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Briefing Report
to the Congress

November 1985

AGRICULTURE OVERVIEW

U.S. Food/Agriculture in a Volatile World Economy

GAO/RCED-86-3BR

FOREWORD

Nov. 6, 1985

The events of the past few years have brought to the forefront the importance of food, agriculture, and nutrition issues. Sharp increases in farm failures, a dramatic increase in federal outlays, a downturn in exports, a buildup of surplus commodities, and a continuation of hunger in the world are all issues that have received much publicity.

The persistence of troublesome conditions in the face of 50 years of government programs will not be easily or quickly resolved. At least three factors will prolong the debate on food/agricultural policy beyond passage of pending legislation:

--Current programs geared to a stable, predictable domestic market may be inadequate to deal with today's volatile world market;

--the multiple and diverse goals of food/agricultural programs hinder the attainment of all objectives; and

--monetary, fiscal, tax, trade, and foreign policies have a major effect on market performance, irrespective of agricultural policy design.

This report is an outgrowth of GAO's planning process that periodically assesses the food and agricultural concerns and issues facing decision makers. The purpose of the report is to help define trends in the U.S. food/agricultural sector, where it is today, and what concerns must be dealt with to prepare for tomorrow. The concepts and ideas expressed are generally accepted by most food/agricultural experts in the public and private sectors. Except where noted, statistical data are from the U.S. Department of Agriculture (USDA). A listing of the references examined by GAO is included as appendix I. Because of the informational nature of the report, we did not obtain agency comments. The report has been discussed with officials of the Department of Agriculture and their suggestions were incorporated, as appropriate.

Copies of this report are being sent to the Secretary of Agriculture, appropriate Committees, Subcommittees, and individual members of the Senate and House of Representatives, and other interested parties.

Any questions, comments or requests for additional copies should be directed to Bill Gahr at (202) 275-5525 or me at (202) 275-5138.

Brian P. Crowley
Senior Associate Director
Resources, Community, and Economic
Development Division

B-220851

SUMMARY

Over the past half century, U.S. agriculture has moved more and more from an independent, production-oriented sector of the economy toward a technologically-advanced, interdependent marketing system that distributes food and fiber worldwide. Yet, current federal farm support programs are based on policies that were developed to address the problems of farming in the 1930's. There is increasing concern that existing farm programs are not working well and that new policy initiatives may be required to better respond to today's volatile world food/agricultural markets.

WHY IS FOOD/ AGRICULTURE IMPORTANT?

Domestically, the food/agricultural sector accounts for about one-fifth of the nation's gross national product, employs 20 percent of the nation's work force, and helps offset part of our deepening trade deficits. (See p. 2.)

Internationally, the United States is the world's leading agricultural exporter, accounting for 30 to 60 percent of global exports of wheat, corn, and soybeans. (See p. 3.)

Strategically, U.S. agriculture represents a major world development tool. Food aid and technical assistance constitute a major form of U.S. economic assistance to the Third World and help stabilize world security by providing adequate and reliable sources of food throughout the world. (See p. 3.)

HOW HAS U.S. AGRICULTURE CHANGED?

In the 1930's, farming was less dependent on the rest of the economy; farm incomes were below non-farm averages; and agriculture was predominantly oriented toward production for on-farm use and domestic markets. Over time, the agricultural sector has undergone dramatic changes.

--Agriculture has become a part of a larger food/agricultural system oriented toward sophisticated marketing in a world economy. Export markets today provide about one-quarter of gross farm receipts. About half of the wheat, corn, and soybeans produced domestically are exported. Close to 40 percent of U.S. agricultural exports are consumed by developing countries. (See pp. 6 to 8.)

--Farming has become more capital intensive and technologically-advanced as farm production has become more dependent on the non-farm sector for machinery, fuel, fertilizers, chemicals, and other production inputs. Farms were basically self-contained enterprises in the 1930's. Today's farmers purchase about 75 percent of their production inputs from off-farm sources which requires heavy reliance on credit. (See pp. 9 to 11.)

--There are now only 2.3 million farms, compared with 6.3 million in the 1930's. About one-third accounts for almost 90 percent of farm output. The rest are small and mainly operated by part-time farmers. (See pp. 10 to 14.)

--Average farm income is now much closer to the national average income, but there is a great disparity in income by farm size. Income from large farms averages $200,000 a year (eight times the national average income of about $24,600); income from medium-sized and small farms average only $27,000 and $20,000, respectively. About one third of the income from medium-sized farms and almost all of that from small farms come from off-farm wages and salaries. (See p. 13.)

--The integration of the agricultural sector into the national and international economies has added uncertainty to U.S. agriculture. The farm economy today is highly sensitive to inflation rates and interest costs, as well as to supply and demand conditions overseas and foreign agricultural policies. (See pp. 15, 16, 27, 30, and 32.)

FOOD/AGRICULTURAL PROGRAMS

The programs and goals developed to aid the food/agricultural sector include

--commodity price and farm income support programs designed to raise or stabilize farm prices and incomes;

--research and development and credit programs designed to enhance food production, marketing, and conservation practices;

--marketing programs designed to improve the farmer's position in the marketplace;

--food assistance programs designed to provide food to the indigent at home and abroad;

--international trade programs designed to create a favorable trading environment for food and agricultural products; and

--tax policies, conservation, and credit programs designed to promote rural development. (See p. 17.)

CURRENT SITUATION

For a number of years programs succeeded in mitigating risks of farm production and providing a favorable environment for the rapid growth of the agricultural sector. In recent years, however, programs have not fully accomplished what are sometimes competing policy objectives because the economic environment facing agriculture has changed.

Current Programs are Costly and Sometimes Counterproductive

--Recent high support prices, together with production surpluses and weak market prices, have led to significant increases in program costs. Such support has become a drain on the U.S. treasury. High U.S. support prices have also encouraged significant increases in production in competing countries. (See pp. 26 and 32.)

--The U.S. government spends almost $1 billion a year to reduce soil erosion. Yet farm support programs encourage farmers to plow erodible land in order to benefit from special farm tax breaks and income support payments that are tied to production levels. (See p. 34.)

--Current policy is to support the family farm. Yet support programs are based on production levels resulting in a small minority of large farmers receiving the highest level of support. (See p. 24.)

--Current debt problems primarily affect large and medium-sized highly leveraged farms. Changes in farm policy that would suddenly reduce the cash available for farm operations would aggravate the financial problems of these farms. (See pp. 14 and 24 to 27.)

Production Increases Have Aggravated Problems

--Rapid productivity growth in the United States has aggravated efforts to control production by increasing production faster than effective demand.

--While technological innovations have boosted agricultural productivity, modern agricultural operations are in part responsible for this country's soil erosion and water pollution problems. Deterioration in the quality and quantity of cropland and water supplies could undercut the long-term viability of U.S. agriculture. (See pp. 25 and 34.)

World Markets Have Increased Risk

--Increased dependence on world markets has introduced additional uncertainty into U.S. agriculture at a time when capital-intensive farm operations calls for stability of incomes and cashflows.

--The strong dollar, which has raised prices of U.S. exports in importing countries, has further aggravated the competitive positions of U.S. agriculture. (See pp. 5 to 7 and 31 and 32.)

Losing the Competitive Edge

--Foreign competitors' subsidies, weak demand, and U.S. support programs, together with the strong dollar have impeded U.S. competitiveness in export markets. (See pp. 19, 26, 31, and 32.)

WHAT ISSUES FACE FOOD/ AGRICULTURAL POLICYMAKERS?

The challenge facing policymakers is to formulate food/agricultural policies that consider such issues as

--structural changes in the farm sector--specifically, the predominance of large, specialized farms in production and the significance of off-farm incomes to small and medium-sized farm families;

--farm credit problems and their implications on the future structural makeup of the farm sector;

--the linkage between domestic farm programs and agricultural trade policies;

--the appropriate size of food reserves needed to achieve the level of price and supply stability desired;

--existing and potential agricultural markets in industrialized and developing countries;

--the impact of technological changes and new economic conditions affecting farm operations--in particular, the capital requirements and cashflow needs they engender;

--the balance between efforts to promote agricultural production and natural resource conservation; and

--the cost to the taxpayer. (See p. 36.)

In considering changes to food/agricultural policies, attention to a series of fundamental questions that reflect system-wide problems facing society should also be addressed.

--What are the food/agricultural markets worldwide? Which of these markets provide the best market opportunities for the U.S. food/agricultural system? What is the competition and what competitive techniques are being used?

--What level of food inventory is needed to make sure that the United States has adequate supplies to satisfy current domestic and foreign customers' needs and take advantage of new market opportunities?

--How much soil and water conservation and rural development is needed to assure a cost-effective resource base for future generations? How much of this conservation, and development cost can the food/agricultural industry cover and still remain competitive in world trade?

--What mix of farms and other food/agricultural operations is needed to be sufficiently profitable to encourage continued operations?

--What mix of federal programs will maintain adequate food inventories, satisfy U.S. desire to compete abroad, conserve natural resources, and provide a climate for a reliable and profitable food/agricultural sector? (See pp. 37 to 40.)

CONTENTS

ABBREVIATIONS

GNP	Gross National Product
PIK	Payment-In-Kind
REA	Rural Electrification Administration
USDA	U.S. Department of Agriculture

CHAPTER 1

WHY IS FOOD/AGRICULTURE IMPORTANT?

U.S. agriculture has become part of a sophisticated, diverse, interdependent marketing system that distributes food and fiber worldwide. The U.S. food/agricultural sector is highly productive, provides many jobs, and represents a major source of export revenues. It produces a surplus, thereby enhancing food security. It is also a source of technological know-how and training that has contributed to improved agricultural production in developing countries.

Because the domestic market for food and fiber is characterized by slow population growth and stable consumption levels, limited growth is anticipated in this market. The U.S. food/agricultural sector has embraced the world market as a source of increased demand and market development.

DOMESTICALLY

The Food/ Agricultural Sector is One of the Largest U.S. Industries

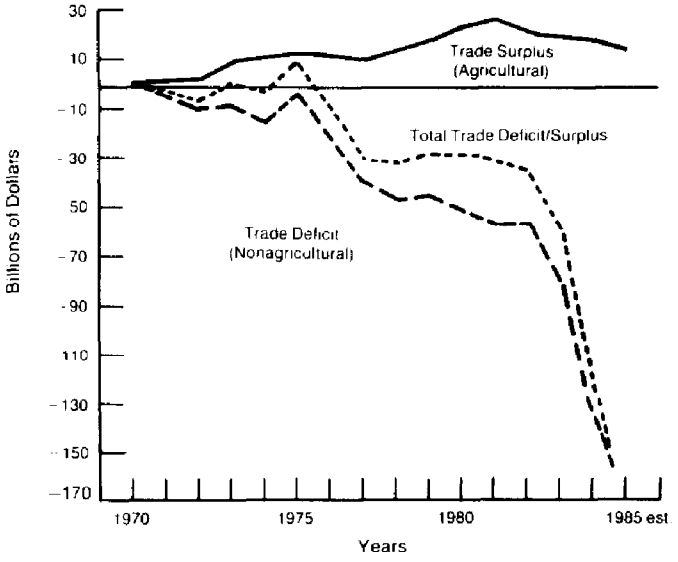
Employment (Millions)	Additions to GNP (Billions)	
4.2	$178	— Farm supply and service industries (farm machinery, fertilizers, chemicals, seeds, and other farm inputs)
3.1	$74	— Farming
5.6	$135	— Food processing, textiles, leather and tobacco products
11.7	$240	— Food transportation, and food wholesaling and retailing services
24.6	**$627**	

Source: Sector breakdown based on analysis by the National Agricultural Forum, 1982 data.

--One out of every five private enterprise jobs is in the food/agricultural sector.

--Although the farming sector's $74 billion is only 2.4 percent of the gross national product (GNP), the $627 billion total for food/ agriculture is 20 percent of GNP.

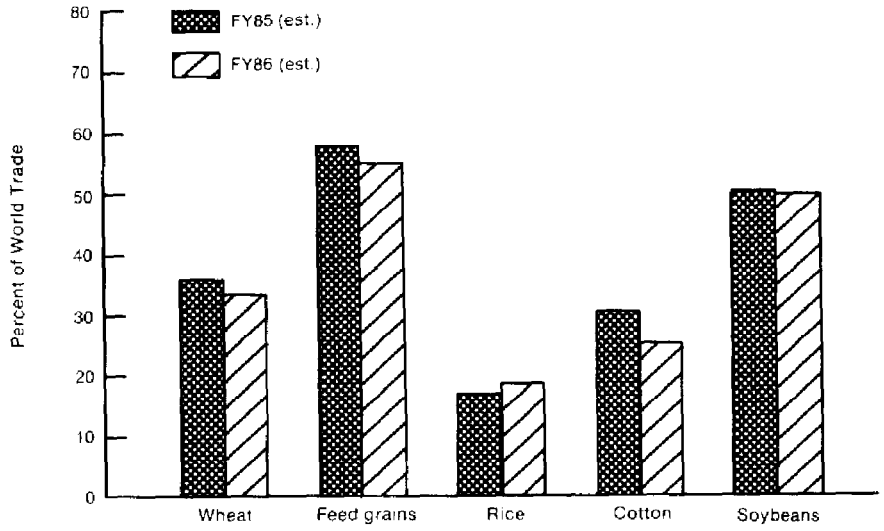
The Agricultural Trade Surplus has Helped Offset the U.S. Trade Deficit



--The agricultural trade surplus, which peaked at $26.6 billion in 1981, is expected to be about $12 billion in 1985, compared with a nonagricultural trade deficit of about $160 billion.

INTERNATIONALLY

U.S. Food/Agricultural Exports Account for a Major Export Share of the World's Principal Crops



--The U.S. accounts for 30 to 60 percent of global exports of wheat, feed grains, and soybeans, the major U.S. agricultural commodities traded internationally.

--USDA estimates that each dollar received from exports stimulates another $1.05 worth of business for U.S. industries.

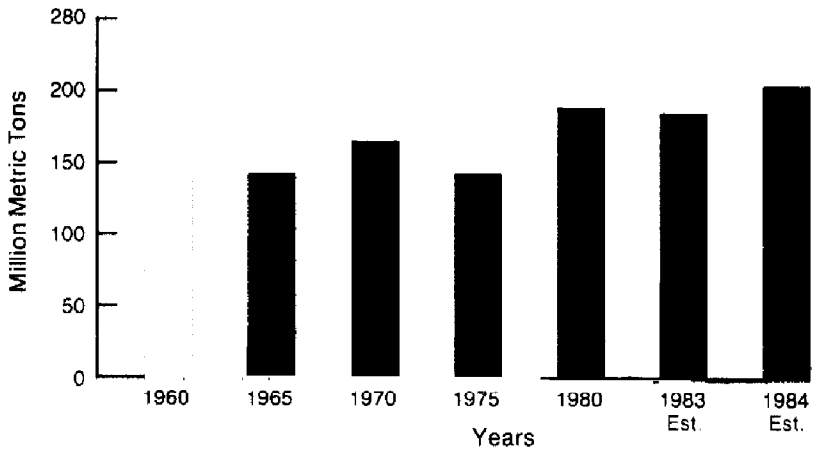
--Although the U.S. share of overall world trade has declined (from 18 percent in the early 1950's to 11 percent in 1980), the U.S. portion of the world's agricultural trade increased from 13 percent in the early 1950's to almost 19 percent in 1981 before dropping (to 18 percent) in 1983.

--Although U.S. agricultural trade has declined since 1981, it has maintained 20 percent of total U.S. trade.

STRATEGICALLY

Food aid and technical assistance constitute a major form of U.S. economic assistance to the Third World. U.S. grain sales to the Soviet Union and its allies are an important element in U.S. foreign relations because they provide a commercial link with adversary nations. Moreover, national security interests require that adequate and reliable sources of food be available in this country and throughout the world.

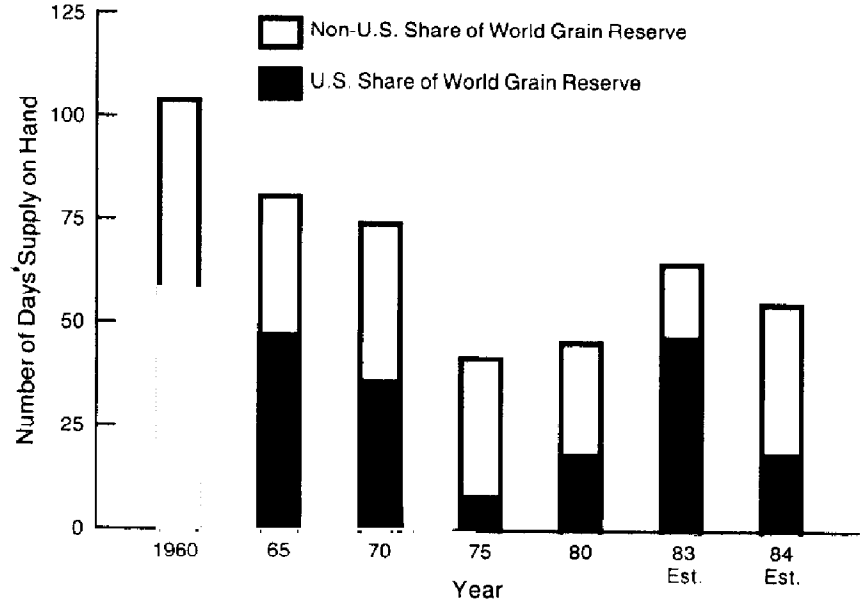
Total World Grain Reserve Levels are the Highest in the Past 25 Years . . .



Source: Worldwatch Institute.

--World grain reserve (wheat, feed grains and rice) levels dropped in the mid-1970's but have since returned to early 1960 levels.

. . . However, Per Capita World Grain Reserves are Only One-Half of 1960 Levels



Source: Worldwatch Institute

--In 1975, with grain reserves at 43 days' supply, there was worldwide concern about food shortages. The U.S. embargoed soybeans to maintain adequate supplies in this country. In 1984, with grain reserves at 56 days' supply, the U.S. was concerned about food surplus inventory and took action to reduce supplies by idling cropland.

CHAPTER 2

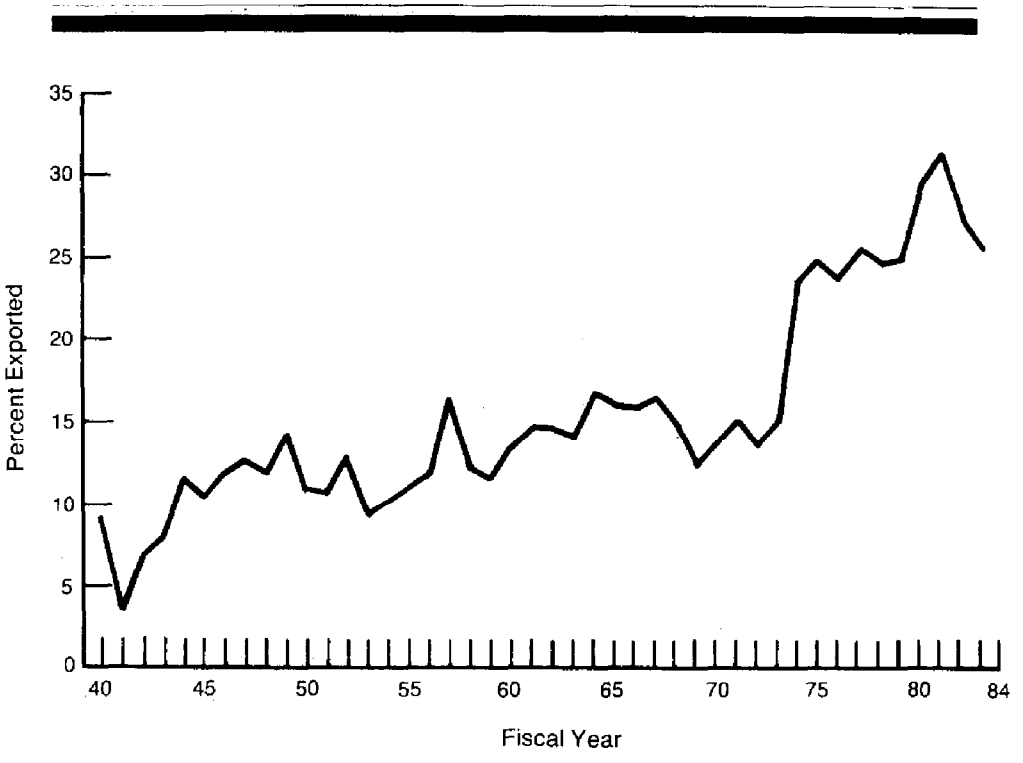
HOW HAS THE U.S. FOOD/AGRICULTURAL SECTOR CHANGED?

Agriculture has always been an important part of the U.S. economy. Until the export boom of the 1970's, however, it was relatively insulated from the volatility of the world economy. In the 1930's farms were generally of similar size, farm incomes were below non-farm averages, and agriculture was predominantly oriented toward production for on-farm use and selling directly to local markets. Since then, significant changes have taken place. Today's agriculture is part of a capital-intensive, technologically advanced food/agricultural sector oriented toward more sophisticated marketing in a world economy. The farm is still the production center of agriculture, but the food/agricultural system places the greatest emphasis on the marketing of raw as well as finished food products through sophisticated storage, processing, transportation, and distribution networks.

The integration of U.S. food/agriculture into the world economy has added uncertainty and increased volatility in the system. U.S. food/agriculture today is no longer simply influenced by nature's biological processes and domestic weather conditions; it is also affected by technological development (such as biotechnology), macroeconomic (such as monetary and fiscal) policies, worldwide weather, and foreign social/political conditions.

WORLD MARKET

The Export Market Accounts for a Larger Share of Total Farm Sales, Although the Share has Fallen Since 1980

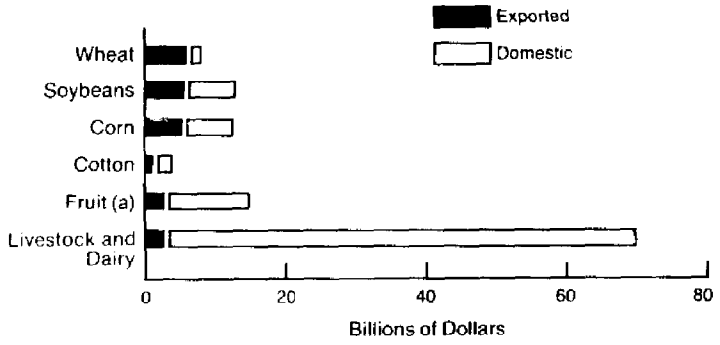


--Export markets have become increasingly important as outlets for U.S. farm production. Exports in 1980 provided about 30 percent of gross farm cash receipts, compared with 3 to 16 percent in the 1940's, 50's, and 60's.

--The agricultural export boom began about 1971, when the dollar was devalued and the world economy was growing. Weather-related world crop shortages in other parts of the world, notably the Soviet Union, also led to significant increases in demand for U.S. farm commodities.

--International economic conditions since the early 1980's have significantly affected U.S. agricultural exports. Export share of total farm receipts fell 6 percentage points from 1981 to 1983 as the value of the dollar increased, worldwide recession reduced purchasing power in developing countries, and competing nations aggressively marketed their exports at the expense of the United States.

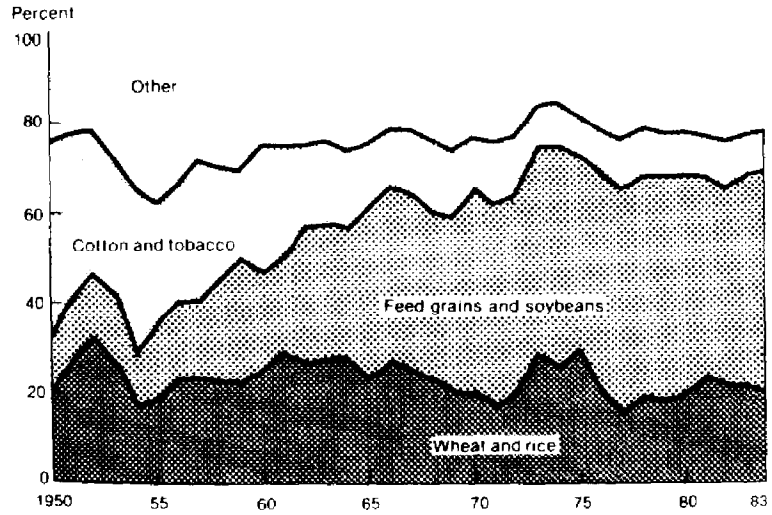
Export Markets Represent Major Outlet for Some U.S. Crops



(a) Includes Vegetables and Nuts

--Some types of farm operations rely heavily on the export markets. For example, in 1983, U.S. wheat, soybean, corn, and cotton producers exported 40 percent or more of their production. In addition, about 20 percent of fruit, vegetables, and nuts were exported. Livestock and dairy farmers are less affected by world market conditions.

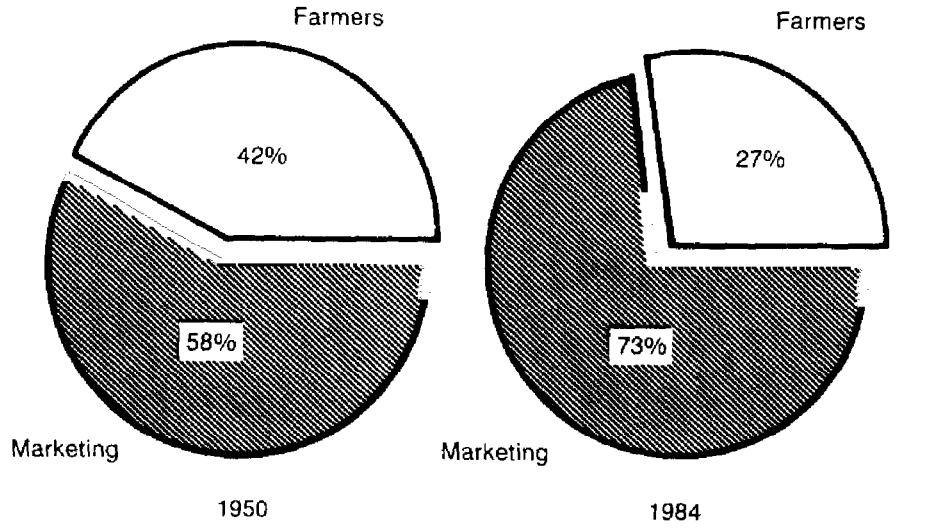
Today's Commodity Exports are More Prone to Changing Economic Conditions



--The emergence of feed grains (primarily corn) and soybeans as major exports has contributed to the increased risks of world trade. Feed grains and soybeans are more sensitive to changes in income levels than are our traditional exports of wheat, rice, cotton, and tobacco. Feed grains and soybeans are more often used in livestock production and consumers worldwide cut back on meat purchases during difficult times. Thus U.S. agricultural exports are now more sensitive to changes in global income.

MARKETING-ORIENTED

Food Marketing Accounts for an Increasing Share of the Food Dollar

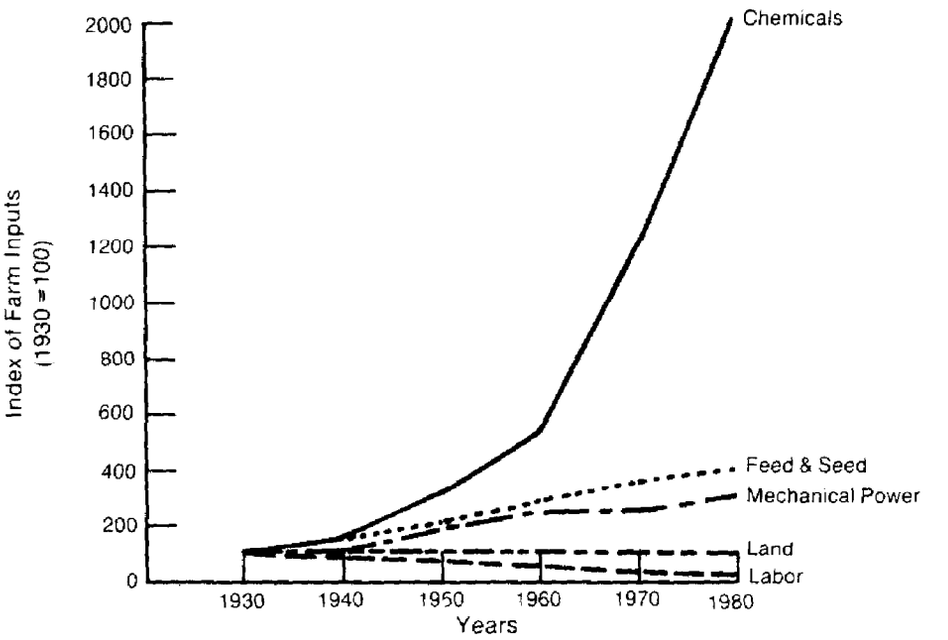


--Of the $332 billion U.S. consumers spent on farm-produced food in 1984, 27 percent (about $90 billion) went to farmers. About $242 billion (73 percent) went to bring the food from the farm to the table, covering increased food industry marketing expenses such as labor, packaging, transporting and advertising over 15,000 different food items.

--Since the end of World War II, the food/agricultural system has moved more and more toward a marketing orientation. Many of the larger, more efficient operations now rely on differentiated products and markets. What to produce and when is more often being signalled by new computerized information systems that track consumer preferences and buying habits.

CAPITAL-INTENSIVE

The Once Independent, Self-Sufficient Farmer has Become Dependent on Non-Farm Inputs



--Between 1930 and 1980 labor input declined by more than 80 percent. The use of mechanical power rose 200 percent, agricultural chemicals 1900 percent, feed and seed almost 300 percent. But, cropland remained relatively constant.

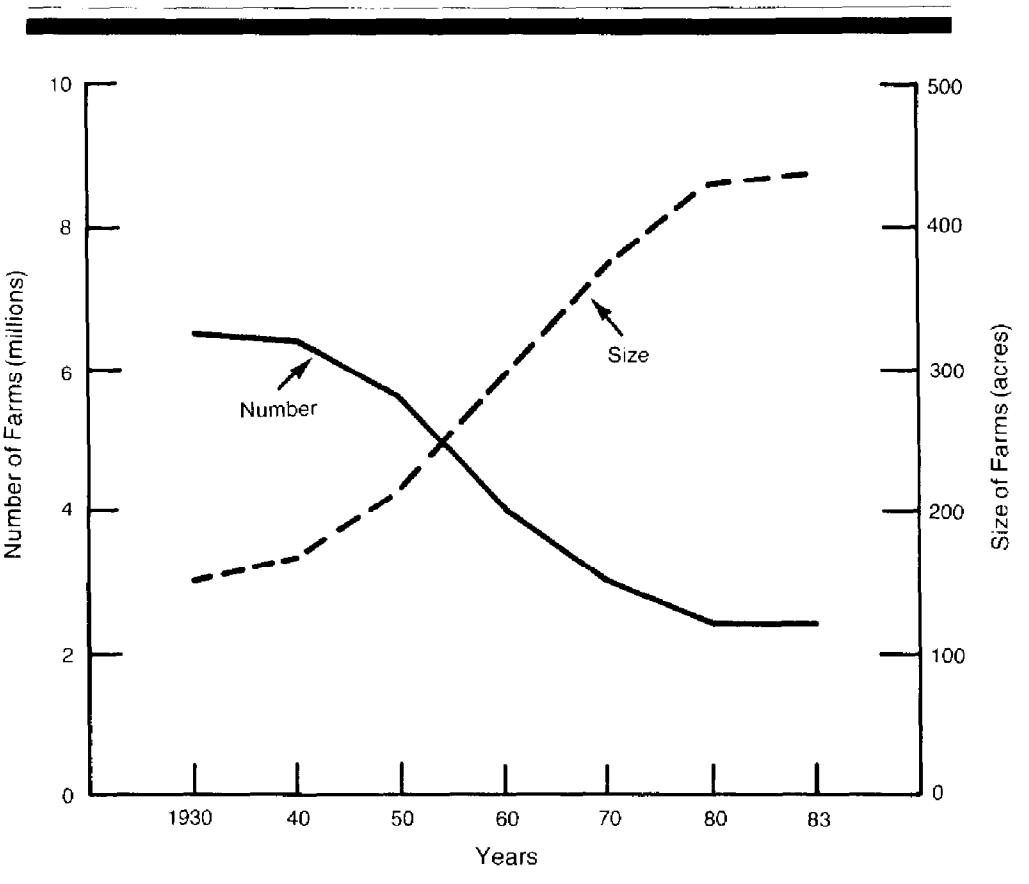
--While farmers had largely self-contained operations in the 1930's, they now purchase about three-fourths of their production inputs from off-farm sources.

--Extensive purchases of inputs from non-farm sources requires farmers to maintain adequate cash flow and be able to secure operating credit. The industrialized farm operation is equivalent to an out-of-doors factory that requires inputs at the right time to be efficient but is still subject to the vagaries of weather and the added risks involved in the adoption of new technologies and new markets.

--Tax laws encourage expanded production capacity through the substitution of capital for labor and land. Large mechanized farms receive most of the benefits. Tax provisions include tax advantages for expending many capital investments, capital gains treatment of certain livestock returns, investment tax credits, and accelerated depreciation rates.

SPECIALIZED AND TECHNOLOGICALLY ADVANCED

Farmers Have Decreased in Number but Their Farms Have Increased in Size



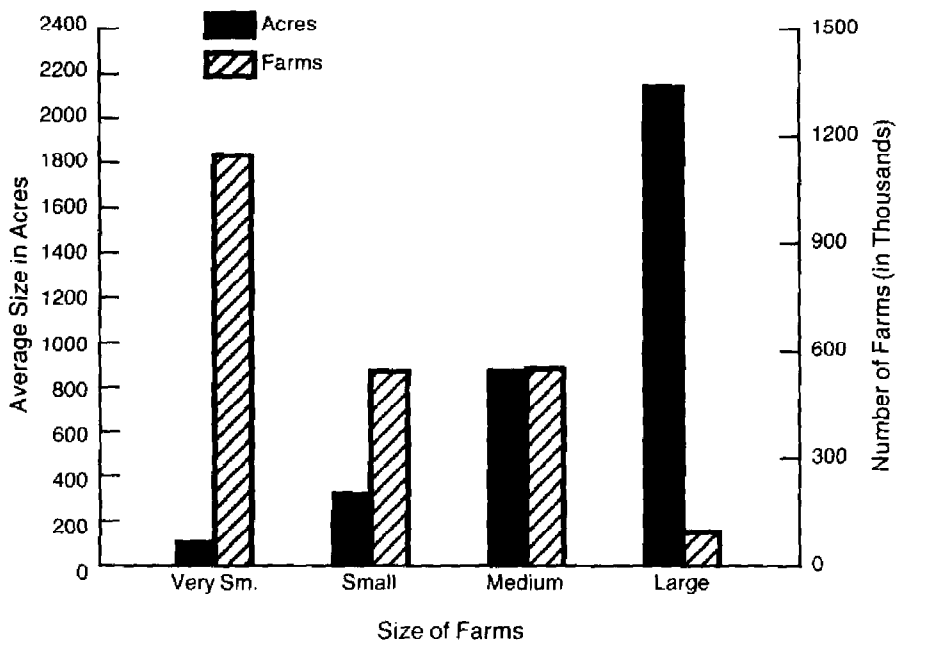
--In 1930 most farms were smaller than today. There were 6.3 million farms, averaging 157 acres. Farmers relied on their crops for their families' food consumption. Any surpluses were sold to local markets.

--In 1983 there were only 2.3 million farms, averaging 437 acres, but farms varied greatly by sales and income. Farms were more dependent on inputs from non-farm sources and concentrated on the commercial production of one or two commodities for the marketplace. Specialized, capital-intensive production methods ranging from more sophisticated farm machinery to emerging biotechnologies increase the advantage of size and reduce farm diversification.

Distribution of Farms by Size and Characteristics in 1983

Farm category	Number of farms	Acreage	Sales	Average share of income from farming
	(percent)			
Very small farms ($1,000-$9,999 in sales)	48.7	13	3.6	0
Small farms ($10,000-$39,999 in sales)	23.2	18	9.6	9
Medium-sized farms ($40,000-$199,999 in sales)	23.6	47	39.3	58
Large farms ($200,000 and over in sales)	4.5	22	47.5	91
Total	100	100	100	

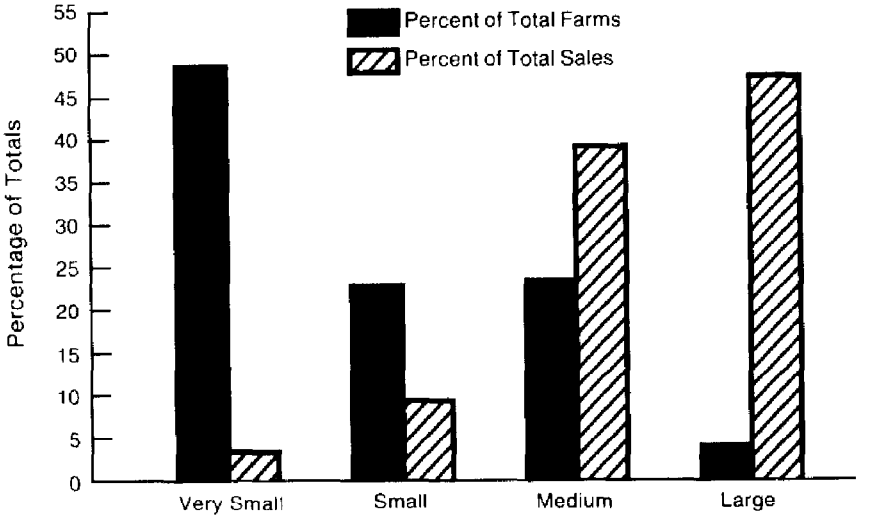
Farm Size Varies Considerably



--Today some farms span thousands of acres and are operated as modern, multi-million-dollar businesses. Most, though, are much smaller. As a result, in evaluating today's food/agricultural policies, it is less meaningful to generalize about farms and the impact of farm policies than in the past.

CONCENTRATED PRODUCTION AND INCOMES

Farm Production Varies Significantly Among Farms



*1983 Gross Cash Receipts $149.5 Billion

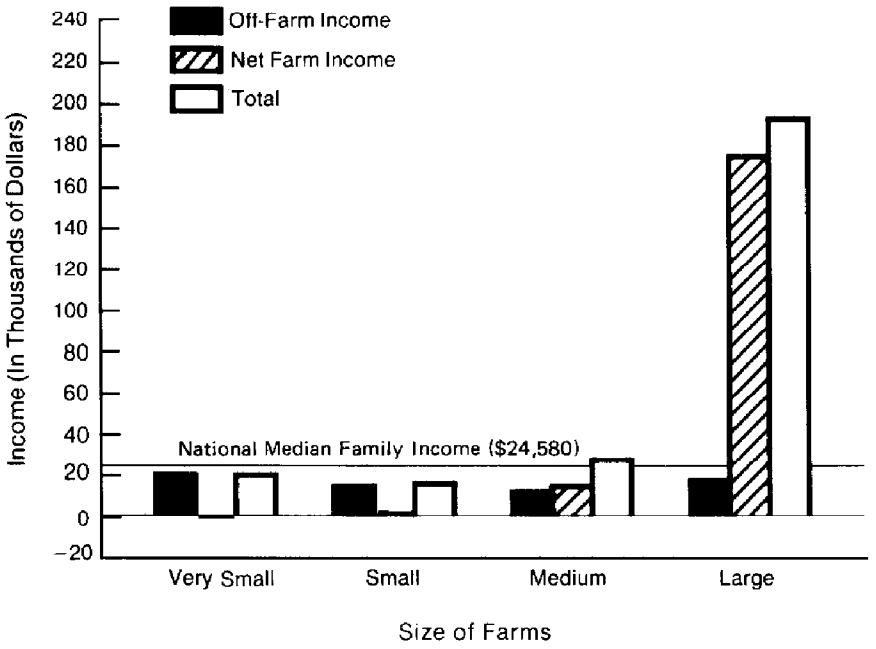
--In the 1930's farming was basically a low-income, self-sufficient occupation. The typical farm had $2,000 in sales annually.

--In 1983 farms ranged from rural resident/hobby operations to multi-million-dollar operations.

--Large and medium-sized farms (commercial farms), which made up less than 30 percent of all farms, were responsible for 87 percent of farm sales in 1983.

--Small and very small farms, which made up more than 70 percent of the total number, accounted for only 13 percent of the sales.

Average Farm Income Varies Significantly Among Farms



--In 1983 large farms had average total incomes of nearly 10 times that of small farms.

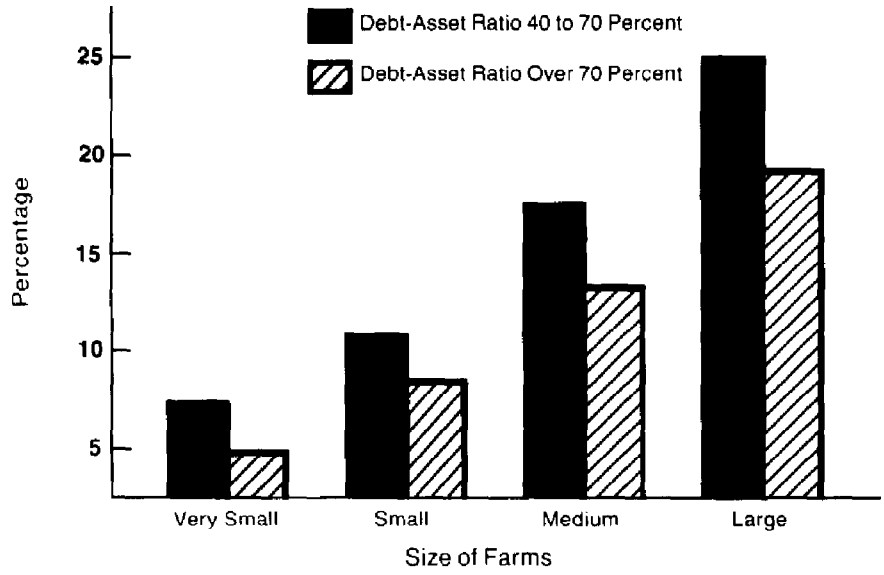
--In the same year, small and very small farms had family income levels below the national median family income of $24,580. Large farms had incomes almost 8 times as high. Medium-sized farms were slightly above the national level.

--For large farms, off-farm income was less than 10 percent of average total family income. For medium-sized farms it was about 40 percent. For small and very small farms, over 90 percent.

--Small and very small farms experience low and sometimes negative net income from farming and are generally run by people who receive most of their family income from off-farm wages and salaries.

--Medium-sized farms account for about 40 percent of the nation's farm production and are operated largely by full-time family farmers who supplement their net incomes with funds from sources other than farming.

Medium-sized and Large Farms are the Most Financially Stressed



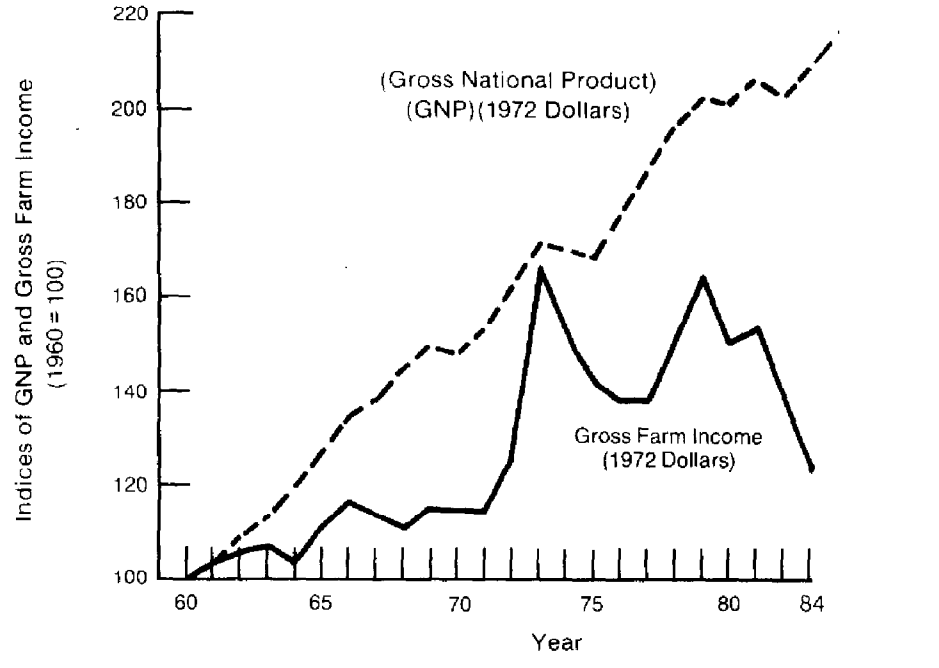
1984

--In today's circumstances a commercial farmer having debts equal to 40 percent or more of the value of his/her assets is highly likely to be feeling financial stress. Farms with debts over 70 percent of asset values are highly likely to face partial or total liquidation or will require major debt restructuring to survive.

--Large farms are more highly leveraged than are other farms. A high proportion of farm debt is not by itself, however, an indicator of financial distress. Many industrialized operations--such as poultry and egg farms, dairy, or livestock operations--generally show cash flow shortfalls only at very high leverage levels (debt-asset ratios over 70 percent). The average medium-sized farm is not highly leveraged, but declining land values and rising interest rates tend to have the greatest adverse impact on the medium-sized farm that has neither the industrialized base of the large farm nor the off-farm income sources of the small and very small farms for support. Many operators of small and very small farms show negative net farm incomes over several years but continue to remain in operation by repaying loans from off-farm income sources.

LESS GROWTH AND GREATER VARIABILITY THAN THE OVERALL ECONOMY

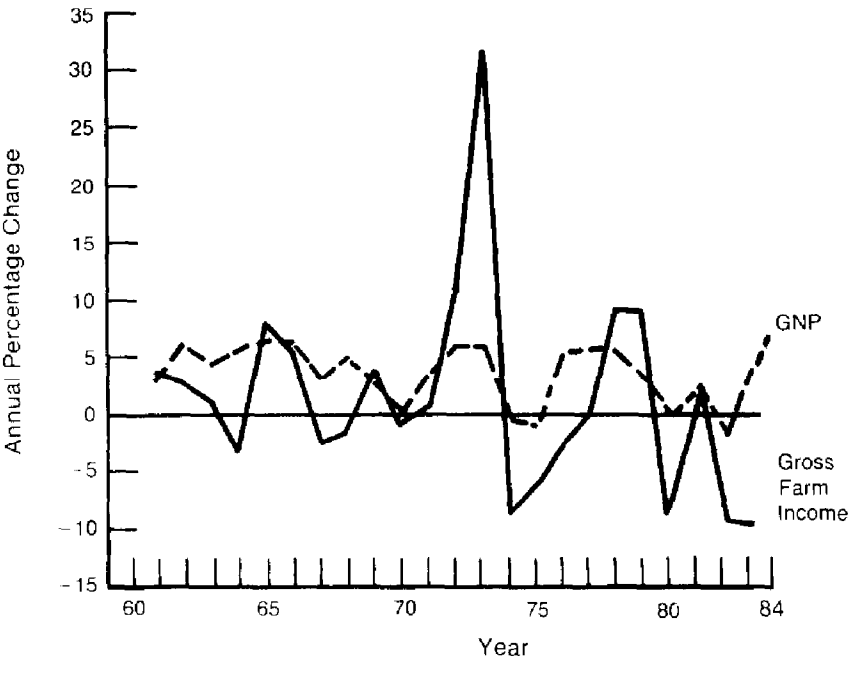
Real Growth in Farm Income has not Kept Pace with Gross National Product



--While the nation's real gross national product has sustained an upward trend over the past several decades, the agricultural economy has not kept pace. Real gross farm income has actually fallen since the early 1980's.

--Agriculture has not benefited from the recent economic rebound.

Gross Farm Income Is More Variable Than Gross National Production



--Economic activity of the agricultural sector (correlated by gross farm income) has varied considerably more than the overall economy (measured by the gross national product). This increased variability reflects sources of uncertainty including foreign agricultural policies, world economic conditions, and weather that weigh greater on the agricultural sector than the overall domestic economy. Thus income variability increases the risks that a farmer faces, requiring additional resources to ensure coverage during low-income periods.

CHAPTER 3

FOOD/AGRICULTURAL PROGRAMS

The federal government has actively assisted U.S. food/agriculture for more than 50 years. Since the enactment of the Agricultural Adjustment Act of 1933, the Congress has provided regular assistance to the farm sector. Over 30 departments and agencies administer almost 500 programs that involve food, agriculture, or nutrition assistance with domestic or international applications.

The programs and goals developed to aid the food/agricultural sector include

--commodity price and farm income support programs designed to raise or stabilize farm prices and incomes;

--research and development programs designed to enhance food production, marketing, and conservation practices;

--marketing programs designed to improve the farmer's position in the marketplace;

--food assistance programs designed to provide food to the indigent at home and abroad;

--international trade programs designed to create a favorable trading environment for food and agricultural products; and

--tax policies, conservation, and credit programs designed to promote rural development.

MAJOR COMPONENTS OF AGRICULTURAL PROGRAMS

The great majority of federal food/agricultural programs are funded through the U.S. Department of Agriculture (USDA) and include:

--Price Support. Nonrecourse loans are made to farmers for major crops at specified loan rates (support prices), with the crops used as collateral. If a farmer elects not to repay the loan and interest at a later date, the government agrees to accept the crop in storage as full payment. In times of low market prices, a grain farmer may also put grain in the Farmer-Owned Grain Reserve Program for a 3- to 5-year period and receive a nonrecourse loan and other storage compensation. The more a farmer produces, the greater the benefit realized from high support prices.

--Income Support. Deficiency payments are made to farmers for major crops when market prices fall below specified target prices. Payment benefits vary directly with the participating farmer's production level of the crop and not on the basis of need. The maximum payment a farm may receive is $50,000 per year and reductions in planted acreage, at times, are required of farmers to qualify for payment benefits.

--Research and Technical Assistance. Funding is provided to land-grant colleges/universities, federal agencies, and private organizations for the promotion of higher education, research and development, and extension services (technical assistance) in food and agricultural sciences.

--Export Promotion. Credit provided to importing countries, market development activities, and a standby export subsidy program are used to boost exports.

--Rural Development Assistance. Various credit and tax incentives are established to support the development of the rural infrastructure (in particular, transportation, telephone, and electrical facilities).

--Food Assistance Programs. Food stamp, child nutrition and other feeding programs to aid the indigent at home and abroad.

CHAPTER 4

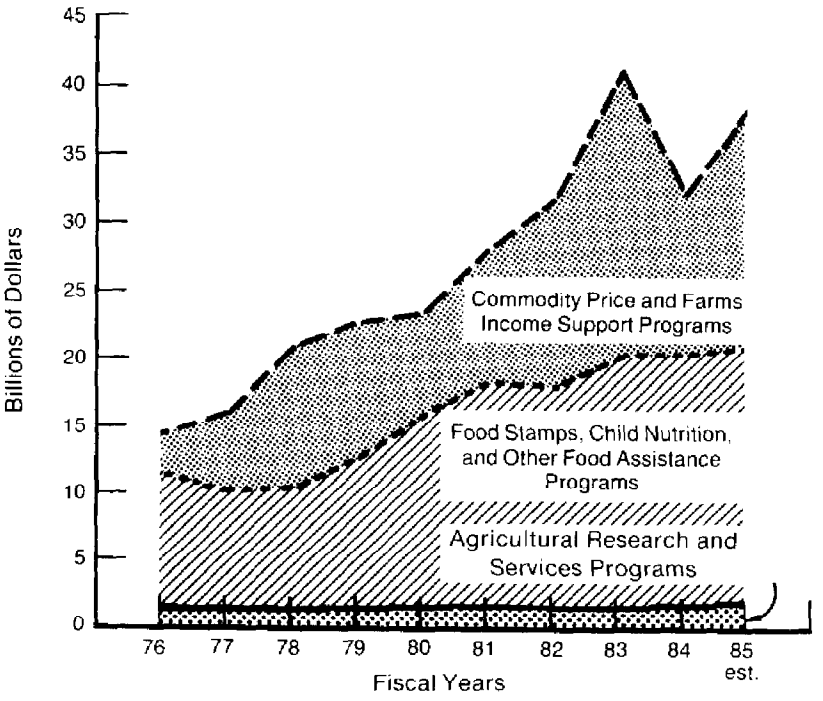
CURRENT SITUATION

After experiencing a major boom in the 1970's, the U.S. food/agricultural sector is currently plaqued by production surpluses, growing outlays for farm programs, declining agricultural exports, and rising farm bankruptcies. There is growing concern that the existing domestic-based farm programs have not kept pace with changing macroeconomic conditions and other international influences that affect the food/ agricultural sector.

Crop assistance programs have experienced the greatest growth in the 1980's as the Congress has focused its resources on aiding the farmer in order to lessen the risk and uncertainties involved in farming. Policymakers, in addition, have continued to recognize the importance of food assistance as well as agricultural research, food safety, resource conservation, trade, and market development for the long-term viability of the food/agricultural sector.

AGRICULTURAL PROGRAMS

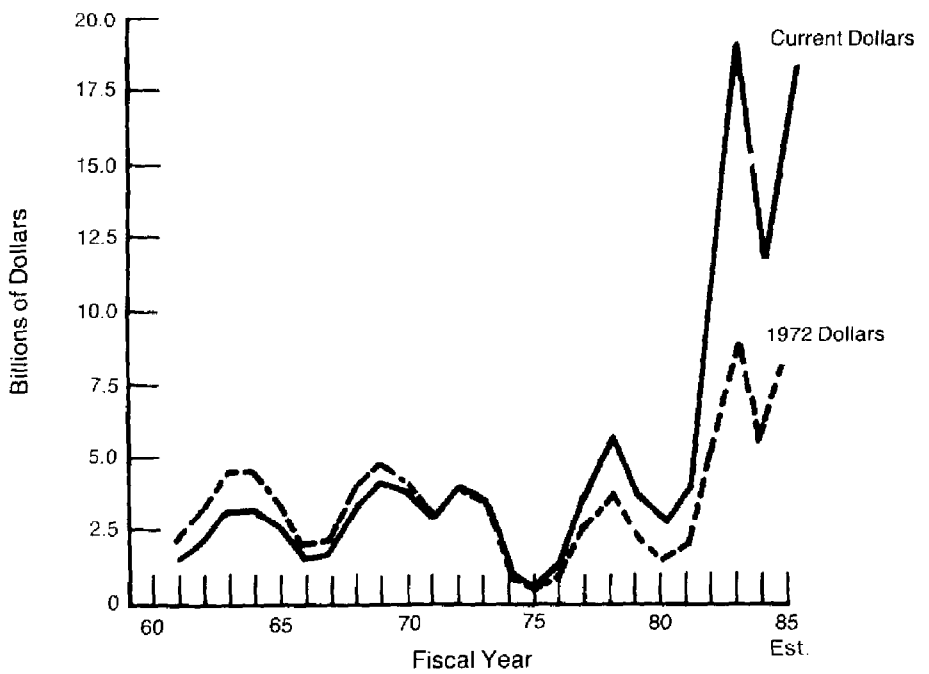
Budget Outlays Increasing



Source: The United States Budget, Fiscal Years 1985 and 1986

--Food-assistance programs were the predominate agricultural program budget items until the 1980's when farm support programs began to increase dramatically.

Farm Support Outlays from 1982 to 1985 Were Unusually High

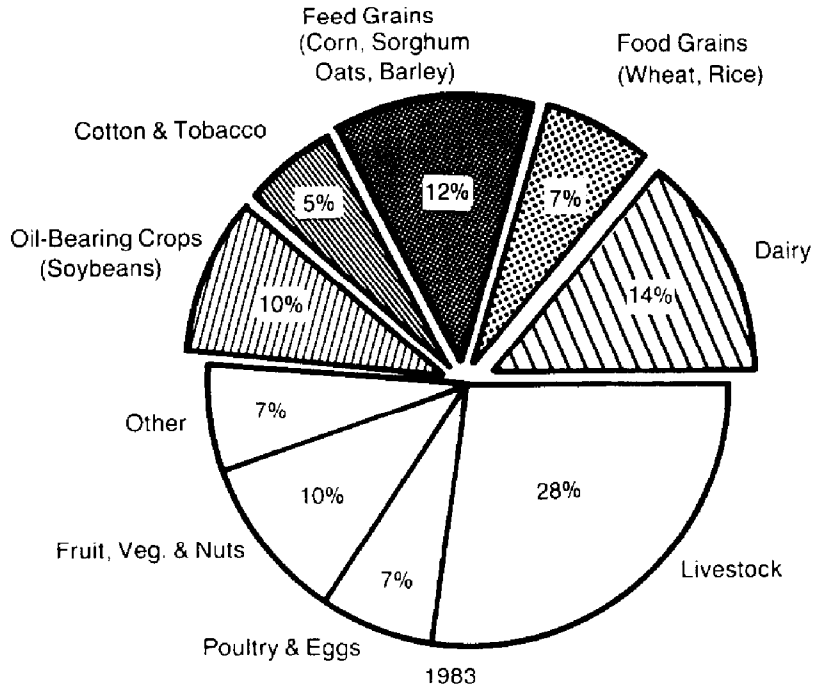


--In 1983 commodity price and farm income support programs cost a record $18.9 billion, over six times the 1971-1981 average of $3 billion. (This figure does not include the Payment-in-Kind (PIK) program, which alone cost the federal government about $10 billion in 1983.) Farm program costs are projected at $18.3 billion in 1985 and an average of $11 billion annually from 1985-1988.

--The big jump in program costs, in particular, since 1981 is due to weak demand, low commodity prices, large U.S. surpluses, good weather, high U.S. support prices, and increased foreign competition.

--In addition, acreage-reduction programs have not always proven effective in controlling production. For example, from 1982 to 1984, while participating U.S. wheat farmers idled about 55 million acres under acreage-reduction programs, non-participating farmers in the United States expanded cultivation by about 35 million acres. Also, increased yields on planted acres have somewhat offset acreage reductions.

Commodities Covered Under Price and Income Support Programs Represent About Half of Total Cash Receipts

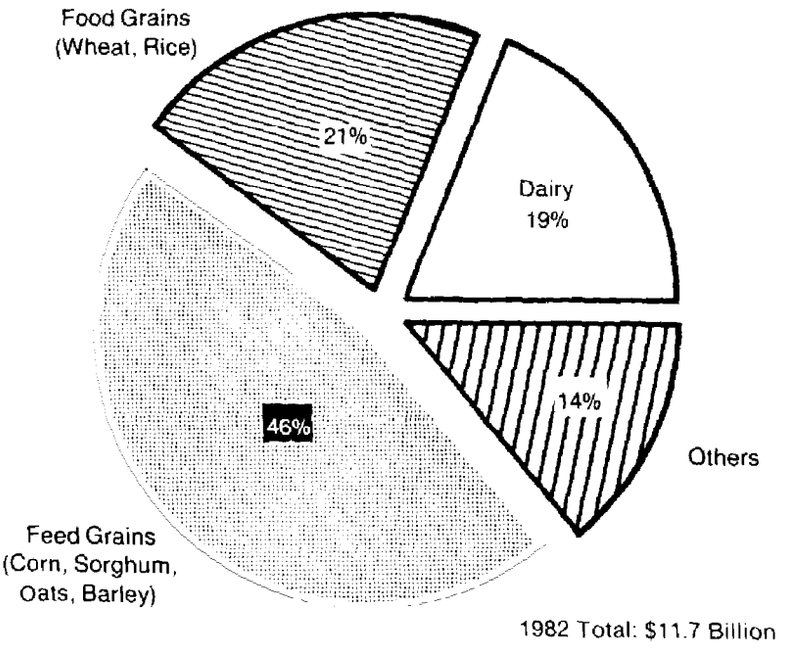


Shaded slices are commodities covered by price and income support programs.

--Farm price and income support programs today cover wheat, feed grains, cotton, rice, soybeans, sugar, and dairy products. These commodities account for about half of farmers' cash receipts.

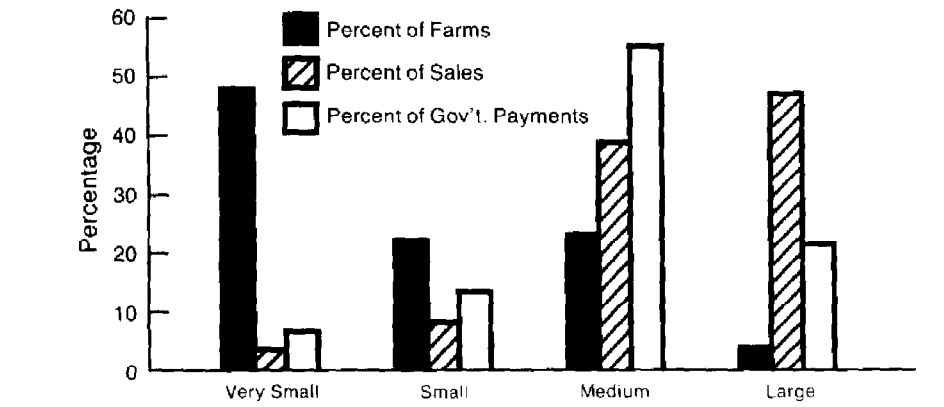
--Commodities such as livestock, poultry and eggs, and fruits and vegetables--which account for the other half of farmers' cash receipts--are not covered under the support programs.

Feed Grain Producers Receive the Largest Portion of Farm Support Outlays

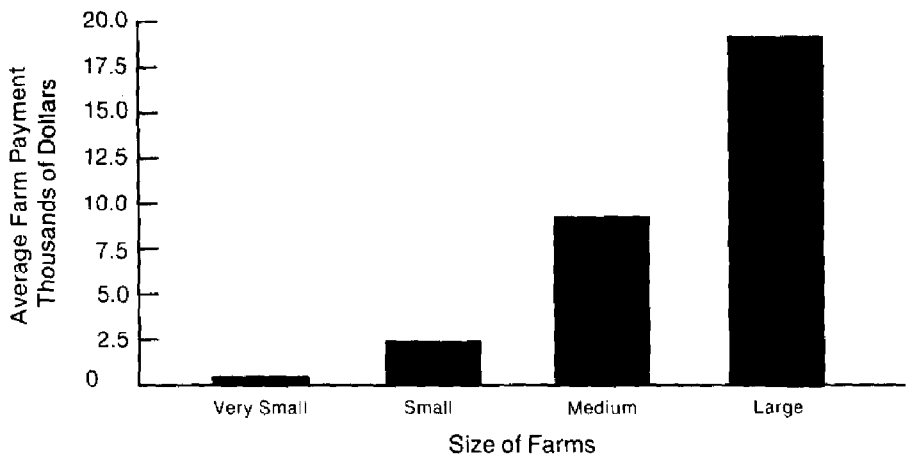


--Program costs for individual commodities vary from year to year, depending on market conditions, but are generally highest for feed grains, food grains, and dairy products.

Although Medium-Sized Farms Receive the Greatest Percentage of Direct Government Payments . . .



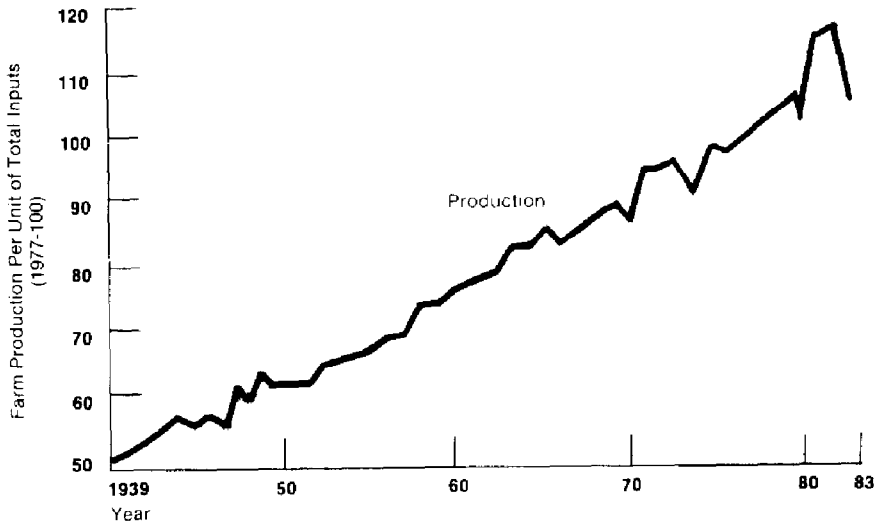
. . . Large Farms Receive the Largest Average Direct Government Payments



--Preservation of the traditional concept of the family farm (medium-sized farms according to USDA) as a social goal has been an important policy goal since the 1930's. Because farm support program benefits vary directly with each participating farmer's production level, large farms tend to receive higher farm support payments than medium-sized and small ones. In 1983 payments to individual large farms averaged twice those paid to medium-sized farms, about 7 times those paid to small farms, and about 32 times those paid to very small farms.

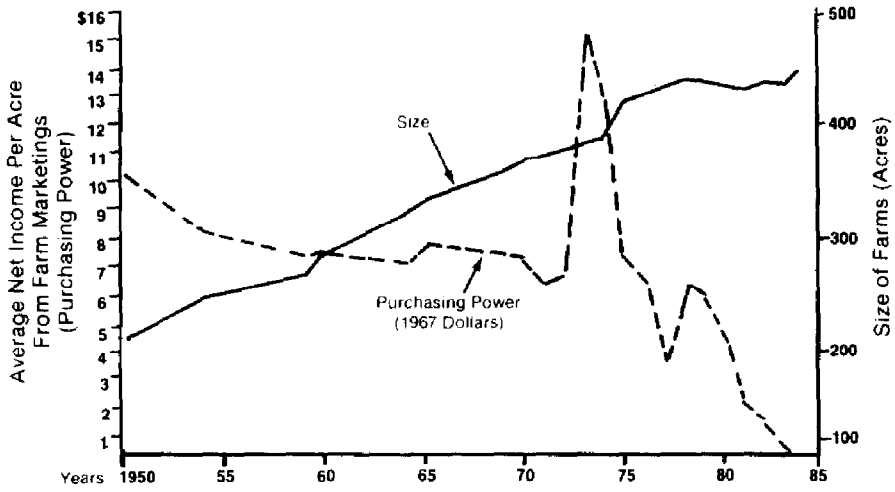
PRODUCTIVITY TREND IS UP

Farm Productivity Has More Than Doubled Since 1940 . . .



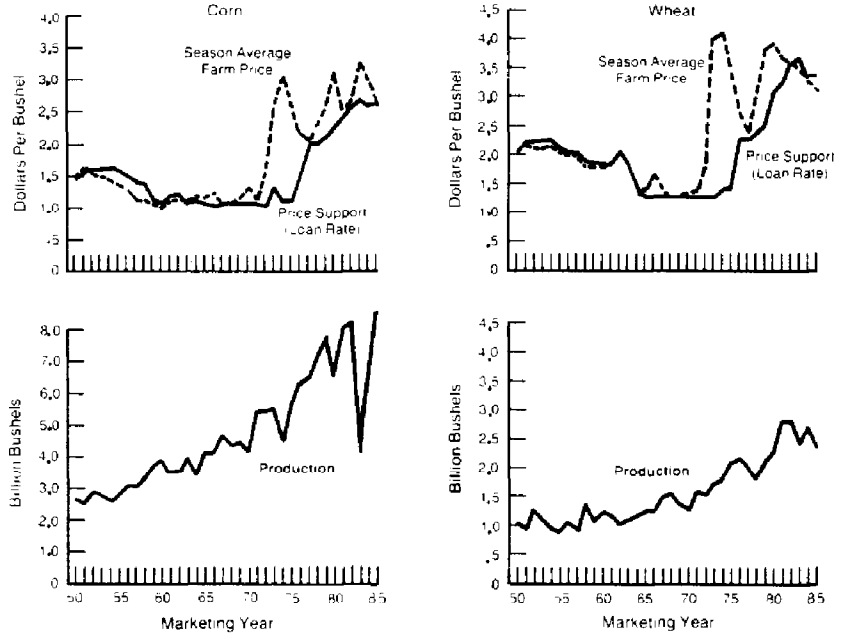
--Federal research and extension services have provided the major impetus for the increase in agricultural productivity. In 1982, an average unit of farm input (labor, mechanical power, etc.) provided about 2.5 times as much output as in 1940. Production increased because of improvements in farm machinery, development and dissemination of hybrid seeds, improved fertilizers, conservation, pest management techniques, and emerging biotechnology.

. . . Average Farm Size Has Also Increased, But Net Farm Income Per Acre Has Declined



--As individual farmers have adopted new technology and expanded the scope of their operations, income per farm has not increased proportionately because net income per acre has declined.

Higher Support Prices Have Encouraged Production, Resulting in High Accumulation of U.S. Stocks and High Program Costs



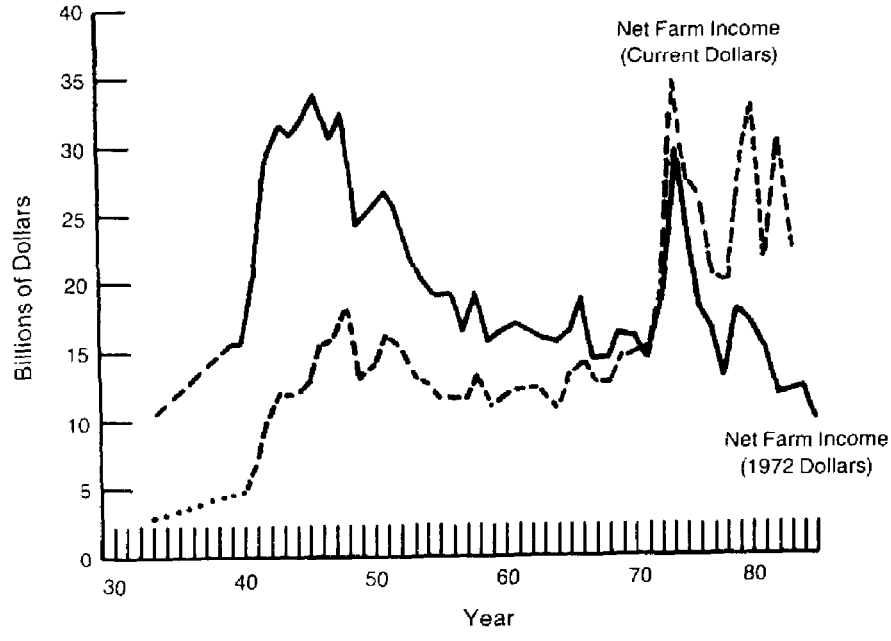
--The 1981 farm bill was developed in an environment of growing exports and rising inflation rates and contained provisions for higher loan rates. As the market weakened and farm prices declined, high price supports provided an incentive for farmers to continue or expand production.

--Price support levels more than doubled during the late 1970's. The strong dollar of the early 1980's further boosted the support level when figured in the currencies of other countries. Consequently, importing countries purchased less from the United States. Although world grain trade volume grew slightly from 1979 to 1983, the U.S. share dropped from 59 to about 50 percent. Record U.S. crop production in 1982 for wheat and in 1982 and 1985 for corn also contributed to surpluses. (The same was true for dairy production through the early 1980's.) As farmers forfeited their commodities and kept their loans, the federal government ended up holding the stocks and bearing the costs.

--In 1983 and 1984, cropland diversion (PIK) programs were implemented to reduce government stock levels and government costs. As a result of PIK, corn production dropped substantially in 1983 while wheat production dropped somewhat less.

FARM FINANCIAL STRESS HAS INCREASED

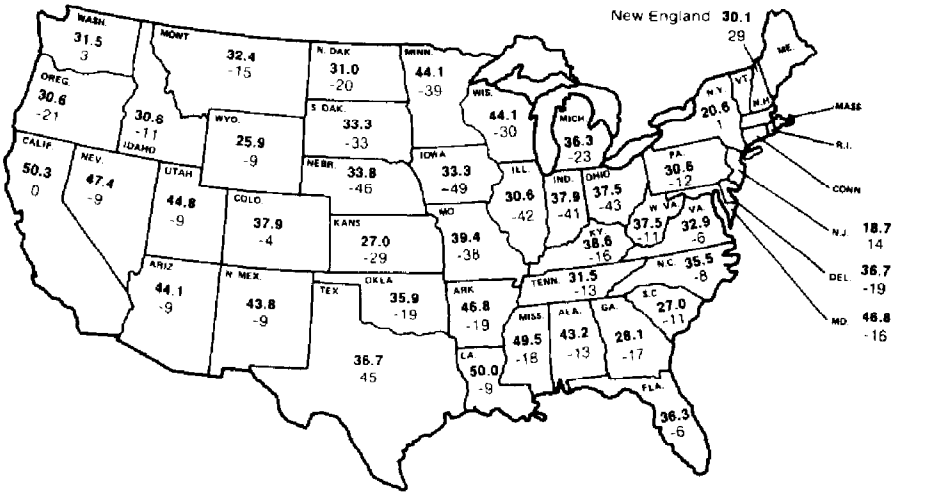
Real Farm Income Whipsawed During the Past Decade, and is Now at the Lowest Point Since the Depression



--Modern U.S. farm operations are highly productive but require large capital investments and steady cash flows. As a result, farmers' fortunes are heavily dependent on interest rates and input costs.

--Despite the massive influx of federal cash and in-kind commodities to the farm sector since 1980, reduced export demand has led to disappointing farm incomes, resulting in severe financial stress for many farm producers.

Land Values--the Basic Collateral for Loans--Have Declined in Most States Since 1981



Key: 30.6: Percentage change in average value of farm real estate per acre from 1977-1981
−20: Percentage change in average value of farm real estate per acre from 1981-1985

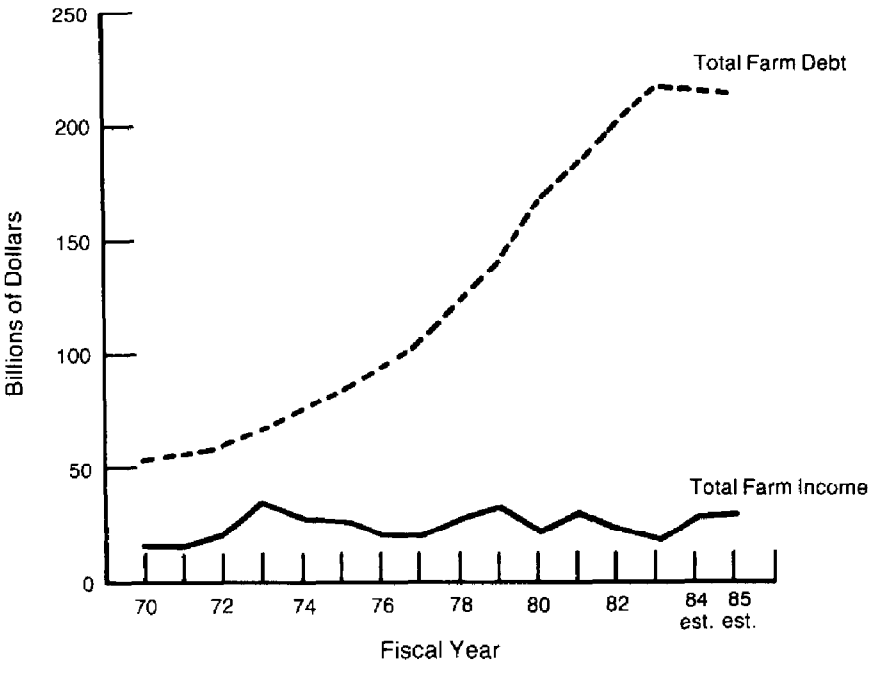
Based on indices of average value per acre

--Land-value declines have been most significant in the corn belt states (Ohio, Iowa, Nebraska, Indiana, and Illinois).

--Corn-belt land-value declines in 1981-1985 largely offset the gains made during 1977-1981.

--Many farmers who purchased land or started farming after 1977 have suffered actual capital losses from the prices at which they purchased their land or assets. If they paid above-average prices or financed a high proportion (over 75 percent) of their purchases, their debt/asset ratios may exceed 100 percent at today's land prices.

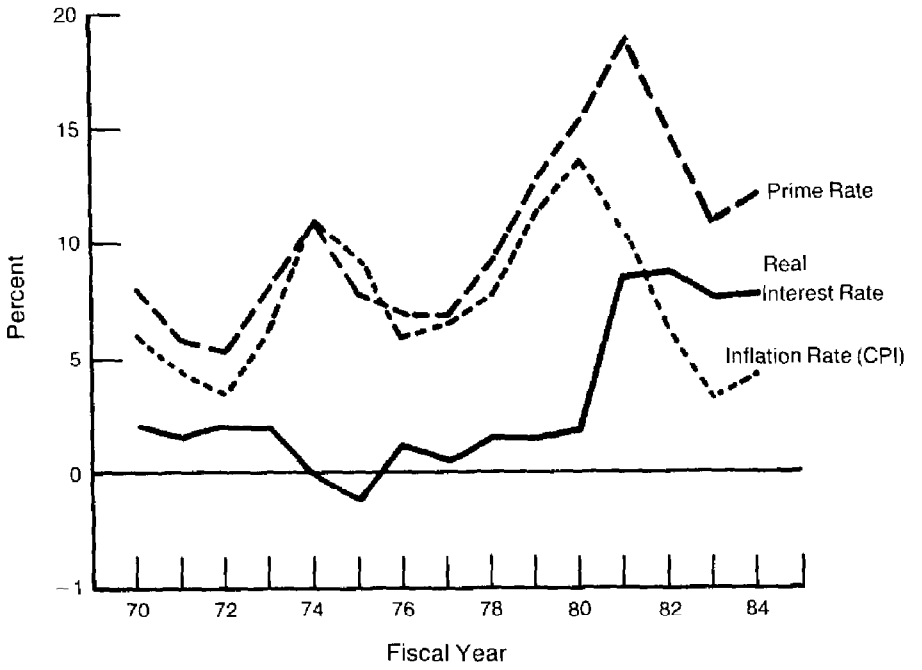
Farmer Aggressive Use of Debt in the 1970's has Reached Stressful Levels in the 1980's



--The rise in land values during the 1970's was largely responsible for a surge in the value of total farm assets in the mid- and late 1970's. As asset values rose, farmers mortgaged real estate to obtain additional capital for their expanded operations and farm debt grew.

--Declining farm exports and farm incomes have resulted in a decline in land values. In turn, farm debts have fallen since 1983, reflecting farmers' attitudes that it is better to forego capital or land purchases than incur more debt.

Real Interest Rates Remain High



--During the 1970's, real interest costs (the cost of borrowing, considering the effects of inflation) were low or at negative levels for a brief period and farm borrowing increased.

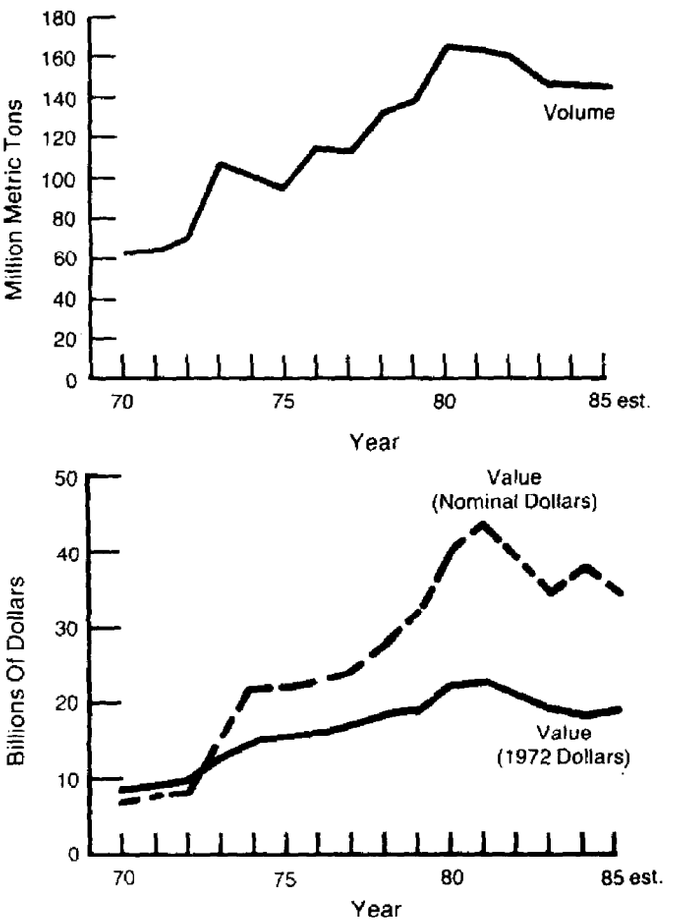
--Although interest rates have dropped from their 1981 record-high level, inflation rates have declined much more dramatically. In terms of real interest rates, credit has become more costly to farmers.

--As commodity prices and land values continue to decline, institutions that are extensively involved in agricultural lending have become increasingly stressed. For example, about 33 percent of the commercial banks (usually small, corn-belt-concentrated banks) are extensively involved in agricultural lending. Many of those are under severe financial stress. By April 1985, farm banks were failing twice as often as other banks.

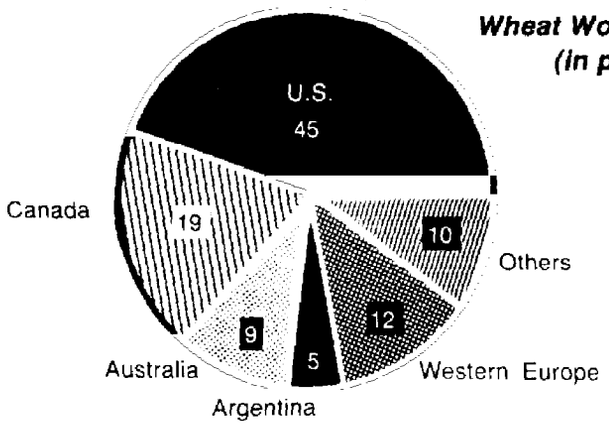
--The Farm Credit System, which holds about one third of the nation's agricultural debt, is expecting a systemwide loss of $333 million in 1985. Proposals for bailing out the system in case of failure have already been raised in the Congress and the administration has gone on record as saying that the federal government cannot allow the system to fail.

DEMAND FOR U.S. EXPORTS HAS SLACKENED

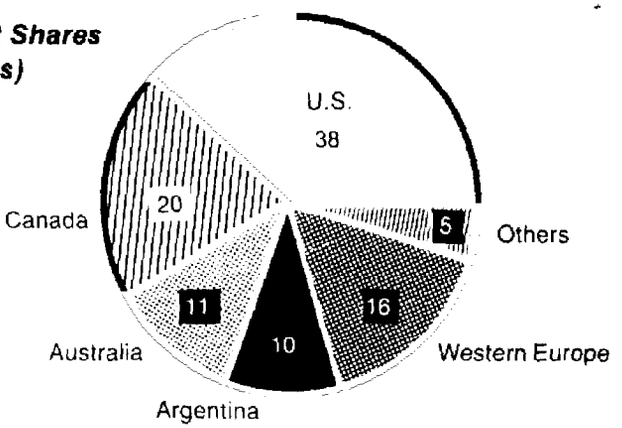
The Volume and Value of U.S. Agricultural Exports Has Eroded



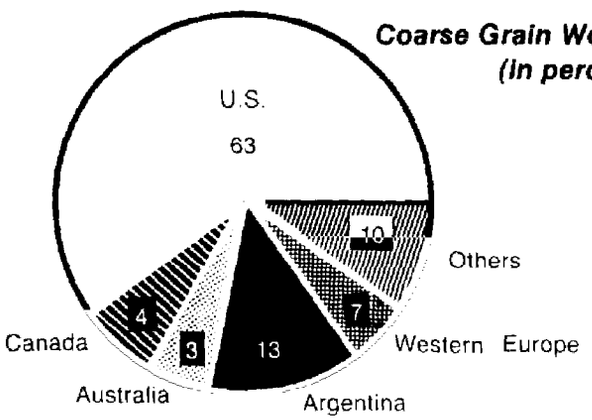
The volume and value of U.S. exports peaked in the early 1980's. Since then, under the umbrella of high U.S. support prices, a strong dollar, and reduction in acreage, foreign producers have increased their production and have eroded U.S. market shares.



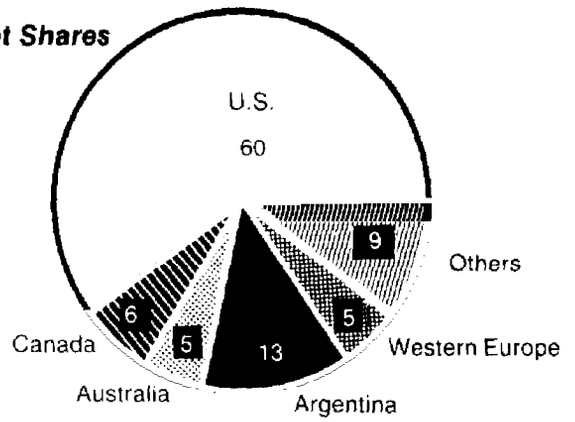
Total Exports: 72 Million Metric Tons
1978-1979



Total Exports: 101.6 Million Metric Tons
1983-1984



Total Exports: 90.2 Million Metric Tons
1978-1979



Total Exports: 90 Million Metric Tons
1983-1984

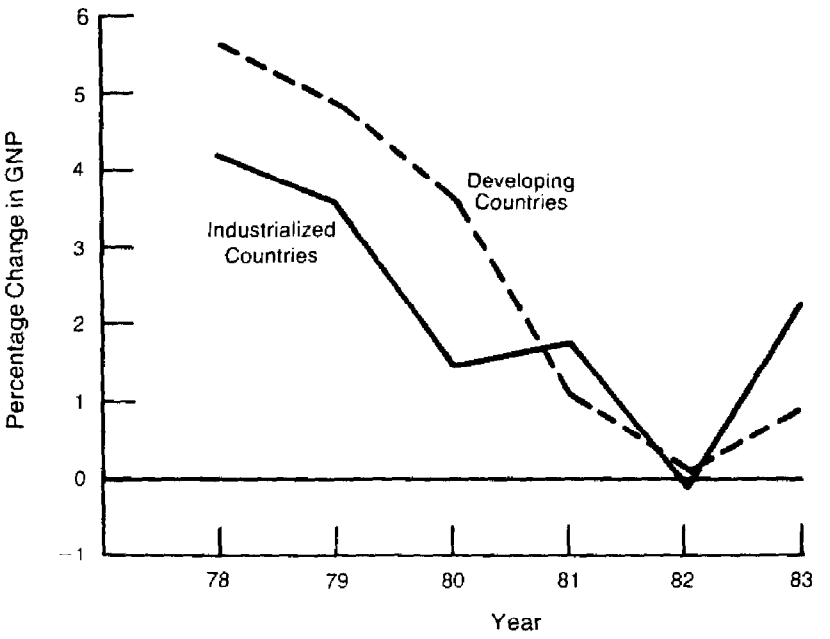
--Production of wheat and coarse grains (primarily corn) has increased significantly in Canada, Argentina, and Australia in the last 5 years. At the same time, many traditional importers, including India and China, are approaching self-sufficiency or are now exporting grains, altering historical trade patterns.

--To gain market position, Canada has aggressively marketed its grain at competitive prices and with below-market credit terms.

--As Argentina's wheat surpluses have been growing, it has sold wheat at below world market prices.

--Large agricultural surpluses have been building in Western Europe in recent years, a result of European food/agricultural policy. To reduce commodity stocks, Western European nations have offered generous subsidies for farm exports and have sold them at below world market prices.

World Development Leads to Trade But Growth is Slow



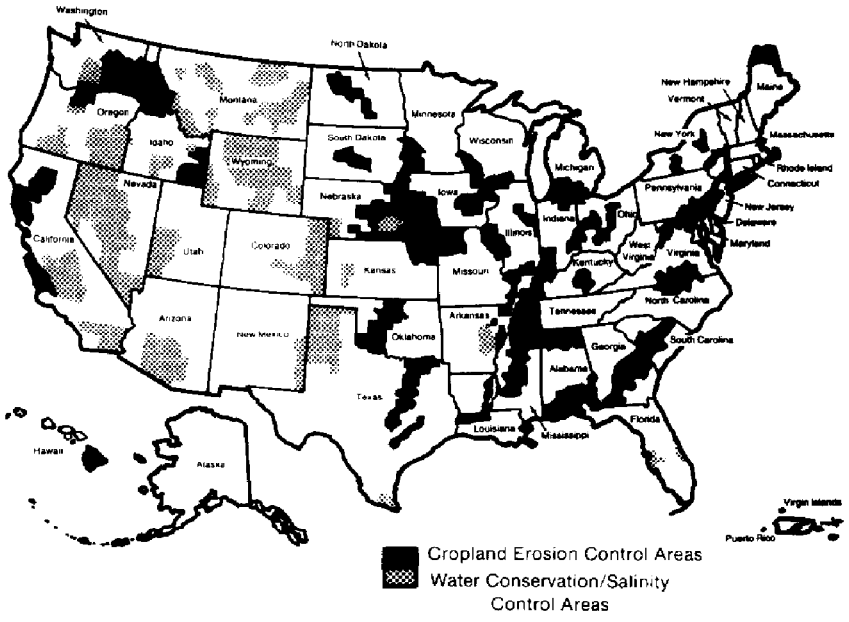
--Since World War II, U.S. agricultural marketing efforts focused primarily on about 20 industrialized countries. Exports to these countries have now slowed, and it is increasingly evident that the future growth opportunity lies with the 100 or so developing countries--those classified by the World Bank as low- and middle-income countries. Many believe that the long-term U.S. approach should be to aid in the development of healthy, growing economies around the world--economies that, in turn, will provide markets for U.S. food and fiber.

--A paradox for U.S. agriculture exists, however. As a poor country develops and increases its purchasing power, it buys more food in the world market--especially from the United States. Developing countries offer U.S. farmers their best opportunity for renewed export growth, but economic development is a long-term process and agricultural production is a key to development in most countries, especially early in their growth. Thus, before developing countries can afford U.S. imports, they must first increase their own food production.

--The lagging economic growth in developing countries is unlikely to boost U.S. agricultural exports in the near future.

RURAL NATURAL RESOURCE EROSION PERSISTS

Conservation is a Nationwide Concern

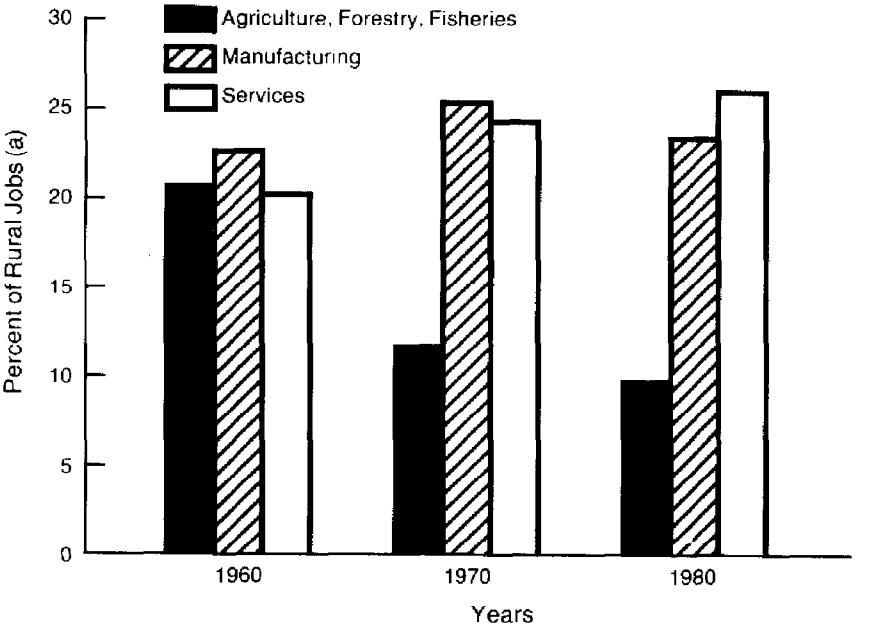


--Soil erosion is a natural process. Erosion on land covered by vegetation is about 1 inch per 100 years, and much of the loss is offset by the formation of new soil. On the average, U.S. croplands lose soil at a rate of 1 inch per 23 years, but much of the erosion problems are centralized in lands that erode much faster.

--The U.S. government spends almost $1 billion a year to reduce soil erosion but USDA's soil conservation programs tend to be used mostly on land with fairly modest soil erosion problems. Because of the expense and engineering problems involved, erosion-control practices are largely absent from highly erodible lands. About 25 percent of all erosion occurs on about 2 percent of the cropland; about 43 percent of the water-related erosion occurs on 6 percent of the cropland.

--Crop-support programs sometime counter soil-conservation objectives. Because the farm programs benefit erosion-prone crops (corn, wheat, soybeans), the programs tend to encourage production of those crops on marginal land that might be more suitable to uses such as hay, pasture, forest, and wildlife cover.

New Rural Jobs are Generated Away from Agriculture as Rural America Attracts More People



(a) Data is for selected industrial categories and do not add to 100 percent.

--In the 1930's, 40's, and 50's, differences between rural and urban areas were distinct. Rural areas were isolated, poorer, depended on agricultural and other basic natural resource-oriented industries, and people tended to move away from rural to urban areas.

--Federal programs such as the Rural Electrification Administration (REA) and the interstate highway system have produced modern communications and transportation networks that have reduced rural isolation and diminished social distance between rural and urban society. U.S. agriculture has become more integrated with the rest of the United States.

--Since 1970, the rate of rural population growth has exceeded that of urban areas. In many areas the migration of retired persons has accelerated the growth of service industries. Other rural area have successfully competed for new jobs in manufacturing and government.

--Increased rural growth has taxed existing roads, bridges, and sewage systems. In many areas, the problem is not the need to repair or replace existing facilities but to provide such facilities for the first time.

CHAPTER 5

ISSUES FACING FOOD/AGRICULTURAL POLICYMAKERS

The problems of food/agriculture are complex and interrelated. Slackened economic growth in developing countries has slowed the growth in world trade. Increased productivity and weakened commodity markets have aggravated farmers' financial distress. Continued resource erosion and rising federal farm assistance outlays partially result from ineffective food/agricultural policy, which has changed little since it was established to deal with the farm problems of the 1930's.

The challenge facing policymakers is to formulate food/agricultural policy that considers such issues as

--structural changes in the farm sector; specifically, the predominance of large, specialized farms in production and the significance of off-farm incomes to small and medium-sized farm families;

--farm credit problems and their implications for the future structural makeup of the farm sector;

--the linkage between domestic farm programs and agricultural trade policies;

--the appropriate size of food reserves needed to achieve the level of price and supply stability desired;

--existing and potential agricultural markets in industrialized and developing countries;

--the impact of technological changes and new economic conditions affecting farm operations; in particular, the capital requirements and cash flow needs they engender;

--the balance between efforts to promote agricultural production and natural resource conservation; and

--the cost to the taxpayer.

FUNDAMENTAL QUESTIONS

When considering changes to food/agricultural policies, fundamental questions arise about the broad impact of policy decisions. Not all of the questions are easily answerable, but they reflect the system-wide problems facing our government and our private sector agricultural institutions in responding to a volatile and competitive world market, i.e., maintaining adequate food inventories, satisfying U.S. desires to compete abroad, conserving natural resources, and providing a climate for a reliable and profitable food/agricultural sector. Questions include

--What are the food/agricultural markets worldwide? Which of these markets provide the best market opportunities for the U.S. food/agricultural system? What is the competition and what competitive techniques are being used?

--What level of food inventory is needed to make sure that the United States has adequate supplies to satisfy current domestic and foreign customers' needs and take advantage of new market opportunities?

--How much soil and water conservation and rural development is needed to assure a cost-effective resource base for future generations? How much of this conservation, and development cost can the food/agricultural industry cover and still remain competitive in world trade?

--What mix of farms and other food/agricultural operations is needed to be sufficiently profitable to encourage continued operations?

--What mix of federal programs will maintain adequate food inventories, satisfy U.S. desire to compete abroad, conserve natural resources, and provide a climate for a reliable and profitable food/agricultural sector?

What Markets Provide the Best Opportunities for the U.S. Food/ Agricultural System?

About 30 percent of U.S. agricultural production is sold in world markets. These sales affect U.S.-foreign relations and encourage prosperity but they also make the U.S. food/agricultural sector dependent on a riskier market environment. The world market is more volatile than the domestic market because it is subject to each nation's political, monetary, and exchange rate policies; International Monetary Fund decisions; wars; embargoes; and other factors outside the scope and control of food/agricultural policy.

	Some markets, particularly in developing countries, will require decades to develop; others might be brought on-line almost immediately by discovering special unmet needs. By identifying and developing products that appeal to overseas markets and promoting them aggressively and consistently, U.S. food/agricultural industries can gain a larger share of export markets, particularly in more developed and middle-income nations, where there is greater discretionary income. Who will absorb the marketing costs and the risks involved--the food/agriculture sector or the U.S. taxpayer? Who will receive the benefits?
What Level Of Food Inventory Is Needed To Assure Domestic and Foreign Customers' Needs?	Surplus food is needed to ensure that consumers' needs are met, that market share can be maintained, and that the United States has sufficient supplies available to take advantage of unanticipated new markets. Having an adequate food surplus and excess agricultural capacity is also a tactic designed to prevent the disasters associated with food shortages: escalating food prices, hunger, and market collapse. To satisfy both domestic and export markets, maintain market share, and provide the market with a level of food security, the food/agricultural sector requires a food surplus inventory as well as surplus agricultural capacity. How much of a surplus is needed? What are the most effective administrative mechanisms? Who would cover the expense?
How Much Conservation and Rural Development Is Needed To Assure A Cost-effective Resource Base for Future Generations?	Rural America has always been in a state of change. Rural population boomed with the pioneers and decreased with drought and depression. New technology brought additional productivity as well as new concerns with natural resources. As each technology change occurs a principal issue is determining what the rate and type of technological development should be. Development brings jobs, prosperity, and change. Development also brings a concern for the long-term retention of prime farmland, topsoil, and conservation of basic resources for future generations. To encourage a viable rural resource base composed of natural and human resources, a balance between development and conservation must be struck. What is that balance between long- and short-term benefits and costs?

What Mix of Farms and Other Food/ Agricultural Operations Is Needed To Be Efficient, Provide Safe, Reliable Food, and Encourage Continued Operations?

The current structure of the U.S. food/ agricultural sector includes many competing interests--crop farms, livestock producers, input suppliers, food processors, retailers, and consumers. These interests also include different organizations (in size, location, and type) that compete within their individual spheres of operation. The agricultural policies developed in the 1930's were directed at a much simpler, more uniform agricultural structure.

To adapt the existing policies, basically unchanged from the 1930's, to deal with today's complex and competitive food/agricultural structure requires an understanding of each of the various interests, the benefits that they provide, and the various effects on other groups when a program is developed for one group.

To satisfy both short- and long-term food needs, an efficient U.S. food/agricultural structure is needed. The system must be able to satisfy existing domestic and world clients, maintain surplus capacity, and manage soil and water resources and a rural infrastructure for future generations. The system must also be able to minimize risks that would disrupt the flow of food. Issues involving structure that need to be addressed include

--the level of efficiency desired;

--the amount of risk that is acceptable;

--the numbers, types, and sizes of farms;

--the location of agricultural lands;

--the diversity of agricultural products;

--agricultural research needs; and

--natural resource levels and use.

What Mix of Federal Programs Is Needed To Assure A Reliable and Profitable Food/Agricultural Sector?

In general, the agricultural sector of the 1930's has continually evolved into a more productive, technologically sophisticated, market-dependent operation, has steadily increased productivity by absorbing new technology, and has steadily produced surplus commodities. Productivity increases, surplus production, declining real commodity prices, and adoption of new technology (particularly biotechnology), are all expected to continue. Additional environmental, safety, and technological risks associated with an increasingly sophisticated industry are expected to continue. Very limited development of new markets in the United States is expected to continue as well. Any significant new market development is expected to take place primarily outside of the United States, where competition is also likely to increase.

In the 50 years since passage of the 1930's legislation, the domestic, production-oriented agricultural sector has evolved into a world market-dependent food/agricultural industry. To update the existing legislation to a world market orientation, an understanding of current market conditions and clarifications of criteria with which to view program proposals are needed. Critical to this criteria is the degree to which it provides flexibility in government policies and programs so that it can address possible change in factors that influence the food/agricultural sector.

REFERENCES

Agricultural Outlook Conference. Outlook '85 Proceedings, Dec. 3-5, 1984, U.S. Department of Agriculture.

American Farmland Trust. Future Policy Direction for American Agriculture, November 1984.

Beale, C.L. "U.S. Population Trends Break with Past." Rural Development Perspectives (vol. 1, issue 2), Economic Research Service, U.S. Department of Agriculture, February 1985.

Brown, L.R. By Bread Alone. New York: Praeger Publishers. 1974.

Brown, L.R., et. al. State of the World, 1985. New York: W.W. Norton, 1985.

Cargill Incorporated. 1985 Farm Policy: Critical Choices. 1984.

Cate, P.C. Farm Price and Income Support Programs: Background Information. Report No: 83-2 ENR, Environment and Natural Resources Policy Division, Congressional Research Service, January 1983.

Cate, P.C., and G.S. Becker. Federal Farm Programs: A Primer. Report No. 84-232 ENR, Environment and Natural Resources Policy Division, Congressional Research Service, December 1984.

Congressional Budget Office. Crop Price-Support Programs: Policy Options for Contemporary Agriculture, February 1984.

Connor, J.M., R.T. Rogers, B.W. Marion, and W.F. Mueller. The Food Manufacturing Industries: Structure, Strategies, Performance, and Policies. Lexington, Mass.: D.C. Heath and Company, 1985.

Curry, C.E. Agriculture, Stability and Growth: Toward a Cooperative Approach. Reports from a public policy study of the Curry Foundation, 1984.

Dahlberg, K. New Directions for Agriculture and Agricultural Research: Neglected Dimensions and Emerging Alternatives. Roman and Allanheld, 1985.

Davenport, C., M.D. Boehlje, and D.B.H. Martin. The Effects of Tax Policy on American Agriculture. Economic Research Service, Agricultural Economic Report No. 480, U.S. Department of Agriculture, February 1982.

Deavers, K.L. and D.L. Brown. "A New Agenda for Rural Policy in the 1980's." Rural Development Perspectives (vol. 1, issue 1), Economic Research Service, U.S. Department of Agriculture, October 1984.

Economic Research Service. Agriculture in the Future: An Outlook for the 1980's and Beyond, Agricultural Information Bulletin No. 484, U.S. Department of Agriculture, December 1984.

Economic Research Service. Background for the 1985 Farm Legislation by Individual Commodity Programs. Agricultural Information Bulletin Nos. 465(Honey), 466(Wool and Mohair), 467(Wheat), 468(Tobacco), 470(Rice), 471(Corn), 472(Soybeans), 473(Oats), 476(Cotton). U.S. Department of Agriculture, September 1984.

Economic Research Service. Economic Indicators of the Farm Sector--Income and Balance Sheet Statistics, 1983. ECIFS 3-3, U.S. Department of Agriculture, September 1984.

Economic Research Service. History of Agricultural Price-Support and Adjustment Programs 1933-84: Background for 1985 Farm Legislation. Agricultural Information Bulletin No. 485, U.S. Department of Agriculture, December 1984.

Economic Research Service. The Current Financial Condition of Farmers and Farm Lenders. Agricultural Information Bulletin No. 490, U.S. Department of Agriculture, March 1985.

Economics and Statistics Service. Agricultural-Food Policy Review: Perspectives for the 1980's, AFPR-4, U.S. Department of Agriculture, April 1981.

Edmondson, W., and G. Schluter. "The Farm: Source of Many Jobs." National Food Review. Economic Research Service, U.S. Department of Agriculture, NFR-27, 1984.

Epstein, S.B. Food For Peace, 1954-1984: Major Changes in Legislation. Report No. 85-53 ENR, Environment and Natural Policy division, Congressional Research Service, February 15, 1985.

Feller, I., L. Kaltreider, P. Madden, D. Moore, and L. Suns. The Agricultural Technology Delivery System. Institute for Policy Research and Evaluation, the Pennsylvania State University, December 1984.

Fowler-McGracken Commission. A Strategy for Competitiveness in Agriculture. International Management and Development Institute, Fall 1984.

Gardner, B.L., ed. U.S. Agricultural Policy: the 1985 Farm Legislation. American Enterprise Institute for Public Policy Research, 1985.

APPENDIX I

Grigsby, S.E., and C.L. Jabara. "Agricultural Export Programs and U.S. Agricultural Policy." Agricultural-Food Policy Review: Commodity Program Perspectives, Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Harp, H.H. and J.M. Connor. "Tracing Your Food Dollar Back to the Farm." 1982 Yearbook of Agriculture. U.S. Department of Agriculture, 1982.

Harrington, D.H., and A.C. Manchester. "Profile of the U.S. Farm Sector." Agricultural-Food Policy Review: Commodity Program Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

"How Farmers are Responding to Financial Stress." Agricultural Outlook. Economic Research Service, U.S. Department of Agriculture, April 1985.

Jaenke, E.A. World Hunger: Development and Trade. Council on World Hunger, Development and Trade, 1984.

Knutson, R.D. "Farm and Food Policy--An Overview." The Farm and Food System in Transition. Extension Committee on Policy, USDA-Extension, Michigan State University Cooperative Extension Service.

Knutson, R.D., and J.W. Richardson. Alternative Policy Tools for U.S. Agriculture. Agricultural and Food Policy Center, Texas Agricultural Extension Service, Texas A&M University, B-1471, August 1984.

Langley, J.A., L.P. Schartz, and B.C. Stucker. "Alternative Tools and Concepts." Food-Agricultural Policy Review: Commodity Program Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Langley, J.A., R.D. Reinsel, J.A. Graven, J.A. Zellner, and F.J. Nelson. "Commodity Price and Income Support Programs in Perspective." Agricultural-Food Policy Review: Commodity Program Perspectives. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Mackie, A.B. The U.S. Farmer and World Market Development, ERS Staff Report No. AGES 830810, U.S. Department of Agriculture, October 1983.

Madden, J.P. Beyond Conventional Economics, Staff Paper No. 80, Agricultural Economics and Rural Sociology Department, The Pennsylvania State University, February 1985.

Manchester, A.C. Agriculture's Links with U.S. and World Economies. Economic Research Service, Agricultural Information Bulletin No. 496, U.S. Department of Agriculture, September 1985.

Melichar, Emanuel. "A Financial Perspective on Agriculture." Federal Reserve Bulletin. January 1984.

Miranowski, J.A., and K.H. Reichelderfer. "Resource Conservation Programs in the Farm Policy Arena." Agricultural-Food Policy Review: Commodity Program Perspective." Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

National Agricultural Forum. "Alternatives for U.S. Food and Agricultural Policy." Agriculture Council of America Foundation, December 1984.

National Agricultural Forum. "Policy Options for Improving the Trade Performance of U.S. Agriculture." Agriculture Council of America Foundation, January 1984.

National Center for Food and Agricultural Policy. U.S. Agriculture in the 1980's--Current and Emerging Policy Issues; (briefing featuring four former secretaries of agriculture), Resources for the Future, October 1984.

Office of Rural Development Policy. Rural Communities and the American Farmer: A Partnership for Progress. U.S. Department of Agriculture, April 1984.

Osteen, C.D. The Impact of Farm Policies on Soil Erosion: A Problem Definition Paper. Economic Research Service, U.S. Department of Agriculture, January 1985.

Paarlberg, P.L., A.J. Webb, J.C. Dunmore, and J.L. Deaton. "The U.S. Competitive Position in World Commodity Trade." Agricultural-Food Policy Review: Commodity Program Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Pearson, J.L., and H.S. Ricker. "Exploiting New Marketing Opportunities." 1982 Yearbook of Agriculture, U.S. Department of Agriculture, 1982.

Prentice, P.T., and D.A. Torgerson. "U.S. Agriculture and the Macroeconomy." Agricultural -Food Policy Review: Commodity Programs Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Production Credit Associations. Agriculture 2000: A Look at the Future. Columbus, Ohio: Batelle Press.

Rasmussen, W.D. "Historical Overview of U.S. Agricultural Policies and Programs." Agricultural-Food Policy Review: Commodity Programs Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

Rasmussen, W.D. "Issue in Stabilizing Farm Income: the Historical Role of the Federal Government in Policy and Agriculture." Economic Research Service, U.S. Department of Agriculture, June 1984.

Raussar, G.C., and W.E. Foster. Agricultural Policy: A Synthesis of Major Studies and Options for 1985 (paper presented at the National Conference on Food, Agriculture, and Resources: Policy Choices), December 1984.

Reid, J.N., and P.J. Sullivan. "Rural Infrastructure: How Much? How Good? Rural Development Perspectives (vol. 1, issue 1), Economic Research Service, U.S. Department of Agriculture, October 1984.

Rosenblum, J.W. Agriculture in the 21st Century. New York: John Wiley and Sons, Inc., 1983.

Shane, M.D., and D. Stallings. Financial Constraints to Trade and Growth. Economic Research Service, Foreign Agricultural Economic Report No. 211, U.S. Department of Agriculture, December 1984.

Sharples, J.A., and C.A. Goodloe. Global Stocks of Grain: Implications for U.S. Policy. ERS Staff Report No. AGES 840319, U.S. Department of Agriculture, May 1984.

Soil Conservation Service, Soil and Water Conservation: Background for 1985 Farm Legislation, Agricultural Information Bulletin No. 486, U.S. Department of Agriculture, January 1985.

Spinelli, F. "New Technologies: More with Less?" National Food Review, Economic Research Service, U.S. Department of Agriculture, NFR-27, 1984.

Summers, G.F. and T.A. Hirshl. "Retirees as a Growth Industry." Rural Development Perspectives (vol. 1, issue 2), Economic Research Service, U.S. Department of Agriculture, February 1985.

Swanson, L.L. "Moving to the Country in Search of a Better Life." Rural Development Perspectives (vol. 1 issue 1), Economic Research Service, U.S. Department of Agriculture, October 1984.

U.S. Department of Agriculture, 1985 Fact Book of U.S. Agriculture, Misc. Publication No. 1063, November 1984.

U.S. General Accounting Office. Changing Character and Structure of American Agriculture: An Overview. CED-78-178, September 26, 1978.

U.S. General Accounting Office. Financial Conditions of Agriculture. GAO/RCED-86-09, October 10, 1985.

U.S. General Accounting Office. 1983 Payment-In-Kind Program Overview: Its Design, Impact, and Cost." RCED-85-89, September 25, 1985.

Webb, A.J., J. Sharples, F. Holland, and P.L. Paarlberg. "World Agricultural Markets and U.S. Farm Policy." Agricultural-Food Policy Review: Commodity Program Perspective. Economic Research Service, Agricultural Economic Report No. 530, U.S. Department of Agriculture, July 1985.

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