an increase of 8.6% over 1986/87.

Even though wheat area harvested declined in Argentina in 1986/87 from the previous year, production was up 12.9% as yields recovered to more normal levels. Wheat area is projected to increase slowly over the decade, but will meet competition from feed grains and especially from soybeans. By the end of the period, wheat area in Argentina is projected to be at 6.8 million ha, pushing production to over 15.6 mmt, up from 9.6 mmt in 1986/87.

India is expanding wheat production and will continue to do so. Relatively low current yields coupled with increasing incomes are expected to permit expanded production to meet increasing demand, as fertilizer use and adoption of high-yielding varieties become more economically feasible. Production in 1986/87 increased 6.3% over 1985/86 to give a record crop of 47.0 mmt. Although the growth rates of the early 1980s are not projected to continue through the decade, India's wheat production is expected to maintain healthy growth to approximately 63.5 mmt by 1995/96, an increase of 35.1% over the 1986/87 crop.

Wheat production in the USSR fell by 2.0 mmt in 1986/87, as area harvested dropped by 1.5 million ha and yields decreased slightly. Even so, this year's crop is the second largest in the past five years as total grain production was up drastically this year. Soviet wheat production is projected to increase by 16% during the decade to around 94 mmt.

In attempts to improve living standards and diets in China, wheat production again increased. The 1986/87 crop was 2.6% above the previous crop at 88.0 mmt. This increasing production trend is projected to continue through 1995/96, reaching nearly 118.4 mmt for an increase of approximately 34.5% over 1986/87.

Eastern Europe will continue to meet most of its wheat requirements through domestic production throughout the decade. Production will increase to around 45.4 mmt by 1995/96, up 13.8% over 1986/87 levels. Production gains in Eastern Europe will be largely dependent on yield increases; therefore, the ability to purchase fertilizer and chemicals from outside the Soviet bloc will have a large impact on the ability to increase production.

Global Utilization

World wheat utilization has been generally increasing as diets in various regions change and improve. In the past few years, much of the increase in use of wheat has been from increased livestock feeding in areas such as the EC and the USSR. Although high levels of livestock feeding will continue in many regions, most of the increased use of wheat during the projection period should be in the form of human consumption, especially in countries such as China and India.

Food use of wheat in the EC (less Spain and Portugal) will remain virtually unchanged in 1986/87, but still remains the largest demand component for this region. Feed use of wheat also will not increase substantially from the previous year, but will resume growth in the late 1980s, although not at the high rate of the early 1980s. With the current desire to increase production of feed grains and rapeseed in the EC, wheat will be competed not only as a feed, but also for land area. By 1995/96, wheat feeding in the EC is projected to be more than 25.3 mmt, an increase of 8.4% over 1986/87.

India's use of wheat is virtually all for human consumption. This use is expanding at a fairly rapid rate as the Indian population continues to increase. In 1986/87, wheat consumption was at 46.0 mmt, up 2.7% from 1985/86. This rateof growth will continue through 1995/96, when consumption is expected to be near 61.7 mmt, an increase of 34% over 1986/87.

The Soviet Union is expected to expand wheat utilization

through both food and feed uses. Although plans for increasing feed grain production in the USSR will provide competition for wheat as a feed, increasing livestock production will continue to increase use. Total Soviet wheat utilization is expected to decline to around 94.7 mmt in 1986/87, a drop of 3.1%, in spite of higher than anticipated supply levels, due to increases in feed grain availability. Throughout the decade to 1995/96, however, total consumption of wheat in the Soviet Union is projected to increase to nearly 110.6 mmt, an increase of 16.8% over 1986/87 levels.

China is currently increasing wheat consumption. From 1978/79 to the present, wheat use has increased 53% to 95 mmt. A more than 2.0 mmt increase in production in 1986/87 has raised Chinese consumption of wheat to almost 95 mmt, an increase of 2.7% from the previous year. By 1996/97, Chinese wheat use is projected to exceed 118 mmt, nearly 25% above 1986/87 levels.

Eastern Europe is also increasing its consumption of wheat, with most of the increase due to livestock feeding. Use is estimated to increase 1.7 mmt in 1986/87 to 40.5 mmt, and is projected to continue to increase to 48.5 mmt by 1995/96, an increase of almost 20%.

A major part of the increase in wheat utilization during the next decade will occur in the less developed regions of the world. Increasing consumption in 1986/87 in Africa, Latin America, and parts of Asia have been brought about by increasing incomes and lower exchange rates against the dollar. This growth is projected to increase, but although some of the consumption increase will be met by increased domestic production, much of this wheat will have to be imported.

World Trade

There are relatively few major wheat exporters and many importers of various quantities of wheat. The major net exporters are the United States, Canada, Australia, the EC, and Argentina. Some of the major markets are the USSR, China, Africa, Latin America, Japan, and the Pacific Basin.

Total world wheat trade is projected to increase 4.2% over 1985/86 to 89.1 mmt. This will occur in spite of low levels of Soviet and Chinese imports, because demand will increase in other areas of the world due to low world prices and increasing incomes.

Major Exporters

U.S. wheat exports are projected to increase from the low levels of 1985/86 by 9.6% to 27.3 mmt. Along with this increase, the U.S. share of world trade will increase in 1986/87 to nearly 35% from just over 32% the previous year. A weaker dollar and lower world prices associated with FSA85 will help stimulate recovery of exports, although it will be a fairly slow recovery, as former major markets strive to become more self-sufficient. By1995/96, U.S. exports are projected to rise to 45.9 mmt, an increase of nearly 68% over 1986/87, boosting the U.S. trade share to over 41%.

With the large Canadian crop, exports from this country are projected to increase to 18.5 mmt, for a 23.7% world market share. Because stocks increased with the large crop, transportation quotas will be increased next year, and exports will remain high through 1988/89. After this, exports from Canada will fall slightly, but Canada will remain extremely competitive in the world wheat market, as production generally increases during the next decade. By 1995/96, Canada is projected to be exporting 21.8 mmt of wheat, an increase of 17.8 % over 1986/87, and a 19.7 % export market share.

Australia is expected to decrease exports in 1986/87 by 1.5 mmt because production declined. Rebuilding stocks next year is expected to further reduce Australian exports, but recovery will take place beginning in 1988/89. By the end of the projection period, Australian wheat exports are projected to be at 16.9 mmt, 16.6% over 1986/87, a 15.2% share of the export market.

The EC (less Spain and Portugal) is expected to decrease wheat net exports in 1986/87 to 12.8 mmt. The EC is projected to increase exports very slowly over the projection period to around 14.9 mmt, as efforts are made to increase production of feed grains

and oilseeds, rather than wheat, to reduce the cost of administering the Common Agricultural Policy of the EC (CAP). The EC is expected to hold a 16.3% trade share this year, but the share is projected to drop to 13.4% by 1995/96.

Argentine wheat exports increased 18.6% in 1986/87 as production recovered somewhat from the previous year's poor crop. Argentina now holds 6.5% of the world market, and is projected to improve its position by almost 4% by the end of the period, as wheat exports increase to 11.5 mmt.

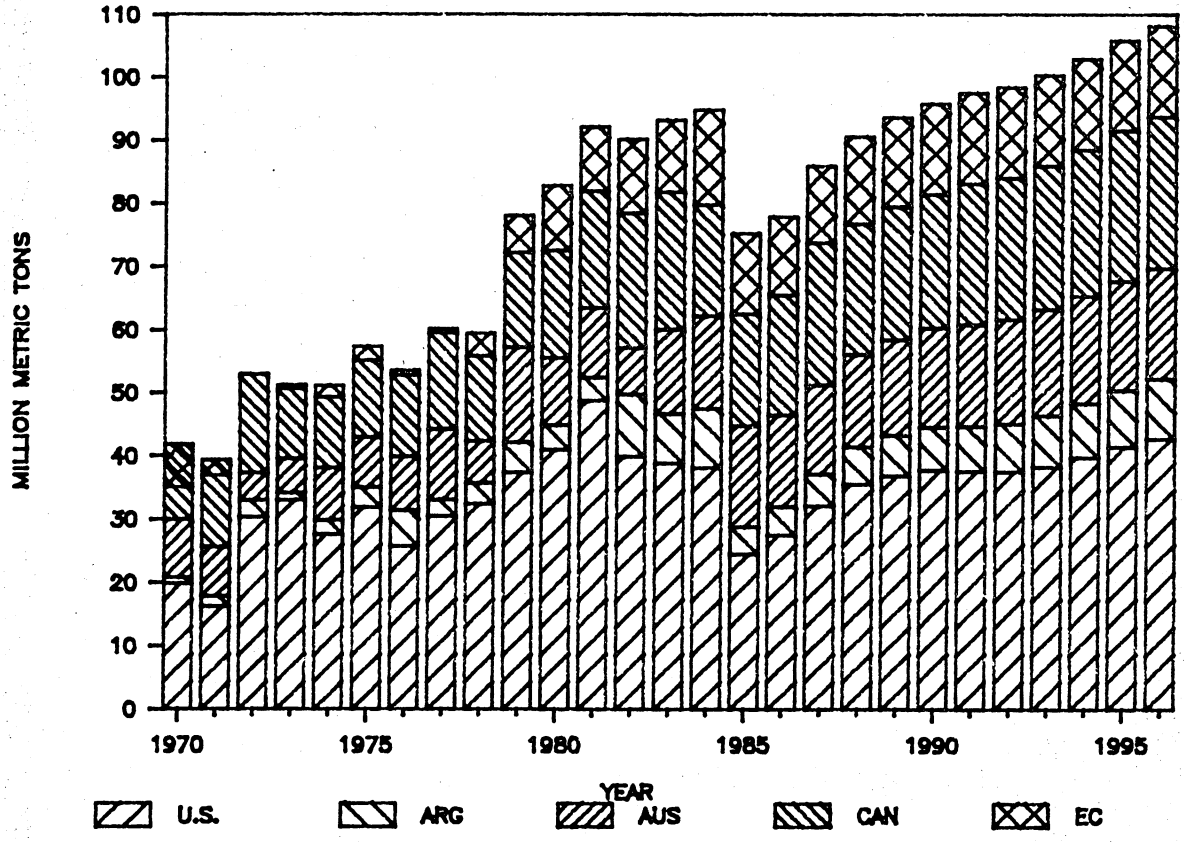
Major Importers

With two consecutive crops of more than 80 mmt, the USSR will be able to further reduce imports of foreign wheat. Soviet wheat imports are expected to be approximately 12.7 mmt in 1986/87, down 14% from last year, and less than half of the 27 mmt imported in 1984/85. Soviet wheat imports are projected to increase at a low rate as consumption slightly outpaces production during the decade. By 1995/96, the USSR is projected to import 17.8 mmt of wheat. There is the possibility that the Soviets will improve yields substantially through technology and, therefore, reduce imports.

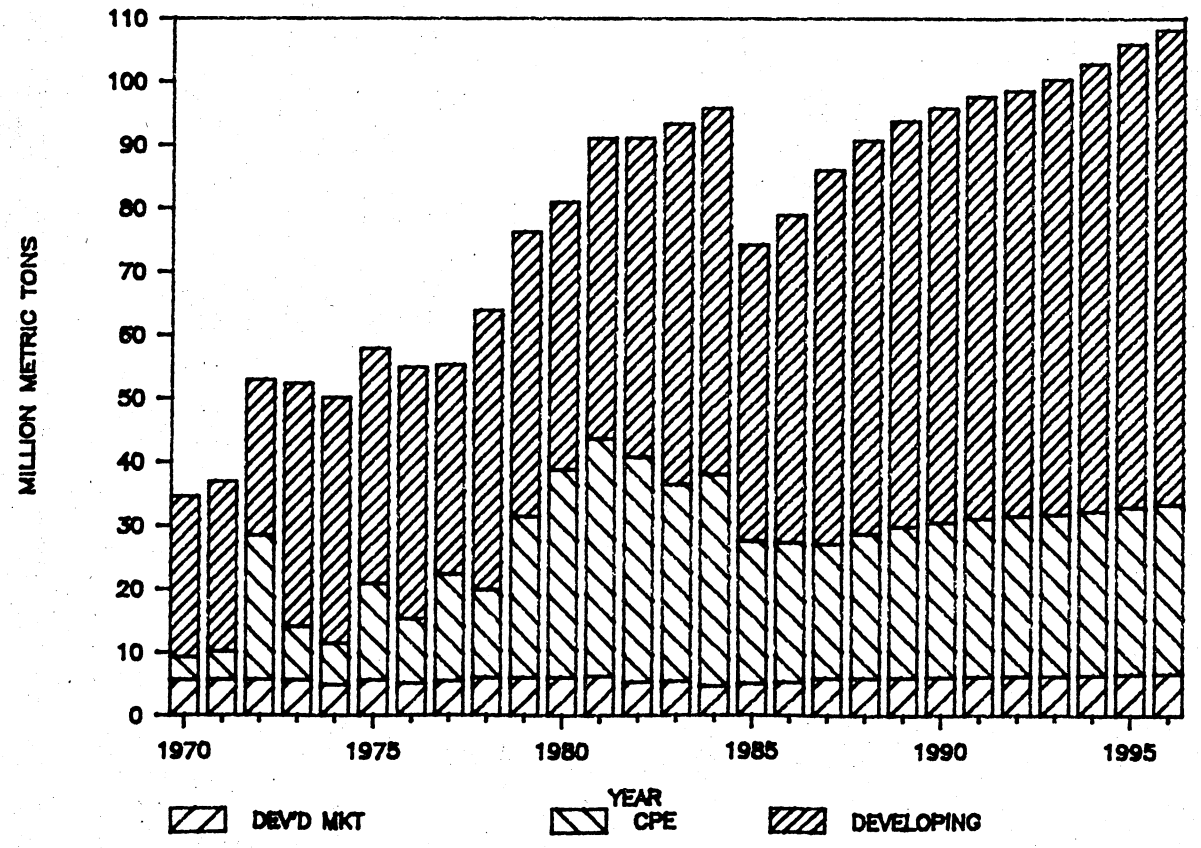
Chinese wheat consumption is projected to increase dramatically thoughout the decade, and will slightly outpace wheat production. Chinese wheat imports will not, however, increase to the levels of the early 1980s. Chinese wheat imports are expected to be around 7 mmt in 1986/87, and are projected to dip slightly throughout the late 1980s. By the early 1990s, however, steadily increasing incomes will push demand for wheat beyond production ability, and imports are projected to begin slowly increasing. By 1995/96, Chinese wheat imports are projected to be at 8.8 mmt, an increase of 1.8 mmt, or 25% above this year, yet still below levels as recent as 1983/84.

Africa, the Middle East, Latin America, parts of Asia, and others (mostly LDC's) are projected to increase wheat imports during the next ten years by about 43%. This means the development of new markets and the expansion of some existing ones. This growth will help replace markets such as India, which is no longer a net importer, and offset some of the market loss due to reduced imports by China and the USSR. On the other hand, other exporters will be increasingly competitive. On the whole, world net trade growth is not projected to expand as rapidly as it did in the 1970s, and it will be difficult for the U.S. to regain high shares of export markets.

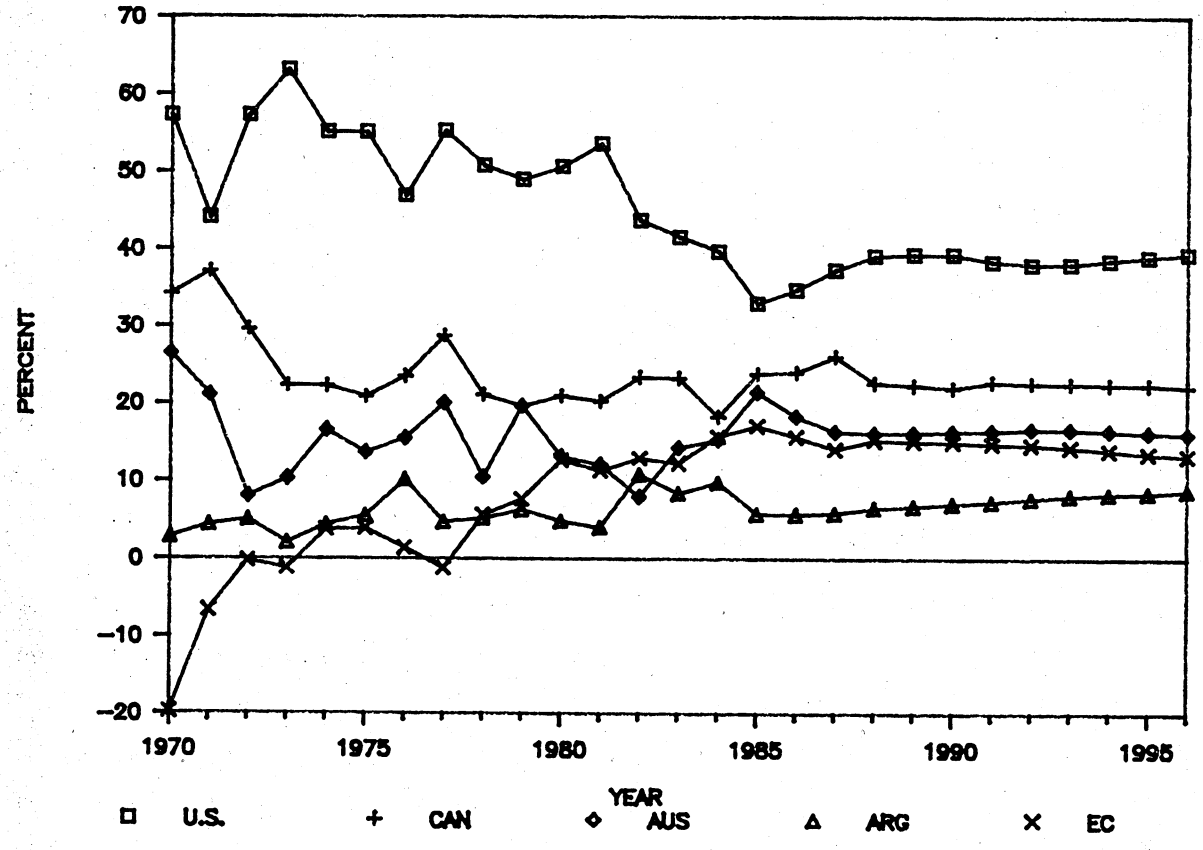
WHEAT EXPORTS



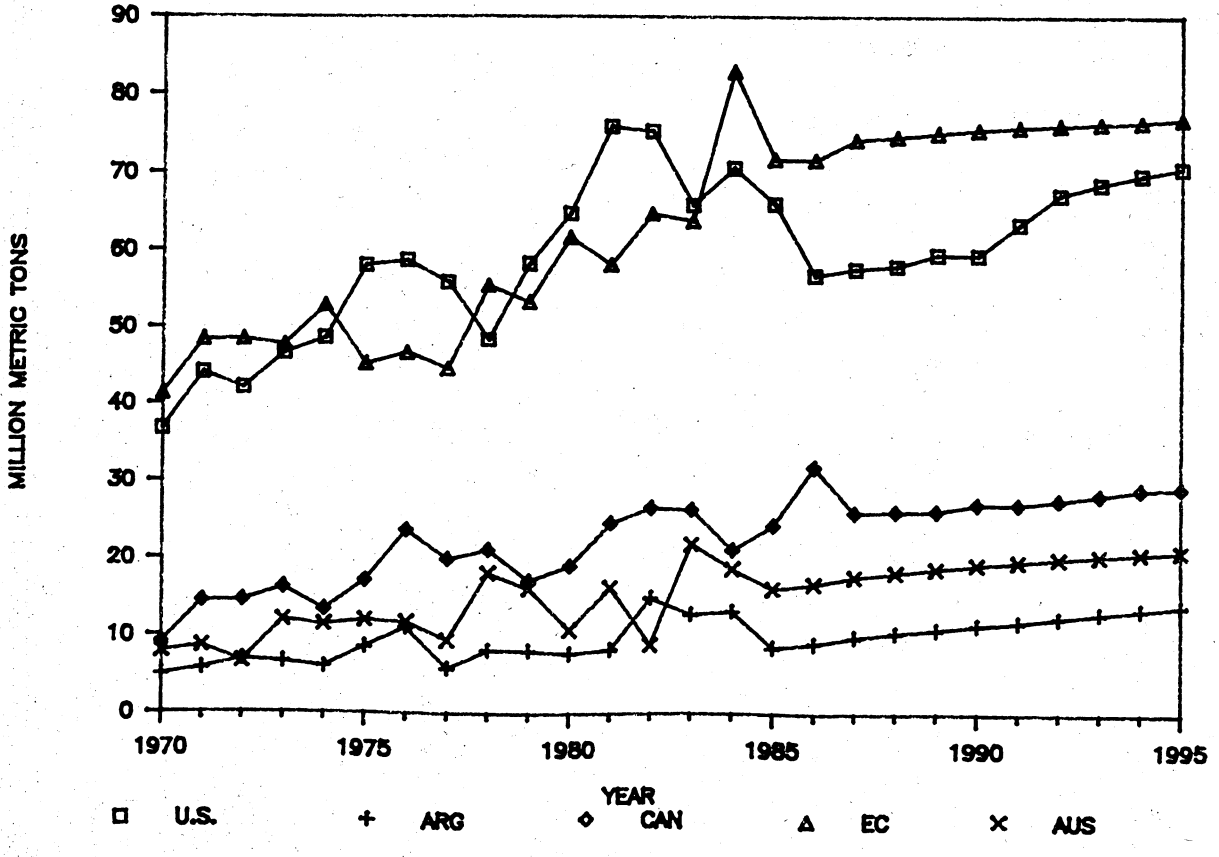
WHEAT IMPORTS BY REGION



WHEAT EXPORT MARKET SHARE



EXPORTERS WHEAT PRODUCTION



World Wheat Supply and Utilization

YEAR	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
Trade											
Million Metric Tons											
Net Exporters											
Canada	19.00	22.50	20.61	20.99	21.15	22.27	22.35	22.69	23.15	23.83	24.01
Australia	14.50	14.10	14.71	15.23	15.70	16.12	16.48	16.80	16.99	17.23	17.43
EC	13.60	12.16	13.93	14.19	14.40	14.48	14.49	14.45	14.37	14.36	14.41
Argentina	4.50	5.07	5.90	6.36	6.83	7.19	7.67	8.16	8.61	9.04	9.56
Total Non-U.S.	51.60	53.83	55.14	56.78	58.09	60.06	61.00	62.10	63.11	64.45	65.42
United States	26.54	32.13	35.53	36.92	37.78	37.60	37.54	38.30	39.77	41.44	42.82
(trade share %)	34.0	37.4	39.2	39.4	39.4	38.5	38.1	38.1	38.7	39.1	39.6
Total Net Exports	78.14	85.97	90.66	93.70	95.87	97.66	98.54	100.41	102.89	105.89	108.23
Net Importers											
Japan	5.50	5.78	5.85	5.92	6.01	6.13	6.21	6.30	6.40	6.49	6.59
India	-0.35	1.51	1.42	0.98	0.47	0.07	-0.23	-0.35	-0.31	-0.11	0.24
USSR	14.00	14.04	14.85	15.33	15.57	15.67	15.80	15.92	16.03	16.15	16.28
China	7.00	6.93	7.53	8.02	8.40	8.69	8.76	8.84	8.93	9.02	9.16
E. Europe	1.20	0.32	0.38	0.42	0.46	0.55	0.64	0.73	0.83	0.97	1.09
Africa & M.E.	22.21	27.12	28.55	29.90	30.90	31.57	31.44	32.00	32.69	33.63	33.97
Other Asia	12.41	12.43	13.89	14.44	14.92	15.42	15.93	16.45	17.13	17.91	18.56
Hi Inc. E. Asia	4.35	4.52	4.71	4.88	5.10	5.31	5.53	5.79	6.07	6.34	6.61
Other W. Europe	-0.23	0.10	0.08	0.10	0.07	0.05	0.01	-0.03	-0.01	0.05	0.03
Other Importers	12.90	13.21	13.40	13.71	13.95	14.20	14.44	14.75	15.13	15.45	15.70
Total Net Imports	78.99	85.97	90.66	93.70	95.87	97.66	98.54	100.41	102.89	105.89	108.23

World Wheat Supply and Utilization

YEAR	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
Canada											
					Million Hectares						
Area Harvested	14.20	13.97	13.76	13.64	13.48	13.73	13.50	13.57	13.70	13.85	13.74
Yield (mt/ha)	2.24	1.89	1.92	1.95	1.98	2.01	2.04	2.07	2.10	2.13	2.16
					Million Metric Tons						
Production	31.90	26.41	26.42	26.59	26.69	27.60	27.53	28.10	28.78	29.51	29.68
Beg. Stocks	8.50	15.70	14.18	14.48	14.51	14.55	14.62	14.64	14.85	15.16	15.23
Tot. Supply	40.40	42.11	40.60	41.07	41.20	42.16	42.15	42.74	43.63	44.67	44.92
Utilization	5.70	5.43	5.51	5.57	5.50	5.27	5.16	5.20	5.31	5.62	5.81
Exports	19.00	22.50	20.61	20.99	21.15	22.27	22.35	22.69	23.15	23.83	24.01
Tot. Demand	24.70	27.93	26.11	26.56	26.65	27.54	27.51	27.89	28.46	29.44	29.82
End. Stocks	15.70	14.18	14.48	14.51	14.55	14.62	14.64	14.85	15.16	15.23	15.10
Australia											
					Million Hectares						
Area Harvested	11.30	11.69	12.02	12.29	12.53	12.73	12.89	13.03	13.15	13.23	13.29
Yield (mt/ha)	1.48	1.51	1.52	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.60
					Million Metric Tons						
Production	16.70	17.66	18.27	18.81	19.29	19.73	20.11	20.46	20.77	21.04	21.27
Beg. Stocks	5.90	5.00	5.40	5.76	6.08	6.37	6.63	6.86	7.06	7.25	7.41
Tot. Supply	22.60	22.66	23.67	24.57	25.38	26.10	26.74	27.32	27.83	28.28	28.68
Dom. Use	3.10	3.15	3.20	3.25	3.30	3.35	3.40	3.45	3.60	3.65	3.70
Exports	14.50	14.10	14.71	15.23	15.70	16.12	16.48	16.80	16.99	17.23	17.43
Tot. Demand	17.60	17.25	17.91	18.48	19.00	19.47	19.88	20.25	20.59	20.88	21.13
End. Stocks	5.00	5.40	5.76	6.08	6.37	6.63	6.86	7.06	7.25	7.41	7.55

World Wheat Supply and Utilization

YEAR	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
EC-12											
					Million Hectares						
Area Harvested	15.70	15.75	15.83	15.86	15.86	15.86	15.84	15.83	15.81	15.79	15.77
Yield (mt/ha)	4.56	4.71	4.71	4.73	4.76	4.78	4.80	4.82	4.84	4.87	4.90
					Million Metric Tons						
Production	71.60	74.17	74.58	75.01	75.51	75.80	76.05	76.29	76.52	76.90	77.27
Beg. Stocks	16.30	13.00	14.81	15.02	15.13	15.24	15.31	15.37	15.43	15.48	15.56
Tot. Supply	87.90	87.17	89.38	90.03	90.64	91.04	91.36	91.66	91.94	92.38	92.83
Feed Use	23.80	24.46	24.62	24.80	25.01	25.17	25.33	25.53	25.76	26.02	26.25
Food Use	37.50	35.74	35.81	35.91	35.99	36.08	36.17	36.25	36.34	36.43	36.53
Exports	13.60	12.16	13.93	14.19	14.40	14.48	14.49	14.45	14.37	14.36	14.41
Tot. Demand	74.90	72.36	74.36	74.90	75.40	75.73	75.99	76.24	76.47	76.82	77.19
End. Stocks	13.00	14.81	15.02	15.13	15.24	15.31	15.37	15.43	15.48	15.56	15.64
Argentina											
					Million Hectares						
Area Harvested	5.00	5.20	5.37	5.52	5.70	5.88	6.06	6.24	6.39	6.53	6.70
Yield (mt/ha)	1.80	1.90	1.94	1.98	2.01	2.02	2.05	2.08	2.11	2.14	2.17
					Million Metric Tons						
Production	9.00	9.88	10.41	10.93	11.46	11.88	12.42	12.97	13.49	13.98	14.55
Beg. Stocks	0.30	0.30	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Tot. Supply	9.30	10.18	11.07	11.59	12.12	12.54	13.07	13.63	14.14	14.63	15.20
Utilization	4.50	4.45	4.52	4.58	4.63	4.69	4.75	4.81	4.88	4.94	4.99
Exports	4.50	5.07	5.90	6.36	6.83	7.19	7.67	8.16	8.61	9.04	9.56
Tot. Demand	9.00	9.52	10.41	10.93	11.46	11.88	12.42	12.97	13.49	13.98	14.55
End. Stocks	0.30	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66

World Wheat Supply and Utilization

YEAR	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
India											
					Million Hectares						
Area Harvested	23.07	23.63	24.18	24.73	25.27	25.79	26.30	26.74	27.12	27.45	27.74
Yield (mt/ha)	1.88	1.94	1.99	2.04	2.09	2.14	2.18	2.22	2.26	2.30	2.34
					Million Metric Tons						
Production	46.90	45.83	48.12	50.44	52.81	55.19	57.33	59.35	61.28	63.13	64.90
Beg. Stocks	15.12	15.45	14.79	14.77	15.01	15.37	15.78	16.18	16.56	16.92	17.27
Tot. Supply	62.02	61.28	62.90	65.21	67.82	70.56	73.11	75.53	77.84	80.05	82.18
Feed Use	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Food Use	45.82	47.61	49.16	50.77	52.52	54.46	56.30	58.22	60.21	62.27	64.41
Exports	0.35	-1.51	-1.42	-0.98	-0.47	-0.07	0.23	0.35	0.31	0.11	-0.24
Tot. Demand	46.57	46.50	48.13	50.20	52.45	54.79	56.93	58.97	60.92	62.78	64.57
End. Stocks	15.45	14.79	14.77	15.01	15.37	15.78	16.18	16.56	16.92	17.27	17.61
Japan											
					Million Metric Tons						
Production	0.88	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Beg. Stocks	1.80	1.67	1.72	1.77	1.83	1.88	1.93	1.98	2.03	2.09	2.13
Net Imports	5.50	5.78	5.85	5.92	6.01	6.13	6.21	6.30	6.40	6.49	6.59
Tot. Supply	8.17	8.30	8.42	8.55	8.69	8.85	8.99	9.13	9.28	9.42	9.57
Feed Use	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Food Use	6.39	6.46	6.54	6.61	6.70	6.82	6.90	6.99	7.08	7.18	7.28
Tot. Demand	6.50	6.57	6.65	6.72	6.81	6.93	7.01	7.10	7.19	7.29	7.39
End. Stocks	1.67	1.72	1.77	1.83	1.88	1.93	1.98	2.03	2.09	2.13	2.18

World Wheat Supply and Utilization

YEAR	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
USSR											
					Million Metric Tons						
Production	92.30	84.00	85.00	86.00	87.00	88.00	89.00	90.00	91.00	92.00	93.00
Net Imports	14.00	14.04	14.85	15.33	15.57	15.67	15.80	15.92	16.03	16.15	16.28
Tot. Supply	106.30	98.04	99.85	101.33	102.57	103.67	104.80	105.92	107.03	108.15	109.28
Utilization	100.30	99.88	100.84	101.86	102.86	103.83	104.89	105.96	107.05	108.16	109.29
Stock Change	6.00	-1.84	-0.99	-0.54	-0.29	-0.16	-0.08	-0.05	-0.02	-0.01	-0.01
China											
					Million Metric Tons						
Production	90.30	92.39	94.46	97.13	100.23	103.63	107.22	110.78	114.32	117.85	121.13
Net Imports	7.00	6.93	7.53	8.02	8.40	8.69	8.76	8.84	8.93	9.02	9.16
Tot. Supply	97.30	99.32	102.00	105.15	108.63	112.32	115.98	119.62	123.25	126.87	130.29
Utilization	97.30	99.32	102.00	105.15	108.63	112.32	115.98	119.62	123.25	126.87	130.29
Stock Change	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eastern Europe											
					Million Metric Tons						
Production	39.70	40.30	41.00	41.80	42.60	43.20	43.80	44.40	45.00	45.40	45.90
Net Imports	1.20	0.32	0.38	0.42	0.46	0.55	0.64	0.73	0.83	0.97	1.09
Tot. Supply	40.90	40.62	41.38	42.22	43.06	43.75	44.44	45.13	45.83	46.37	46.99
Utilization	40.30	40.62	41.38	42.22	43.06	43.75	44.44	45.13	45.83	46.37	46.99
Stock Change	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

U.S. WHEAT

- Wheat prices will stay below $2.50 per bushel for the rest of the 1980s, and will increase only slightly in the 1990s.
- Planted wheat acreage will fall below 1987 levels between 1988 and 1990, and will remain relatively low thereafter, due to govenment programs to reduce acreage.
- Domestic use of wheat will fall in 1987/88 as a result of a sharp reduction in feed demand, and will remain below 1986/87 levels throughout the next decade.
- Wheat exports will increase substantially over the next decade but remain below historical highs.
- Participant net returns will fall but remain well above nonparticipant returns; therefore, more than three-fourths of farmers will continue to participate in government programs.

U.S. WHEAT

At the end of the 1986/87 crop year, carry-over stocks of wheat were only slightly below the record levels of a year earlier, and were equivalent to 86% of annual use. High set-aside requirements, the expansion of the long-term conservation reserve (LTCR), the use of payment-in-kind (PIK) certificates, and moderate growth in export demand are expected to reduce stocks to more reasonable levels by 1990. But excess capacity is likely to remain a problem for the U.S. wheat industry throughout the next decade.

A number of factors contributed to the build-up in wheat stocks, but the sharp decline in U.S. exports was certainly one of the most important. Wheat exports fell from approximately 1.4 billion bushels during the 1984/85 crop year to 0.9 billion bushels the following year. Exports again surpassed 1.0 billion bushels in 1986/87, with the help of lower support prices and increased use of export assistance programs. Sustained growth in export demand is expected during the decade, but it will probably take several years even to return to 1984/85 levels.

The FSA85 provides a number of mechanisms to attempt to deal with the problem of excess capacity in the wheat sector. Loan rates were reduced from $3.30 per bushel in 1985/86 to $2.40 per bushel in 1986/87 and $2.28 in the current crop year, and further reductions are expected. These reductions in support prices are expected to stimulate more foreign demand for U.S. wheat. The LTCR is projected to remove 14 million acres from wheat production by 1990/91. Set-aside programs are authorized to reduce domestic wheat supplies, and the use of generic PIK certificates is permitted to release stocks that would otherwise remain under government control.

Supply

The FSA85 legislation maintains target prices at high levels, almost $2.00 per bushel higher than expected market prices for each of the next three years. Thus, wheat farmers who participate in set-aside programs to qualify for deficiency payments will earn larger net returns than nonparticipants. As a result, more than 80% of wheat farmers are expected to participate in set-aside programs in each of the next three years. Participation rates are likely to remain high for the next decade if current programs are continued.

This analysis was completed before the 1988 wheat program was announced, but it is expected that the Secretary of Agriculture will require program participants to set aside 30% of their base acres, the highest level permitted under the FSA85. Set-aside requirements are expected to be reduced to 25% in 1989 and 1990, to 20% in 1991, and to 15% in subsequent years, as stock levels fall to more acceptable levels. Paid diversions are authorized under the FSA85, but are not expected to be used.

Due to the various programs to reduce wheat acreage, planted area is expected to decline by 17% between 1985 and 1990. Wheat area is expected to increase after 1990, but remain below 1985 levels as late as 1996. Wheat yields are projected to increase at an average rate of 1.5% per year during the decade, after a sharp increase in 1987 from the unusually low yields of 1986. Wheat production is expected to remain relatively constant between 1986 and 1990, at approximately 2.1 billion bushels per year. Production is projected to increase after 1990 to almost 2.7 billion bushels in 1996, a level only slightly greater than the 2.6 billion bushels produced in 1984.

Demand

Domestic demand for wheat is expected to vary little through the next ten years. Food use of wheat is expected to grow steadily, but at a very modest pace. Food use in 1996/97 is projected to be 13% greater than 1986/87 levels. Feed use of wheat is expected to decline sharply in 1987/88 because unlike 1986/87, wheat prices are expected to be strong relative to corn and sorghum prices in the summer months when most wheat feeding occurs. After the current crop year, wheat feed use is expected to average about 225 million bushels per year. U.S. wheat exports are projected to increase from 1.0 billion bushels in 1986/87 to 1.6 billion bushels in 1996/97, for

reasons discussed in the section examining the world wheat market.

Stocks

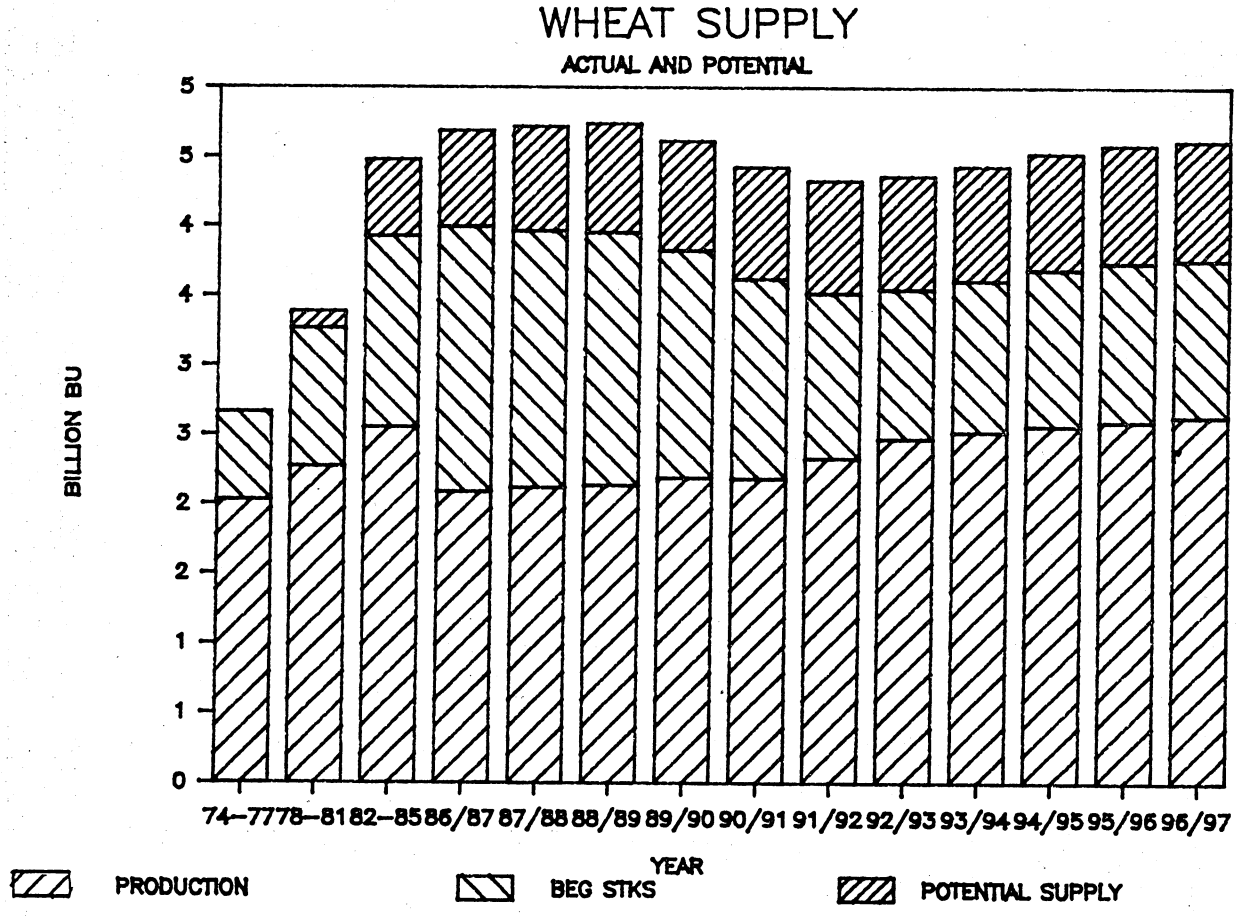
Current U.S. stocks of wheat are excessive, and government programs are expected to focus on reducing those stocks. Assuming a relatively intensive use of set-aside programs, the conservation reserve, PIK certificates, and export incentives, carry-over stocks are projected to fall from 1.8 billion bushels in 1986/87 to 1.1 billion bushels in 1991/92, and then remain relatively constant. Farmer-held reserve stocks are expected to decline from 640 million bushels in 1986/87 to 250 million bushels in 1992/93. CCC-owned reserves are expected to decline from their peak of 925 million bushels in 1986/87 to 315 million bushels in 1996/97. Stocks under loan at the end of the crop year are expected to decline steadily, as the availability of PIK certificates encourages quick loan redemptions and higher market prices relative to loan rates discourage producers from taking out loans.

Privately-controlled stocks not under government programs are expected to remain relatively tight until government-controlled stocks begin to decline. Government wheat stocks will be released onto the market mostly by means of PIK certificates, which are expected to be used heavily during the next few years to make deficiency and conservation-reserve payments. As long as wheat prices remain stronger relative to loan rates than corn prices do, generic PIK certificates issued to make wheat program payments will continue to flow to the corn market, as occurred during the 1986/87 crop year. But least some certificates will be used to redeem wheat loans and to obtain CCC stocks of wheat.

Prices and Returns

Wheat prices are expected to remain only slightly above the loan rate during the 1987/88 and the 1988/89 marketing years. A modest improvement in prices is likely between 1988/89 and 1992/93, as stock levels are reduced. Nevertheless, the farm price of wheat is projected to stay between $2.39 and $2.76 per bushel through the decade. Of course, actual price variability may likely be greater, because outlook prices are based on the assumption that "normal" weather will prevail each year. Before 1990, a drought would have a greater effect on stocks than on prices, but after 1990, the reverse would hold. Even after 1990, however, a tight supply situation would be unlikely to persist for an extended period, as set-aside requirements could be reduced. In the event of a very severe drought or a very sharp increase in export demand, land might have to be removed from the LTCR.

Net returns to producers, not considering land costs, are expected to fall below levels that prevailed in 1985/86 for both participants and nonparticipants. Participant net returns are expected to fall from about $74 per acre in 1985/86 to $47 per acre in 1996/97, as increasing yields and reduced set-aside requirements are offset by increased costs, reduced target prices, and frozen base yields. Due to the sharp drop in prices, nonparticipant net returns in 1986/87 were about 60% less than the 1985/86 level. Higher yields are expected to increase nonparticipant returns to approximately $29 per acre in 1987/88. Little change is expected in non-participant returns between 1987/88 and 1992/93, but then a modest decline is expected to occur as prices stagnate while costs increase.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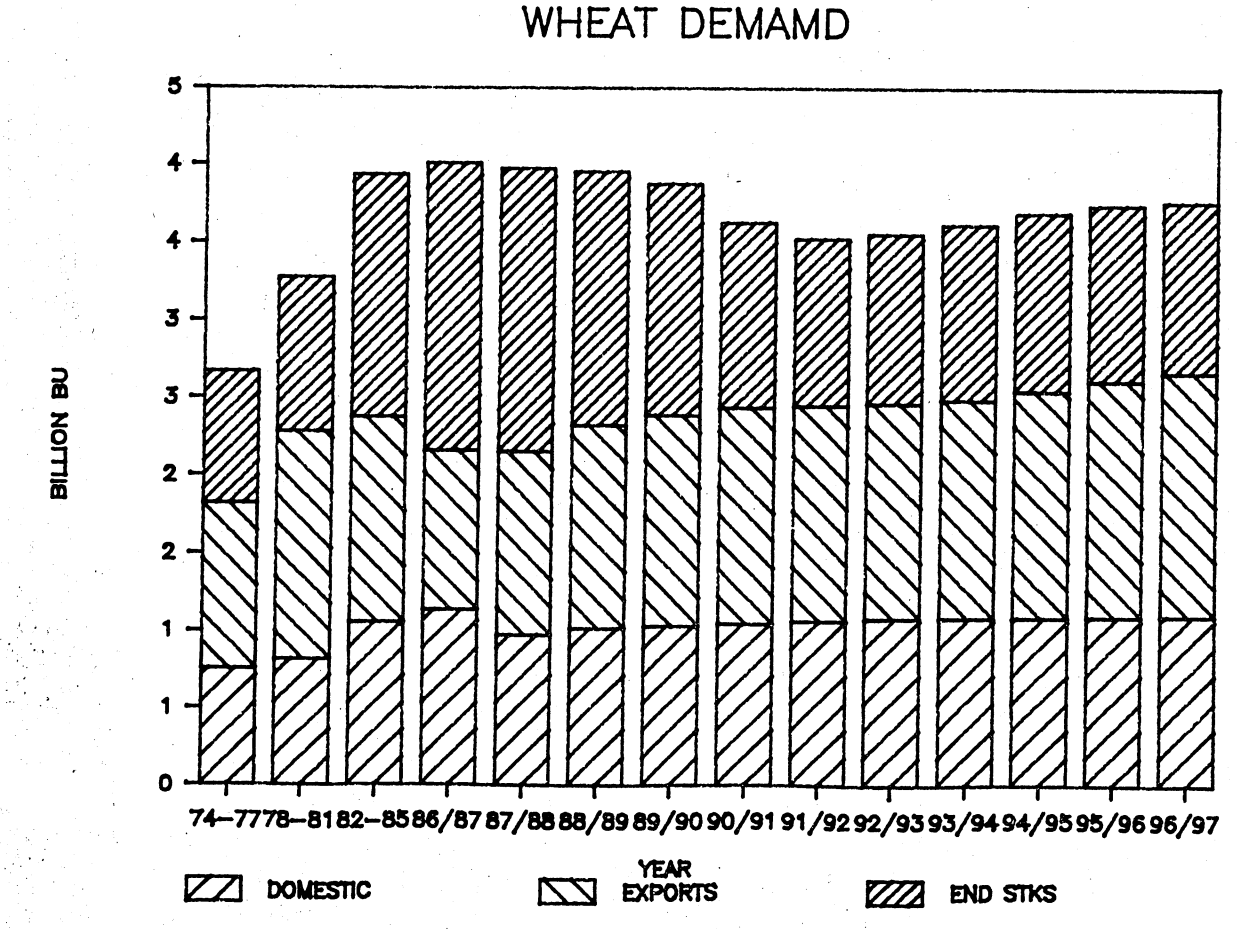
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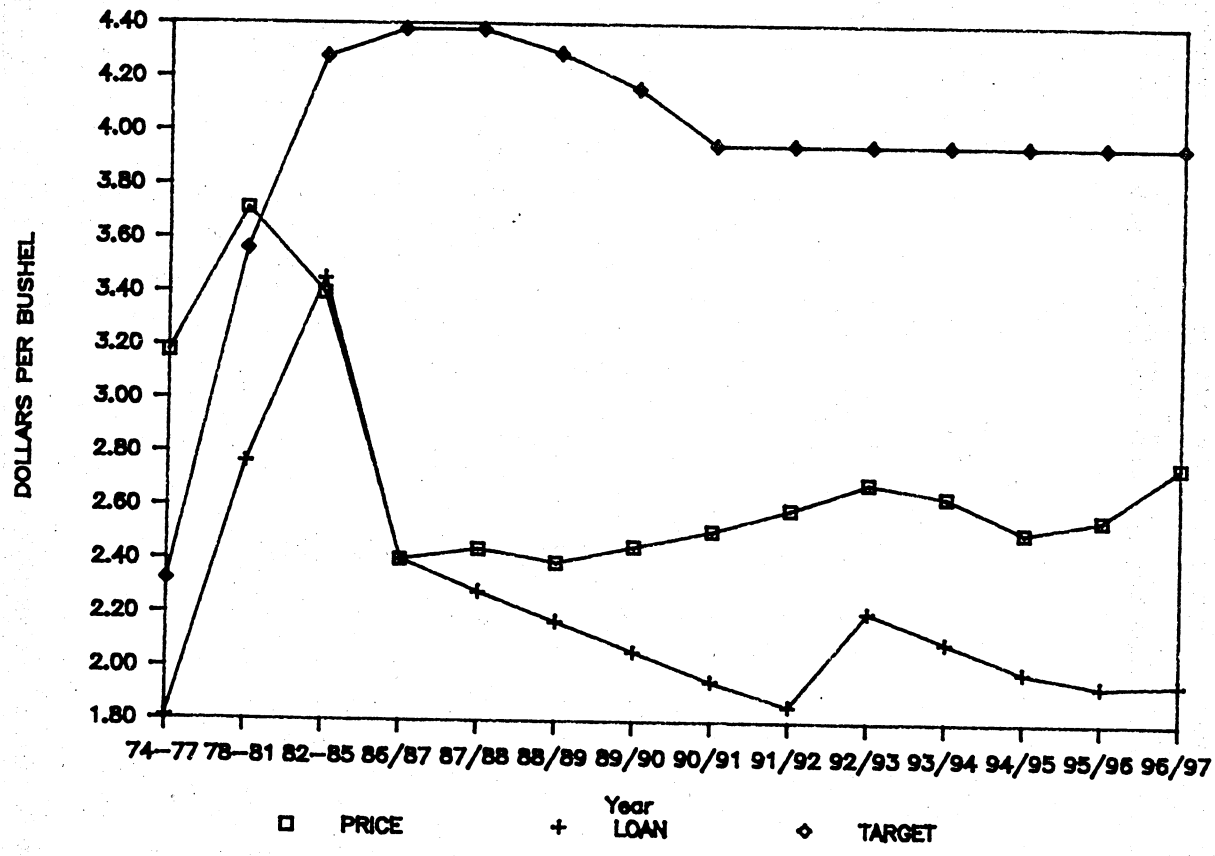
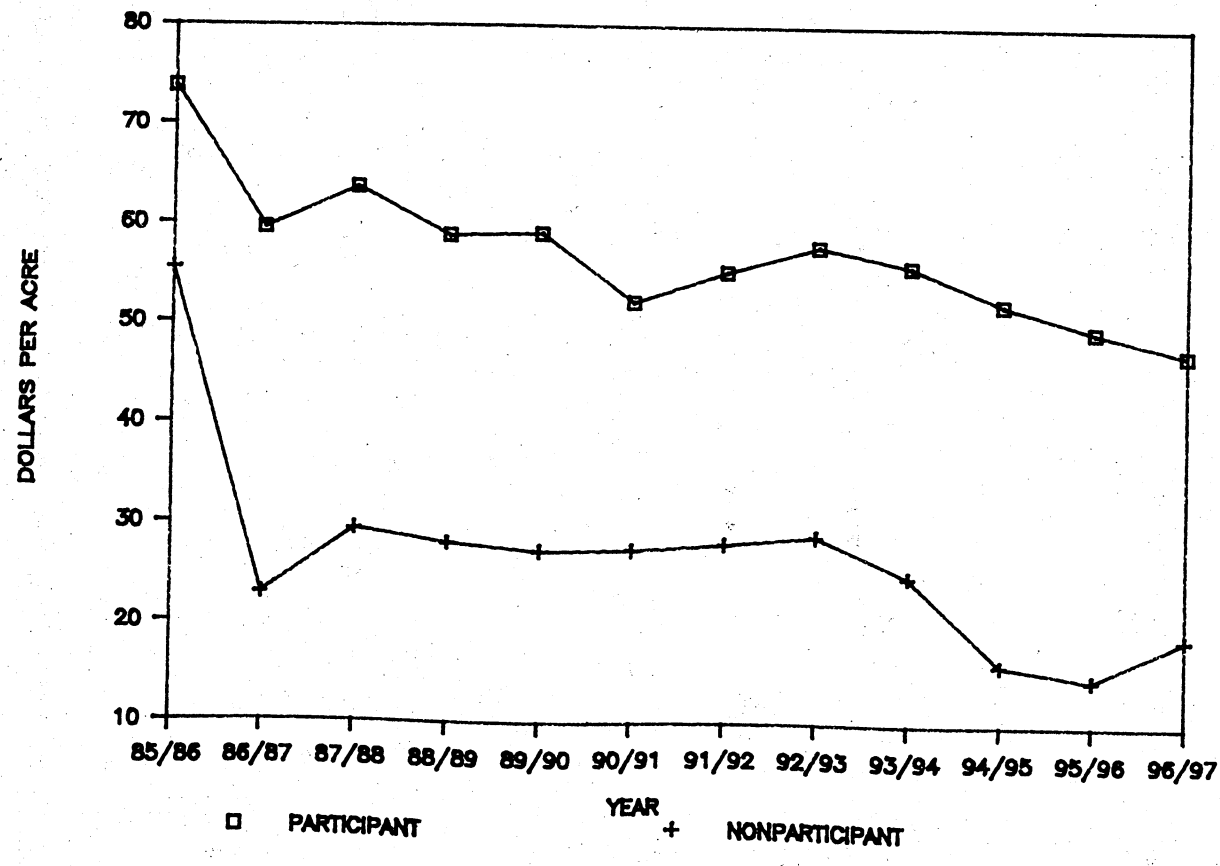
WHEAT PRICE AND PROGRAM LEVELS



WHEAT PRODUCER NET RETURNS



U.S. Wheat Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
					(Million Acres)							
Base Acreage	93.3	91.3	89.6	86.4	84.1	82.8	82.9	83.6	83.6	83.6	83.6	83.6
Set Aside %	20.0%	22.5%	27.5%	30.0%	25.0%	25.0%	20.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Diversion %	10.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LTCR Acres	0.0	0.6	4.5	9.0	12.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Set Aside Acres	12.2	17.3	20.5	20.8	17.1	16.2	13.1	10.0	9.8	9.9	10.2	10.1
Diversion Acres	6.8	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partic. Rate %	73.0%	84.0%	83.4%	80.4%	81.5%	78.3%	79.2%	79.6%	78.3%	79.2%	81.2%	80.4%
Planted Area	75.6	72.0	65.1	62.8	63.9	62.7	66.7	70.4	70.8	71.0	70.9	71.0
Harvested Area	64.7	60.7	57.0	55.0	55.9	54.9	58.3	61.6	62.0	62.2	62.1	62.2
Yield	37.5	34.4	37.1	38.8	39.1	39.8	39.9	40.1	40.6	41.2	41.8	42.3
Base Yield	36.3	35.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
SUPPLY					(Million Bushels)							
Beg. Stocks	1,425	1,905	1,848	1,820	1,634	1,439	1,191	1,077	1,091	1,127	1,143	1,125
Production	2,425	2,087	2,116	2,131	2,187	2,183	2,329	2,469	2,519	2,561	2,593	2,631
Imports	14	15	8	5	5	5	5	5	5	5	5	5
TOTAL SUPPLY	3,865	4,007	3,972	3,955	3,826	3,628	3,525	3,550	3,615	3,693	3,741	3,760
DOMESTIC												
Feed	274	350	182	217	223	228	232	234	226	223	219	210
Food	678	700	708	718	727	735	746	755	765	775	784	792
Seed	93	84	80	82	80	85	90	91	91	91	91	95
TOTAL	1,045	1,134	971	1,016	1,031	1,048	1,068	1,080	1,082	1,088	1,093	1,097
TOTAL EXPORTS	915	1,025	1,181	1,305	1,356	1,389	1,381	1,380	1,406	1,462	1,523	1,570
TOTAL DEMAND	1,960	2,159	2,152	2,322	2,387	2,436	2,449	2,460	2,488	2,550	2,617	2,668
ENDING STOCKS	1,905	1,848	1,820	1,634	1,439	1,191	1,077	1,091	1,127	1,143	1,125	1,093
Farmer Held	596	640	590	500	420	340	270	250	250	250	250	250
CCC Owned	602	925	915	865	785	575	400	360	355	355	340	315
Under Loan	678	200	164	151	116	93	76	68	67	75	72	56
"Free" Stocks	29	83	151	118	118	183	331	413	455	463	463	472
PRICES:												
Farm Price	$3.16	$2.40	$2.44	$2.39	$2.45	$2.51	$2.59	$2.69	$2.64	$2.51	$2.56	$2.76
Loan Rate	$3.30	$2.40	$2.28	$2.17	$2.06	$1.95	$1.86	$2.21	$2.10	$1.99	$1.94	$1.95
Target Price	$4.38	$4.38	$4.38	$4.29	$4.16	$3.95	$3.95	$3.95	$3.95	$3.95	$3.95	$3.95
Cost per Acre	$62.98	$59.68	$61.16	$64.57	$68.49	$72.26	$75.22	$78.83	$82.34	$87.28	$92.20	$97.90
Cost per Bushel	$1.68	$1.73	$1.65	$1.67	$1.75	$1.82	$1.88	$1.97	$2.03	$2.12	$2.21	$2.31
Part. Return/Acre	$73.75	$59.57	$63.65	$58.85	$59.07	$52.38	$55.53	$58.00	$56.04	$52.33	$49.69	$47.42
Non-Part. Returns	$55.48	$22.88	$29.42	$28.05	$27.29	$27.54	$28.17	$28.92	$24.92	$16.13	$14.73	$18.86

WORLD SOYBEANS

- Argentina will shift wheat and feed grains acreage into soybeans, and will dramatically increase soybean production.
- Crushing margins will generally increase, and all regions will expand crush, but expansion will be most rapid in Brazil and Argentina.
- Crush demand will increase faster than importers' supplies, and world imports of soybeans will increase.
- The United States will maintain export market share at around 75%.

WORLD SOYBEANS

Global Production

World soybean production increased 3.4% in 1986/87, in spite of a smaller U.S. crop due to FSA85-induced area reductions. This was offset by a recovery of the Brazilian crop from the drought of the previous year. Argentina, the third major producer, slightly increased soybean production, while Chinese soybean production was up more than one million tons over 1985/86.

U.S. soybean production declined by 4.4% to 54.6 mmt in 1986/87 as area harvested dropped by 3.6%. The area reduction was due to the set aside and diversion provisions of FSA85 for corn. Corn target price protection will tend to draw area away from soybeans and into the program. The long term conservation reserve (LTCR) also draws soybean acreage out of production. American farmers still produced more than 55% all soybeans in the world in 1986/87, but this is down from 59% in 1985/86.

U.S. soybean production is projected to decline another 8.2% in 1987/88 with further area reductions due to the same factors as in 1986/87, as well as yields below the high levels of the last two crops. Prices also will remain relatively low through 1988/89, then become stronger relative to corn, and area harvested will increase substantially, to around 60.6 million acres in 1990/91. In 1996/97, area harvested is projected to be nearly 66 million acres, and production will be 63.5 mmt, an increase of more than 16% over 1986/87.

Argentine soybean production increased marginally to 7.5 mmt in 1986/87, as yield declined 6% while area harvested increased almost 9% to 3.65 million ha. Area harvested is projected to increase by 3.2% in 1987/88, boosting production to 8 mmt. For the rest of the projection period, Argentina will expand area steadily, to nearly 5.2 million ha in 1996/97, generally at the expense of feed grains and wheat area, as soybean prices remain high relative to other crops, and production increases to around 12.5 mmt. Area increases 42% and production increases nearly 63% over 1986/87. But, total combined feed grains, wheat, and soybean area in Argentina is projected to increase only around 21% from 12.25 million ha in 1986/87 to 14.89 million ha in 1996/97, so nearly all of Argentine area expansion goes into soybean production.

With recovery from last year's drought, more normal yields increased Brazil's production to 17 mmt this year, more than a 22% increase. Area is projected to increase slowly to 10.3 million ha by 1996/97, an increase of 11% over 1986/87. By 1996/97 Brazil will harvest approximately 20.9 mmt of soybeans, nearly 23% above production in 1986/87.

Chinese soybean production has fluctuated between 7 and 8.7 mmt per year between the mid-1960's and the early 1980's. With agricultural policies changing to include increased production of feedstuffs, China has begun to increase soybean production. Production was 10.5 mmt in 1985/86, and climbed more than a million tons this year to 11.55 mmt. These increases are likely to be absorbed by domestic use, and China will maintain its long standing goal of self-sufficiency. Soybean production is projected to grow over the next decade to 15.8 mmt, up 37% from this year.

Global Utilization

World soybean use consists mainly of crush, which is expected increase 5.3% in 1986/87 to 80.2 mmt. In 1987/88, crush is projected to increase in nearly all major importing and exporting regions to a total of 81.3 mmt, as feed demand picks up because of increased incomes. This, coupled with slightly declining soyoil prices, will allow world meal prices to increase marginally. Soyoil prices have fallen as competing oils, notably palm oil, have become more plentiful this year, and meal has regained its position as leader in the soybean complex, but the net effect of these relative price changes is expected to increase crushing margins. During the next decade, all prices in the soybean complex are expected to fluctuate somewhat while generally increasing, but in a relationship that crushing margins are projected to be increasing in most years, and to be above levels of the recent past in all years. This will

increase crush in all major regions of the world.

Brazilian soybean crush is expected to recover in 1986/87 to 13.5 mmt, as soybean availability improved with the larger crop. As stocks and exports recover, availability will improve even more, and crush in Brazil is projected to grow moderately through the end of the projection period. By 1996/97, crush is expected to be at 17.9 mmt, an increase of 32.3% over crush for 1986/87.

Argentine crush is expected to increase 6.4% in 1986/87 to 4.3 mmt, as Argentina continues aggressively to produce value-added products for the world market to gain market share and generate foreign exchange. A fairly high rate of growth is projected during the entire period, as Argentina increases crush to export meal rather than soybeans. By 1996/97, Argentina is projected to be crushing 6.9 mmt of soybeans, an increase of 49% over 1986/87.

Soybean crush in the EC is expected to increase slightly in 1986/87, as crushing margin increases in the EC are dampened by the declining dollar relative to the ECU. Crush will continue to increase slowly in the late 1980s as margins gradually increase, but by 1991/92 the ECU is expected to have stopped its drop against the dollar, and margins will increase more rapidly, providing impetus for expanding crush. By 1996/97, EC crush is projected to be at 14.5 mmt, an increase of 10.4%, and close to levels of the early 1980s.

Japan's crush was relatively unchanged over 1985/86, as protein meal demand grew more slowly with economic slowdown. With the sharp fall of the dollar against the yen, crushing margins also stagnated this year. As Japan recovers, however, and the dollar begins to fall more slowly, Japanese crush is projected to increase in 1987/88 through 1996/97, when it is projected to reach 4.5 mmt. This is an increase of only 13% above 1986/87, as soybean meal receives substantial competition from lower priced feed grains.

World Trade

Production of soybeans will remain concentrated in relatively few areas of the world, while consumption of soybean products is expected to continue increasing over the entire globe as developing countries attempt to improve diets with meat and other livestock products. Soymeal and soyoil will be imported in those forms, but crush is expected to increase in all regions, making it necessary for many areas to import soybeans. In 1986/87, world soybean exports grew to 26 mmt, up marginally from the previous year. During the next ten years, soybean exports are projected to increase more than 17%, to around 30.5 mmt. As income growth pushes demand for meal beyond importing countries' production ability, more meal will be imported relative to soybeans. This is consistent with historical patterns of soybean and soymeal exports during periods of prolonged demand increases. This also implies that exporters with the ability to trade in value-added products will benefit more than those that trade mainly in soybeans.

Major Exporters

As world soybean and products demand increases, the United States will increase exports. In 1986/87, U.S. soybean exports decreased 5.4%, due, in part, to recovery of Brazilian exports. U.S. export market share fell 3% to 75.6%. As the decade unfolds, U.S. soybean export market share is projected to remain near 75 to 76%, as exports rise slowly to 21.5 mmt.

Brazilian soybean net exports increased 1.6 mmt in 1986/87 as availability of beans improved because of crop recovery. Exports were below the 1984/85 level, but well above previous exports. Exports are projected to decline in 1987/88 to 2.1 mmt, and rise to 2.4 mmt in 1990/91, after which increasing crushing margins in Brazil will result in more beans crushed. This implies that Brazil will be expanding meal exports more rapidly in the early 1990s, at the expense of soybean exports. By 1996/97, Brazil is projected to export 1.9 mmt of soybeans, a decrease of 22% from 1986/87. This will lower Brazil's export market share from 9.5% to 6.2% by the end of the decade.

Argentine exports of soybeans remained steady at 2.5 mmt in 1986/87. With steady to increasing crushing margins and low bean prices, crush is projected to lag slightly behind production through the projection period, and exports of beans will increase slowly through 1990/91, after which rapidly increasing soybean area will increase the availability of soybeans, pushing exports to 5.1 mmt. Trade share will increase from 11% to 16.9% during the decade.

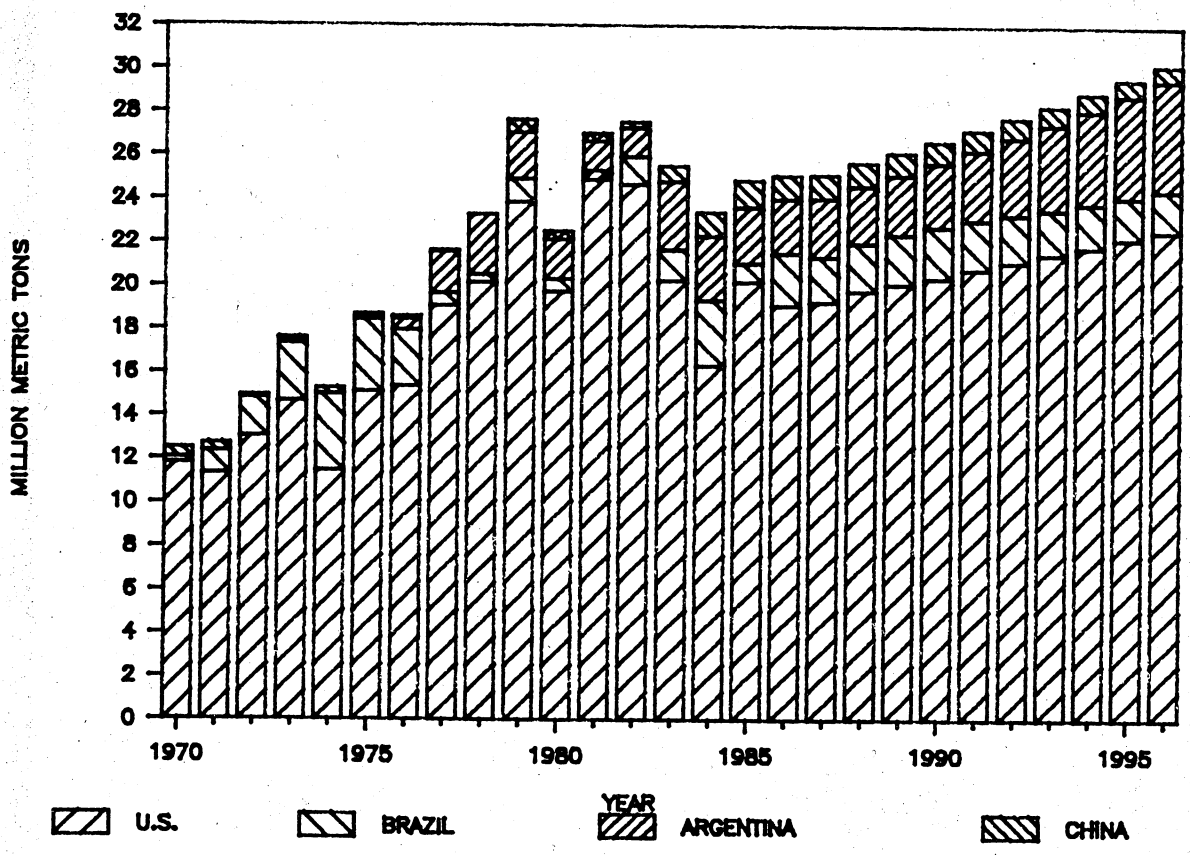
China is projected to maintain small soybean exports at or below one million metric tons per year throughout the projection period, as policies are aimed at self-sufficiency in several crops. Soybean domestic use is projected to absorb most of the increases in production.

Major Importers

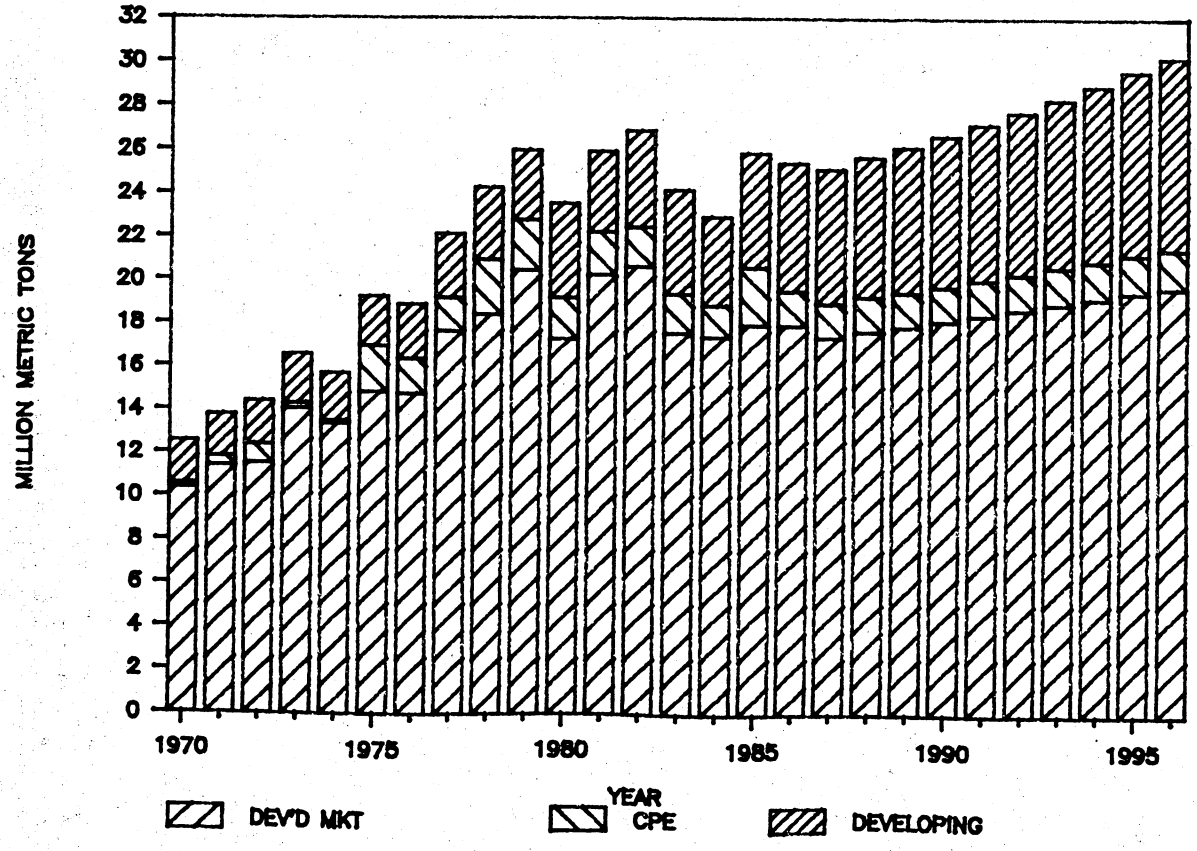
Soybean imports into the EC are about the same in 1986/87 at 13.1 mmt, in spite of the increase in crush, as soybean production doubles in Italy. This level of production is still well under 10% of use, so the effects are relatively small. By 1996/97, EC soybean imports are projected to be 14.5 mmt, an increase of 10.4% over 1986/87.

All other importing regions are projected to increase imports through the decade, with imports growing the fastest in the developing regions. Japan's imports will increase 14% to 5.4 mmt and the USSR's by about the same percentage to 1.1 mmt. Taiwan is projected to raise its imports to 2.3 mmt, an increase of more than 40%; South Korea's imports are expected to more than double to 2.7 mmt; and other regions will increase bean imports 17% to a total of 3.7 mmt.

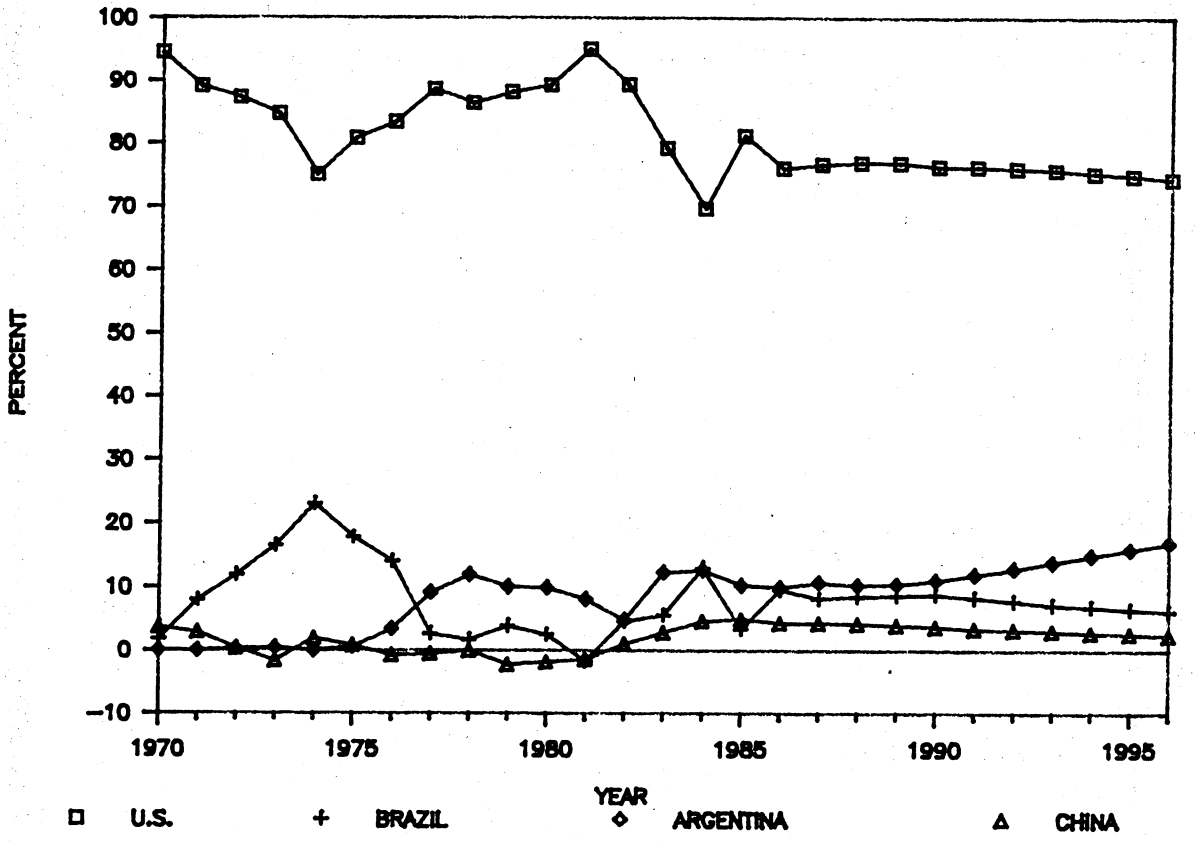
SOYBEAN EXPORTS



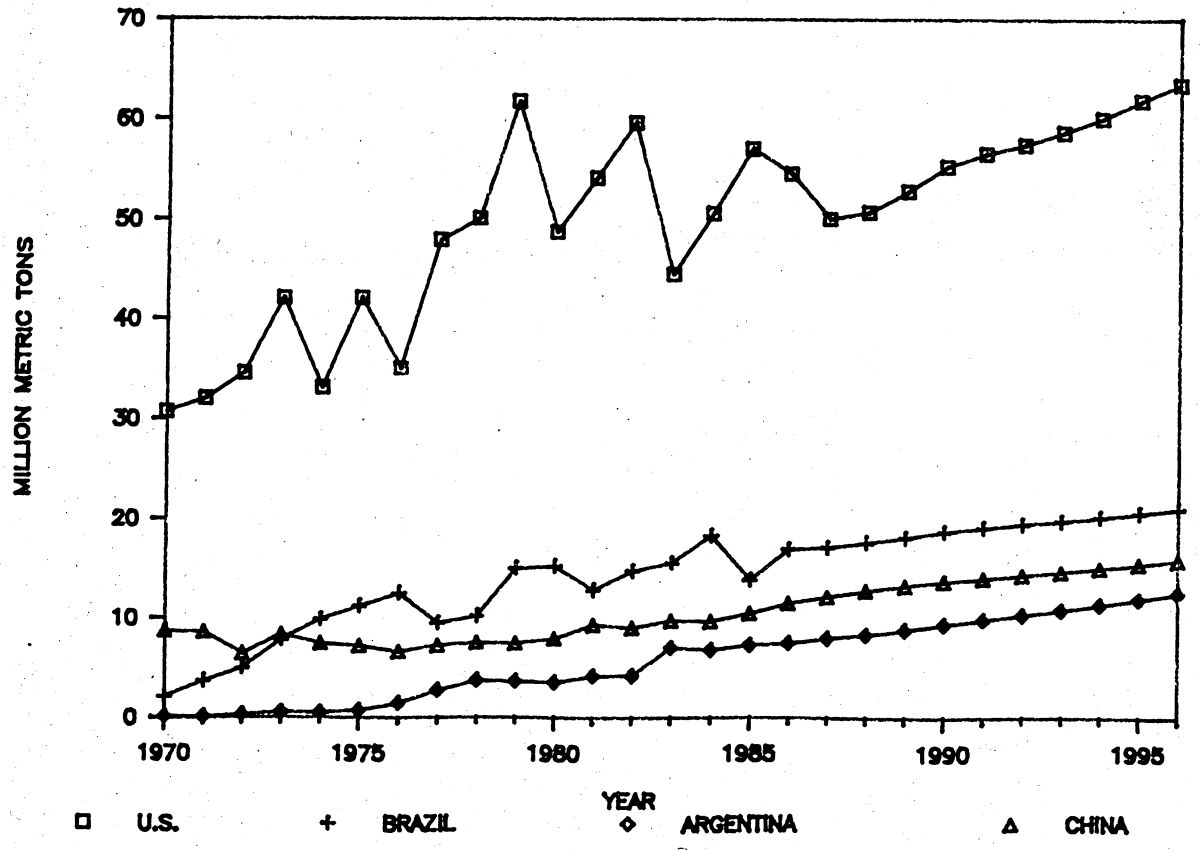
SOYBEAN IMPORTS BY REGION



SOYBEAN EXPORT MARKET SHARE



EXPORTER SOYBEAN PRODUCTION



World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
		SOYBEAN TRADE									
		1000 METRIC TONS									
EXPORTERS											
ARGENTINA	2650	2690	2648	2729	2952	3241	3572	3935	4327	4724	5138
BRAZIL	2400	2070	2190	2276	2359	2270	2167	2055	1996	1931	1883
CHINA	1100	1109	1089	1052	1004	949	913	872	830	786	741
TOTAL NON-U.S.	6150	5868	5928	6057	6315	6460	6651	6862	7153	7442	7761
UNITED STATES	19050	19225	19722	20046	20306	20713	21049	21415	21741	22114	22435
(TRADE SHARE %)	75.6	76.6	76.9	76.8	76.3	76.2	76.0	75.7	75.2	74.8	74.3
TOTAL	25200	25093	25650	26103	26621	27173	27700	28277	28894	29555	30196
		1000 METRIC TONS									
IMPORTERS											
EC	12850	12587	12674	12800	12984	13193	13375	13580	13788	14007	14185
JAPAN	4809	4771	4976	5050	5121	5189	5249	5307	5363	5416	5469
E. EUROPE	561	580	588	585	588	602	613	625	639	658	680
USSR	1000	991	986	994	1009	1027	1046	1066	1086	1105	1125
TAIWAN	1662	1697	1741	1792	1847	1905	1974	2051	2139	2236	2340
S. KOREA	1088	1287	1435	1589	1742	1903	2068	2233	2398	2566	2738
OTHER IMPORTERS	3135	3180	3250	3293	3330	3353	3374	3415	3482	3567	3659
TOTAL	25105	25093	25650	26103	26621	27173	27700	28277	28894	29555	30196

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
ARGENTINA SOYBEANS											
1000 HECTARES											
AREA HARVESTED	3650	3768	3873	4017	4195	4359	4519	4683	4853	5022	5194
YIELD (MT/HA)	2.11	2.13	2.16	2.20	2.23	2.26	2.29	2.32	2.35	2.38	2.41
1000 METRIC TONS											
PRODUCTION	7700	8018	8379	8829	9359	9865	10369	10886	11424	11964	12517
BEG. STOCKS	180	185	192	204	216	228	239	251	263	275	287
TOT. SUPPLY	7880	8203	8571	9033	9575	10093	10608	11137	11687	12239	12804
CRUSH	4675	4956	5343	5699	5989	6191	6349	6488	6617	6744	6869
EXPORTS	2650	2690	2648	2729	2952	3241	3572	3935	4327	4724	5138
OTHER USE	370	366	376	389	406	421	436	452	468	484	499
TOT. DEMAND	7695	8011	8367	8817	9347	9853	10357	10874	11412	11952	12505
END. STOCKS	185	192	204	216	228	239	251	263	275	287	298
ARGENTINA SOYMEAL											
1000 METRIC TONS											
PRODUCTION	3720	3945	4253	4537	4767	4928	5054	5164	5267	5369	5468
BEG. STOCKS	134	154	148	159	171	181	187	192	197	201	205
TOT. SUPPLY	3854	4099	4401	4696	4938	5109	5241	5356	5464	5569	5672
DOMESTIC CONS.	250	250	259	247	243	245	246	245	244	242	268
EXPORTS	3450	3700	3982	4278	4515	4677	4803	4915	5019	5122	5196
TOT. DEMAND	3700	3951	4242	4525	4758	4922	5049	5160	5263	5364	5464
END. STOCKS	154	148	159	171	181	187	192	197	201	205	209
ARGENTINA SOYOIL											
1000 METRIC TONS											
PRODUCTION	780	828	892	952	1000	1034	1060	1083	1105	1126	1147
BEG. STOCKS	70	105	69	75	80	84	86	88	90	92	93
TOT. SUPPLY	850	933	962	1027	1080	1118	1147	1172	1195	1218	1240
DOMESTIC CONS.	100	169	139	149	159	168	175	181	187	193	198
EXPORTS	645	694	748	798	837	864	884	901	917	932	947
TOT. DEMAND	745	863	887	947	996	1031	1058	1082	1103	1125	1146
END. STOCKS	105	69	75	80	84	86	88	90	92	93	95

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
BRAZIL SOYBEANS											
1000 HECTARES											
AREA HARVESTED	9300	9300	9434	9586	9793	9920	10002	10072	10156	10236	10327
YIELD (MT/HA)	1.83	1.85	1.87	1.89	1.91	1.93	1.95	1.97	1.99	2.00	2.02
1000 METRIC TONS											
PRODUCTION	17000	17195	17649	18134	18723	19160	19507	19830	20176	20511	20867
BEG. STOCKS	664	627	890	996	1048	1087	1116	1138	1157	1176	1194
TOT. SUPPLY	17664	17822	18540	19129	19771	20247	20623	20968	21333	21687	22061
CRUSH	13500	13856	14334	14769	15268	15792	16241	16671	17068	17460	17864
EXPORTS	2400	2070	2190	2276	2359	2270	2167	2055	1996	1931	1883
OTHER USE	1137	1006	1020	1035	1056	1069	1078	1085	1094	1102	1105
TOT. DEMAND	17037	16932	17544	18081	18684	19132	19485	19811	20158	20493	20852
END. STOCKS	627	890	996	1048	1087	1116	1138	1157	1176	1194	1208
BRAZIL SOYMEAL											
1000 METRIC TONS											
PRODUCTION	10500	10780	11152	11491	11879	12286	12635	12970	13279	13584	13899
BEG. STOCKS	283	283	296	307	317	328	340	350	360	369	378
TOT. SUPPLY	10783	11063	11448	11798	12196	12614	12975	13320	13639	13953	14277
DOMESTIC CONS.	2750	2627	2791	2952	3140	3347	3554	3759	3967	4179	4402
EXPORTS	7750	8141	8349	8528	8728	8928	9071	9201	9303	9396	9483
TOT. DEMAND	10500	10767	11141	11480	11868	12275	12625	12960	13270	13575	13886
END. STOCKS	283	296	307	317	328	340	350	360	369	378	391
BRAZIL SOYOIL											
1000 METRIC TONS											
PRODUCTION	2525	2619	2709	2791	2886	2985	3070	3151	3226	3300	3376
BEG. STOCKS	285	180	197	208	215	228	241	251	263	275	288
TOT. SUPPLY	2810	2799	2906	2999	3101	3213	3310	3402	3489	3575	3664
DOMESTIC CONS.	1900	1968	2078	2152	2282	2405	2513	2628	2752	2881	3014
EXPORTS	730	634	620	632	591	567	545	512	461	406	349
TOT. DEMAND	2630	2602	2698	2784	2873	2972	3059	3139	3213	3287	3364
END. STOCKS	180	197	208	215	228	241	251	263	275	288	301

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
EC SOYBEANS											
	1000 METRIC TONS										
PRODUCTION	771	884	915	924	928	931	933	935	937	940	942
BEG. STOCKS	510	525	520	523	528	534	541	547	554	561	569
IMPORTS	12850	12587	12674	12800	12984	13193	13375	13580	13788	14007	14185
TOT. SUPPLY	14131	13996	14108	14248	14440	14658	14850	15062	15280	15508	15696
CRUSH	13080	12958	13062	13192	13371	13574	13752	13950	14152	14365	14528
OTHER USE	525	518	522	528	535	543	550	558	566	575	588
TOT. DEMAND	13605	13477	13585	13720	13906	14117	14302	14508	14718	14939	15116
END. STOCKS	525	520	523	528	534	541	547	554	561	569	580
EC SOYMEAL											
	1000 METRIC TONS										
PRODUCTION	10440	10341	10424	10527	10670	10832	10974	11132	11294	11463	11593
BEG. STOCKS	463	363	405	419	430	445	463	482	500	518	536
NET IMPORTS	7960	8694	9135	9488	9950	10513	11115	11686	12250	12808	13456
TOT. SUPPLY	18863	19398	19963	20434	21049	21791	22553	23300	24044	24789	25585
DOMESTIC CONS.	18500	18993	19545	20004	20604	21327	22071	22800	23526	24252	25028
END. STOCKS	363	405	419	430	445	463	482	500	518	536	557
EC SOYOIL											
	1000 METRIC TONS										
PRODUCTION	2320	2294	2312	2335	2367	2403	2434	2469	2505	2543	2571
BEG. STOCKS	178	188	202	207	210	216	221	227	234	241	249
TOT. SUPPLY	2498	2482	2514	2542	2577	2619	2655	2696	2739	2784	2821
DOMESTIC CONS.	1460	1552	1585	1611	1649	1683	1723	1766	1818	1870	1924
NET EXPORTS	850	728	722	720	712	714	705	696	680	664	640
TOT. DEMAND	2310	2280	2307	2331	2361	2397	2428	2463	2497	2535	2564
END. STOCKS	188	202	207	210	216	221	227	234	241	249	257

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
				JAPAN SOYBEANS							
				1000 HECTARES							
AREA HARVESTED	134	128	122	117	115	114	114	116	119	123	128
YIELD (MT/HA)	1.68	1.58	1.60	1.61	1.62	1.63	1.65	1.66	1.67	1.69	1.70
				1000 METRIC TONS							
PRODUCTION	225	202	195	188	186	186	187	192	199	207	217
BEG. STOCKS	824	840	732	743	753	762	771	780	788	797	805
IMPORTS	4809	4771	4976	5050	5121	5189	5249	5307	5363	5416	5469
TOT. SUPPLY	5858	5813	5903	5982	6060	6136	6208	6279	6350	6420	6491
CRUSH	3980	3999	4063	4118	4171	4222	4269	4316	4362	4408	4453
FOOD USE	880	881	892	899	908	919	928	938	948	958	969
OTHER USE	207	200	206	212	218	225	231	237	243	249	255
TOT. DEMAND	5067	5081	5160	5229	5298	5365	5428	5491	5553	5615	5677
END. STOCKS	791	732	743	753	762	771	780	788	797	805	814
				JAPAN SOYMEAL							
				1000 METRIC TONS							
PRODUCTION	3070	3116	3165	3208	3250	3289	3326	3362	3398	3434	3469
BEG. STOCKS	156	129	142	147	150	154	158	162	166	170	173
NET IMPORTS	193	257	301	343	392	460	524	585	647	703	764
TOT. SUPPLY	3419	3501	3608	3697	3791	3903	4008	4109	4210	4306	4407
DOMESTIC CONS.	3290	3359	3462	3547	3638	3745	3846	3943	4041	4133	4229
END. STOCKS	129	142	147	150	154	158	162	166	170	173	177
				JAPAN SOYOIL							
				1000 METRIC TONS							
PRODUCTION	712	724	735	745	755	764	773	781	790	798	806
BEG. STOCKS	14	14	14	15	15	15	15	16	16	16	16
NET IMPORTS	-1	-1	1	1	4	8	11	15	19	24	28
TOT. SUPPLY	724	738	751	761	774	787	799	811	825	838	851
DOMESTIC CONS.	710	723	736	746	759	772	783	795	808	821	834
END. STOCKS	14	14	15	15	15	15	16	16	16	16	17

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
E. EUROPE SOYBEANS											
	1000 HECTARES										
AREA HARVESTED	485	464	451	444	447	447	445	445	449	454	462
YIELD (MT/HA)	1.50	1.52	1.55	1.57	1.60	1.63	1.65	1.68	1.71	1.73	1.76
	1000 METRIC TONS										
PRODUCTION	726	706	698	699	716	728	736	747	766	787	812
IMPORTS	561	580	588	585	588	602	613	625	639	658	680
TOT. SUPPLY	1287	1285	1286	1283	1305	1330	1349	1373	1405	1444	1492
CRUSH	1430	1220	1220	1215	1235	1258	1276	1298	1329	1366	1413
OTHER USE	60	65	67	68	70	72	73	75	76	78	79
TOT. DEMAND	1490	1285	1286	1283	1305	1330	1349	1373	1405	1444	1492
CHANGE IN STOCKS	-203	0	0	0	0	0	0	0	0	0	0
E. EUROPE SOYMEAL											
	1000 METRIC TONS										
PRODUCTION	1150	979	978	974	990	1009	1023	1041	1066	1096	1133
NET IMPORTS	3880	3920	4057	4230	4411	4604	4799	4994	5190	5386	5584
TOT. SUPPLY	5030	4898	5035	5204	5401	5613	5822	6035	6255	6482	6717
DOMESTIC CONS.	4893	4901	5033	5202	5400	5610	5820	6033	6253	6480	6715
CHANGE IN STOCKS	137	-3	2	2	1	3	2	2	2	2	2
E. EUROPE SOYOIL											
	1000 METRIC TONS										
PRODUCTION	193	215	215	214	217	221	225	228	234	240	249
NET IMPORTS	139	123	131	138	145	152	159	166	172	179	185
TOT. SUPPLY	331	338	345	352	363	373	384	394	406	419	433
DOMESTIC CONS.	331	338	345	352	363	373	384	394	406	419	433
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
				CHINA SOYBEANS							
				1000 HECTARES							
AREA HARVESTED	8240	8561	8772	8911	9001	9064	9111	9153	9196	9245	9297
YIELD (MT/HA)	1.40	1.43	1.46	1.49	1.52	1.55	1.58	1.61	1.64	1.67	1.70
				1000 METRIC TONS							
PRODUCTION	11550	12242	12808	13277	13682	14049	14396	14737	15082	15439	15804
CRUSH	2000	2076	2191	2290	2378	2461	2536	2610	2686	2764	2845
FOOD USE	8450	9057	9528	9935	10300	10639	10948	11254	11566	11888	12219
EXPORTS	1100	1109	1089	1052	1004	949	913	872	830	786	741
TOT. DEMAND	11550	12242	12808	13277	13682	14049	14396	14737	15082	15439	15804
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0
				CHINA SOYMEAL							
				1000 METRIC TONS							
PRODUCTION	1700	1765	1862	1946	2022	2092	2155	2219	2283	2350	2418
DOMESTIC CONS.	1200	1232	1289	1337	1380	1419	1454	1490	1526	1565	1605
EXPORTS	500	533	573	609	642	672	701	729	757	785	813
TOT. DEMAND	1700	1765	1862	1946	2022	2092	2155	2219	2283	2350	2418
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0
				CHINA SOYOIL							
				1000 METRIC TONS							
PRODUCTION	240	249	263	275	285	295	304	313	322	332	341
NET IMPORTS	200	196	187	180	175	170	166	162	158	153	149
TOT. SUPPLY	440	445	450	455	460	465	470	475	480	485	490
DOMESTIC CONS.	440	445	450	455	460	465	470	475	480	485	490
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
USSR SOYBEANS											
		1000 METRIC TONS									
PRODUCTION	531	533	535	537	539	541	543	545	547	549	551
IMPORTS	1000	991	986	994	1009	1027	1046	1066	1086	1105	1125
TOT. SUPPLY	1531	1524	1521	1531	1548	1568	1589	1611	1633	1655	1677
CRUSH	1350	1305	1292	1292	1299	1309	1320	1331	1343	1355	1367
OTHER USE	208	219	229	239	249	259	269	279	290	300	310
TOT. DEMAND	1558	1524	1521	1531	1548	1568	1589	1611	1633	1655	1677
CHANGE IN STOCKS	-28	0	0	0	0	0	0	0	0	0	0
USSR SOYMEAL											
		1000 METRIC TONS									
PRODUCTION	1070	1018	1008	1008	1013	1021	1029	1038	1048	1057	1066
NET IMPORTS	1000	1342	1448	1551	1647	1735	1835	1937	2040	2146	2254
TOT. SUPPLY	2070	2360	2456	2559	2660	2756	2864	2975	3088	3203	3320
DOMESTIC CONS.	2070	2360	2456	2559	2660	2756	2864	2975	3088	3203	3320
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0
USSR SOYOIL											
		1000 METRIC TONS									
PRODUCTION	240	232	230	230	231	233	235	237	239	241	243
NET IMPORTS	220	130	142	154	173	181	182	189	206	223	241
TOT. SUPPLY	460	362	372	384	405	414	417	426	445	465	484
DOMESTIC CONS.	460	362	372	384	405	414	417	426	445	465	484
CHANGE IN STOCKS	0	0	0	0	0	0	0	0	0	0	0

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
		S. KOREA SOYBEANS									
		1000 HECTARES									
AREA HARVESTED	194	185	171	154	139	121	103	86	72	58	46
YIELD (MT/HA)	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.52	1.53	1.55	1.57
		1000 METRIC TONS									
PRODUCTION	267	260	244	222	204	179	154	131	110	90	72
BEG. STOCKS	65	18	31	44	58	71	85	99	113	128	144
IMPORTS	1088	1287	1435	1589	1742	1903	2068	2233	2398	2566	2738
TOT. SUPPLY	1420	1565	1710	1855	2003	2154	2307	2462	2621	2784	2954
CRUSH	1000	1118	1238	1360	1483	1607	1735	1867	2003	2143	2287
FOOD USE	401	415	428	438	449	463	473	482	490	498	507
TOT. DEMAND	1402	1534	1666	1798	1932	2069	2208	2349	2493	2641	2794
END. STOCKS	18	31	44	58	71	85	99	113	128	144	160
		S. KOREA SOYMEAL									
		1000 METRIC TONS									
PRODUCTION	790	883	978	1074	1171	1269	1371	1475	1582	1693	1807
BEG. STOCKS	58	52	59	74	92	111	132	153	175	198	221
NET IMPORTS	79	96	106	108	114	131	138	139	137	136	140
TOT. SUPPLY	927	1031	1144	1256	1377	1511	1641	1767	1894	2026	2168
DOMESTIC CONS.	875	972	1070	1164	1265	1380	1488	1592	1696	1805	1923
END. STOCKS	52	59	74	92	111	132	153	175	198	221	245
		S. KOREA SOYOIL									
		1000 METRIC TONS									
PRODUCTION	170	190	210	231	252	273	295	317	340	364	389
BEG. STOCKS	5	5	5	5	5	5	5	5	5	5	5
TOT. SUPPLY	175	195	215	236	257	278	300	322	345	369	394
DOMESTIC CONS.	151	156	166	174	184	194	204	215	228	241	255
NET EXPORTS	19	34	45	57	68	79	91	102	113	123	134
TOT. DEMAND	170	190	210	231	252	273	295	317	340	364	389
END. STOCKS	5	5	5	5	5	5	5	5	5	5	5

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
TAIWAN SOYBEANS											
				1000 HECTARES							
AREA HARVESTED	8	7	5	5	5	5	5	5	5	5	5
YIELD (MT/HA)	1.76	1.77	1.78	1.80	1.81	1.83	1.84	1.86	1.87	1.88	1.90
				1000 METRIC TONS							
PRODUCTION	14	13	9	9	9	9	9	9	9	9	9
BEG. STOCKS	269	262	265	271	278	287	296	307	319	333	349
IMPORTS	1662	1697	1741	1792	1847	1905	1974	2051	2139	2236	2340
TOT. SUPPLY	1945	1972	2015	2072	2134	2202	2279	2368	2467	2579	2698
CRUSH	1456	1472	1504	1547	1594	1645	1705	1774	1852	1940	2034
FOOD USE	227	235	241	247	253	261	268	275	282	290	298
TOT. DEMAND	1683	1707	1745	1793	1847	1905	1972	2048	2134	2230	2332
END. STOCKS	262	265	271	278	287	296	307	319	333	349	366
TAIWAN SOYMEAL											
				1000 METRIC TONS							
PRODUCTION	1154	1167	1192	1226	1264	1304	1352	1407	1469	1538	1613
BEG. STOCKS	41	43	46	48	50	53	56	58	60	63	65
NET IMPORTS	-76	-20	17	32	53	87	100	106	105	98	92
TOT. SUPPLY	1120	1191	1256	1307	1368	1444	1508	1570	1634	1699	1771
DOMESTIC CONS.	1077	1145	1207	1256	1315	1389	1450	1510	1571	1634	1703
END. STOCKS	43	46	48	50	53	56	58	60	63	65	68
TAIWAN SOYOIL											
				1000 METRIC TONS							
PRODUCTION	250	253	259	266	274	283	293	305	319	334	350
BEG. STOCKS	26	26	28	30	31	32	33	35	36	38	40
TOT. SUPPLY	276	280	287	296	305	315	327	340	355	372	389
DOMESTIC CONS.	221	235	247	256	267	278	289	301	315	330	344
NET EXPORTS	29	16	10	9	6	3	3	2	2	2	4
TOT. DEMAND	249	251	257	265	273	281	292	304	317	332	348
END. STOCKS	26	28	30	31	32	33	35	36	38	40	41

World Soybeans Supply and Utilization

YEAR	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
				ROW SOYBEANS							
				1000 HECTARES							
AREA HARVESTED	4345	4586	4707	4826	4963	5091	5230	5371	5514	5655	5782
YIELD (MT/HA)	1.27	1.29	1.31	1.33	1.36	1.38	1.40	1.42	1.44	1.46	1.48
				1000 METRIC TONS							
PRODUCTION	5529	5930	6184	6441	6725	7005	7304	7613	7930	8249	8554
BEG. STOCKS	680	595	640	697	758	825	892	964	1038	1114	1191
NET IMPORTS	3135	3180	3250	3293	3330	3353	3374	3415	3482	3567	3659
TOT. SUPPLY	9344	9705	10074	10430	10814	11183	11570	11991	12450	12930	13405
CRUSH	6643	6960	7272	7567	7884	8185	8502	8849	9231	9634	10033
OTHER USE	2105	2105	2105	2105	2105	2105	2105	2105	2105	2105	2105
TOT. DEMAND	8748	9065	9377	9672	9989	10290	10607	10954	11336	11739	12138
END. STOCKS	595	640	697	758	825	892	964	1038	1114	1191	1266
				ROW SOYMEAL							
				1000 METRIC TONS							
PRODUCTION	5182	5429	5672	5903	6150	6384	6631	6902	7200	7514	7826
BEG. STOCKS	680	765	759	785	811	837	866	893	919	943	968
NET IMPORTS	4465	4055	4162	4263	4345	4472	4562	4605	4615	4611	4640
TOT. SUPPLY	10327	10249	10593	10951	11305	11694	12059	12400	12734	13068	13434
DOMESTIC CONS.	9562	9490	9809	10139	10468	10828	11166	11482	11790	12100	12439
END. STOCKS	765	759	785	811	837	866	893	919	943	968	995
				ROW SOYOIL							
				1000 METRIC TONS							
PRODUCTION	1196	1253	1309	1362	1419	1473	1530	1593	1680	1753	1826
BEG. STOCKS	323	349	358	376	393	394	402	408	417	429	442
NET IMPORTS	2315	2337	2466	2584	2521	2550	2561	2587	2625	2678	2734
TOT. SUPPLY	3834	3939	4133	4322	4333	4417	4493	4588	4723	4861	5002
DOMESTIC CONS.	3485	3581	3757	3929	3939	4015	4084	4171	4293	4419	4548
END. STOCKS	349	358	376	393	394	402	408	417	429	442	455

WORLD SOYMEAL

- Meal production is expanding in all regions; in Brazil and Argentina, it is continuing to increase at a rapid rate.
- Importing country consumption will grow faster than production, in spite of increasing use of substitute feeds, especially in the EC.
- U.S., Brazil, and Argentina will continue to meet most of the world soymeal import demand.
- Argentina will continue to produce meal almost entirely for the export market, and with Brazil, will provide substantial competition in the world soybean complex market.
- Expanding EC hog and poultry industries will push EC net imports to nearly half the world total.

WORLD SOYBEAN MEAL

Global Production

Soymeal production is more widespread than soybean production, because industrial countries often import soybeans and process them domestically to supply feed requirements. But, nearly two-thirds of total world soymeal is produced in four major regions. Production in these regions (United States, Brazil, Argentina, and the EC) will total 49.2 mmt in 1986/87 and is projected to increase to 61.2 mmt by 1996/97.

The United States is expected to expand soymeal production during 1986/87 by 8.5% to 24.6 mmt. As crush increases throughout the projection period, meal production will increase to 30.3 mmt in 1996/97, a 23.3% increase in soymeal production over 1986/87 levels.

Brazilian soybean meal production is estimated to increase by .7 mmt during 1986/87 to 10.5 mmt, as soybeans are more available with the recovered soybean crop. This is an increase of 8.4%. Improving crushing margins will allow Brazil to increase meal production. By 1996/97, Brazilian soymeal output is expected to reach 13.9 mmt, 32.4% above 1986/87 levels.

Argentina produces soybean products primarily for the world market. Argentina is expected to produce a record 3.7 mmt of soymeal in 1986/87, as crush will again increase so that more of the value-added product can be exported. Through the period to 1996/97, Argentina is projected to increase meal production by 49% to 5.5 mmt, virtually all for export.

Most other countries and regions, including the EC, Eastern Europe, and Japan, will increase soymeal production during the next ten years. However, they will increase consumption at more rapidly, reducing their abilities to meet domestic market demands.

Global Utilization

Consumption of feed, including high-protein feeds, will increase to meet increasing demand for through meat and other livestock products in virtually all regions of the world. This will increase demand for soymeal. Although some regions, such as the EC, are attempting to substitute domestically grown feedstuffs for imported feeds, soymeal demand is projected to increase in these areas as well. During 1986/87, world consumption of soymeal is expected to total 62.9 mmt, up 2.1 mmt 1985/86.

The United States is the world's largest consumer of soymeal and is expected to use 18.6 mmt during 1986/87. Use is expected to remain relatively unchanged throughout the projection period, as meal prices strengthen relative to feed grain prices, and FSA85 affects huge feed grains stocks.

The EC is the world's second largest consumer of soymeal. In 1986/87, the EC is expected to consume 18.4 mmt of soymeal, a 1.1% decrease from 1985/86. Some of the factors affecting EC soymeal demand are the increase in production and use of rapeseed meal and sunflowerseed meal and the subsidization of wheat for feed use. In spite of these competing feeds, however, EC soymeal consumption is projected to increase to 25 mmt by 1996/97, 36% above 1986/87 levels.

The major question facing the world soybean complex during the coming decade will be to what extent wheat feeding, use of other oilseeds, such as rapeseed from Canada and the EC or sunflowerseed from the Soviet Union, Spain, and Argentina, and increases in feed grains production will restrain growth in soymeal use and consequently, soymeal trade.

World Trade

World net imports of soymeal remained relatively unchanged during 1986/87 at 17.6 mmt (22.8 mmt of total imports). The United States, Brazil, and Argentina will continue to meet most of the world's excess demand for meal, China is projected to continue as a net exporter, but will maintain soymeal production just over self-sufficiency levels, and will not become a major competitor in the world soymeal market.

Major Exporters

U.S. soymeal exports increased by .4 mmt in 1986/87 in spite of the level world imports and an increase in Brazilian exports on an October-September basis. During the next ten years, the substantially weaker dollar and increasing feed demand around the world will allow U.S. soymeal exports to increase. By 1996/97, the United States is projected to export 10.6 mmt, an increase of 79% over the export levels of this year. This translates into an increase in export market share from 33.5% to 40.9% at the end of the projection period.

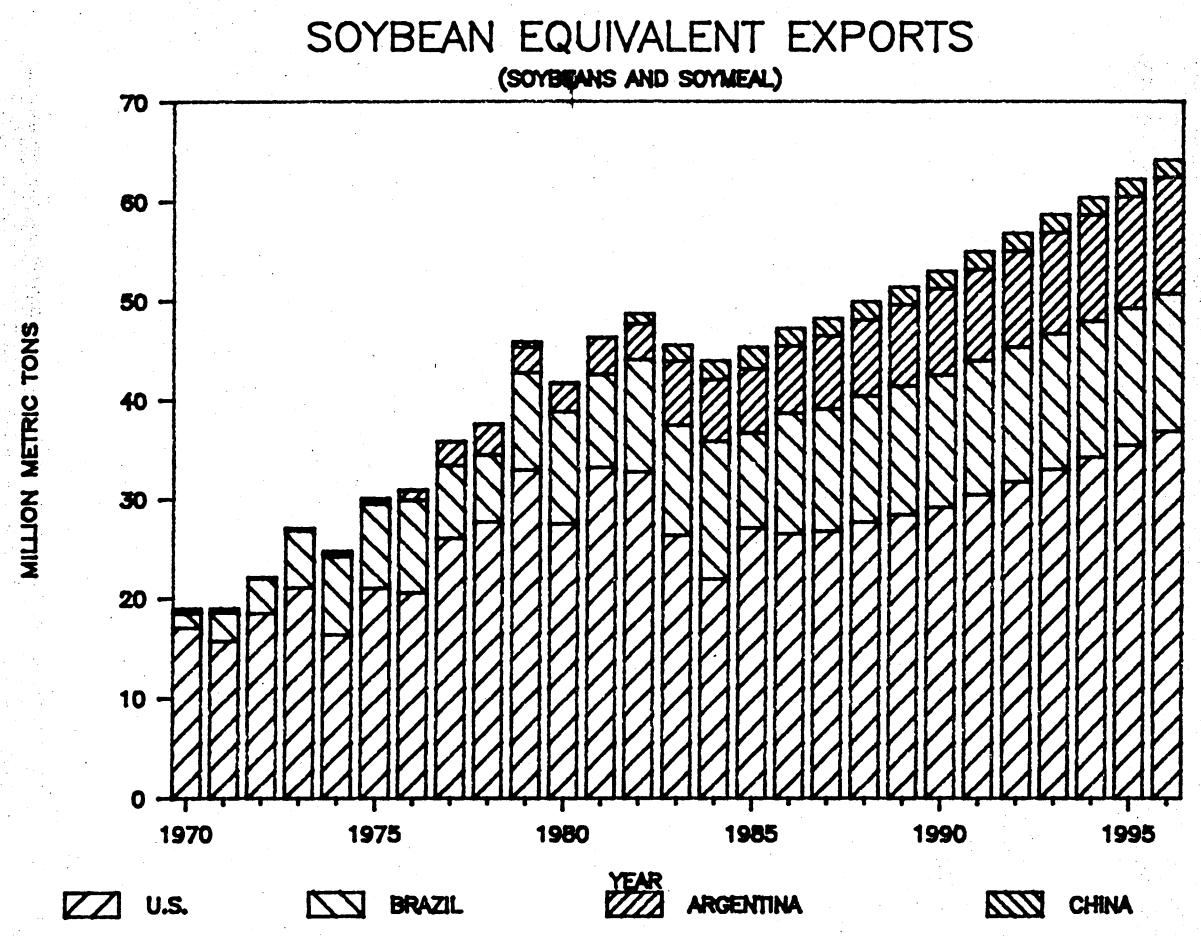
Brazilian soymeal exports are expected to increase by 470 thousand metric tons in an October-September basis this year, but by almost .8 mmt on a local marketing year basis. To maintain domestic soyoil supplies in Brazil, crush will continue to increase, faster than domestic meal demand. Although some soyoil will be exported, meal will continue to carry the largest surplus from crush in this country, and meal production will increase more rapidly than domestic consumption. By the end of the projection period, Brazilian soymeal exports are projected at 9.5 mmt, more than 22% above exports in 1986/87. This represents a decline in export market share from 44% in 1986/87 to 36% in 1996/97.

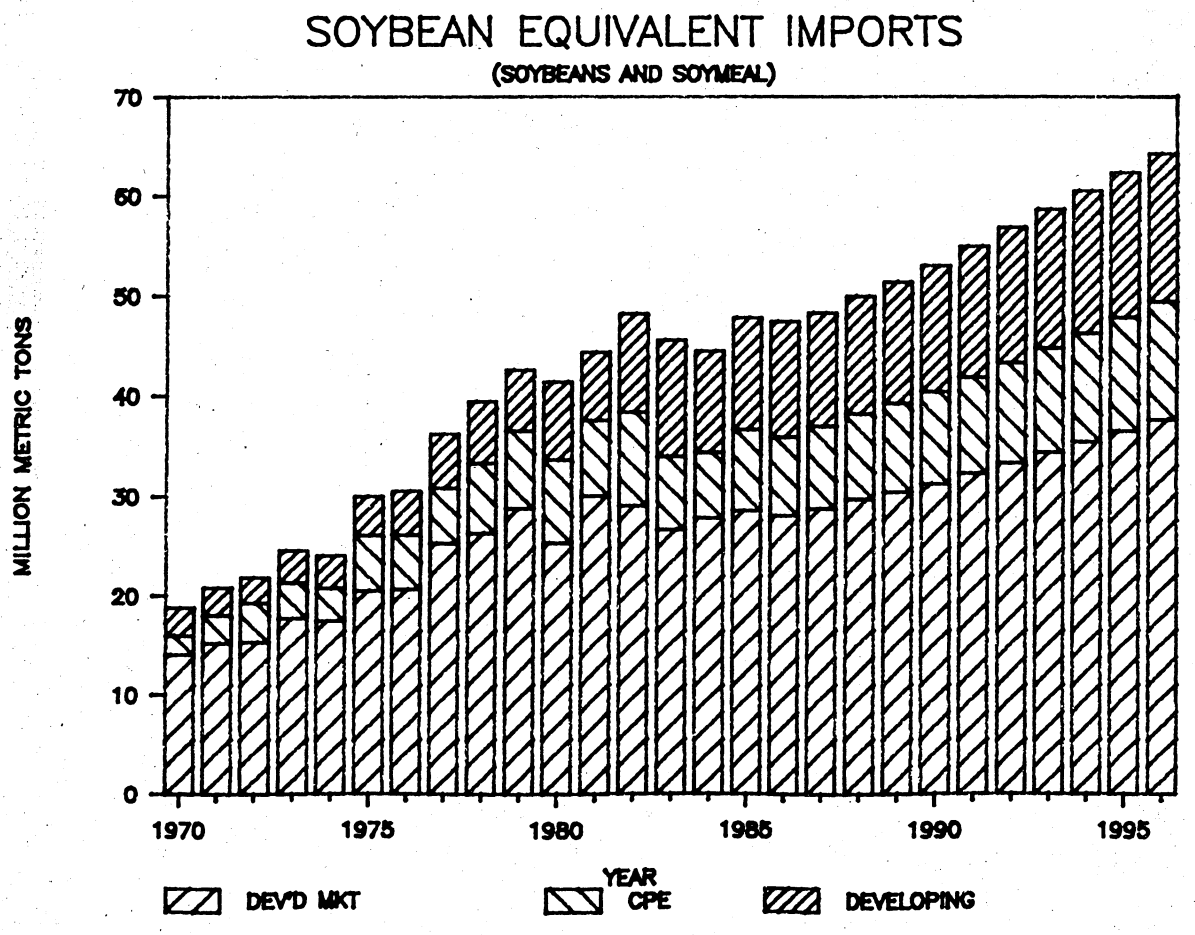
Argentina produces soymeal almost entirely for the export market and is increasing production to increase foreign exchange. In the past, Argentina has exported a larger quantity of soybeans than soymeal, but this was reversed in 1985/86, and soymeal exports are projected to remain above soybean exports throughout the projection period. With the increase of soybean production at the expense of other crops, however, soybean supplies will rise more rapidly than crush is able to increase beginning in the early 1990's, and soybean exports will begin to close the gap with meal exports during this period, but will not catch up entirely. Argentine meal exports will increase to 3.4 mmt in 1986/87, 10.2% above the previous year. Through the decade, Argentina is projected to increase soymeal exports to 5.2 mmt, up 52% over this year. With this growth, Argentina is projected to maintain market share through the projection period at between 19 and 20%.

Major Importers

Although the EC exports 4 to 5 mmt of soymeal annually, the region as a whole is a net importer to supply feed to its large hog and poultry industries. Soymeal net imports are expected to decrease by around 550 thousand metric tons in 1986/87, in spite of the increases in poultry and hog inventories. Increased use of other protein meals, specifically rape and sunflower-seed meals, and the subsidy for wheat feed use have cut into the demand for soymeal. During the next ten years, however, soymeal imports are projected to increase substantially to 13.5 mmt, an increase of 69%. This will give the EC an import share more than 49%, a 4% increase from this year.

All other regions are projected to increase demand for soymeal more rapidly than they are able to increase meal production. Eastern Europe is projected to increase imports by 1.5 mmt during the next decade; Japan will raise meal imports by .5 mmt, but will still be producing most of its meal requirements domestically; the USSR is projected to double soymeal imports, but still be well below historical high imports; developing countries are projected to increase meal imports slightly, as high income Pacific Basin countries maintain nearly self-sufficient levels of production.


SOYBEAN EQUIVALENT EXPORTS
(SOYBEANS AND SOYMEAL)
MILLION METRIC TONS
70
60
50
40
30
20
10
0
1970
1975
1980
1985
1990
1995
YEAR
U.S.
BRAZIL
ARGENTINA
CHINA


SOYBEAN EQUIVALENT IMPORTS
(SOYBEANS AND SOYMEAL)
MILLION METRIC TONS
70
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YEAR
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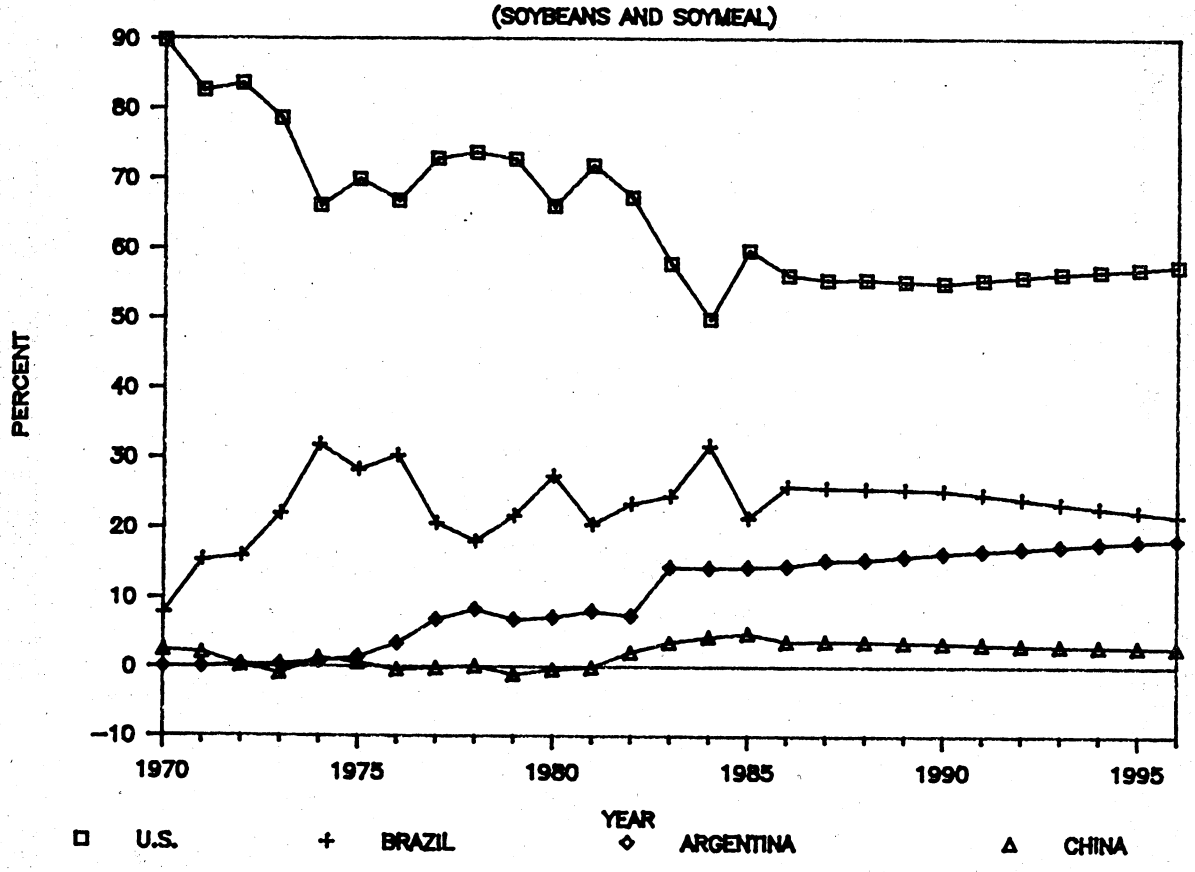
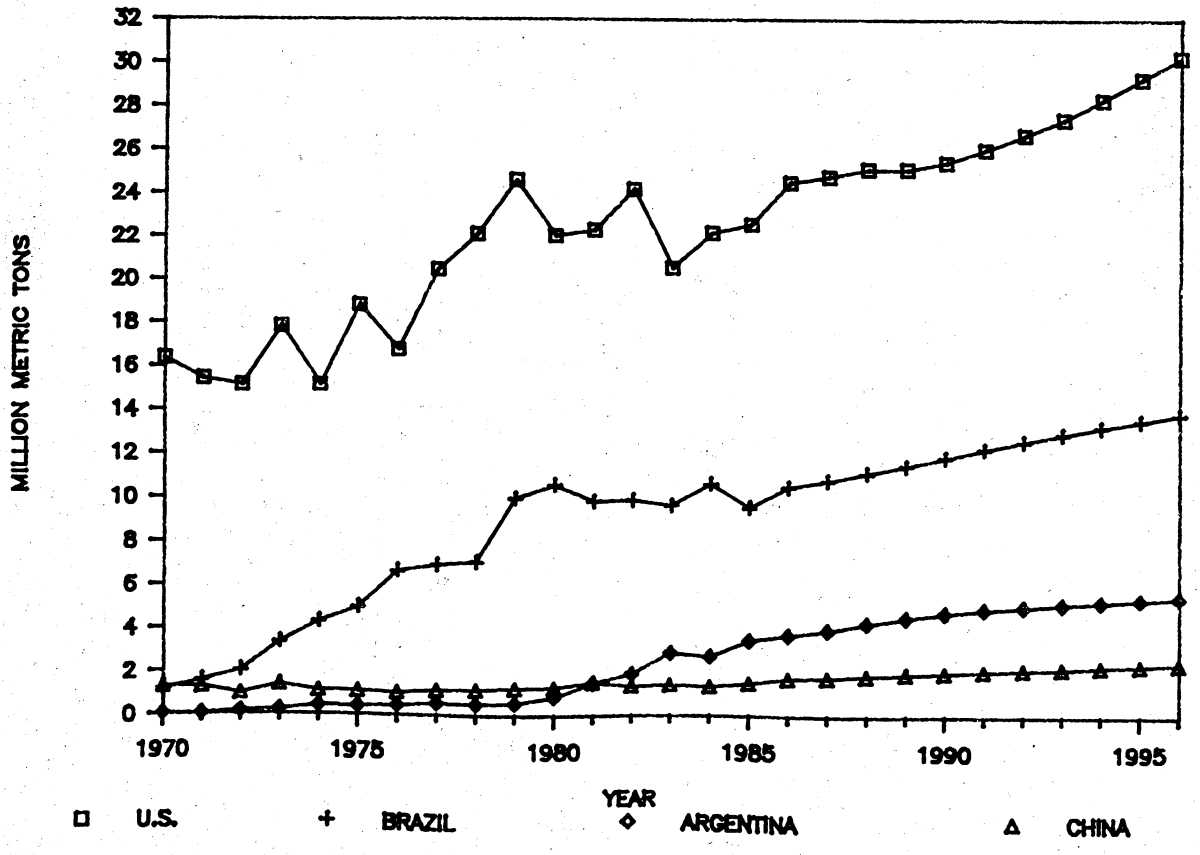
DEVELOPING

SOYBEAN EQUIVALENT EXPORT SHARE

(SOYBEANS AND SOYMEAL)



SOYMEAL PRODUCTION BY EXPORTERS



U.S. SOYBEANS

- Soybean prices will increase by about $1.00 per bushel over the next decade, with corresponding increases in soybean meal and soybean oil prices.
- Planted soybean acreage will revound from 1987 levels, increasing by about 10 million acres over the next decade, despite further expansion of the conservation reserve.
- Domestic soybean crush will change little during the rest of the 1980s, but will increase more rapidly in the 1990s due to increased foreign demand for soybean products.
- Soybean exports will increase less rapidly than soybean meal and soybean oil exports, particularly in the 1990s.
- Net returns to soybean producers will remain relatively constant over the next decade, at levels between net returns to participants and nonparticipants.

U.S. SOYBEANS

The situation facing the U.S. soybean industry is distinct from the situations facing the wheat and coarse-grain industries. Carry-over stocks of soybeans are much smaller than stocks of wheat and corn, soybean export demand has not fallen as much, and the level of direct government involvement in the soybean sector is considerably less than in the wheat and coarse-grain sectors. Nevertheless, the problem of excess capacity affecting the other sectors also has major implications for the U.S. soybean industry.

Measures aimed at reducing excess supplies of corn and wheat are expected to have significant impacts on soybeans in the near future. The long-term conservation reserve (LTCR) is expected to remove 6.0 million acres from soybean production by 1990/91. The attractiveness of participation in corn set-aside and diversion programs also is expected to remove soybean land from production. On the other hand, loan rates for corn were reduced more than loan rates for soybeans. Lower corn prices will tend to reduce demand for soybean meal, but will encourage farmers not participating in government programs to plant soybeans rather than corn.

Supply

No target price system exists for soybeans, so the loan rate is the primary mechanism available to provide income protection to soybean producers. For this reason, and because the excess supply situation is not as severe in soybeans as in corn and wheat, the Secretary of Agriculture was given the authority only to reduce soybean loan rates modestly under the FSA85. The result is a change in the relative pattern of net returns. Corn program participant net returns and soybean net returns each decline slightly, but nonparticipant corn net returns collapse. The incentive, then, is for farmers to plant soybeans or to participate in the corn program and plant soybeans, but not to plant corn outside the program.

Soybean acreage is expected to decline by almost 4 million acres this year, due to the expansion of the conservation reserve, an increase in corn program participation, and a reduction in marginal lands planted to soybeans. In spite of the LTCR, soybean area is projected to increase every year between now and 1996. The increases are expected because net returns to soybean producers are expected to remain relatively constant, while returns to corn producers fall. Despite the steady increases, soybean area in 1996 is expected to be 68 million acres, approximately the same as it was in 1984.

Because weather was particularly favorable in both 1985 and 1986, 1987 yields are expected to decline to 32.6 bushels per acre, a level just slightly above the long-term trend, with the difference due to the reduction in marginal acres planted to soybeans. Soybean yields are expected to reach 35.4 bushels per acre by 1996, which would represent an average annual increase of 0.9%. Production is projected to decline from 2.0 billion bushels in 1986 to 1.8 billion bushels in 1987, but then increase to 2.3 billion bushels by 1996.

Domestic Demand

Domestic crush demand for soybeans jumped sharply between the 1985/86 and 1986/87 crop years, due to a large increase in demand for soybean meal, both in the United States and abroad. Crush is projected to change little between 1986/87 and 1990/91, but then increase rapidly in the 1990s, reaching 1.4 billion bushels by 1996/97. The increase in crush implies that soybean meal production will increase from 27 million tons in 1986/87 to 33 million tons in 1996/97, and soybean oil production will increase from 12 to 15 billion pounds.

Domestic soybean meal demand is expected to change little during the decade, remaining between 20 and 21 million tons each year, as higher meal prices tend to reduce demand when livestock numbers increase. Domestic soybean oil demand is projected to increase steadily, from 10.5 billion pounds in 1986/87 to 12.5 billion pounds in 1996/97, an increase of 19%.

Export Demand

Soybean exports are expected to increase modestly through the next ten years, from 700 million bushels in 1986/87 to 825 million bushels in 1996/97, for reasons discussed in the section concerning the world soybean market. Soybean meal exports, on the other hand, are projected to grow rapidly, particularly after 1989/90. By 1996/97, meal exports are expected to total 12.6 million tons, more than twice the 1985/86 level. Soybean oil exports also are projected to double, to 2.8 billion pounds by 1996/97.

Stocks

Soybean stocks at the end of the 1986/87 crop year are expected to reach 595 million bushels, of which approximately 370 million bushels will be owned by the CCC. Government stocks are expected to be eliminated by 1990/91, due primarily to sales by the CCC each year when soybean prices reach seasonal peaks, as has occurred this spring. Some government stocks may also be released onto the market by means of Payment in Kind certificates, although usage of certificates to obtain soybean stocks has been limited.

Privately owned soybean stocks are expected to total approximately 225 million bushels at the end of the 1986/87crop year, considerably below the 1985/86 level. Private stocks are expected to increase slightly between now and 1990/91 due to the projected decline in government stocks of soybeans. After 1990/91, soybean stocks are expected to average 300 million bushels, with slight variations due to changes in market conditions.

Carry-over stocks of soybean oil are projected to increase sharply between 1985/86 and 1987/88, but then decline between 1987/88 and 1991/92 as demand increases. Commercial soybean meal stocks are expected to remain negligible.

Prices and Returns

The farm price of soybeans is expected to increase slightly in 1987/88 from the loan rate levels of 1986/87, as tighter supplies should result in a reduction in total stocks. Nevertheless, high stock levels and intense competition from low-price corn are expected to keep average annual prices below $5.00 per bushel until 1989/90. Prices are projected to increase to $5.40 per bushel in 1989/90, due to tight supplies, increased demand, and the near exhaustion of CCC stocks. Between 1989/90 and 1993/94, prices are expected to vary from $5.18 to $5.42 per bushel, before increasing to $5.73 per bushel by 1996/97. Actual price fluctuation is likely to be substantially greater because the projection assumes "normal" weather and demand conditions, which may not prevail in any given year.

Net returns to soybean producers, not considering land costs, are expected to remain relatively constant through the decade, averaging just under $100 per acre per year. In general, increasing production costs are expected to be offset by higher yields and higher market prices. In every year between 1986/87 and 1994/95, soybean net returns are expected to be greater than returns to corn producers not participating in government programs, but less than returns to corn participants. In 1995/96 and 1996/97, soybean net returns are projected to slightly exceed corn participant returns.

Soybean meal prices are expected to increase from $153 per ton in 1986/87 to $166 per ton in 1989/90 due to increased demand from the livestock sector in the face of tightening supplies. Meal prices are projected to fall to $145 per ton by 1992/93 in response to reduced livestock numbers and increased soybean supplies. Meal prices are expected to increase rapidly after 1992/93, reaching $193 per ton by 1996/97, in response both to increased livestock numbers and increased export demand.

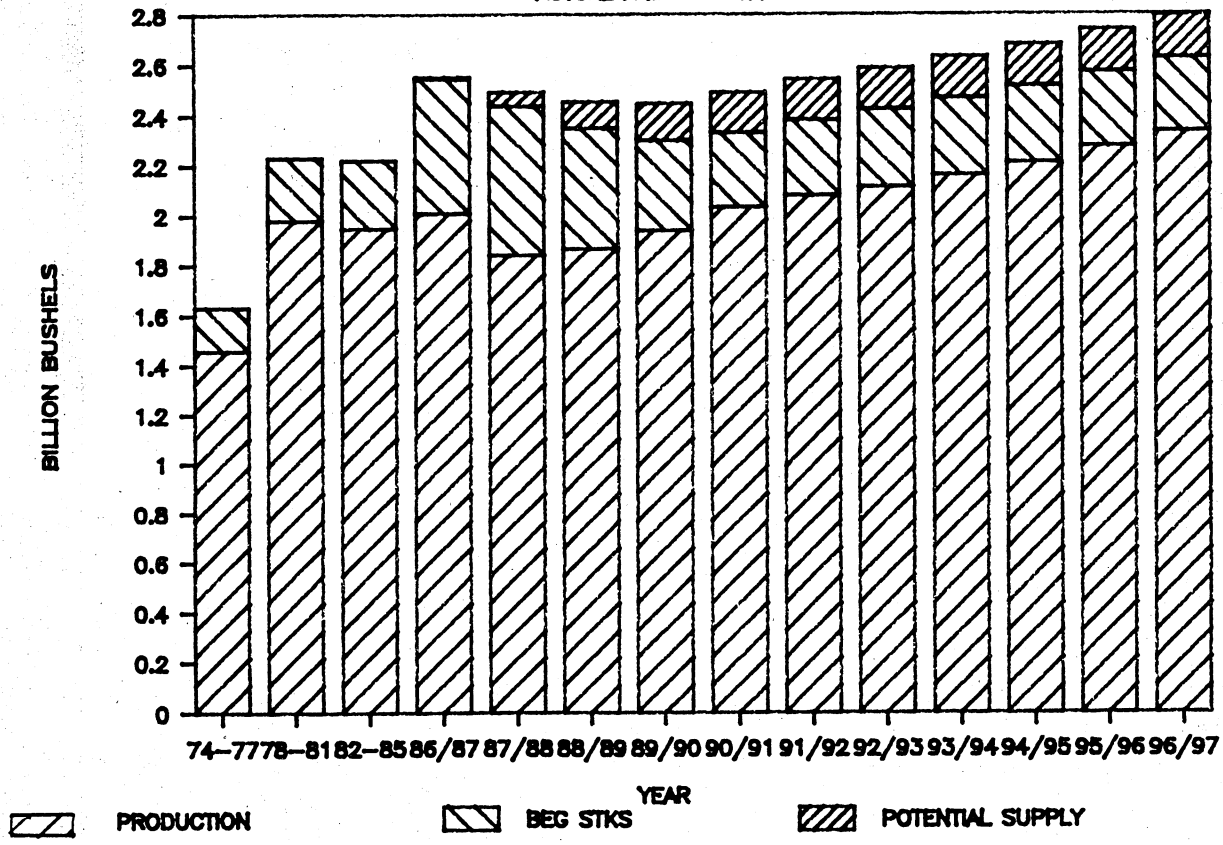
Soybean oil prices are expected to remain depressed through 1990/91 due to intense competition from other oils and to the large supplies resulting from high crush levels. Soybean oil prices fall to 16 cents per pound during the current crop year, and remain below 18 cents per pound until 1989/90. A softening of meal demand is expected to make soybean oil the price leader in the soybean complex between 1991/92 and 1993/94. But, stronger meal demand between 1994/95 and

1996/97 is expected to cause an increase in crush that will outstrip the demand for soybean oil, resulting in a modest oil price decline.

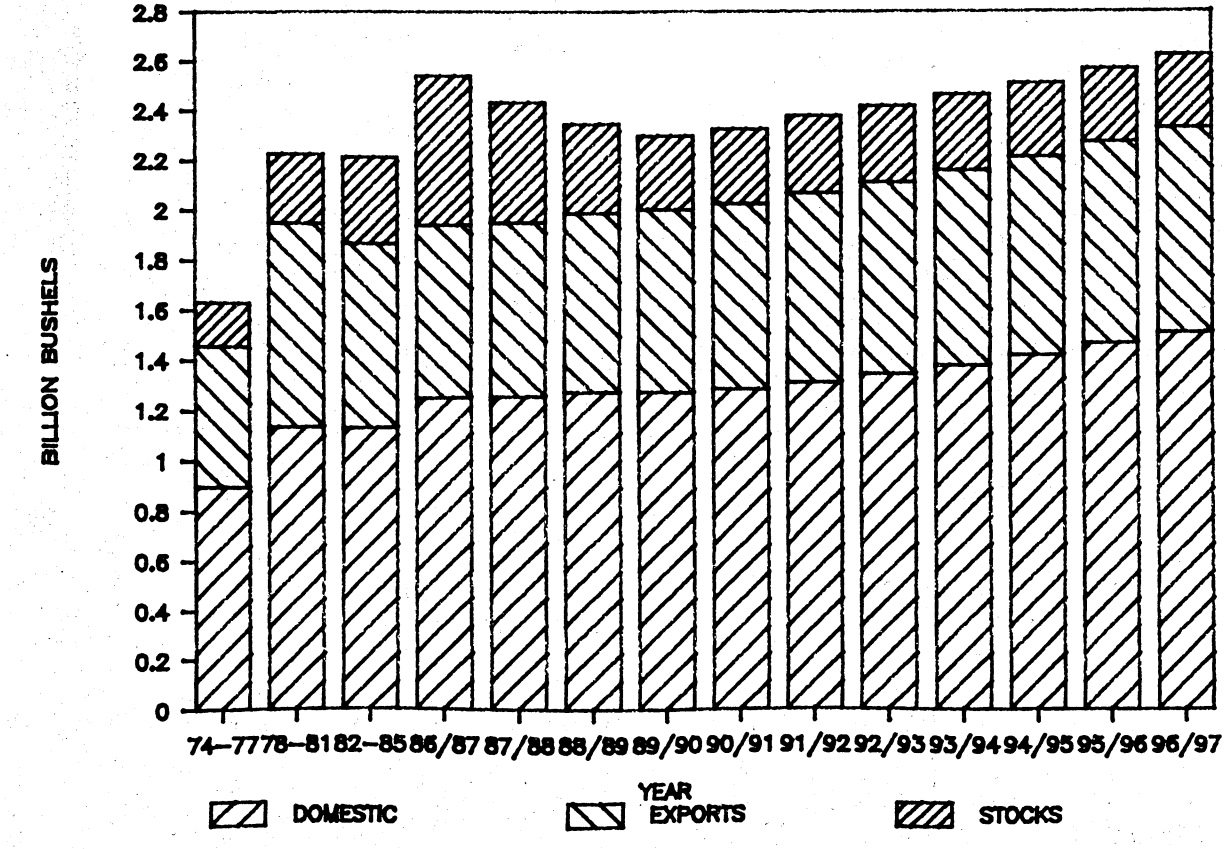
The difference between the farm price of a bushel of soybeans and the value of the meal and oil that can be extracted from those beans, a rough measure of the crushing margin, is expected to change little between 1986/87 and 1992/93. Crushing margins are expected to increase after 1992/93 due to the strong demand for soybean meal exports relative to soybean exports. This increase in crushing margins is expected to result in sharp increases in soybean crush in the 1990s.

SOYBEAN SUPPLY

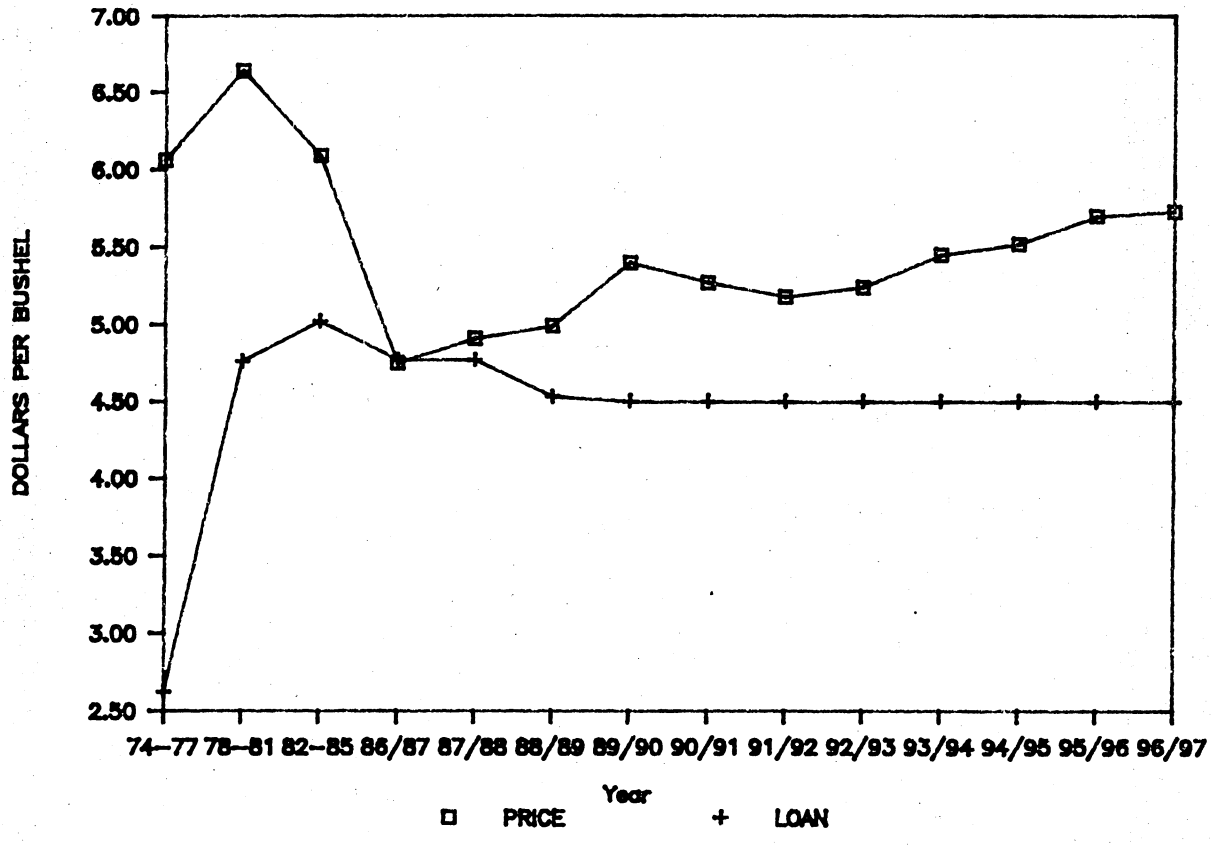
ACTUAL AND POTENTIAL



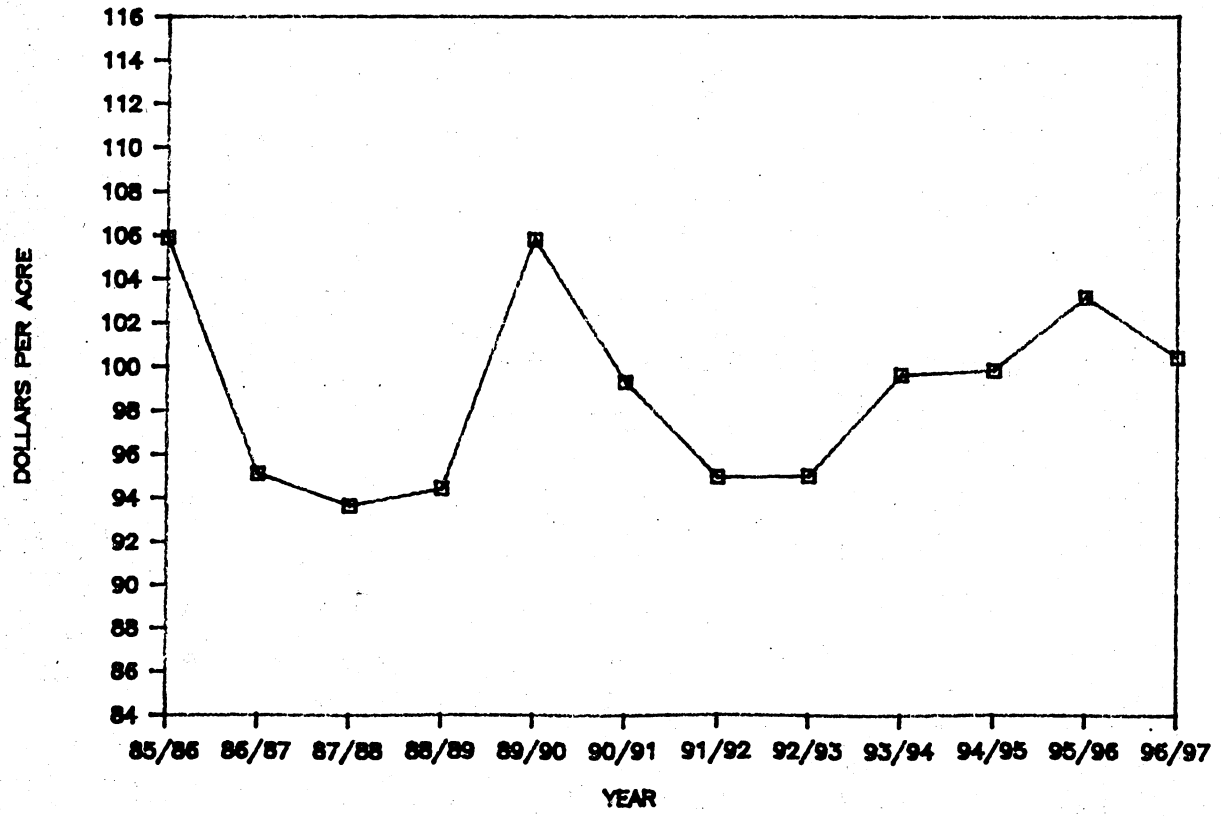
SOYBEAN DEMAND



SOYBEAN PRICE AND PROGRAM LEVELS



SOYBEAN PRODUCER NET RETURNS



U.S. Soybean Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
ACREAGE					(Million Acres)							
LTCR Acres	0.0	0.3	2.1	4.0	5.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Planted Area	63.1	61.5	57.9	58.2	59.9	62.2	63.0	63.5	64.2	65.2	66.5	67.6
Harvested Area	61.6	59.4	56.5	56.7	58.4	60.6	61.5	61.9	62.6	63.5	64.8	65.9
Yield (Bu/Acre)	34.1	33.8	32.6	32.9	33.2	33.5	33.8	34.2	34.5	34.8	35.1	35.4
SUPPLY					(Million Bushels)							
Beg. Stocks	316	536	595	483	360	297	301	310	307	303	295	293
Production	2,099	2,007	1,842	1,866	1,940	2,032	2,080	2,113	2,159	2,210	2,274	2,333
TOTAL SUPPLY	2,415	2,543	2,437	2,349	2,300	2,329	2,381	2,423	2,466	2,512	2,569	2,626
DOMESTIC												
Crush	1,053	1,145	1,154	1,170	1,170	1,185	1,213	1,244	1,277	1,318	1,363	1,408
Seed & Residual	86	103	94	95	97	97	98	98	99	100	101	101
TOTAL	1,139	1,248	1,248	1,265	1,267	1,282	1,310	1,342	1,376	1,418	1,464	1,509
TOTAL EXPORTS	740	700	706	724	736	746	761	773	787	799	813	825
TOTAL DEMAND	1,879	1,948	1,954	1,989	2,002	2,028	2,071	2,115	2,163	2,217	2,276	2,333
ENDING STOCKS	536	595	483	360	297	301	310	307	303	295	293	292
CCC Owned	130	370	245	100	17	0	0	0	0	0	0	0
"Free" Stocks	406	225	238	260	280	301	310	307	303	295	293	292
PRICES:												
Farm Price	$5.10	$4.75	$4.91	$4.99	$5.40	$5.27	$5.18	$5.24	$5.42	$5.52	$5.70	$5.73
Loan Rate	$5.02	$4.77	$4.77	$4.53	$4.50	$4.50	$4.50	$4.50	$4.50	$4.50	$4.50	$4.50
Bean/Corn Ratio	2.17	3.08	2.98	2.88	2.98	2.91	2.96	3.01	3.10	3.17	2.98	2.78
Soymeal Price	$154.90	$152.50	$155.34	$159.53	$166.41	$162.16	$148.73	$144.59	$151.40	$164.52	$181.93	$193.00
Soyoil Price	18.0	15.0	14.8	15.5	17.4	17.4	20.0	21.4	22.1	20.5	18.9	17.3
Crush. Margin	$0.55	$0.49	$0.38	$0.48	$0.44	$0.47	$0.52	$0.52	$0.57	$0.61	$0.67	$0.73
Cost per Acre	$68.01	$65.42	$66.44	$69.80	$73.60	$77.44	$80.32	$83.93	$87.18	$92.15	$96.82	$102.38
Cost per Bushel	$1.99	$1.94	$2.04	$2.12	$2.22	$2.31	$2.37	$2.46	$2.53	$2.65	$2.76	$2.89
Return/Bu.	$3.11	$2.81	$2.87	$2.87	$3.18	$2,96	$2.81	$2.78	$2.89	$2.87	$2.94	$2.84
Return/Acre	$105.90	$95.13	$93.63	$94.42	$105.79	$99.26	$94.97	$95.02	$99.59	$99.78	$103.14	$100.40

U.S. Soybean Meal Supply and Utilization (1000 Short Tons)

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
SUPPLY												
Production	24,951	27,051	27,349	27,724	27,728	28,082	28,742	29,477	30,265	31,247	32,301	33,368
Beg. Stocks	387	212	270	301	305	305	309	316	324	333	344	355
TOTAL SUPPLY	25,338	27,263	27,619	28,024	28,033	28,387	29,051	29,793	30,590	31,579	32,644	33,723
DOMESTIC USE	19,118	20,492	20,737	20,751	20,456	20,332	20,218	20,104	20,106	20,319	20,627	20,754
EXPORTS	6,008	6,500	6,582	6,968	7,272	7,747	8,517	9,365	10,151	10,916	11,662	12,603
TOTAL DEMAND	25,126	26,992	27,319	27,719	27,728	28,079	28,735	29,469	30,257	31,236	32,289	33,356
ENDING STOCKS	212	270	301	305	305	309	316	324	333	344	355	367
DECATUR PRICE	$154.90	$152.50	$155.34	$159.53	$166.41	$162.16	$148.73	$144.59	$151.40	$164.52	$181.93	$193.00

U.S. Soybean Oil Supply and Utilization (Million Pounds)

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
SUPPLY												
Production	11,617	12,480	12,578	12,751	12,753	12,916	13,219	13,557	13,920	14,371	14,856	15,346
Beg. Stocks	632	947	1,575	1,843	1,830	1,536	1,378	1,245	1,242	1,266	1,319	1,384
Imports	8	0	0	0	0	0	0	0	0	0	0	0
TOTAL SUPPLY	12,257	13,427	14,153	14,593	14,583	14,452	14,597	14,802	15,161	15,637	16,175	16,731
DOMESTIC USE	10,053	10,503	10,815	11,038	11,191	11,303	11,517	11,685	11,899	12,095	12,301	12,478
EXPORTS	1,257	1,350	1,496	1,725	1,855	1,771	1,834	1,876	1,995	2,223	2,490	2,783
TOTAL DEMAND	11,310	11,853	12,310	12,763	13,046	13,074	13,351	13,561	13,895	14,317	14,791	15,261
ENDING STOCKS	947	1,575	1,843	1,830	1,536	1,378	1,245	1,242	1,266	1,319	1,384	1,470
DECATUR PRICE	18.0	15.0	14.8	15.5	17.4	17.4	20.0	21.4	22.1	20.5	18.9	17.3

U.S. COTTON

- Cotton farm prices will vary in a relatively narrow range over the next decade, always remaining between the loan rate and the target price.
- Relaxed set-aside requirements and stronger cotton prices will result in increases in cotton acreage and production between now and 1990.
- Mill use will grow steadily over the next decade.
- The marketing loan program has resulted in a rebound in cotton exports, but future increases in cotton exports will be modest.
- Ending stocks will be reduced dramatically over the next three years due to the increase in domestic and export demand and the acreage reduction measures.

U.S. COTTON

The provisions in the 1985 Food Security Act designed to recapture lost cotton export markets and reduce cotton stock levels should be successful. Current 1986/87 cotton ending stocks projections of about 5.2 million bales are less than initial projections of 7 million bales. The targeted level of 4 million bales should be reached in 1987/88. Cotton exports have rebounded from their low of 2.0 million bales in 1985/86 to a projected 6.7 million bales in 1986/87. High demand has kept the expected 1986/87 price at $.52 per pound, just $.03 below the loan rate. This will occur even though marketing certificates and marketing loan provisions have been used extensively. Higher demand and lower ending stock levels should keep the farm price of cotton above the loan rate for the rest of the projection period.

Supply

Increased demand levels and a long-term conservation reserve (LTCR) allow the acreage reduction program (ARP) to fall from 25% in 1987/88 to 15% for the rest of the decade. Cotton ending stocks stabilize in the 3 to 3.5 million bale range. Cotton planted area increases from 10.4 million acres in 1987/88 to 11.85 million acres as acreage controls are retarded, then falls to about 11.5 million acres for the rest of the period.

Participation levels are projected to remain high, ranging from 85% to 92%. Cotton yields, which were below trend in 1986/87, are expected to increase to nearly 600 pounds per acre in 1987/88, then grow by about 7 pounds per year through 1996/97. Cotton production is expected to increase more than 2 million bales in 1987/88 due to moderate increases in both yields and acreage. Production is expected to increase another 2 million bales in 1988/89 due to the relaxation of acreage controls. Production is expected to fall slightly in 1989/90 and increase to 15 million bales in 1996/97.

Mill Use

Domestic mill use faces competition from the synthetics industry and the world cotton textiles market. After declining steadily for 20 years, mill use of cotton increased in 1985/86. The preliminary estimate for 1986/87 mill use is 7.3 million bales, a level not achieved since 1973/74. This increase can be attributed to modest improvements in economic activity, a lower cotton price, and a devalued U.S. dollar that has slowed the growth in cotton textile imports. Mill demand is expected to fall approximately 5% in 1987/88 as the market price of cotton increases. From 1988/89 through 1996/97, mill demand is projected to increase by approximately 1.5% per year. This is due to population increases, further weakening of the U.S. dollar, and lower real cotton price and price relative to polyester.

Export Demand

Estimates of cotton production are down in 1986/87 for the two main competing cotton exporters, the PRC and the USSR. After building stocks in 1984/85, the PRC has not produced enough cotton to meet domestic consumption in 1985/86 or 1986/87. It is anticipated, therefore, that PRC exports will be decreased further from a high of 630 million bales in 1985/86 to about 350 million bales in 1987/88 and beyond. USSR exports are assumed to increase slightly, to about 600 million bales, during the next ten years.

Current estimates of U.S. cotton exports in 1986/87 are 6.7 million bales, up substantially from 2.0 million bales in 1985/86. This level is in line with export levels of the early 1980s. A further increase in U.S. cotton exports to slightly over 7 million bales is projected for 1987/88. This increase in exports will occur despite a strengthening market price of cotton. Exports are expected to range from 7 to 7.2 million bales for the rest of the period, weakening in years when polyester prices are low relative to cotton.

Stocks

A balance between supply and demand in the cotton industry is generally reflected by a carry-over of around 3-4 million bales. Implementation of the ARP, area moving into LTCR, and relatively strong demand are projected to bring cotton ending stocks into balance by 1987/88. Stocks remain

in the 3 to 3.5 million bale range through the end of the projection period.

CCC reserves are projected to decline from 6 million bales in 1985/86 to 2 million bales by 1996/97 due to a combination of marketing loan options, partial payment of deficiency payments in PIK commodities, and balanced supply and demand.

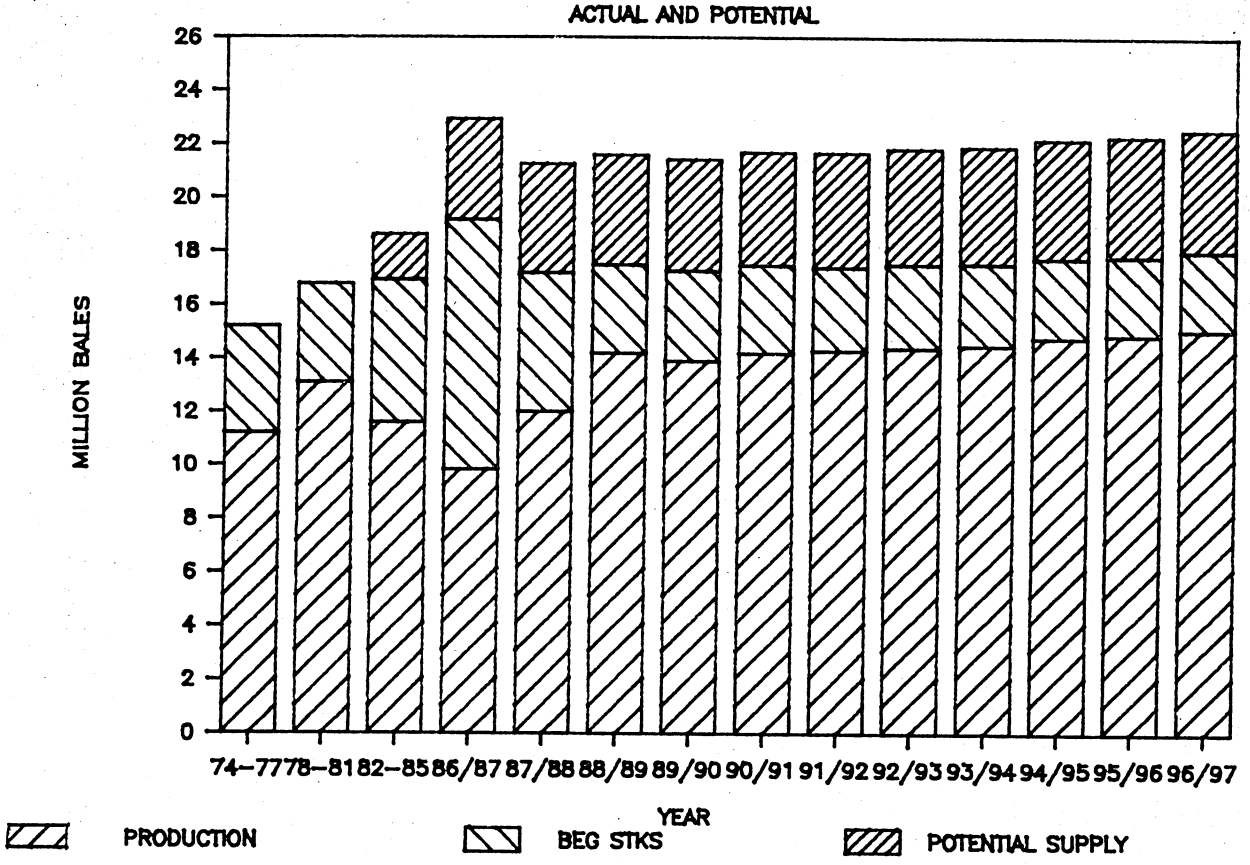
Prices and Returns

The farm price of cotton in 1986/87 has exceeded initial projections due to a resurgence in demand. Prices should stabilize at $.52 per pound for the rest of the decade. Prices are projected to remain between $.56 and $.59 per pound, above the loan rate but well below the prices of the last 10 years when expressed in real terms.

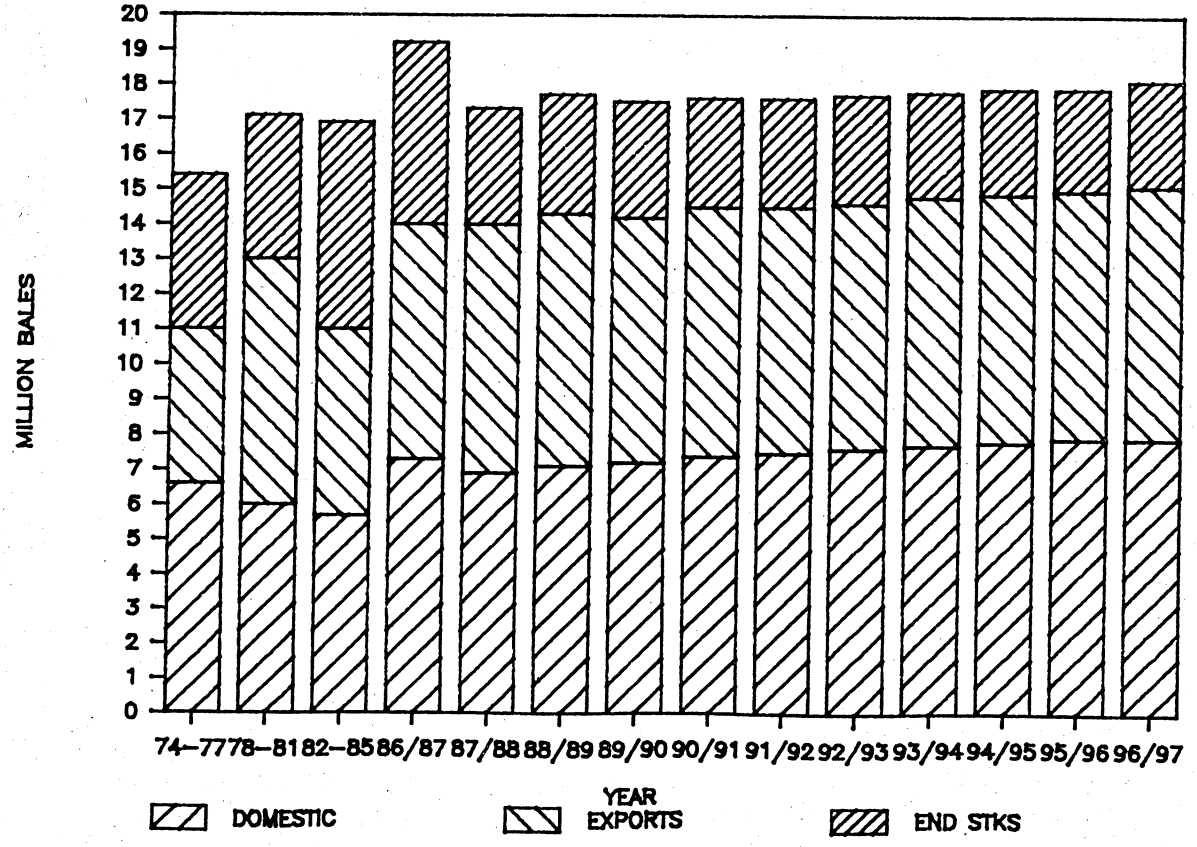
Average variable production costs in 1986/87 are lower than in 1985/86 at $236 per acre. They are not expected to exceed their 1985/86 level until 1989/90. Costs are projected to climb to $378 per acre by 1996/97. This combination of relatively high variable costs and lackluster prices implies strong program participation. It is estimated that program participants will receive between $125 and $165 per acre more than variable costs in the first half of the projection period. Receipts in excess of variable costs will fall to between $75-120 in the latter half of the period as costs rise and prices remain stagnant. Nonparticipants' revenue will be about $15 more per acre than variable costs.

COTTON SUPPLY

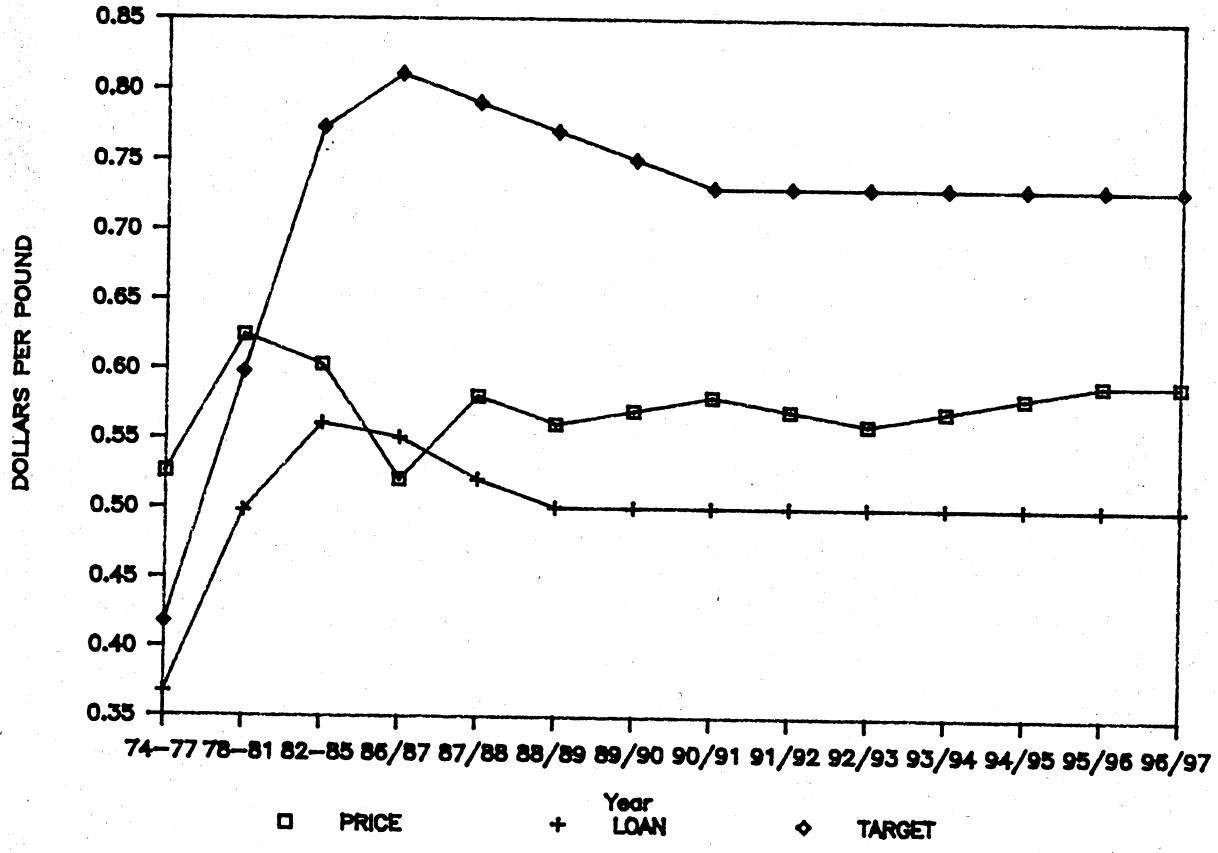
ACTUAL AND POTENTIAL



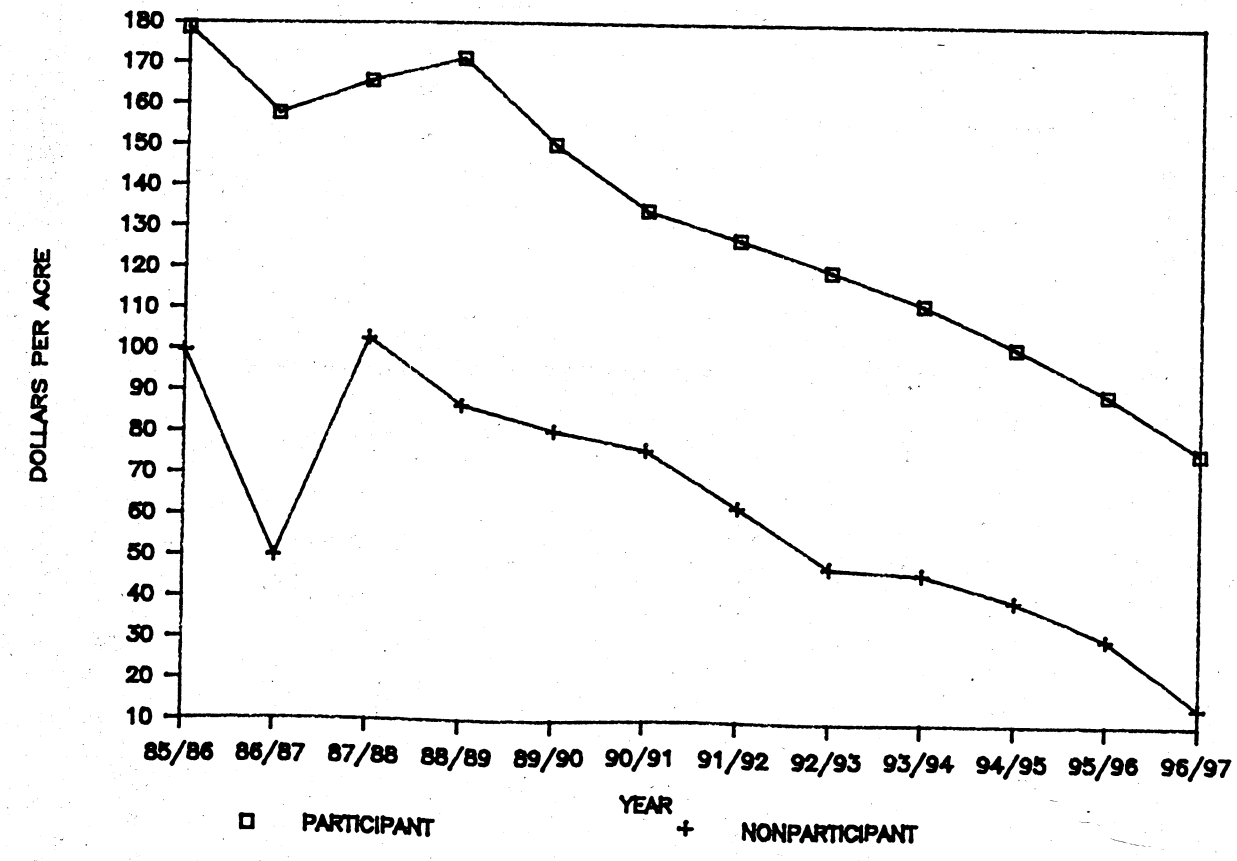
COTTON DEMAND



COTTON PRICE AND PROGRAM LEVELS



COTTON PRODUCER NET RETURNS



U.S. Cotton Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
					(Million Acres)						
Base Acreage	15.80	15.80	15.80	15.80	15.80	15.80	15.80	15.80	15.80	15.80	15.80
Set Aside %	20.00%	25.00%	20.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
LTCR Acres	0.50	0.80	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Set Aside Acres	2.62	3.75	3.00	1.90	1.54	1.19	1.19	1.19	1.42	1.54	1.42
Partic. Rate %	83.00%	95%	95%	80%	65%	50%	50%	50%	60%	65%	60%
Planted	10.69	9.59	10.10	11.20	11.60	11.90	12.20	12.30	12.10	11.90	12.00
Harvested	10.23	8.71	9.52	10.62	11.02	11.32	11.62	11.72	11.52	11.32	11.42
Yield	630	539	584	594	601	607	615	622	626	633	639
Base Yield	529	574	574	572	589	590	585	600	608	614	621
SUPPLY											
Beg. Stocks	4.10	9.35	5.48	3.37	2.36	1.77	1.60	1.88	2.21	2.27	2.08
Production	13.43	9.78	11.58	13.14	13.79	14.32	14.88	15.19	15.02	14.93	15.20
Imports	0.03	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
TOTAL SUPPLY	17.56	19.15	17.09	16.54	16.17	16.11	16.50	17.09	17.26	17.22	17.31
DOMESTIC											
Mill Use	6.40	7.01	7.14	7.28	7.43	7.50	7.58	7.77	7.86	7.99	8.14
TOTAL EXPORTS	1.96	6.75	6.66	6.98	7.05	7.09	7.12	7.19	7.21	7.23	7.27
TOTAL DEMAND	8.36	13.76	13.80	14.26	14.48	14.59	14.70	14.96	15.07	15.22	15.41
Unaccounted	0.15	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
ENDING STOCKS	9.35	5.48	3.37	2.36	1.77	1.60	1.88	2.21	2.27	2.08	1.98
CCC Held Stocks	6.70	2.50	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Free Stocks	2.65	2.98	2.37	2.36	1.77	1.60	1.88	2.21	2.27	2.08	1.98
PRICES:											
Farm Price	$0.56	$0.48	$0.57	$0.59	$0.64	$0.68	$0.64	$0.60	$0.59	$0.62	$0.61
Loan Rate	$0.57	$0.55	$0.52	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50
Target Price	$0.86	$0.81	$0.79	$0.77	$0.75	$0.73	$0.73	$0.73	$0.73	$0.73	$0.73
Cost per Acre	$257.63	$236.95	$242.12	$258.44	$270.89	$283.72	$297.14	$313.09	$329.18	$347.37	$367.22
Cost per lb.	$0.41	$0.44	$0.41	$0.44	$0.45	$0.47	$0.48	$0.50	$0.53	$0.55	$0.57
Participant											
Return per Acre	$168.01	$156.56	$175.48	$165.74	$149.07	$134.19	$125.98	$116.90	$105.97	$95.18	$82.01
Return per Pound	$0.27	$0.29	$0.30	$0.28	$0.25	$0.22	$0.21	$0.19	$0.17	$0.15	$0.13
Non-Participant											
Return per Acre	$92.72	$19.72	$91.83	$91.14	$116.35	$127.12	$96.58	$60.61	$41.90	$43.67	$25.04
Return per Pound	$0.15	$0.04	$0.16	$0.15	$0.19	$0.21	$0.16	$0.10	$0.07	$0.07	$0.04

U.S. RICE

- Production increases due to improved yields and rising acreage.
- Domestic utilization will increase about 1.5% per year over the next ten years.
- Exports are expected to rise from 80 million cwt. in 1986/87 to 97 million cwt. by 1996/97.
- Drastic reduction in CCC reserves cause ending stocks to fall almost 40% by 1996/97.
- Prices will remain low throughout the 1980s, then rise during the 1990s.
- Program participation rates of up to 90% are anticipated, with net returns per acre of $170-$260 for participants and $50-$90 for nonparticipants.

U.S. RICE

Implementation of the marketing loan option for rice during 1986/87 resulted immediately in lower rice market prices. Lower rice prices will persist throughout the 1980s and will increase gradually during the 1990s. Production will increase moderately during the projection period. Domestic demand also will grow gradually, due to rising demand in industrial use. Exports are likely to increase, reaching nearly 100 million cwt by 1996/97. The recovery in exports and the rise in domestic use will surpass the moderate increase in production and will reduce stocks from 1985/86 levels of 77 million cwt to 39 million cwt in 1996/97.

Supply

It is assumed that acreage reduction programs (ARP) will be followed throughout the projection period, with a 35% ARP in 1987/88. A 30% ARP is assumed from 1988/89 through 1992/93 and a 25% ARP for the rest of the period. No long-term conservation reserve acreage is estimated for rice. Area planted to rice is projected to be 2.32 million acres for 1987/88, increasing to a peak of 2.85 million acres in 1993/94, and then decreasing to 2.79 million acres at the end of the decade. Rice yields are projected to rise by about 45 pounds per acre annually for most of the years throughout the period. Rice production is expected to increase from 134 million cwt in 1986/87 to 173 million cwt by 1996/97. Production increases will result from increases in both acreage and yield.

Domestic Demand

Food use of rice increased at a historical average of 1 million cwt per year. Lower prices will stimulate this growth rate in 1986/87, with domestic use increasing by 11%, to 42.8 million cwt. After 1986/87, however, domestic food use of rice is expected to increase only at a moderate rate. The average growth rate during the next ten years is projected at about 1.5% per year, from the 38.5 million cwt consumed in 1985/86 to 44.6 million cwt by 1996/97.

Industrial use of rice, concentrated primarily in the brewing industry, grew at an average of 0.4 million cwt per year between 1965 and 1985. The demand is projected to grow more slowly, at 0.3 million cwt per year, throughout the period. As a result, industrial use could increase from 14.1 million cwt in 1985/86 to 17.6 million cwt by 1996/97.

We assumed that residual demand for rice will increase by 0.1 million cwt each year throughout the projection period. This, along with increases in other domestic demand categories, is expected to result in a total domestic demand level of 77.2 million cwt by 1996/97, and increase of 1.5% per year during the ten years.

Export Demand

U.S. rice exports tended to rise through the 1970s. Since then, exports have declined from 90 million cwt in 1980 to 59 million cwt in 1985/86, This decline was prompted by sluggish world demand growth, the high value of the U.S. dollar, and strong foreign competition assisted by a high U.S. loan rate.

The farm price of U.S. rice has averaged about $100 per ton more than competing rice entering world markets from Thailand. Because of the turnaround in the value of the dollar and a significant drop in U.S. loan and market prices, exports are expected to increase to around 80 million cwt in 1986/87 and are projected to reach 97 million cwt by 1996/97. The United States will begin to recover world trade share, implying a moderation in the growth rate and production of major competitors.

Stocks

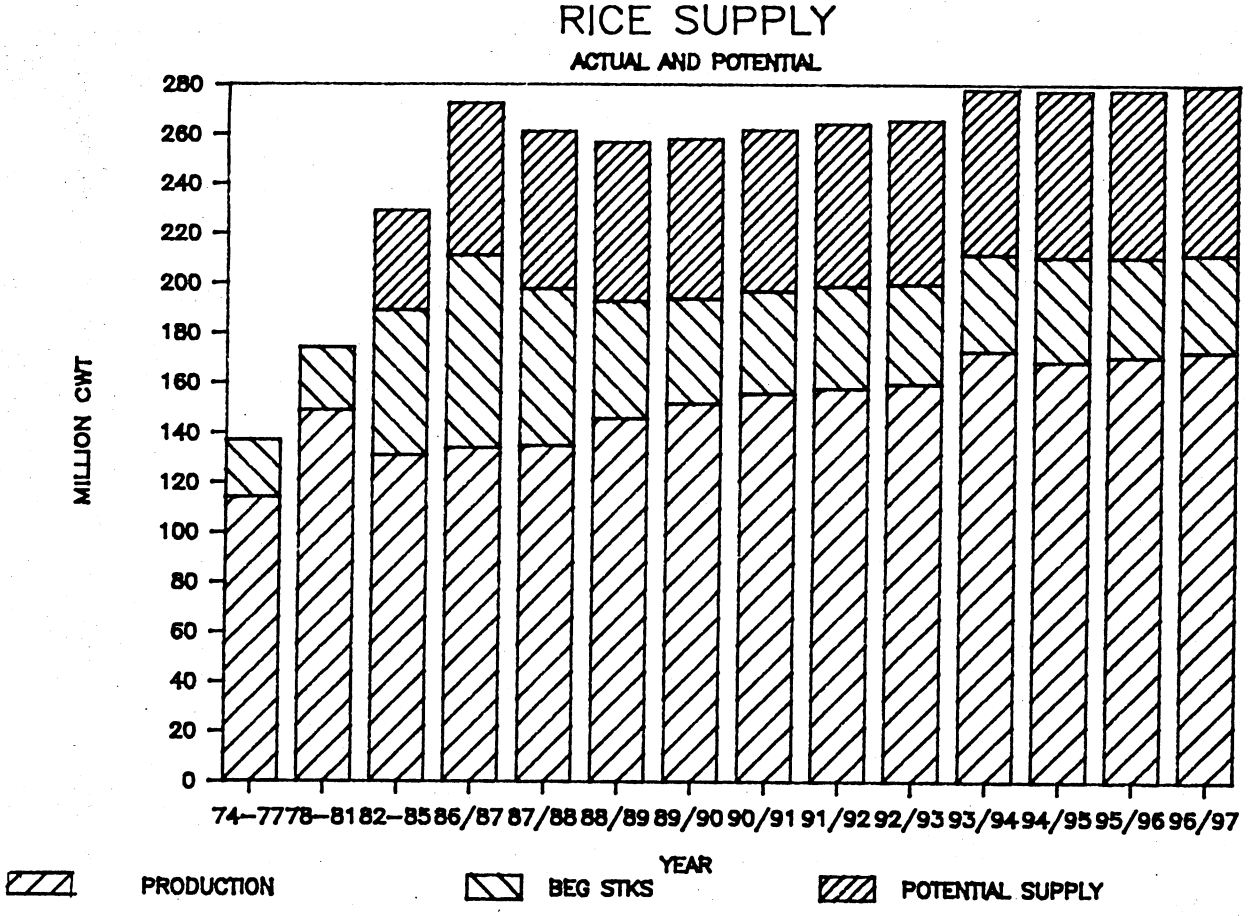
Ending stocks for 1986/87 are estimated to be 62.6 million cwt with approximately 38.6 million cwt in CCC reserves. Total stocks are projected to decline further throughout the decade. By 1996/97, total stocks are estimated to decrease to 38.7 million cwt, with only 2 million cwt in CCC reserves.

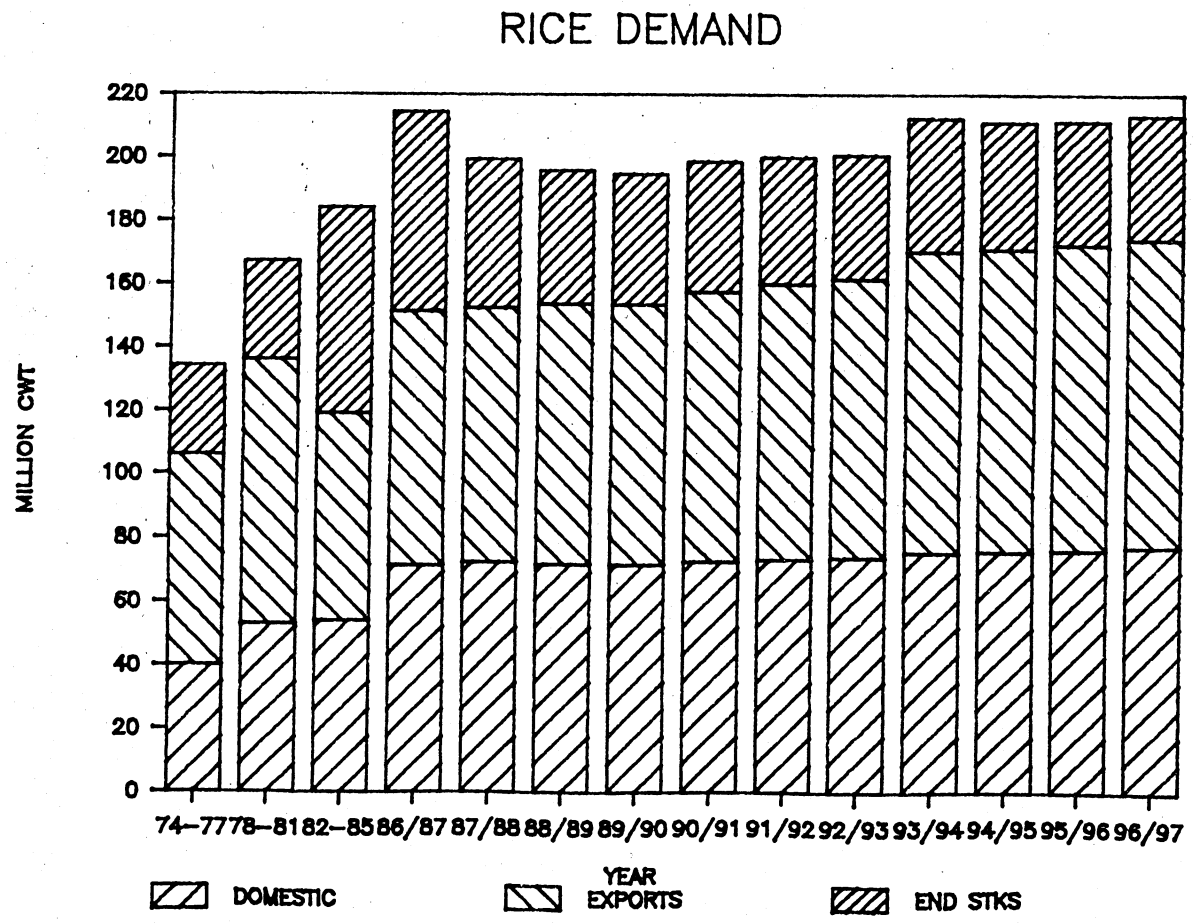
Prices and Returns

Throughout the rest of the 1980s, prices will be held at low levels through a marketing loan program that allows producers to repay loans at market rates. This mechanism precludes the large accumulation of government stocks and maintains low-side market price pressure. Farm prices are projected to rise during the 1990s because of the more growth in demand than in supply.

Farmers will continue to receive income support through the maintenance of the target price. The target price will range from $11.90 per cwt in 1985/86 to a low of $10.71 by 1990/91, then hold for the rest of the period. The loan rate declines from $8 per cwt in 1985/86 to $6.50 in 1988/89 and the rest of the decade. The marketing loan action precludes foreign competitors underbidding U.S. prices. This activity can be monitored by the Department of Agriculture and marketing loans can be adjusted to reflect strong world competition.

The average variable cost for production in 1986/87 is estimated to be $267 per acre. Production costs are projected to increase gradually to $431 per acre by 1996/97. As in other commodities, the economic incentive is strong for farmers to participate in the ARP program. For this reason, program participation is estimated to be at 83 to 93%, with returns of $170 to $260 per acre for participant and returns of -$50 to $90 per acre for nonparticipants.


RICE SUPPLY
ACTUAL AND POTENTIAL
MILLION CWT
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
74–77 78–81 82–85 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97
YEAR
PRODUCTION
BEG STKS
POTENTIAL SUPPLY


RICE DEMAND
MILLION CWT
220
200
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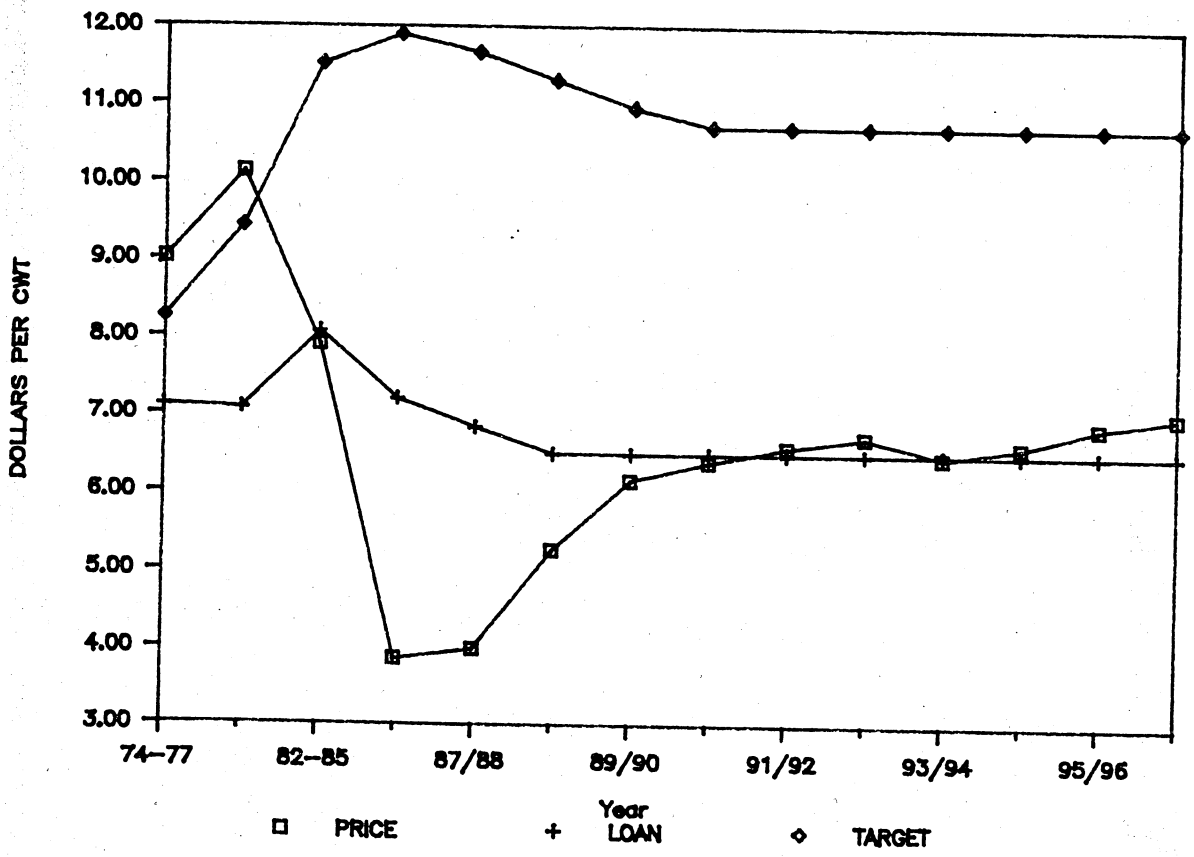
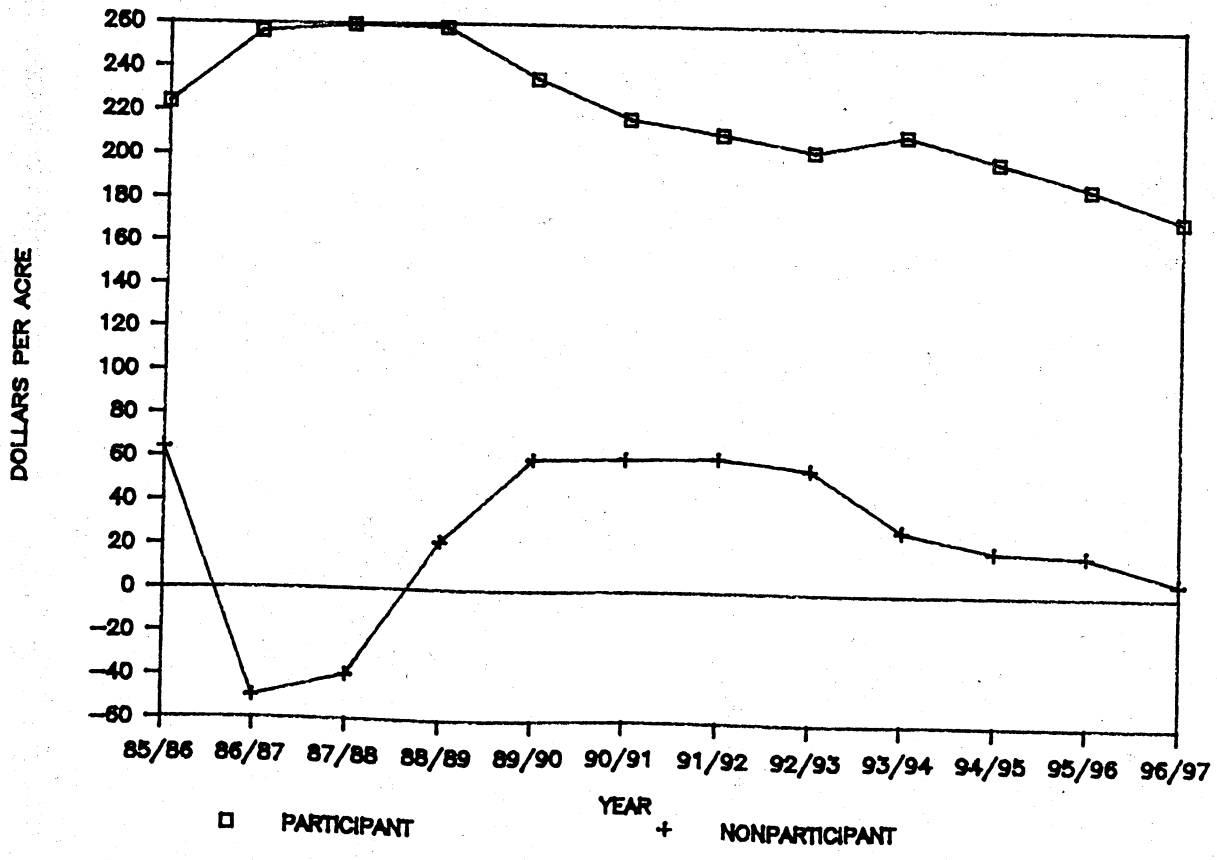
74–77 78–81 82–85 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97
YEAR
DOMESTIC
EXPORTS
END STKS

RICE PRICE AND PROGRAM LEVELS



RICE PRODUCER NET RETURNS



U.S. Rice Supply and Utilization

Variable/Year	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
Acreage:					(Million Acres)							
Base Acreage	4.23	4.20	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22
LTCR Acreage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Set Aside %	35.0%	35.0%	35.0%	30.0%	30.0%	30.0%	30.0%	30.0%	25.0%	25.0%	25.0%	25.0%
Partic. Rate %	89.0%	92.0%	93.0%	93.3%	89.6%	85.8%	85.4%	84.5%	82.5%	89.1%	88.7%	87.0%
Planted	2.51	2.40	2.32	2.50	2.58	2.63	2.64	2.65	2.85	2.77	2.77	2.79
Harvested	2.49	2.38	2.30	2.48	2.56	2.61	2.62	2.63	2.83	2.75	2.75	2.77
Yield (lb/acre)	5414	5648	5850	5885	5930	5975	6020	6065	6100	6145	6190	6235
SUPPLY					(Million CWT.)							
Beginning Stocks	64.7	77.3	62.6	47.0	41.6	40.9	40.6	39.7	38.7	42.0	40.4	39.3
Production	134.9	134.4	134.5	146.2	151.7	156.1	157.6	159.5	172.9	169.0	170.5	172.8
Imports	2.2	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.8	0.8	0.8
TOTAL SUPPLY	201.8	213.9	199.1	195.0	194.9	198.4	199.4	200.2	212.4	211.8	211.7	212.9
DOMESTIC												
Food	38.5	42.8	43.3	42.5	42.1	42.6	42.7	42.7	43.9	44.2	44.2	44.6
Seed	2.6	2.8	3.0	3.1	3.2	3.2	3.2	3.4	3.3	3.3	3.3	3.3
Brewing	14.1	15.0	15.2	15.3	15.4	15.7	16.0	16.2	16.8	17.0	17.3	17.6
Residual	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7
TOTAL	65.8	71.3	72.4	71.7	71.6	72.6	73.1	73.7	75.4	76.1	76.5	77.2
EXPORTS												
Commercial	48.7	71.0	70.7	72.7	73.4	76.2	77.6	78.8	86.0	86.4	86.8	88.1
PL480, AID	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
TOTAL	58.7	80.0	79.7	81.7	82.4	85.2	86.6	87.8	95.0	95.4	95.8	97.1
TOTAL DEMAND	124.5	151.3	152.1	153.4	154.0	157.8	159.6	161.5	170.4	171.4	172.3	174.3
ENDING STOCKS	77.3	62.6	47.0	41.6	40.9	40.6	39.7	38.7	42.0	40.4	39.3	38.7
CCC owned	43.6	38.6	18.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
"Free" Stocks	33.7	24.0	29.0	31.6	31.9	32.6	32.7	32.7	37.0	36.4	36.3	36.7
PRICES					($/CWT.)							
Farm Price	6.53	3.85	3.98	5.26	6.16	6.40	6.74	7.32	6.47	6.81	7.37	7.61
Loan Price	8.00	7.20	6.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Target Price	11.90	11.90	11.66	11.30	10.95	10.71	10.71	10.71	10.71	10.71	10.71	10.71
Var. Cost/Acre	289.28	267.16	272.46	287.45	304.95	320.90	334.79	350.68	365.33	386.06	406.59	430.81
Var. Cost/cwt	5.34	4.73	4.66	4.88	5.14	5.37	5.56	5.78	5.99	6.28	6.57	6.91
Part. Return/Acre	223.74	256.22	259.27	258.29	235.07	217.32	210.97	203.22	210.99	199.05	187.27	172.72
Non-part. Returns	64.25	-49.71	-39.45	22.02	60.40	61.29	70.79	93.10	29.23	32.30	49.43	43.67

U.S. LIVESTOCK

Beef

- Anticipated long-term profits lead to reduced production through 1989, forcing prices higher. Production then increases through 1993, after which profits decline and production falls.
- Weak consumer beef demand continues, causing retail prices to rise slower than inflation.

Pork

- Production rises sharply in 1988 in response to strong profits and peaks in 1990 at nearly 17 million pounds.
- Productive capacity becomes relatively more fixed with large, complete confinement operations.
- Production is largely supply-driven through lower feed costs; demand remains nearly constant with some weakening of prices over time relative to inflation.

Broilers

- Production rises annually through 1993.
- Wholesale prices fall early in the projection period then rise as feed costs increase. Profit margins remain narrow throughout.
- Demand remains strong relative to beef and pork. Per capita broiler consumption surpasses pork in 1991 and is nearly even with beef by the end of the period.

U.S. LIVESTOCK

By 1996/97, total meat production (beef, pork, broilers, and turkeys) will be 12.6% higher than in 1986. This increase will be due to higher broiler (32%), turkey (30%), and pork (21%) production, more than offsetting the 13% decline in beef production. Overall domestic meat production will just keep pace with increasing population (11% from 1986 to 1997). Built into this projection is an expectation of continued declines in demand for red meat, particularly beef. In addition, beef production is sustained at the levels predicted in this outlook by continued declines in the overall herd.

Total meat production rises continuously throughout the decade (except in 1994) because beef and pork are in opposite phases of their respective cycles and poultry production rises throughout. The largest percentage increase occurs in 1990, when pork production peaks and beef production begins to increase. Much of this production is in response to lower feed cost during the previous three to four years.

Consumers benefit during the first half of the projection period with falling retail prices and rising meat supplies. Overall, meat expenditures do not keep pace with expected inflation because declining red meat demand leads to lower prices and continued substitution of chicken, and to some extent turkey, for beef and pork reduces consumer expenditure per pound of meat purchase.

Beef

Profit incentives to build the cattle herd will reduce production substantially in 1987 and 1988. Cow-calf operators may retain heifers for breeding in anticipation of long-term profit potential. As a result, feedlot placements will be lower, particularly with respect to heifers. The overall cattle herd is expected to remain at or above 100 million head through 1990. Thereafter, herd size will fall as producers reduce beef cows on farms in response to lower returns and increasing costs. By 1997, the productive capacity of the beef industry will decline somewhat.

Beef production will bottom out in 1989 at 20.6 billion pounds, almost 15% less than in 1986. Production will then increase through 1993 in response to the low feed costs and higher prices. Profitability for the cow-calf operator and feedlots is expected to remain positive, but will be declining as production increases. By 1993, production peaks at almost 24 billion pounds, somewhat less than in 1986. Thereafter, production falls because profits turn lower and the capacity of the breeding herd is subsequently reduced.

Prices for producers rise from 1986 to 1989. Omaha prices for choice 900 to 1100 pound steers rise 19%, from $57.75 in 1986 to almost $69 in 1989. Feeder cattle prices (Kansas City 600 to 700 pounds) rise almost 25% to more than $78 during the period. After 1989, as production rises, live cattle prices begin to drop, falling below $60 for Omaha steers and below $70 for Kansas City feeders in 1993. These lower prices, combined with modestly increasing feed costs, reduce profits to near zero or below and ultimately turn the production cycle back down.

Consumer demand for beef has been weak in recent years. By 1997, per capita consumption of beef is about 68 pounds (retail weight). Consumers benefit largely from increased supplies. As a result, retail beef prices by the end of the period are only 24% higher than in 1986 and per capita consumption is off 15%.

Retail prices will likely peak in 1989 at about $2.85 per pound and then fall with increasing production through 1993. By 1997, retail prices will have recovered to their 1989 level.

Pork

Pork production in 1987 is expected to be very close to 1986 levels. This reflects the bottom of the production phase of the cycle. Strong incentives are in place for production to expand sharply next year. High profits have been observed for two years. Increased pork supplies in 1988 will more than offset decreased beef production. Production will continue upward through 1990,

peaking near 17 billion pounds. By that time, reduced profit potentials will halt the industry expansion. Pork production is then expected to decline through 1994 before increasing during the final three years of the period.

This scenario suggests a longer cycle than is usually associated with the pork industry. Because of increased production coming from the large, controlled-confinement units, it is expected that the flexibility for those operators to make adjustments quickly is reduced. The industry is likely to continue moving toward this type of operation.

Barrow and gilt prices will average about the same in 1987 as in the previous year, but profits to producers will be larger due to sharply falling feed costs. With the anticipated increase in pork supplies in 1988, market prices will fall sharply, averaging below $40 per cwt. In spite of this sharp drop, the hog-corn price ratio will remain near 23 to 1. Consequently, production will increase. Losses are expected in 1989 and will be larger in 1990 as herd liquidation increases. Prices will begin to recover in 1991 and rise through 1994. Prices in 1997 are expected to be in the upper-forties, due in part to reduced competition from beef and poultry.

Pork demand has shown some strength in early 1987 as prices have been substantially higher with only modest declines in supplies. Per-capita pork consumption follows the production cycle. Consumption has fallen below 60 pounds per person for 1986 and 1987. It is expected to increase sharply during the next three years, reaching 67 pounds (retail) in 1990.

Retail pork prices will move opposite consumption. Retail price will peak in 1987 at $1.84 per pound and in 1994 at $1.95 per pound. Trough prices will likely be observed with production peaks in 1990 at $1.50 per pound and in 1997 at $1.82. Prices move higher during the period but at a rate less than that of general inflation.

Live hog imports from Canada have been sharply lower in 1987 because of the ruling of the International Trade Commission. However, pork-product imports to the United States remain large. Pork imports are expected to hold near these levels throughout the decade.

Broilers

Broiler production rises annually through 1993. Low prices relative to expected production costs slow the rate of increase in 1992 and result in lower production in 1994. By the end of the forecast period, however, broiler production is predicted to be more than 32% above 1986 levels. Given the relative strength of the broiler industry, it is difficult to forecast any substantial downturn in production. Demand continues strong and prices continue to drop relative to beef and pork.

Per-capita consumption rises steadily throughout the period. This suggests per-capita broiler consumption will pass pork consumption in 1987 and again in 1991 and thereafter. It also catches beef consumption in 1997.

Broiler 12-city wholesale prices fall modestly throughout the first five years of the projection period. Prices return to the $.50 per pound level thereafter. This keeps expected profitability relatively low and suggests that substantial changes in production could occur with any significant fluctuation in either broiler prices or feed costs.

Retail chicken price parallels the wholesale price and is also modestly lower by the end of the period. If this scenario unfolds, broiler consumption will remain strong relative to beef and pork for the foreseeable future.

Exports have been a rather modest share of broiler utilization. With increasing production and steady to falling prices, broiler meat exports could increase.

Turkeys

Turkey production rose sharply in 1986 and will continue higher in 1987. Although the rate of increase in production will be lower thereafter, the turkey industry seems to be following a path similar to that of broilers.

Per-capita consumption is expected to rise from 10 pounds in 1980 to more than 16 pounds by 1995. The expansion of product

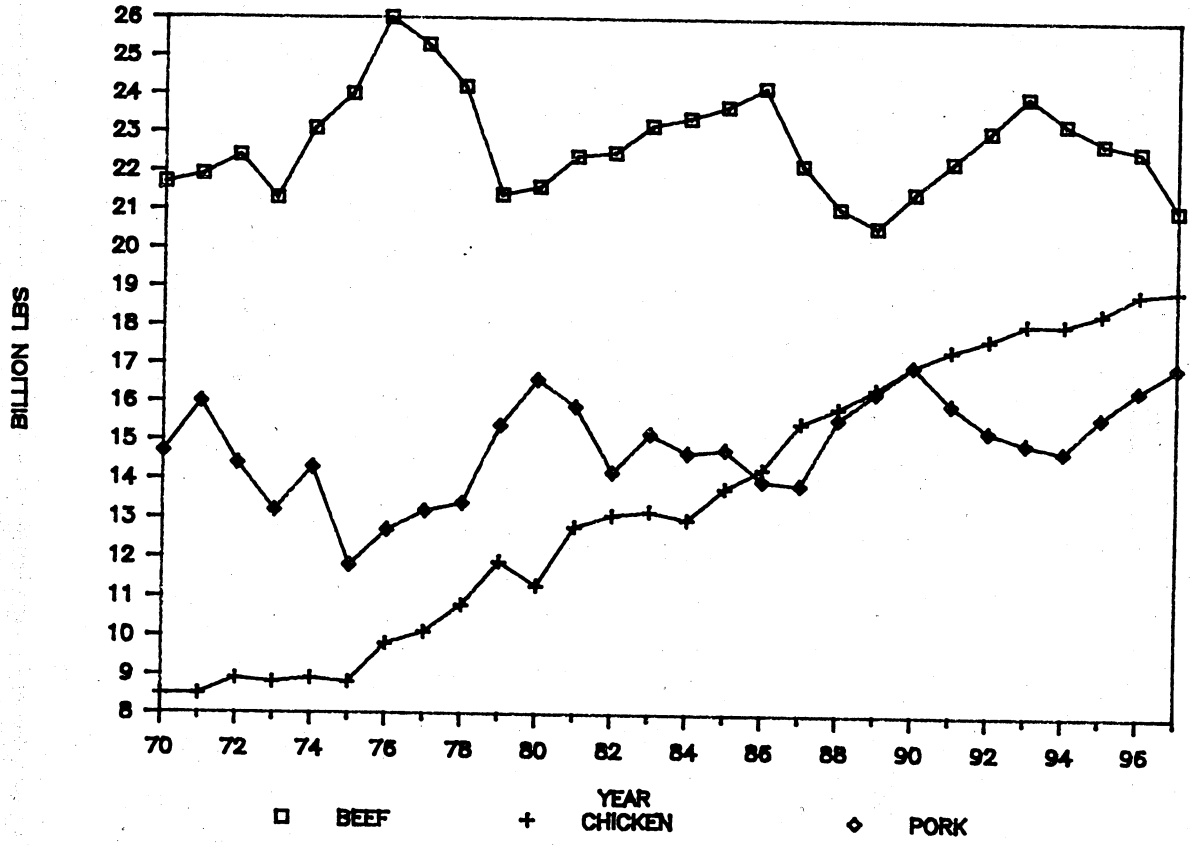
availability and the perceived nutritional qualities of turkey has resulted in higher consumption.

Turkey retail and farm prices fall modestly during the period, resulting in significantly lower real prices. Like the broiler industry, the relationship between projected farm prices and feed costs makes the profit margin narrow. Changes in either component could result in substantial changes in production.

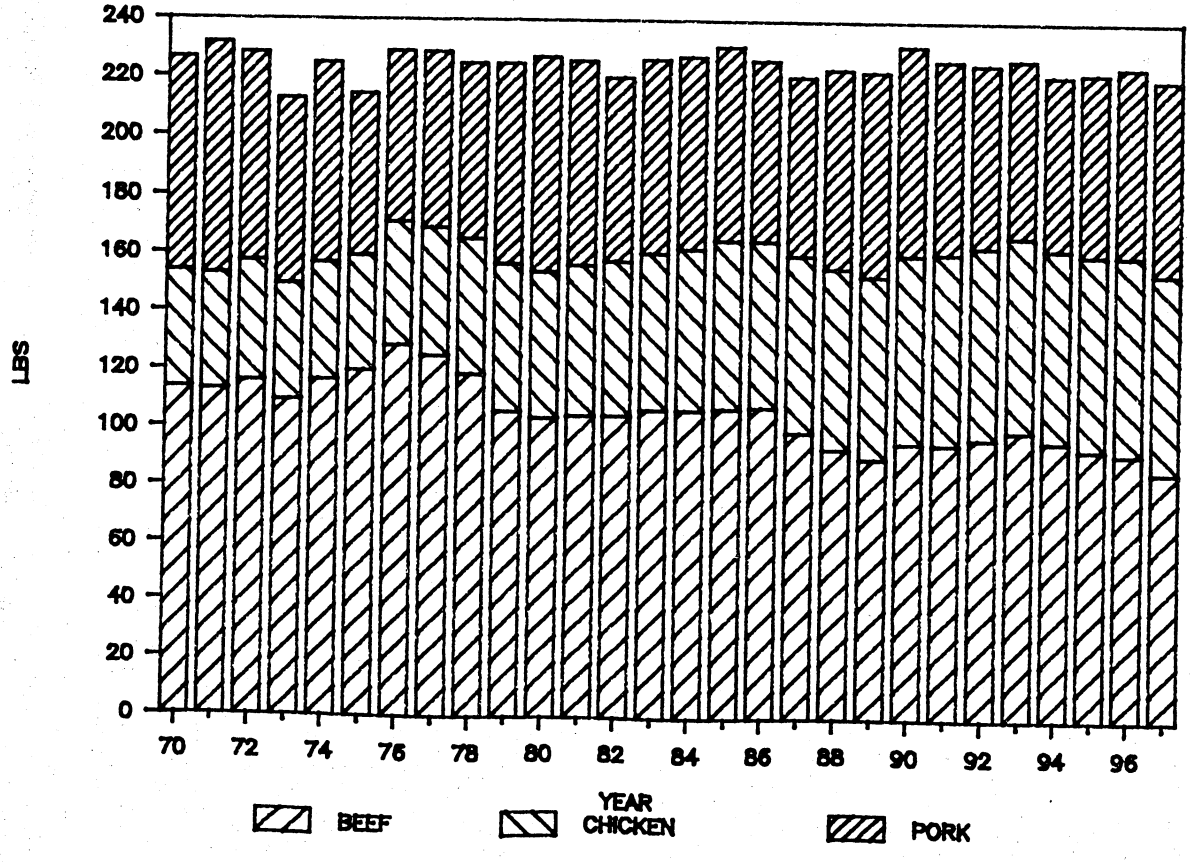
Eggs

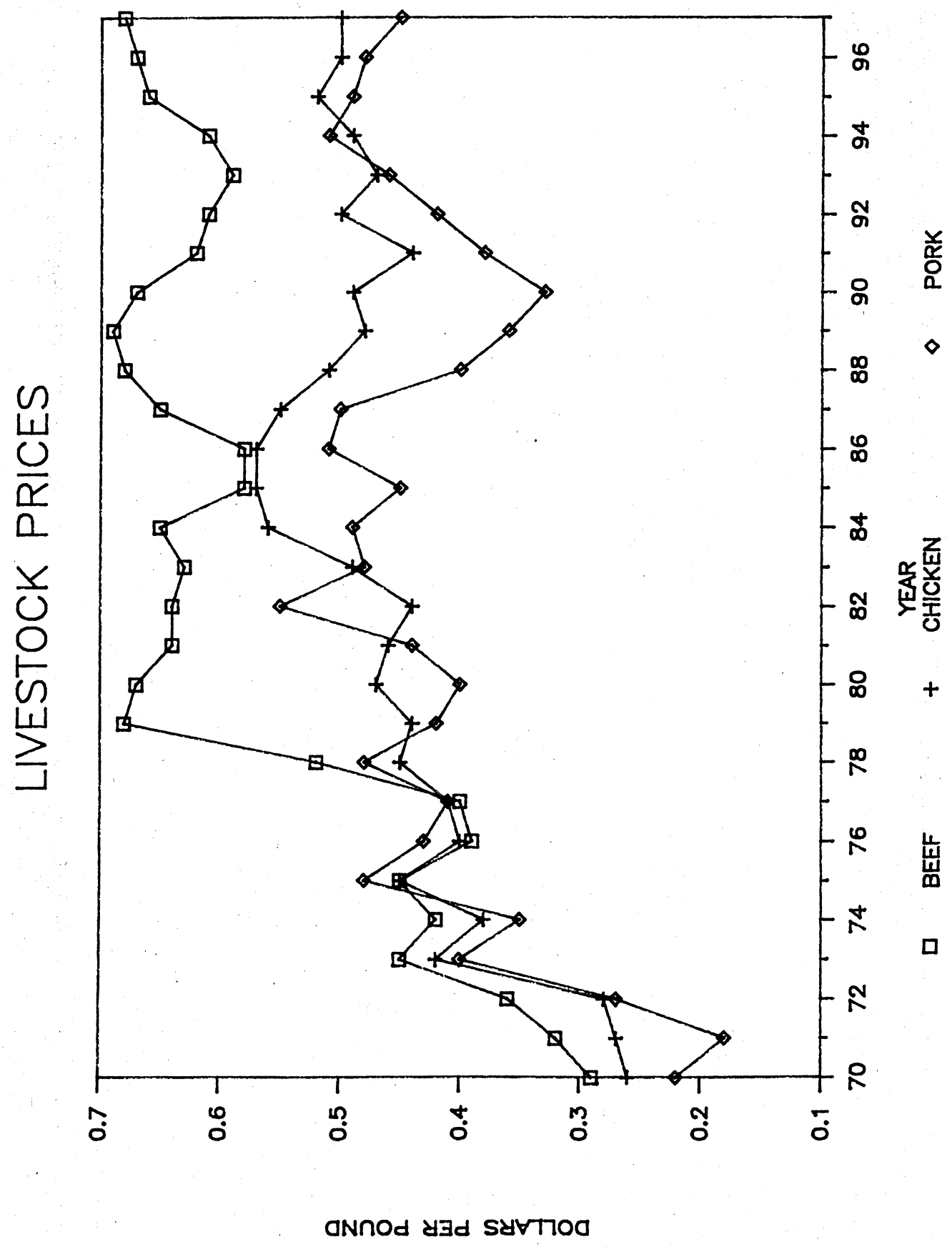
Egg production is expected to increase somewhat during the period, but it is not expected to keep pace with population growth. Consequently, per-capita consumption of eggs in 1997 will be 5% below 1986 levels. Egg prices are also expected to fall with lower feed costs.

LIVESTOCK PRODUCTION



PER CAPITA MEAT CONSUMPTION




LIVESTOCK PRICES
DOLLARS PER POUND
0.7
0.6
0.5
0.4
0.3
0.2
0.1
70
72
74
76
78
80
82
84
86
88
90
92
94
96
YEAR
BEEF
CHICKEN
PORK

U.S. Beef Supply and Utilization

Variable/Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SUPPLY:				(Billion Pounds)								
BEGINNING STOCK	0.32	0.31	0.30	0.28	0.28	0.26	0.24	0.23	0.22	0.20	0.20	0.19
Imports	2.10	2.24	2.24	2.15	2.10	2.11	2.12	2.14	2.17	2.20	2.20	2.20
% Year Ago	1.45%	6.47%	-0.04%	-4.03%	-2.00%	0.14%	0.57%	0.94%	1.40%	1.57%	0.00%	0.00%
Production	24.19	22.20	21.07	20.59	21.49	22.33	23.10	23.97	23.35	22.94	22.89	22.74
% Year Ago	1.93%	-8.23%	-5.07%	-2.27%	4.36%	3.89%	3.45%	3.77%	-2.59%	-1.75%	-0.23%	-0.62%
Total	26.61	24.74	23.61	23.02	23.87	24.70	25.46	26.34	25.73	25.35	25.29	25.13
% Year Ago	1.70%	-7.00%	-4.59%	-2.51%	3.71%	3.46%	3.07%	3.46%	-2.30%	-1.49%	-0.22%	-0.62%
CONSUMPTION:												
Civilian	25.83	24.01	22.89	22.31	23.16	24.01	24.78	25.67	25.07	24.69	24.65	24.50
% Year Ago	1.92%	-7.05%	-4.65%	-2.56%	3.81%	3.67%	3.21%	3.60%	-2.34%	-1.53%	-0.16%	-0.61%
Military	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
% Year Ago	6.09%	-12.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Exports	0.51	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35
% Year Ago	54.57%	-35.31%	1.22%	-1.51%	4.59%	0.00%	-0.29%	0.88%	1.45%	0.00%	0.00%	0.00%
Total	26.46	24.44	23.33	22.74	23.61	24.46	25.23	26.12	25.53	25.14	25.10	24.95
% Year Ago	2.61%	-7.62%	-4.55%	-2.53%	3.80%	3.60%	3.15%	3.55%	-2.28%	-1.50%	-0.15%	-0.60%
ENDING STOCKS	0.31	0.30	0.28	0.28	0.26	0.24	0.23	0.22	0.20	0.20	0.19	0.18
% Year Ago	-2.21%	-3.04%	-7.93%	-0.52%	-4.18%	-8.72%	-4.64%	-6.27%	-4.84%	-0.82%	-8.08%	-3.40%
Per Cap Cons												
Ret Wt (Lbs)	79.20	73.21	69.09	66.63	68.47	70.28	71.84	73.74	71.36	69.66	68.97	67.97
% Year Ago	0.13%	-7.56%	-5.63%	-3.56%	2.75%	2.64%	2.23%	2.63%	-3.22%	-2.38%	-1.00%	-1.45%
PRICES:				($/CWT)								
Omaha Steers	$57.75	$64.99	$68.08	$68.63	$66.83	$62.23	$61.18	$59.25	$61.93	$66.15	$66.82	$67.30
% Year Ago	-1.06%	12.53%	4.77%	0.81%	-2.63%	-6.87%	-1.69%	-3.16%	4.51%	6.83%	1.00%	0.73%
K.C. Feeder S	$62.79	$74.92	$77.25	$78.21	$75.97	$72.92	$71.65	$68.58	$71.88	$73.21	$74.01	$74.85
% Year Ago	-2.74%	19.32%	3.10%	1.24%	-2.86%	-4.01%	-1.74%	-4.28%	4.82%	1.84%	1.09%	1.14%
Cows, Utility	$37.19	$42.70	$43.03	$45.23	$41.92	$35.00	$33.51	$35.76	$36.72	$38.82	$40.06	$40.92
% Year Ago	-2.95%	14.83%	0.77%	5.11%	-7.31%	-16.51%	-4.27%	6.74%	2.68%	5.70%	3.21%	2.14%
Beef, Retail	$2.31	$2.54	$2.63	$2.83	$2.79	$2.63	$2.55	$2.41	$2.52	$2.70	$2.72	$2.85
% Year Ago	-0.82%	10.15%	3.39%	7.88%	-1.65%	-5.78%	-3.00%	-5.53%	4.59%	7.33%	0.49%	5.07%

U.S. Pork Supply and Utilization

Variable/Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SUPPLY:				(Billion Pounds)								
BEGINNING STOCKS	0.23	0.21	0.27	0.31	0.32	0.34	0.31	0.29	0.28	0.28	0.30	0.32
Imports	1.11	1.10	1.35	1.25	1.05	0.85	0.80	0.80	0.80	0.80	0.80	0.80
% Year Ago	-1.86%	-0.63%	22.73%	-7.41%	-16.00%	-19.05%	-5.88%	0.00%	0.00%	0.00%	0.00%	0.00%
Production	13.98	13.94	15.60	16.27	17.03	16.01	15.25	14.98	14.77	15.72	16.52	16.92
% Year Ago	-5.07%	-0.28%	11.86%	4.31%	4.70%	-5.98%	-4.75%	-1.79%	-1.40%	6.40%	5.12%	2.38%
Total	15.30	15.31	17.26	17.84	18.42	17.17	16.34	16.06	15.85	16.82	17.64	18.04
% Year Ago	-5.13%	0.06%	12.73%	3.40%	3.24%	-6.77%	-4.83%	-1.71%	-1.34%	6.10%	4.90%	2.28%
CONSUMPTION:												
Civilian	14.81	14.79	16.68	17.27	17.83	16.63	15.82	15.53	15.32	16.24	17.05	17.45
% Year Ago	-5.39%	-0.10%	12.81%	3.50%	3.28%	-6.73%	-4.91%	-1.81%	-1.35%	5.99%	4.97%	2.37%
Military	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
% Year Ago	10.00%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Exports	0.09	0.12	0.14	0.16	0.16	0.18	0.18	0.18	0.18	0.18	0.18	0.18
% Year Ago	-33.59%	41.18%	16.67%	14.29%	0.00%	12.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	14.97	14.99	16.90	17.51	18.07	16.89	16.07	15.79	15.58	16.50	17.30	17.71
% Year Ago	-5.55%	0.14%	12.77%	3.57%	3.23%	-6.53%	-4.84%	-1.78%	-1.33%	5.89%	4.90%	2.33%
ENDING STOCKS	0.21	0.27	0.31	0.32	0.34	0.31	0.29	0.28	0.28	0.30	0.32	0.33
% Year Ago	-8.30%	26.38%	16.88%	4.35%	3.96%	-8.05%	-6.45%	-2.27%	-2.18%	7.76%	6.33%	2.94%
Per Cap Cons												
Ret Wt (Lbs)	58.3	57.39	64.07	65.63	67.09	61.96	58.35	56.76	55.49	58.31	60.69	61.60
% Year Ago	-5.97%	-1.56%	11.64%	2.44%	2.22%	-7.65%	-5.82%	-2.73%	-2.24%	5.07%	4.09%	1.50%
PRICES:				($/CWT)								
7-Markets												
Barrows & Gilts	$50.56	$50.51	$39.67	$36.41	$33.22	$37.58	$41.84	$46.44	$51.58	$49.41	$48.42	$47.08
% Year Ago	12.93%	-0.10%	-21.46%	-8.22%	-8.76%	13.12%	11.35%	10.98%	11.08%	-4.20%	-2.01%	-2.77%
7-Mkt Sows	$45.54	$43.47	$32.66	$27.29	$27.27	$32.16	$37.55	$34.89	$47.06	$44.32	$42.54	$39.69
% Year Ago	15.55%	-4.55%	-24.87%	-16.44%	-0.07%	17.95%	16.76%	-7.10%	34.88%	-5.83%	-4.01%	-6.69%
Retail Pork ($/	$1.78	$1.84	$1.58	$1.52	$1.50	$1.59	$1.77	$1.80	$1.95	$1.87	$1.84	$1.82
% Year Ago	10.12%	3.03%	-13.83%	-3.78%	-1.52%	5.63%	11.84%	1.54%	8.37%	-3.94%	-1.80%	-1.11%

U.S. Broiler Supply and Utilization

Variable/Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SUPPLY:				(Billion Pounds)								
BEGINNING STOCK	0.14	0.17	0.22	0.24	0.25	0.25	0.26	0.26	0.27	0.25	0.25	0.25
Production	14.30	15.43	15.95	16.42	16.99	17.43	17.68	18.09	17.78	18.05	18.50	18.86
% Year Ago	3.89%	7.93%	3.35%	2.92%	3.49%	2.58%	1.47%	2.31%	-1.72%	1.53%	2.51%	1.93%
Total	14.47	15.66	16.19	16.66	17.24	17.69	17.94	18.36	18.03	18.30	18.76	19.12
% Year Ago	4.96%	8.24%	3.38%	2.93%	3.49%	2.59%	1.44%	2.31%	-1.80%	1.50%	2.51%	1.92%
CONSUMPTION:												
Civilian	13.71	14.75	15.26	15.68	16.20	16.64	16.90	17.30	17.01	17.27	17.72	18.07
% Year Ago	4.17%	7.60%	3.43%	2.74%	3.34%	2.70%	1.59%	2.37%	-1.69%	1.53%	2.59%	2.02%
Military	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
% Year Ago	5.88%	2.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Exports	0.55	0.60	0.65	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
% Year Ago	32.85%	8.30%	8.33%	7.69%	7.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	14.30	15.39	15.94	16.41	16.99	17.42	17.69	18.09	17.80	18.06	18.50	18.86
% Year Ago	5.05%	7.61%	3.61%	2.94%	3.49%	2.58%	1.52%	2.26%	-1.62%	1.46%	2.48%	1.94%
ENDING STOCKS	0.17	0.22	0.24	0.25	0.25	0.26	0.26	0.27	0.25	0.25	0.25	0.26
% Year Ago	15.96%	34.32%	5.35%	3.74%	3.88%	3.25%	-0.94%	2.80%	-7.70%	-0.59%	2.60%	1.15%
Per Cap Cons Ret Wt (Lbs)	57.3	60.79	62.23	63.28	64.72	65.82	66.22	67.16	65.43	65.85	66.99	67.77
% Year Ago	3.24%	6.10%	2.36%	1.69%	2.28%	1.69%	0.62%	1.41%	-2.58%	0.65%	1.72%	1.16%
12-City Wholesale (Cents/Lbs)	56.9	55.33	50.26	47.10	49.02	44.46	50.03	46.63	51.85	55.50	54.09	52.93
% Year Ago	12.01%	-2.76%	-9.16%	-6.28%	4.07%	-9.31%	12.53%	-6.78%	11.19%	7.04%	-2.54%	-2.14%

U.S. Turkey Supply and Utilization

Variable/Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SUPPLY:				(Billion Pounds)								
Beginning Stock	0.15	0.18	0.33	0.39	0.40	0.39	0.36	0.33	0.31	0.29	0.25	0.21
Production	3.29	3.61	3.76	3.84	3.90	3.94	3.98	4.08	4.17	4.22	4.24	4.27
% Year Ago	11.73%	9.75%	4.16%	2.25%	1.54%	0.92%	1.16%	2.49%	2.09%	1.31%	0.55%	0.69%
TOTAL	3.47	3.93	4.15	4.25	4.29	4.30	4.31	4.39	4.45	4.48	4.45	4.42
% Year Ago	12.10%	13.50%	5.45%	2.34%	1.12%	0.11%	0.32%	1.83%	1.43%	0.50%	-0.56%	-0.59%
CONSUMPTION:												
Civilian	3.22	3.41	3.65	3.78	3.87	3.92	3.97	4.06	4.14	4.21	4.25	4.28
% Year Ago	12.13%	6.09%	6.82%	3.73%	2.22%	1.42%	1.18%	2.21%	2.15%	1.55%	0.92%	0.88%
Military	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
% Year Ago	-7.41%	-36.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Exports	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
% Year Ago	0.00%	-49.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	3.30	3.46	3.69	3.83	3.91	3.97	4.01	4.10	4.19	4.25	4.29	4.33
% Year Ago	11.71%	4.78%	6.73%	3.69%	2.19%	1.40%	1.17%	2.18%	2.13%	1.54%	0.91%	0.87%
ENDING STOCKS	0.18	0.33	0.39	0.40	0.39	0.36	0.33	0.31	0.29	0.25	0.21	0.15
% Year Ago	19.33%	82.38%	19.72%	3.25%	-2.93%	-7.88%	-8.79%	-6.15%	-7.24%	-11.21%	-18.87%	-27.04%
Per Cap Consumpti	13.4	14.07	14.87	15.27	15.45	15.51	15.55	15.74	15.94	16.04	16.05	16.06
% Year Ago	10.74%	4.99%	5.72%	2.67%	1.17%	0.41%	0.22%	1.25%	1.23%	0.67%	0.07%	0.03%
Farm Price (Cts/L	44.2	39.11	34.86	34.04	33.62	34.02	36.39	34.88	34.31	34.51	36.10	36.52
% Year Ago	-6.36%	-11.52%	-10.86%	-2.36%	-1.23%	1.20%	6.97%	-4.15%	-1.64%	0.58%	4.62%	1.15%

U.S. DAIRY

- Due to the Dairy Herd Termination Program (DTP), the average number of cows on farms in 1987 is expected to fall 3% to 10.52 million head.

- Total annual milk production should fall about 1% to 143 billion pounds in 1987 before increasing 15% to nearly 163 billion pounds by 1996.

- Government removals are expected to exceed 5 billion pounds in 1987 and 1988, triggering support price reductions.

- Lower relative prices for dairy products, a stable group of fluids consumers, and strength in the cheese and frozen food sectors should enable government removals to remain below 5 billion pounds after 1988.

U.S. DAIRY

The Dairy Termination Program (DTP) continues to be the most important factor affecting the dairy industry in the near term. The government target is to reduce milk production by 12 billion pounds in an effort to realign supply with commercial demand. Due in large part to the DTP, the average number of cows on farms fell nearly 2% in 1986, and an additional 3% decline is expected for 1987. Although average cow numbers were 10.48 million head in the first quarter of 1987, moderate expansion by non-DTP farmers is expected and 1987 average annual cow numbers should be closer to 10.52 million head. Herd expansion should continue in 1988, with annual average cow numbers rising to 10.55 million head before declining about 1.5% during the rest of the decade.

Due to the DTP, total milk production was up only 0.3% in 1986. This is despite sharply lower feed costs, which translate into favorable milk-feed price ratios and an increase in production per cow of more than 2%. Similarly, total milk production should decline about 1% in 1987.

The decline in 1987 production should not be large enough to drop government removals below 5 billion pounds and the support price for Grade B milk will fall to $10.60 per cwt. on January 1, 1988. The combination of a lower support price with modest increases in feed costs should result in a production increase per cow of less than 1% in 1988. From 1988 to 1996, production per cow is expected to increase by about 14% as feed costs remain relatively low. However, the introduction and adoption by dairy farmers of bovine Growth Hormone (bGH) could increase production above the levels indicated for the 1990s.

After the anticipated 1% decline in 1987, total milk production is projected to increase 15% by 1996. In contrast to the early 1980s, however, increased commercial utilization should accompany the expansion in supply. Growth areas will be in the cheese, frozen, and fluid sectors. Butter, powder, and evaporated use will decline.

The turnaround in fluid milk consumption should be particularly beneficial to the dairy industry. In 1982, both total and per-capita fluid consumption were at their lowest levels in recent history. From 1982 to 1986, however, total fluid consumption increased nearly 7% and per-capita fluid consumption rose by almost 3%. Although declining farm prices have made dairy products more price competitive, demographics are an important factor underlying the consumption gains in the fluid sector. During the ten year period from 1973 to 1982, the percentage of the U.S. population 19 years of age or less declined 15%. The decline in this age group from 1986 to 1996 should be about 4%.

Lower relative prices, a stable group of fluid consumers, and strength in the cheese and frozen sectors should enable government removals to remain below 5 billion pounds after 1988. Government costs associated with the dairy program also should fall. The introduction and adoption of bGH beginning in 1989 or 1990 could, however, substantially alter the outlook for the 1990s.

U.S. Dairy Sector

Variable/Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Milk Cows (Mil)	10.84	10.52	10.55	10.54	10.52	10.52	10.51	10.47	10.47	10.43	10.39
% Year Ago		-2.93%	0.25%	-0.07%	-0.19%	0.04%	-0.12%	-0.36%	-0.03%	-0.38%	-0.35%
Output/Cow (Thou	13.29	13.59	13.71	13.88	14.09	14.31	14.60	14.87	15.13	15.41	15.65
% Year Ago		2.24%	0.90%	1.22%	1.49%	1.58%	2.03%	1.85%	1.75%	1.85%	1.56%
Com'l Milk Prod	144.08	143.00	144.64	146.30	148.19	150.60	153.46	155.74	158.41	160.73	162.65
% Year Ago		-0.75%	1.15%	1.15%	1.29%	1.62%	1.90%	1.48%	1.72%	1.46%	1.20%
Mfg Milk Com'l Us	78.68	81.19	83.21	85.46	87.15	89.37	91.78	93.92	96.77	98.68	100.52
% Year Ago		3.20%	2.49%	2.70%	1.98%	2.54%	2.70%	2.33%	3.04%	1.97%	1.87%
Fluid Milk Cons	52.67	53.05	53.75	54.27	54.23	54.30	54.86	55.16	55.72	56.24	56.45
% Year Ago		0.71%	1.32%	0.97%	-0.07%	0.13%	1.03%	0.55%	1.02%	0.93%	0.37%
Gov't Purchases	10.60	6.62	5.54	4.43	4.67	4.79	4.68	4.52	3.78	3.67	3.54
% Year Ago		-37.55%	-16.31%	-20.04%	5.42%	2.57%	-2.30%	-3.42%	-16.37%	-2.91%	-3.54%
Gov. Cost (Mil $)	1.84	1.12	0.88	0.67	0.71	0.72	0.71	0.68	0.57	0.55	0.53
% Year Ago		-39.22%	-21.43%	-23.81%	5.42%	2.57%	-2.30%	-3.42%	-16.37%	-2.91%	-3.54%
PRICES:					($/CWT)						
SUPP. PRICE	11.60	11.29	10.60	10.10	10.10	10.10	10.10	10.10	10.10	10.10	10.10
% Year Ago		-2.67%	-6.11%	-4.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FARM PRICE	12.48	12.40	11.90	11.65	11.60	11.60	11.40	11.30	11.25	11.19	11.25
% Year Ago		-0.64%	-4.03%	-2.10%	-0.43%	0.00%	-1.72%	-0.88%	-0.44%	-0.53%	0.54%

PRICES PAID BY U.S. FARMERS

- The index of prices paid by farmers will increase at an average rate of 3.8% during the projection period.
- Feed costs, feeder livestock prices, and interest expenses remain stable or fall during the period.
- Costs for fuel, farm inputs, wage rates, and taxes rise rapidly.

PRICES PAID BY U.S. FARMERS

Farmers can expect to pay higher prices for production items during the next decade. In general, these price increases reflect the rate of inflation expected to occur in the general economy. Although most cash expenses are expected to increase, there are several important items that will experience flat or modestly declining prices. For instance, feed costs increase only slightly and feeder livestock prices actually decline. Interest expenses also fall as farmers continue to reduce debt. These declines, however, are more than offset by rapidly rising prices for fuel and energy, farm inputs, wage rates, and higher tax burdens. The net result is that the overall prices paid by farmers index will increase at an average rate of 3.8% during the projection period.

The production-items index represents the prices paid by farmers for a variety of farm inputs. This category aggregates the cost indexes of inputs such as feed, fertilizers, fuel, farm supplies, machinery, rent, and seed. Each of these individual inputs receives a weight. These are combined to form an aggregate cost index. The production-items index is expected to remain fairly flat for the rest of 1987, and then to increase on average by 3.2% through 1996.

The feed cost index is responsive to farm prices and thus fluctuates sharply during the forecast period. After falling in 1987, the feed cost index will slowly regain lost ground, increasing by only around 9% from the 1986 level through the rest of the decade.

During the projection period, the cost index for feeder livestock increases by approximately 10%. This is led by a rise in the price of feeder steers, but partially offset by a decline feeder pig prices. The seed index is expected to climb 10% during the projection period. Even though planted acres fall slightly, farm prices increase modestly, resulting in higher seed prices.

The fuel cost index reflects the vulnerability of the farm sector to general economic conditions. Despite a fairly flat price forecast for the rest of 1987, the cost of fuel is expected to increase more than 50% during the decade.

The fertilizer cost index increases by about 55%. The fertilizer cost index varies with costs in the mining industry and railroad transportation costs. Agricultural chemicals follow a price path similar to that of fertilizers, with modest price increases. After remaining fairly flat in 1987, the index is expected to increase at an average annual rate of 3%.

The sluggish farm economy has kept the farm-machinery industry from growing with the rest of the economy. Many farmers are unable to afford new capital improvements such as tractors and combines. The farm-machinery index is expected to exhibit modest increases in the projection period. The farm and motor supply index also is expected to increase modestly, resulting from increased demand for parts and supplies as producers make repairs on existing equipment. The auto and truck index is expected to increase at a slightly faster pace, due to strong consumer demand and low interest rates.

Continuing low interest rates contribute to decreases in the interest index in all years but 1996. Average decreases of more than 6.5% per year are expected to benefit the entire farm sector.

The tax index is expected to increase throughout the decade. Increased tax rates will generate an annual increase of 9% per year for a total increase during the period of well over 100%.

The consumer price index for family living incorporates a multitude of items. This index represents those costs associated with family consumption and does not include farm inputs. This index is expected to increase about 4.7% per year.

U.S. GOVERNMENT PROGRAM COSTS

- Government costs are projected to drop from $25.8 billion in 1986 to $13 billion in 1991 and remain between $13 and $15 billion though 1996.
- Feed grains, soybean, and cotton program costs fall dramatically throughout the period.
- Wheat and rice program costs remain relatively constant.
- The long-term conservation reserve program will cost $450 million in 1987 and climb to $1.7 billion in 1992 and thereafter.
- Dairy costs fall from $2.3 billion in 1986 to $591 million in 1990.
- Net interest costs of government agricultural programs are projected to fall sharply.

U.S. GOVERNMENT PROGRAM COSTS

Costs of government agricultural programs have increased dramatically in the 1980s, from $2.8 billion in fiscal year 1980 to $25.8 billion in fiscal 1986. Government costs are projected to decline slightly in fiscal 1987. But costs are expected to fall to about $13 billion by fiscal 1991. Reduced target prices and loan rates and modest increases in commodity prices are major factors contributing to the decline in government costs. After 1991, government costs are projected to range between $13 and $15 billion.

Between 1987 and fiscal 1990, approximately half of the cash costs of government agricultural programs are expected to be attributed to the feed-grains program. Costs of the feed-grains program are expected to peak in fiscal 1987 at $12.7 billion and to fall to $5.3 billion by fiscal 1996. The cash costs of the feed-grains program somewhat overstate the true costs of the program, however, at least during the next few years. Generic Payment in Kind (PIK) certificates issued to make payments in the wheat, conservation reserve, and other programs are often utilized to redeem corn loans. Because such usage is not recorded as a (cash) expenditure in the wheat program or a (cash) receipt in the feed-grains program, the effect is to artificially exaggerate the expense of the feed-grains program.

The expense of the feed-grains program falls through the period. A decline in target prices and an increase in market prices reduces the size of deficiency payments made to farmers, and declining participation rates also tend to reduce deficiency payments. Paid diversion programs are phased out after the 1990/91 crop year. Higher market prices relative to loan rates reduce the number of commodity loans made and increases the proportion repaid, and reduced usage of PIK certificates issued under other programs reduces the amount by which feed- grains program costs are artificially exaggerated.

Cash costs of the wheat program change less, varying from $2.4 to $3.4 billion. Except for the flow of PIK certificates from the wheat to the feed grains program, however, wheat program costs would decline steadily until fiscal 1991, and then remain relatively constant. Like in feed grains, increased market prices and reduced target prices tend to reduce deficiency payments, reduce participation rates, and result in a higher proportion of loans being repaid.

Net costs of the soybean program are expected to decline sharply, from $1.6 billion in fiscal 1986 to negative $842 million in fiscal 1989, before returning to a level near zero net cost. The sharp decline is due to the increase in market prices, which results in more loans being repaid, as well as sales of CCC stocks of soybeans.

Cotton program costs are also expected to fall dramatically, from $2.1 billion in fiscal 1986 to $977 million in fiscal 1988. As farm prices exceed the loan rate in the 1987/88 crop year, the costs of the marketing loan program plummet, and deficiency payments also fall. Prices do remain below the target price through fiscal 1996, however, so deficiency payments continue to be made throughout the next decade.

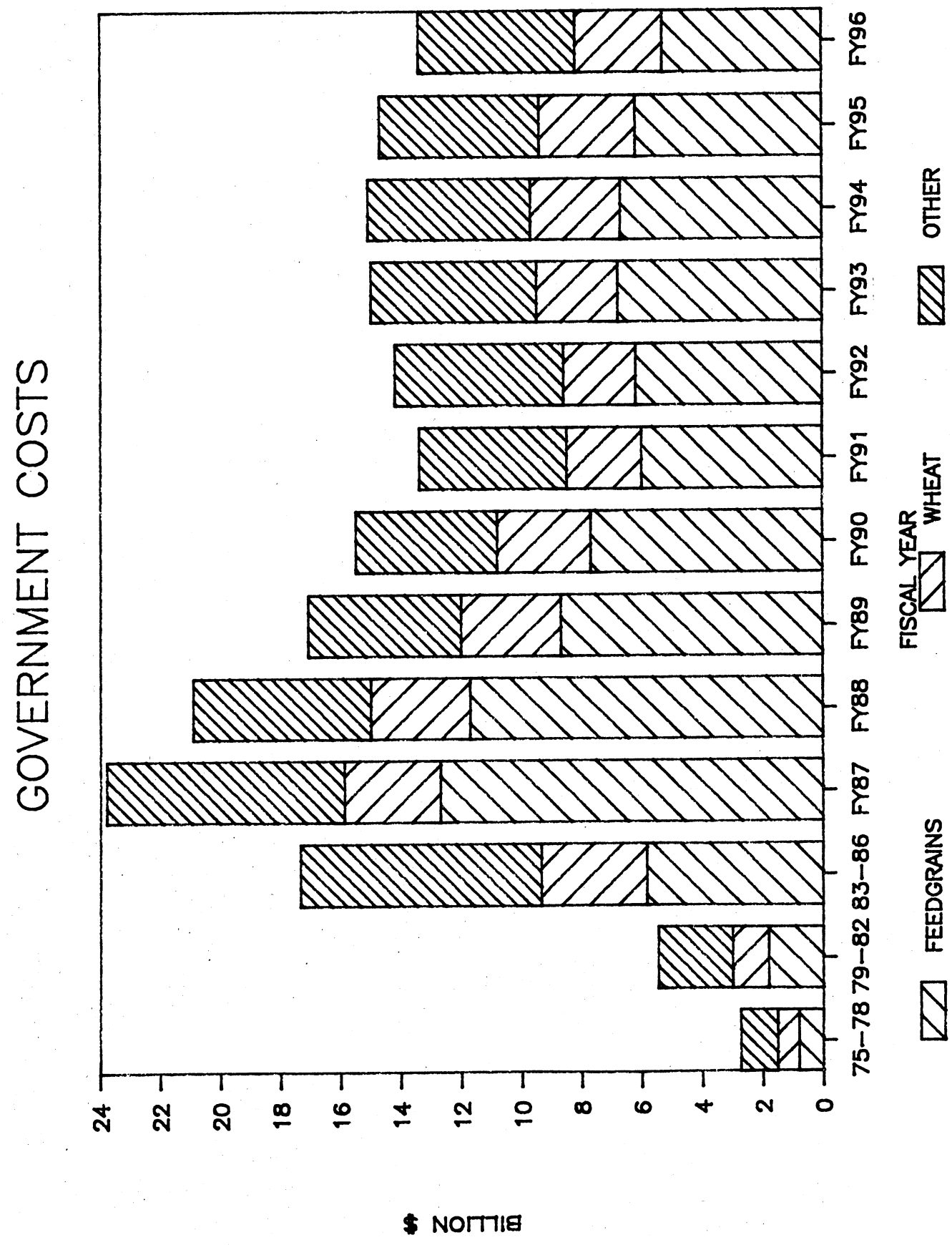
Unlike cotton, rice prices are projected to remain below loan rate levels though crop year 1990/91. As a result, there are continued costs of the marketing loan program through fiscal 1991, although those costs fall from more than $400 million in fiscal 1987 to under $100 million by fiscal 1990. Deficiency payments remain substantial for the next decade, as market prices stay well below the target price. Net CCC costs for the rice program fall from $951 million in fiscal 1987 to $427 million in fiscal 1996.

Although the long-term conservation reserve program (LTRC) is expected to be removed from the CCC budget after fiscal 1988, it nevertheless constitutes a cost of government agricultural programs. In cash terms, LTCR is projected to cost approximately $450 million in fiscal 1987 and to climb to $1.7 billion in fiscal 1992 and thereafter. These cost projections assume half of all reserve rental payments will be made with PIK certificates until fiscal 1991, and one-fourth will be made in certificates thereafter. If all payments are made in cash, the

cost of the program will reach $2.25 billion by fiscal 1991, assuming a rental cost of $50 per acre on 45 million acres.

Dairy program costs are projected to fall from $2.3 billion in fiscal 1986 to $1.6 billion in fiscal 1987 and $591 million by fiscal 1990. Important reasons for the decline include reduced purchases of milk products, an end to the whole herd buyout, and reductions in support prices.

Net interest costs of government agricultural programs are projected to fall sharply, as the proportion of loans made that are actually repaid increases. Other net costs, for programs ranging from tobacco and sugar to wool and mohair, are assumed to remain constant, at $1.7 billion per year


GOVERNMENT COSTS
$ BILLION
24
22
20
18
16
14
12
10
8
6
4
2
0
75–78
79–82
83–86
FY87
FY88
FY89
FY90
FY91
FY92
FY93
FY94
FY95
FY96
FISCAL YEAR
FEEDGRAINS
WHEAT
OTHER

Total Government Costs ($ Millions)

Fiscal Year	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
Feed Grains	$12,211	$12,687	$11,742	$8,730	$7,563	$5,984	$6,224	$6,796	$6,729	$6,230	$5,263
Corn		$11,109	$10,576	$7,746	$6,794	$5,212	$5,458	$6,043	$5,773	$5,252	$4,378
Sorghum		$1,052	$787	$687	$510	$492	$420	$374	$513	$545	$482
Barley		$435	$298	$225	$185	$213	$264	$290	$344	$335	$306
Oats		$91	$81	$72	$73	$67	$81	$89	$98	$97	$97
Wheat	$3,440	$3,165	$3,304	$3,289	$3,126	$2,449	$2,435	$2,728	$3,015	$3,180	$2,940
Soybeans	$1,597	$655	($744)	($842)	($536)	$11	$16	($19)	($132)	($24)	($52)
Cotton	$2,142	$1,310	$977	$990	$862	$767	$826	$868	$816	$765	$729
Rice	$947	$951	$869	$702	$554	$484	$433	$421	$511	$491	$427
Conservation Reserve	$23	$450	$804	$1,050	$1,150	$1,125	$1,688	$1,688	$1,688	$1,688	$1,688
Dairy	$2,337	$1,582	$1,326	$923	$591	$579	$588	$575	$491	$369	$342
Net Interest	$1,411	$1,283	$847	$568	$454	$287	$198	$218	$185	$184	$178
Other Net Costs	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732	$1,732
NET CCC OUTLAYS	$25,841	$23,815	$20,858	$17,143	$15,497	$13,419	$14,139	$15,005	$15,034	$14,613	$13,246

Calendar Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Feed Grains	$5,541	$9,846	$9,588	$8,400	$6,901	$5,600	$5,889	$5,911	$5,953	$5,618	$4,685
Corn		$8,395	$8,229	$7,167	$5,938	$4,733	$5,077	$5,083	$5,046	$4,719	$3,867
Sorghum		$891	$876	$851	$636	$516	$443	$433	$484	$517	$456
Barley		$476	$413	$311	$258	$274	$288	$300	$325	$292	$259
Oats		$84	$71	$71	$69	$77	$81	$94	$98	$90	$103
Wheat	$3,904	$3,759	$3,343	$3,126	$2,485	$2,495	$2,454	$2,500	$2,766	$2,733	$2,329
Soybeans	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cotton	$867	$1,140	$964	$977	$849	$754	$813	$855	$804	$753	$717
Rice	$525	$555	$571	$512	$470	$431	$420	$507	$492	$429	$403
Conservation Reserve	$151	$1,618	$1,890	$2,300	$2,400	$2,250	$2,250	$2,250	$2,250	$2,250	$2,250
Dairy	$202	$267	$401	$268	$0	$0	$0	$0	$0	$0	$0
DIRECT PAYMENTS & SUBSIDIES	$11,189	$17,184	$16,757	$15,582	$13,105	$11,530	$11,827	$12,023	$12,266	$11,784	$10,384

U.S. NET FARM INCOME

- High livestock prices, declining costs of production, and record government payments to farmers yield a net farm income of more than $30 billion for each of the next three years.

- As government payments decline and production costs rise, net farm income falls to $23 billion by 1991 and continues to fall through 1997.

- Direct government payments and subsidies account for half of net farm income throughout the projection period.

U.S. NET FARM INCOME

In 1987, the net income received by U.S. farmers may reach an all-time high in nominal terms. Low crop prices are offset by high livestock prices, declining production expenses, and record government payments to farmers. Although the short-run outlook is for net farm income of more than $30 billion in each of the next three years, the extended outlook is less optimistic. Declining government payments and increasing production costs are expected to outweigh increases in cash receipts from marketings. As a result, nominal net farm income is expected to fall by one-third between 1987 and 1991, and no improvement is seen between 1991 and 1996.

Cash Receipts

Cash receipts to crop producers in 1987 are expected to be lower than in any year since 1978. Lower prices for major commodities and reduced production due to government programs are likely to reduce crop receipts in 1987. Crop receipts are expected to recover, due to increases in both production and prices, as excess supplies are reduced. Crop receipts are not projected to surpass the record levels of 1985, however, until the 1990s. Cash receipts from crops are projected to grow from $58 billion in 1987 to $83 billion in 1996.

In contrast to crops, livestock cash receipts are expected to be only slightly below record 1984 levels in 1987. During the next few years, livestock prices are expected to fall as production increases and, after production peaks, prices are projected to increase. The net result is very little change in livestock cash receipts between now and 1993. After 1993, modest increases in livestock receipts are projected, due primarily to increases in beef prices and in pork and poultry production. Livestock cash receipts are projected to increases from $70 billion in 1986 to $78 billion in 1996.

During the next decade, total cash receipts are projected to increase from $130 billion in 1987 to $160 billion in 1996. The 1987 level is the lowest since 1979, and cash receipts from marketings will not surpass the record 1982 level of $143 billion until 1993. Discounting inflation,, real cash receipts actually fall slightly over the next ten years.

Government Payments

Total direct government payments made to farmers are expected to reach a record $17 billion in 1987, thus accounting for nearly half of net farm income. Government payments are projected to decline substantially during the next four years, to about $12 billion a year in the 1990s, thus accounting for about half of the drop in net farm income. The decline in government payments is due to a number of factors, including reductions in target prices and increases in market prices, which result in smaller deficiency payments.

Farm Production Expenses

Production expenses in 1987 are expected to fall for the third straight year. Lower petroleum prices and interest rates account for some of the difference, and lower feed costs due to lower grain prices account for much of the rest. Production expenses are expected to grow in the next decade at an annual rate of about 3.6% per year, a rate comparable to the rate of wholesale price inflation. Increases in petroleum and machinery prices, wages, and feed costs are among the factors contributing to the increase in farm production expenses.

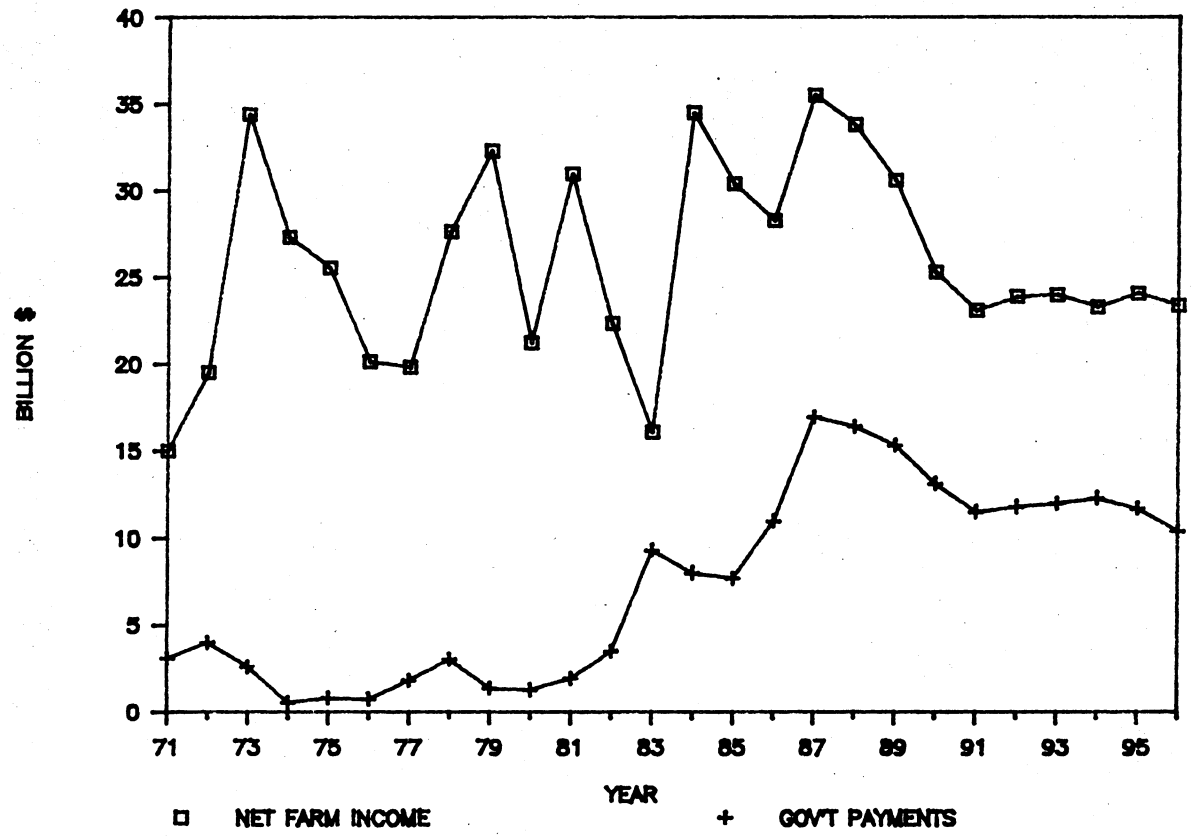
Net Farm Income

Net farm income is expected to reach record levels in excess of $35 billion in 1987. Due to declining government payments and increasing production costs, net farm income is projected to fall to $23 billion by 1991, and then remain in a relatively narrow range thereafter. Throughout the projection period, direct government payments and subsidies account for about half of net farm income.

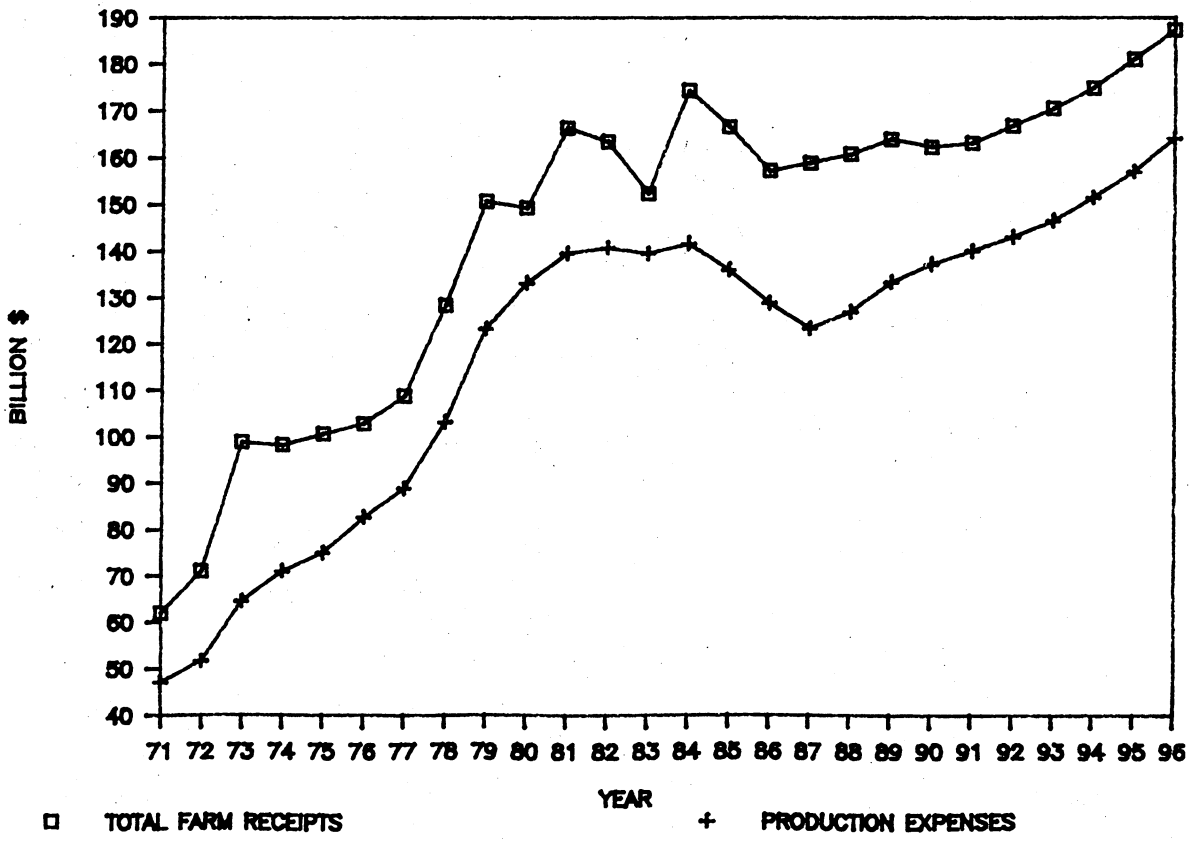
Projections of net farm income are particularly difficult because net income is (approximately) the difference between total receipts and total production expenses, two very large numbers that can only be estimated. If farmers are

more successful in controlling production costs, or if demand for agricultural products is stronger than we have estimated, the outlook for farm income may be more optimistic. But further reductions in the level of income support provided by the federal government may result in a drop in farm income, at least in the short run.

NET FARM INCOME AND GOVERNMENT PAYMENTS



TOTAL RECEIPTS AND PRODUCTION EXPENSES



Net Farm Income

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Cash Receipts from Marketings	$132,345	$129,776	$130,711	$133,759	$135,360	$137,045	$139,989	$143,519	$147,458	$152,991	$160,214
Crops	$62,664	$58,282	$60,595	$63,398	$65,803	$67,853	$69,631	$71,438	$73,315	$77,379	$82,617
Feed Grains	$17,190	$11,902	$12,717	$13,402	$13,828	$13,804	$13,648	$13,686	$13,813	$14,325	$15,588
Food Grains	$5,365	$5,431	$5,425	$5,690	$5,861	$6,417	$7,110	$7,217	$7,012	$7,189	$7,827
Oilseeds	$10,321	$9,849	$9,884	$10,555	$11,434	$11,617	$11,787	$12,252	$12,884	$13,539	$14,222
Cotton & Cotton Seed	$2,713	$3,087	$3,730	$3,893	$3,982	$4,009	$3,971	$4,037	$4,159	$4,283	$4,358
Other	$27,074	$28,013	$28,838	$29,859	$30,699	$32,005	$33,115	$34,245	$35,448	$38,043	$40,623
Livestock	$69,682	$71,494	$70,116	$70,361	$69,558	$69,192	$70,358	$72,081	$74,143	$75,612	$77,597
Cattle	$28,350	$31,127	$32,597	$32,674	$32,302	$29,932	$30,776	$31,010	$32,256	$33,311	$34,214
Hogs	$9,409	$9,491	$7,702	$7,640	$7,401	$8,104	$8,743	$9,433	$9,726	$9,913	$10,397
Dairy	$18,135	$17,525	$17,005	$16,753	$16,894	$17,161	$17,090	$17,105	$17,174	$17,246	$17,468
Poultry	$11,427	$11,279	$10,756	$11,190	$10,839	$11,689	$11,343	$12,132	$12,594	$12,785	$13,098
Other	$2,360	$2,072	$2,056	$2,104	$2,121	$2,305	$2,406	$2,401	$2,392	$2,357	$2,420
Government Payments	$11,398	$17,184	$16,757	$15,582	$13,105	$11,530	$11,827	$12,023	$12,266	$11,784	$10,384
Other Cash Receipts	$5,499	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Total Cash Receipts	$149,242	$151,960	$152,468	$154,341	$153,465	$153,575	$156,816	$160,542	$164,724	$169,775	$175,598
Non-Cash & Other	$10,499	$8,947	$8,867	$9,175	$9,331	$9,360	$9,392	$9,558	$9,865	$10,245	$10,771
Total Receipts before Inv. Change	$159,741	$160,907	$161,334	$163,516	$162,797	$162,935	$166,208	$170,100	$174,589	$180,020	$186,369
Production Expenses	$128,951	$123,385	$126,987	$133,213	$136,987	$139,867	$142,960	$146,468	$151,573	$157,008	$164,032
Feed	$18,816	$16,167	$16,861	$17,396	$17,776	$17,433	$16,866	$16,757	$16,907	$17,553	$18,969
Purchased Livestock	$9,317	$10,278	$10,693	$10,699	$10,344	$9,586	$9,856	$10,093	$10,640	$11,048	$11,421
Seed	$3,129	$2,767	$2,835	$3,072	$3,258	$3,548	$3,652	$3,485	$3,709	$3,663	$3,159
Fertilizer	$6,390	$5,663	$5,721	$6,371	$6,996	$7,696	$8,004	$8,356	$8,829	$9,303	$9,907
Repair & Operation of Cap	$12,496	$12,181	$12,785	$13,970	$14,497	$15,535	$16,407	$17,130	$17,995	$18,946	$20,133
Hired Labor	$10,883	$11,314	$10,973	$11,453	$11,882	$12,191	$12,272	$12,567	$12,939	$13,405	$13,435
Real Estate Interest	$8,753	$7,673	$6,959	$6,973	$7,099	$7,033	$6,844	$6,802	$6,980	$7,235	$7,572
Business Taxes	$4,526	$4,476	$4,686	$5,105	$5,441	$6,069	$6,633	$7,129	$7,650	$7,670	$7,703
Depreciation	$19,784	$19,280	$20,534	$21,740	$22,349	$23,402	$24,553	$25,792	$26,999	$28,694	$30,510
Miscellaneous	$27,914	$27,120	$28,420	$29,812	$30,677	$30,519	$30,788	$31,099	$31,531	$31,891	$33,366
Rent to Non-Operators	$6,945	$6,467	$6,520	$6,622	$6,668	$6,855	$7,086	$7,258	$7,393	$7,600	$7,856
Net Income before Inv. Change	$30,790	$37,522	$34,347	$30,303	$25,810	$23,068	$23,248	$23,632	$23,016	$23,012	$22,337
Value of Inventory Change	($2,500)	($2,060)	($594)	$255	($468)	$65	$634	$417	$261	$1,106	$1,015
Net Farm Income (Nominal $'s)	$28,290	$35,462	$33,753	$30,558	$25,342	$23,134	$23,882	$24,049	$23,277	$24,118	$23,352
Net Farm Income (1967 $'s)	$9,446	$11,623	$10,601	$9,152	$7,367	$6,608	$6,675	$6,571	$6,209	$6,273	$5,797
Land Value Index	263	236	233	244	249	250	251	257	268	281	299

ABBREVIATIONS

AID	(U.S.) Agency for International Development
ARP	Acreage Reduction Program
CAP	Common Agricultural Policy (of the EC)
CCC	Commodity Credit Corporation
cwt	hundred weight
DTP	Dairy (Herd) Termination Program
EC	European Community
ECU	European Currency Unit
EMS	European Monetary System
FHR	Farmer-Held Reserves
FSA85	Food Security Act of 1985
GDP	Gross Domestic Product
GHR	Gramm-Hollings-Rudman
ha	hectare
IMF	International Monetary Fund
IFS	International Financial Statistics (published by International Monetary Fund)
ITC	International Trade Commission
LDC	Less Developed Countries
LIBOR	London Interbank Offer Rate
LTCR	Long-Term Conservation Reserve
mt	million tons
mmt	million metric tons
NIC	Newly Industrialized Countries
PIK	Payment In Kind
PL480	Public Law 480
PRC	People's Republic of China
ROW	Rest of World

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