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USDA's 1997 Baseline: The Domestic Outlook

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The complex global picture painted by USDA's international outlook, covering the 1997-2005 period, has obvious implications for the welfare of a wide range of stakeholders in U.S. agriculture. Because of the diversity and interdependence of different parts of U.S. agriculture, it is rare when an outlook scenario suggests that *everyone* is well off or better off. Typically, if grain prices are high (a good outlook for grain producers), livestock producers are likely to be hurt. Or if prices received by farmers for livestock products are high, consumers are worse off due to higher retail meat prices.

Tradeoffs across subsectors and market participants are the rule. However, this year's domestic outlook reflects the *exception* to that rule. Some main features behind this optimism over the outlook period are presented here.

Crops sectors in general. Strong growth in use leads to rising prices and greater areas planted to most major field crops. The U.S. specialty crops sectors also thrive. The U.S. becomes a net exporter of fruits by 2000.

Food and feed grain. In the near term, prices drop from the abnormal highs of recent months, but the outlook over the longer term is for a slow rise in prices. The USDA baseline assumes that CRP acreage drops temporarily as contracts expire, but then rebounds quickly to over 36 million acres. Most land enrolled in the CRP will be in areas traditionally planted to major field crops. This, together with strong world demand, pushes grain prices up.

Oilseeds. USDA's baseline incorporates an expectation of big productivity gains in soybeans and other oilseed crops in the U.S., maintaining a U.S. edge over other major producing countries. These gains in U.S. productivity and efficiency lead to lower production costs, leaving the U.S. well-positioned to meet the strong growth in demand we see for the oilseed sector.

Cotton. Yield and acreage gains provide the cotton production to meet the strong growth in demand, particularly domestic demand, we expect over the next decade. For cotton to successfully compete with other crops for more acreage, cotton prices will have to follow those of grain and oilseeds.

Meats and livestock. The price situation is similar to that for crop prices--moderate growth in nominal terms with real prices dropping. While feed prices are now dropping to more normal levels, over the longer-term they will rise at rates similar to the general inflation rate. As a result,

livestock producers do not experience any real (inflation adjusted) increase in feed prices. At the same time, increases in feed efficiency and other production and marketing efficiency gains (especially for hogs, broilers, and feeder cattle) should lower real livestock production costs. The net result is that efficiency gains offset real price declines and livestock producers' income remains stable in real terms.

Farm income and wealth. It is not surprising from the commodity specific highlights just reviewed that our farm income outlook is also quite rosy. Net farm income, in nominal terms, is expected to rise steadily over the projection period. Transformed by inflation adjustment, this means that we are expecting a steady real farm income situation--a definite change from recent trends. Given the conditions and assumptions on which this baseline relies, the debt-to-asset ratio remains flat beyond 2000. Debt is expected to rise, but is offset by rising asset values.

Consumers. Food inflation grows slower than general inflation, even though disposable income spent on food is influenced by a continued trend of substantial purchases of food away from home.

In summary, just about everyone is better off: farmers, whether crop producers or livestock producers, and consumers. What factors interact to create such a rosy, but atypical projection?

EXPLANATORY FACTORS

Strong export growth, the product of robust world economic growth and factors such as trade liberalization, is a key part of the projection scenario. U.S. exports rise from this year's forecast of \$56 billion to \$80 billion by 2005. High-valued product (HVP) exports increase faster than bulk exports. In particular, the farm value of meat exports rises significantly over the projection period. The export share of total U.S. use grows significantly for corn, grows slightly for wheat and soybeans, and drops for rice and cotton (which experience rapidly growing domestic demand).

Domestic policy and policy assumptions support a positive agricultural outlook. The planting flexibility introduced by the 1996 farm act facilitates the market's response to changing demand for U.S. agricultural commodities. In addition, the baseline assumes that production flexibility contract payments continue beyond expiration of current legislation in 2002. This helps to explain why crop producers are better off, in the aggregate, despite lower real prices. Still, government payments are becoming less important over time as a *proportion* of gross cash income.

Trade agreements and unilateral trade policy reform in other countries allow U.S. farmers to better realize competitive gains from their comparative advantage in many agricultural products, while reinforcing the advantages of freedom to respond to market signals.

Structural change in U.S. agriculture, via consolidation and concentration, continue and provide economies of scale that increase efficiency above and beyond technology change. In addition, the increases in vertical coordination of activities in the food production and marketing chain, for example, help to explain why the consumer is better off with respect to food prices.

In creating a baseline scenario that takes recent trends into account and builds on recent policy actions, USDA is not saying that the “everyone wins” outcome will truly come to pass. The baseline is not a forecast! For example, by assuming that production flexibility contract payments continue, we are not forecasting that they will. We are simply saying that, since we don’t know what future policy will be, we are assuming no change. Also, any number of other things might happen that could greatly alter the actual outcome. By making our assumptions clear, users of the baseline can adjust the projections if they want to use different assumptions.

BASELINE UNCERTAINTIES

Weather, as always, is the real wild card. But several other factors play an important role in determining the eventual outcome of the U.S. agricultural sector.

Government policy, can take almost as many wild turns as weather. USDA’s baseline assumes no change in current U.S. agricultural policy beyond 2002. This is not necessarily what we expect. But it is hard to know *what* to expect, even with respect to domestic policy in the near term.

Unilateral foreign policy change is another big source of policy uncertainty. For example, the EU could establish larger set-aside rates under CAP reform than we have assumed.

Multilateral or regional trade agreements could have a lot to say about future directions. Whether what they have to say bodes well or poorly for various U.S. stakeholders is dependent upon the nature of any agreements’ growth and development. For example, EU enlargement could significantly decrease export demand for some U.S. agricultural commodities and food products. But, accession to the WTO of a few major countries such as China could expand U.S. market access by increasing the number of countries who are playing by the same international trade “rules” as we are.

Strong income growth in developing economies is a major reason for the optimistic scenario outlined by the international baseline. Weaker growth would mean lower global trade, U.S. exports, and prices.

Supply response, both domestic and international, determines the agricultural sector’s performance in responding to market signals. Yield assumptions in this baseline have not been altered to account explicitly for changes that could occur as a result of biotechnological breakthroughs. In addition, potential productivity changes that may result from the 1996 farm act are excluded, principally because a good deal of uncertainty remains about how domestic supply is going to respond in the absence of acreage reduction programs and deficiency payments.

Finally, there is even greater uncertainty about the nature of foreign supply response. Experience in the recent past suggests that foreign supply is highly responsive to price signals, and can adjust more rapidly than previously expected.

Energy prices. There appears to be an upsurge in general concern about energy price stability over time. There is no empirical basis, though, for assuming a new energy crisis or anything other than a trend extension for energy prices in our baseline. If wrong, though, energy price instability could have a big impact on the outlook

Stocks and food security. U.S. and global grain stocks-to-use ratios in the baseline scenario are tight by historical standards. What this means for the outlook with respect to price volatility and food security remains uncertain. On one hand, a range of factors suggest that stocks have become less important to price stability. Such factors include globalization of markets, trade and agricultural policy liberalization, and advances in telecommunications (allowing electronic trade and linking foreign and domestic futures markets). On the other hand, price levels are inversely related to levels of stock and, as stocks decline, higher prices might make food security harder to assure in low income countries.

In addition to the above uncertainties, the baseline-derived outlook says nothing about a variety of issues--e.g., income risk management and sustainability--that are currently central to the domestic agricultural economy. Greater farm income variability is expected as a result of the 1996 farm act's removal of traditional income safety net mechanisms. U.S. farmers will have to make strategic use of risk management alternatives. The baseline cannot tell us which of these mechanisms farmers will adopt, or what their adoption will mean for such things as production or average income levels in the medium term.

The economic, ecological, and social sustainability of the conditions underlying the baseline exercise (or implied by the resultant outlook) cannot be gleaned from the information at hand. Nevertheless, considerations of sustainability (or lack thereof) introduce more uncertainty about whether pathways suggested by the current outlook can be maintained over time.

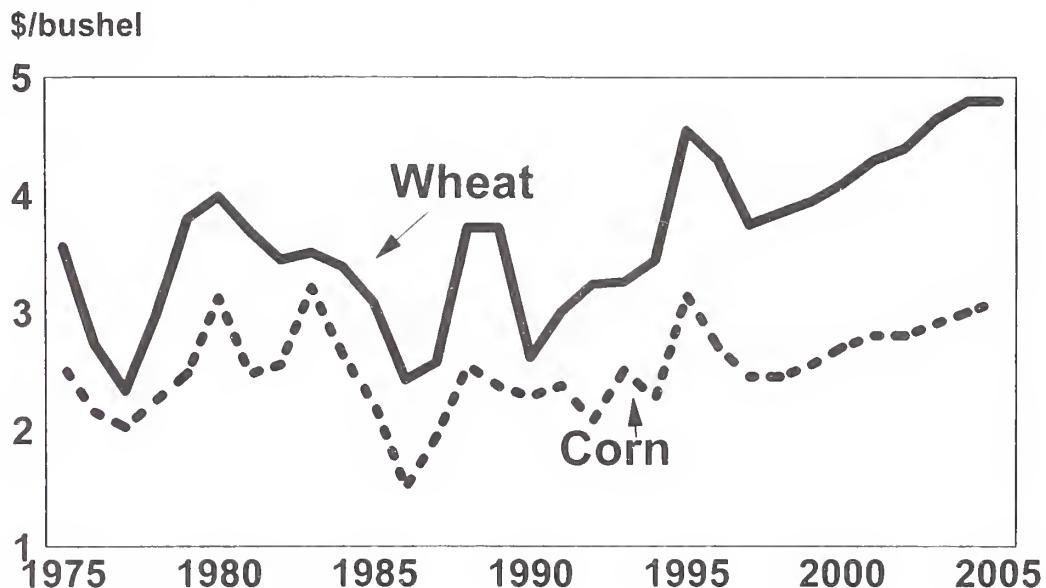
It is important to remember that the baseline is a "conditional scenario analysis," designed for comparative purposes. Whether or not an individual agrees with the underlying assumptions, the baseline serves as a transparent reference tool from which alternate outcomes may be derived by changing those assumptions. To help you make the choice of how USDA's 1997 baseline estimates through the year 2005 might help you or your firm, you are invited to take a look at the baseline projections on the internet at <http://www.mannlib.cornell.edu/data-sets/farms/94005/>.

USDA Baseline Projections to 2005



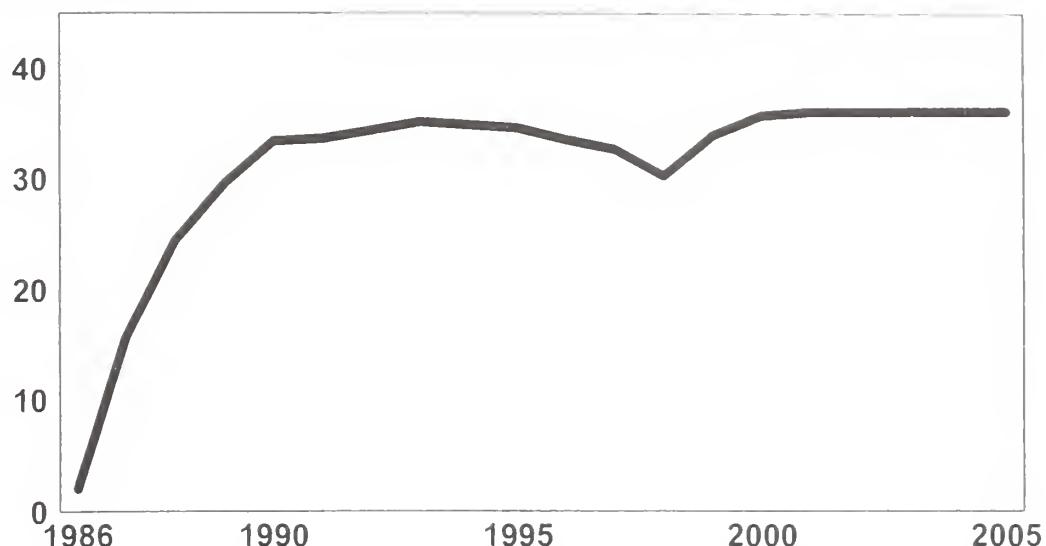
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Nominal Crop Prices Grow



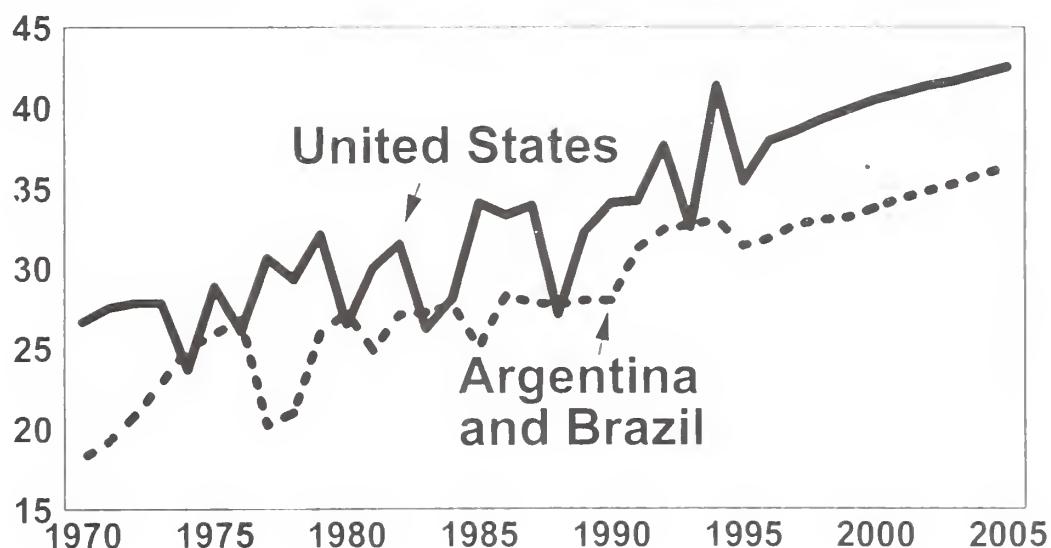
Conservation Reserve Program Acreage Projected to Drop in 1997 and 1998 and Then to Rebound

Million acres



Soybean Yield Growth

Bushels per acre



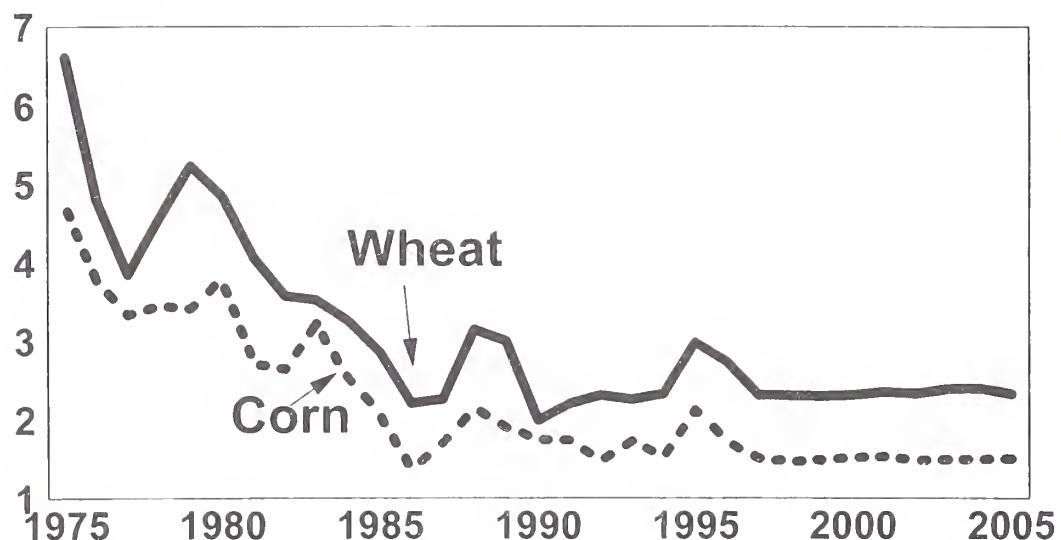
U.S. Baseline Crop Supply and Use Growth

1991-95 to 2005 Annual Growth Rates

	Use	Yields	Planted Area
	Percent		
Wheat	1.2	0.6	0.9
Corn	2.1	1.5	0.7
Soybeans	1.6	1.3	0.3
Rice	0.5	0.6	-0.3
Cotton	1.4	1.2	0.1

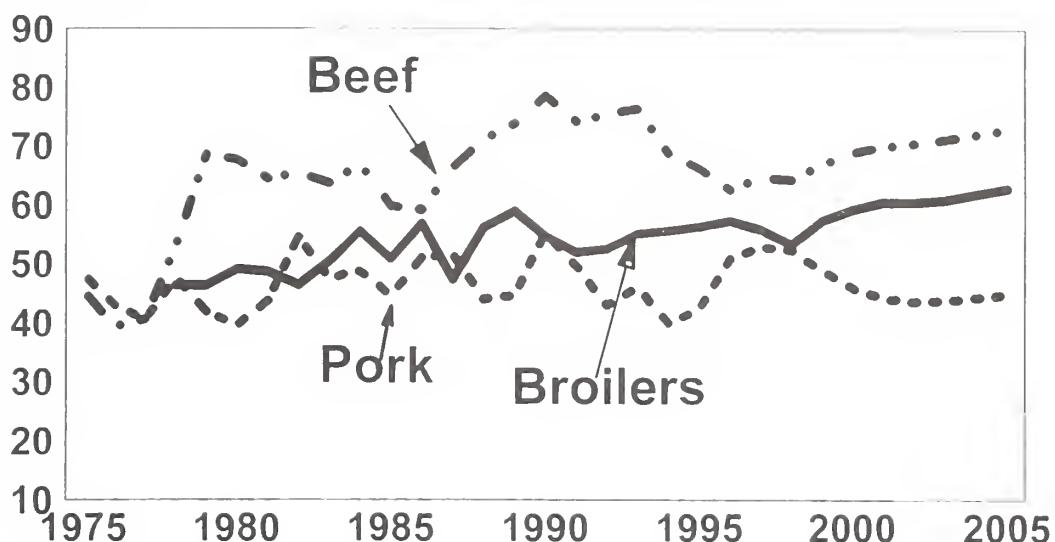
Real Crop Prices Level Off

\$/bushel



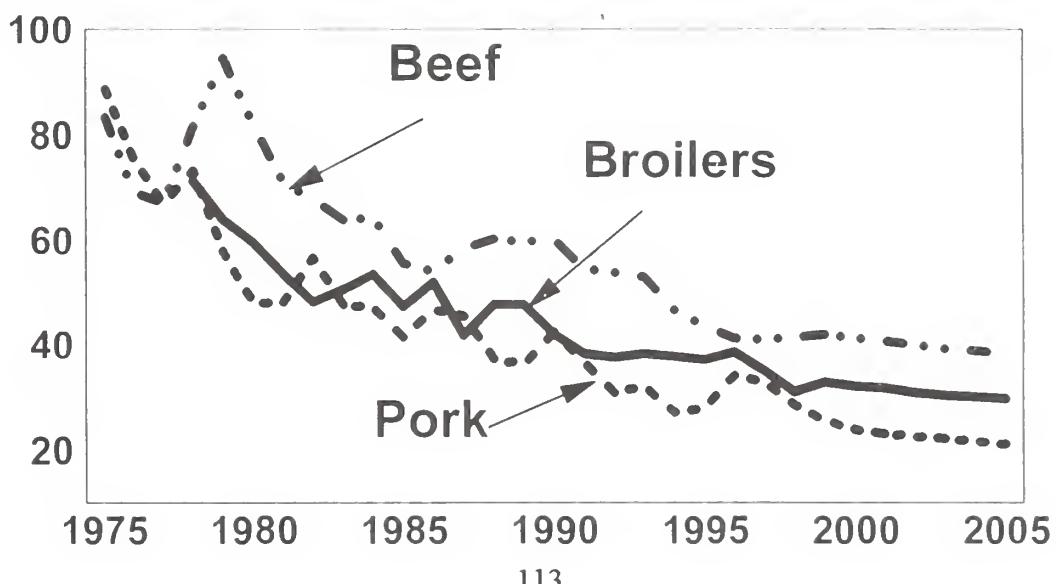
Nominal Livestock Prices Grow Moderately

\$ per cwt.

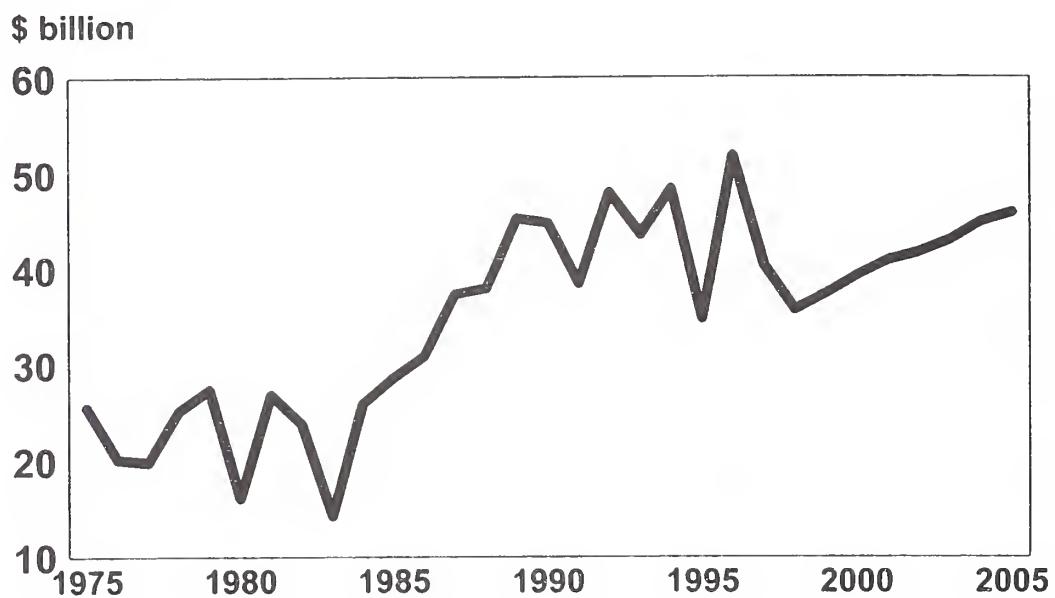


Real Livestock Prices Continue to Drop

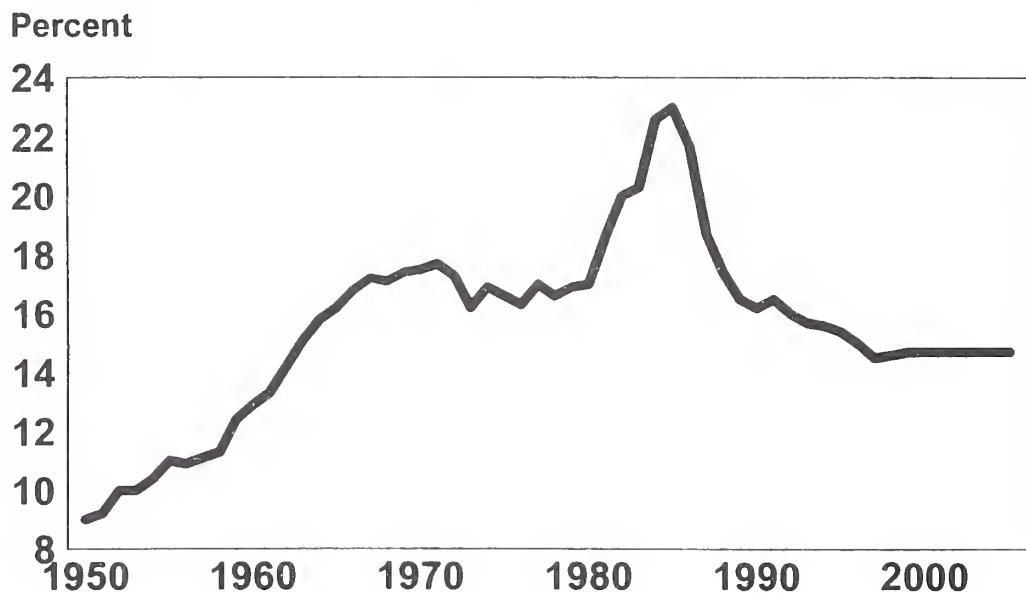
\$ per cwt.



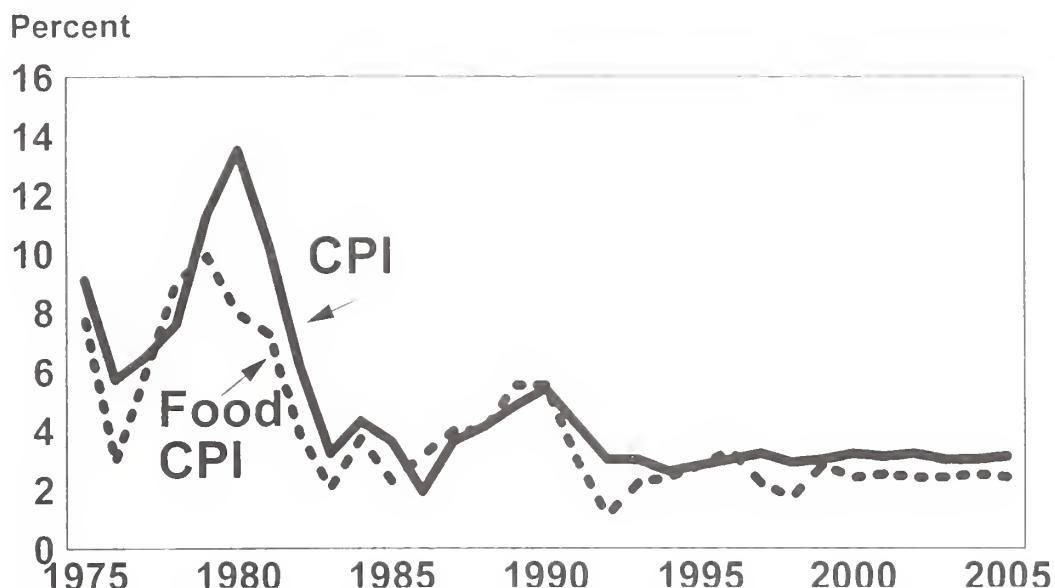
Net Farm Income



Debt to Asset Ratios



Food Inflation to Remain Under General Inflation



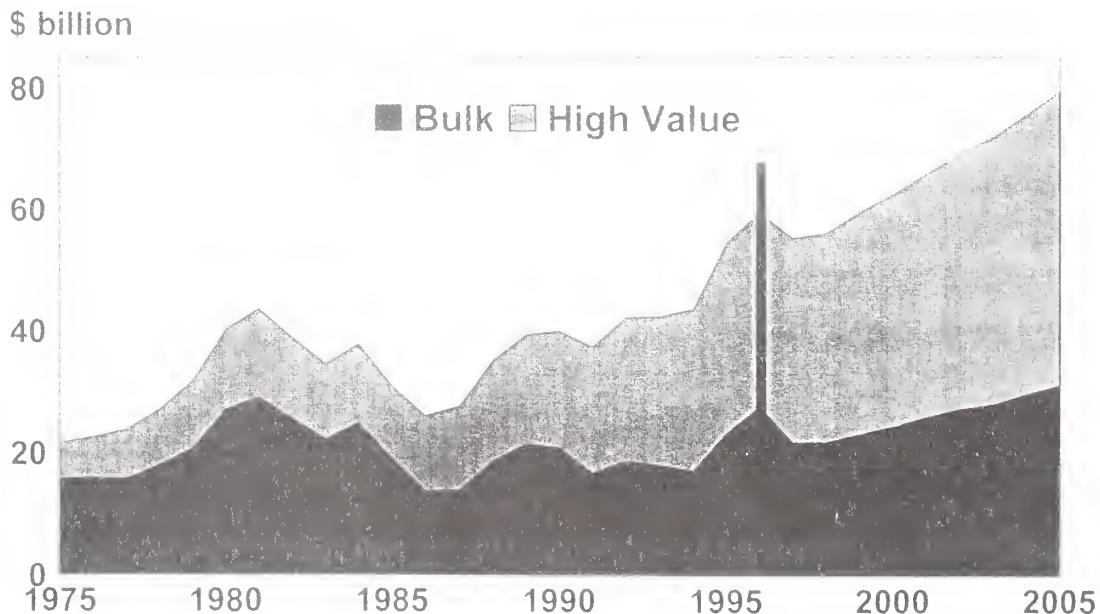
Food Eaten Away From Home Continues to Grow Faster



Major Factors Explaining USDA Baseline

- ▶ *Strong Growth in Export Demand*
- ▶ **Domestic Policy (1996 Farm Act) and Policy Assumptions**
- ▶ **Trade Agreements and Unilateral Policy Reform in Other Countries**
- ▶ **Structural Change in U.S. Agriculture**

Growth of U.S. Agricultural Exports



U.S. Baseline Crop Demand Growth

	Annual Rate of Demand Growth 1991-95 to 2005		Export Share of U.S. Demand	
	Domestic	Exports	1991-95	2005
<i>Percent</i>				
Wheat	0.9	1.5	52	53
Corn	1.5	4.1	21	27
Soybeans	1.3	2.0	34	36
Rice	2.2	-1.9	45	33
Cotton	2.0	0.3	40	35

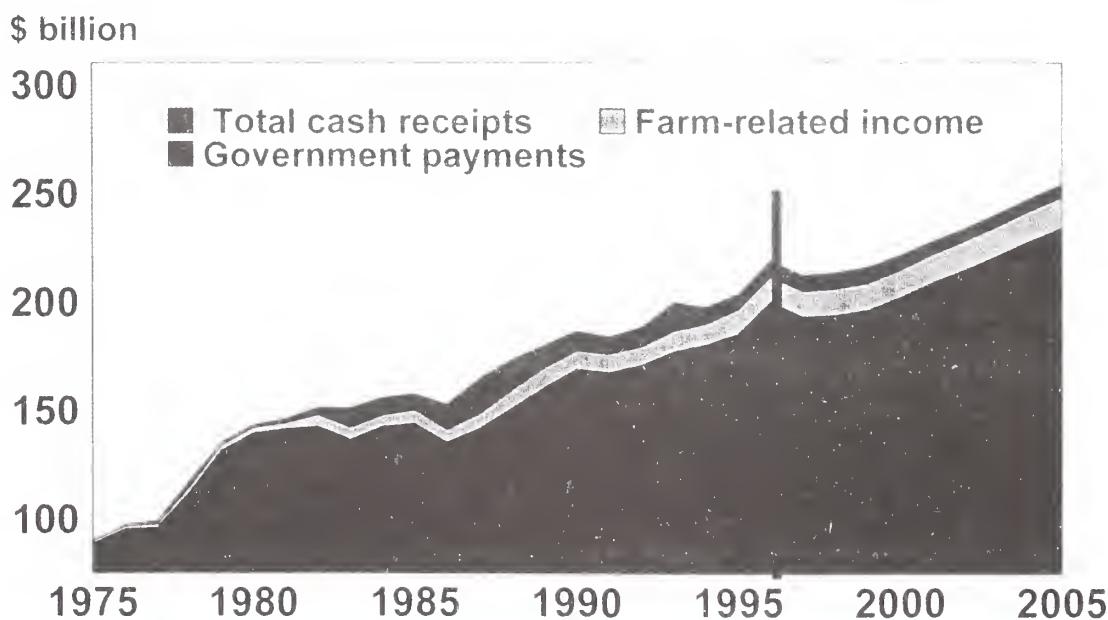
Farm Value of Domestically Produced Meat



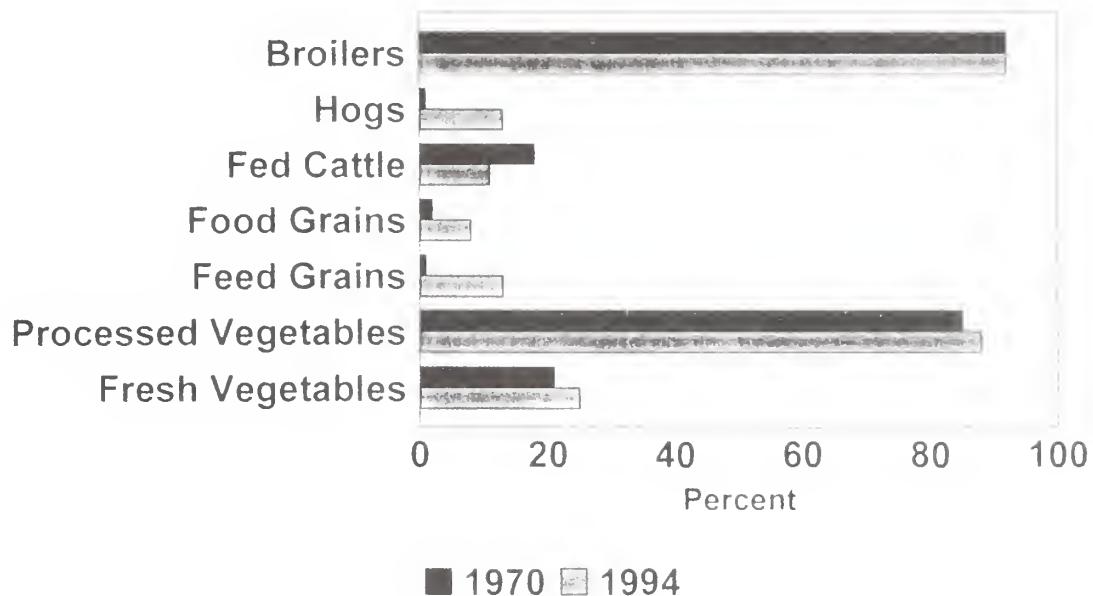
The Federal Agriculture Improvement and Reform Act of 1996 Increases Market Orientation

- ▶ Supply Management/Income Support Programs Modified
- ▶ Dairy, Sugar, and Peanut Programs Revised
- ▶ Trade Provisions Targeted
- ▶ Environmental Programs Consolidated and Extended

Government Payments Becoming Less Important as a Source of Gross Cash Income



Growth in Contracting, 1970 to 1994



Important Sources of Uncertainty

- ▶ **Policy**
 - ▶ *Domestic Policy*
 - ▶ *Unilateral Policy Changes by Trade Partners or Competitors*
 - ▶ *Multilateral or Regional Trade Agreements*
- ▶ **Income Growth--Particularly in Developing Economies**
- ▶ **Domestic and International Agricultural Supply Response**
- ▶ **Energy Prices**
- ▶ **Price Volatility, Grain Stocks, and Food Security**

Farmers Will Look for Strategies to Manage Increased Income Risk

- ▶ **Futures Markets**
- ▶ **Forward Contract**
- ▶ **Reduce Debt/Increase savings**
- ▶ **Diversification**
- ▶ **Crop and Revenue Insurance**
- ▶ **Use Market Information**

U.S. Grain Stocks to Use Tightening Relative to the Rest of the World

