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Agricultural Outlook Forum

Presented: February 16, 2006

2006 AGRICULTURAL ECONOMIC OUTLOOK AND U.S. TRADE AND  
AGRICULTURAL POLICY PROSPECTS

Keith Collins  
Chief Economist, USDA

## **OUTLOOK FOR THE FARM ECONOMY**

Keith Collins  
Chief Economist, USDA

Good morning and welcome to Agricultural Outlook Forum 2006. My remarks this morning will focus on the prospects for the farm economy in the coming year.

Part of the story of the coming year is based on the experience of 2005—and what an experience. A year ago at this forum, what would you have thought about the health of the farm economy if I told you that in 2005 we would see record and near record crops for the second year in a row, multiple devastating hurricanes that would shut down the central marketing infrastructure of the country, soaring energy prices including diesel prices reaching \$3.00 per gallon and natural gas at \$14 per million btu, continued loss of Asian beef markets and emergence of global AI concerns. You would have told me that the farm economy would be in deep and pervasive trouble. Instead, the farm economy seemed to respond with “What, me worry?” Domestic demand for farm products soared, exports set a record high, U.S. farm income was the second highest ever, and farmland values and farm wealth reached new all-time highs.

The reasons for this outcome include strong global demand for food, the flexibility of the agricultural system to rebound from shocks, a substantial increase in government support spending and cyclically tight markets for some commodities, such as meat. There are many key issues that will shape agriculture’s prosperity in the future. This Outlook Forum will dig deeply into these issues, with both government and private sector experts offering their provocative analysis and opinions. I will start by discussing just a few key factors that will shape 2006. While demand remains strong, the farm economy will be challenged by large stocks of crops, built up from the abundant harvests the past two years, livestock expansion, higher interest rates and energy costs, animal disease issues and weather. While it is too early to be definitive, these factors suggest that farm income will likely drop in 2006 and the farm economy will contract. Over the next few minutes, I will examine this turn of events in more detail.

### **Overall Demand for U.S. Farm Products to Remain Strong**

Continuing favorable U.S. and foreign economic growth suggest another year of strong demand for agricultural products (Figure 1). The U.S. economy grew at a more sustainable 3.5 percent in 2005, down from 2004’s 4.2 percent. For 2006, despite slower consumer spending, we expect U.S. GDP to rise by around 3.5 percent, led by business spending, including higher inventories and capital investment, and by rising exports.

Foreign economic growth retreated a little in 2005, with most areas slowing compared with 2004, particularly Western Europe. This year, Western Europe is expected to have the strongest growth since 2000, and growth prospects now appear good in Canada, Japan, East Asia and Mexico—all important markets for U.S. agriculture. Foreign economic growth is expected to rise to 3.3 percent in 2006, the second strongest rate since 2000.

With a firm U.S. macroeconomic foundation, prospects for higher consumption expenditures on food remain positive (Figure 2), although the rate of growth is likely to decline to near 3.5 percent from the unusually high 5 percent levels in 2004 and 2005. Average growth was less

than 2.5 percent during the slowdown in 2001 and 2002. This year, heavier debt loads, higher energy costs, and less use of household assets to finance consumption are expected to reduce the rate of growth of consumer spending on food. Consumer spending, which accounts for two-thirds of Gross Domestic Product, increased only 1.1 percent in the last quarter of 2005, sharply below the third-quarter and the lowest increase since the second quarter of 2001.

Turning to foreign demand for U.S. agricultural products, our latest forecast for farm exports in fiscal year 2006, released this morning is a record-high \$64.5 billion, up \$2 billion from 2005's record (Figure 3) and unchanged from our last quarterly forecast. Imports are forecast at \$63.5 billion, up \$2.0 billion from our last forecast, leaving a forecast surplus of \$1.0 billion for FY 2006.

While the agricultural export-weighted value of the dollar appreciated in 2005, at the start of 2006, it remains over 10 percent below the level at the start of 2003. The current period of strong foreign economic growth and continued effects of the decline in the value of the dollar from several years ago should show up in higher U.S. agricultural exports in the future and an improving trade balance. Figure 3 depicts our agricultural trade to 2010 using this morning's trade forecasts for fiscal 2006 and the projections contained in the USDA baseline, released on February 10, 2006. Projected economic growth suggests continued increases in agricultural exports and imports, with the agricultural trade balance forecast to be positive but less than in past years.

### **Crop Supplies Generally Outstripping Demand, But Prices Still Holding Up**

In 2004, global markets for principal crops saw record-high production of grains, oilseeds and cotton. Because the 2004/05 marketing year began with relatively tight supplies, the year was a transition from lower stock levels, lower government farm program costs, and higher prices to higher stock levels, higher farm program costs, and lower market prices. Often, these transitions to lower prices have been followed by several years of lower prices. At the outset, the 2005/06 marketing year is generally following a similar pattern. This year, once again, we have had record or near-record production for major crops, adding to the stock levels built up last year. As a result, U.S. supplies for feed grains, cotton and soybeans are record high this year, although not for wheat. But this picture of the crop sector moving toward the bottom of the cycle is not as transparent as it seems.

There are four factors that suggest the prospect for divergent performances among the major crop markets over the next couple of years. They are:

- (1) Global grain and oilseed markets are moving in different directions,
- (2) Biofuels may drive faster-than-expected demand growth,
- (3) Energy and interest costs are likely to be a rising challenge for many producers, and
- (4) Weather is already being disruptive for the upcoming crops.

**Market directions.** Let's take a quick look at each of these factors, starting with the direction of global markets (Figure 4). World grain (wheat and coarse grain) consumption this year is expected to exceed last year's record high and slightly exceed reduced world production, as grain crops in the United States, Argentina and the EU are down. This is expected to lead to a drawdown in world grain stocks, with world stocks as a percent of total use not excessive. The picture for oilseeds is quite different (Figure 5). Global oilseed production is forecast to be record high for the 10<sup>th</sup> consecutive year. And, in the coming year, this increase in production is

expected to exceed the increase in consumption, leading to higher global stocks. For soybeans, global stocks as a percent of use are forecast to exceed the high set in 1986.

Let's briefly look at the U.S. crop market prospects. The 2003/04 season, with strong demand and tight supplies, was a major contributor to the record high farm income of the past two years. We can summarize the current market prospects by comparing this year's expected U.S. carryover stocks to those of 2003/04 (Figure 6). The U.S. soybean situation reflects the world situation, with U.S. stocks expected to be excessive, rising nearly 400 percent above the level two years ago. This jump reflects our bumper harvest this past fall and strong competition from Brazil. For example, Brazil had record high soybean exports during the October-December 2005 quarter. Still, prices have been strong in the face of this prospective stock buildup, reflecting perhaps a risk premium, purchases by index funds, or other factors. For the year as a whole, soybeans are expected to average \$5.50 per bushel compared with \$5.74 last marketing year. If the Southern Hemisphere crop materializes as expected, the burden of these forecast stocks will materialize, and the recent strength in soybean prices will turn to weakness in the second half of the year and into 2006/07.

The U.S. corn market is expected to see stocks rise slightly during the current season but still be 150 percent above two years ago. Corn prices have rebounded from the extraordinary lows following the hurricanes when the transportation network was impaired and are expected to average \$1.90 per bushel this year, down from \$2.06 last year. As of February 10, the average corn loan deficiency payment rate made so far on 9.65 billion bushels of corn (87 percent of the 2005 crop), was 44 cents per bushel, up sharply from 27 cents averaged on the 2004 crop.

U.S. cotton production is an all-time high this marketing year, and stocks are expected to rise for the second year in a row and be double the level two years ago, despite record high exports expected this year, with about half going to China.

Despite a near-record crop, a sharp increase in exports is moving the U.S. rice market into balance with only a slight rise in stocks from two years ago. Rice ending stocks are forecast at 26.5 million cwt. Medium grain stocks at 5.25 million cwt are the tightest on record (since 1982/83—first year of supply and use statistics). The global rice market is a major factor behind our exports and steady prices, as global ending stocks are expected to be the lowest since 1982/83, with the stocks-to-use ratio the lowest since 1974/75.

U.S. wheat, too, is in good balance and farm prices are expected to average the same as last year's \$3.40 per bushel.

One crop market that has been very different from others this year is sugar, where hurricane-reduced production has driven prices up substantially. Since this market is heavily regulated by USDA, the Department has substantially increased import quotas to meet this year's demand and relieve market tightness.

**Biofuels.** Another important influence on this year's and future markets is biofuels. While biodiesel production has increased from less than a half million gallons in 1999 to over 70 million in 2005, it remains relatively small, equivalent to 2.5 percent of soybean oil production. That is about where ethanol production was relative to corn production in 1983. Ethanol production this marketing year is expected to account for 14 percent of U.S. corn production. The USDA baseline, released on February 10 projects ethanol production will account for 22 percent of corn use by 2010 and drive corn prices to \$2.60 per bushel. Ethanol—rather than China—could well be the number one factor driving farm prices higher over the next few years.

Ethanol has captured tremendous national attention during the past year. Here is one reason why (Figure 7). In 2004, ethanol accounted for about 2 percent of motor gasoline use in the

United States on a btu basis. Now let's consider the Department of Energy's baseline projections for motor gasoline and ethanol use to 2010. With gasoline use expected to grow 1.2 percent per year, and ethanol at over 15 percent per year, ethanol is expected to supply 27 percent of the *increase* in motor gasoline use over the 6-year period. No wonder ethanol has captured the attention of the oil and car companies, agribusiness, venture capitalists and the President of the United States.

**Energy costs.** While high energy prices are creating new opportunities to use crops for energy, energy is also a production input. Supplies of inputs and their prices are increasingly important for global agriculture. In some countries, the problem input is water or seeds or machinery. Our concern this year in the U.S. is energy in the form of diesel, natural gas, propane and fertilizer. For 2006, the Department of Energy projects that diesel and natural gas will cost another 4-5 percent more on top of the 35 and 20 percent increases, respectively, that these fuels saw in 2005. What will this mean for production costs of 2006 crops? While I could use many crops as an illustration, I will use corn as an example (Figure 8). It is a heavy user of energy for fertilizer, irrigation and grain drying. For 2006, energy is expected add 5 cents to national average corn operating costs compared with a year ago and 21 cents, or 45 percent more than costs two years ago. These rising costs will reduce farm income and have some affect on acreage and production in 2006. This increase does not assume producers will alter their production methods to save energy and of course many will do so.

**Weather.** Another key market factor global agriculture continually confronts is weather. We continue to have drought in Illinois and Iowa and an intensifying drought in the south, west of the Mississippi. Winter wheat in Texas was rated 89 percent poor or very poor as of February 5. The warm January has left much of the nation's crop exposed without snow cover. Our wheat problems are matched in the Former Soviet Union, an important grain producer, where planted acreage of winter grains are down and they are having a very harsh winter with above average much winterkill expected. These poor starting conditions suggest global wheat production will be down again in 2006/07.

While we do not forecast hurricanes, the surface temperature of the Atlantic Ocean in 2006 is expected to remain on the high side of the temperature cycle, and there is a La Nina, which are both correlated with increased hurricane activity.

As the spring planting period approaches, wheat acreage, which has been trending down for many years and is now 30 million acres less than 25 years ago, is expected to increase by less than 1 million acres to 58 million due to more winter wheat planted last fall. Fall seedings were up reflecting the better price prospects than other crops and good planting weather in the Corn Belt compared with last year. Soybean producers may be concerned about high soybean stocks, South America's expected rebound in production and soybean rust, all implying lower acreage. However, soybean yields were good last year, corn stocks are high, and there may be pressure to rotate to more soybeans this spring. In addition, high energy costs may cause some shifting of corn to soybeans, thus we expect an increase in soybean planted area of nearly 2 million acres to 74 million and a decline of 1.3 million acres in corn area to 80.5 million. Very little change is expected in rice where stocks are stable and in cotton, where export prospects remain strong and a third consecutive record crop seems unlikely.

The wheat, corn, and soybean acreages expected for 2006/07, combined with trend yields, would result in production levels near expected demand for wheat and soybeans; consequently carryover levels would remain about the same. Wheat prices would remain steady, but with continued heavy stocks and large expected supplies in South America, weaker prices are

expected for soybeans. For corn, less acreage and stronger ethanol use is expected to reduce carryover and raise corn prices 25 cents per bushel, or 13 percent, over the 2005/06 expected average farm price.

For cotton, lower production is expected to support prices in 2006/07. A decline from 2004's phenomenal yields would sharply reduce production from last season. Similarly, a rebound from last fall's reduced yields would raise rice production, but with demand remaining strong, stocks would be little changed.

Fruits, vegetables, nursery and greenhouse products continue to provide good news for U.S. agriculture. They are expected to generate \$49 billion in sales in 2006, about the same as in 2005, and account for 21 percent of farm cash receipts. Sales of these products are now about equal to the value of sales of program crops. U.S. horticultural exports are forecast at \$16.3 billion and imports at \$28.2 billion, indicating a continuing widening of the sector's traditional trade deficit.

### **Cattle & Dairy Expansion Accelerating; Hog & Poultry are Steady Performers**

Turning to livestock and poultry markets, U.S. meat exports continue to be heavily influenced by animal diseases (Figure 10). Although we expect rising beef exports in 2006 as trade with Japan eventually resumes, beef exports are still expected to be only about 40 percent of the level of 2003. This forecast assumes shipments to Japan and Taiwan but not Korea, which is expected to open shortly. The limited market for our beef, stronger foreign economies and normal poultry trade with Russia and China will likely mean increased pork and poultry exports. Pork exports are forecast to be 4 percent higher than 2005's record high. Lower broiler prices compared with mid-2004 are helping exports, and a 4-percent export gain is expected, even with reduced consumption in some countries due to AI concerns. Top markets are expected to be Russia and Mexico.

Despite the loss of beef exports, U.S. livestock markets were quite strong in 2005. The index of prices received for meat animals was an all-time high in 2005—4 percent above 2004 and 17 percent above 2003. Although U.S. cattle numbers increased for the first time in 8 years in 2005, cattle slaughter continued to drop. For 2006, the situation will change. First, the U.S. cattle inventory on January 1 was up 2 percent over last year, indicating that producers are now moving well into the expansion phase of the cattle cycle. Second, live cattle imports from Canada will be up in 2005. Third, higher carcass weights are expected. Consequently, cattle slaughter and beef production are expected to increase a strong 5 percent in 2006. Pork and poultry production are also expected to be up, leading to record-high U.S. per capita meat and poultry production and consumption (Figure 11). With a large meat production increase and some slowing in growth of overall consumer expenditures, lower animal and meat prices are expected in 2006. However, the drop in meat animal and poultry prices will about be offset by higher production, leaving aggregate livestock and poultry sector revenues down only slightly. Choice fed cattle prices are expected to decline only about 2 percent to about \$85 per cwt., and retail beef prices are expected to be down about 3-4 percent.

Despite sustained profitability in hog production, hog producers have been cautious about expanding the past few years. Still, with back-to-back years of good returns, we expect hog slaughter and pork production to be up about 3 percent in 2006. Hog prices are expected to be about \$44 per cwt, down about 13 percent but still be stronger than during the 1998 to 2003 period.

Broiler production is expected to again be record high in 2006. A nearly 4-percent increase in production in 2005 was driven by record-high broiler prices in 2004 and low feed prices. Although broiler prices fell about 5 percent in 2005, they remain fairly strong and with favorable feed costs, broiler production is expected to be about 2 percent higher in 2006.

Milk, like meat and poultry, is coming off two years of strong prices. Widespread forage problems and reduced rBST are largely behind producers now, and following record and near record milk prices in 2004 and 2005, milk production is accelerating. In 2004, production was flat; in 2005, it rose 3.3 percent; and in 2006, it is forecast to be up nearly 3 percent. These increases exceed the trend growth in dairy product demand, consequently, the all-milk price is forecast to average \$13.45 per cwt in 2006, down over 10 percent from 2005. Payments resumed under the Milk Income Loss Contract Program in December, after only one other month of payments in the prior 19 months. Price support purchases of dairy products in 2006 are expected to be limited to a small amount of nonfat dry milk.

### **Farm Income Regresses to the Mean; Farm Wealth to Hit Another Record High**

The picture of the farm economy presented thus far is an economy that is pulling back from the strong crop prices and production levels in 2003 and 2004 and the record livestock and milk prices of 2004 and 2005. With higher crop stocks to work off, reduced crop prices, and a modest decline in livestock and livestock product receipts, the value of 2006 farm marketings is expected to decline about \$7 billion from the last year's \$239 billion; with two-thirds of the decline in crops. In 2005, government payments to producers were a record high \$23 billion, increased by high marketing loan costs aggravated by the marketing system disruption caused by the hurricanes, increased counter-cyclical payments, ad hoc disaster assistance, and tobacco program buyout costs. In 2006, payments to farmers are expected to decline by \$4.5 billion due to lower ad hoc disaster payments and lower marketing assistance loan outlays. Cash expenses are expected to rise 4 percent in 2006, with energy and interest expenses expected to rise by over \$4 billion or 10 percent. So, with revenues down and costs up, net cash farm income is forecast to drop from 2005's level by \$18 billion or 22 percent to about \$65 billion, about the average of the prior 10 years (Figure 12).

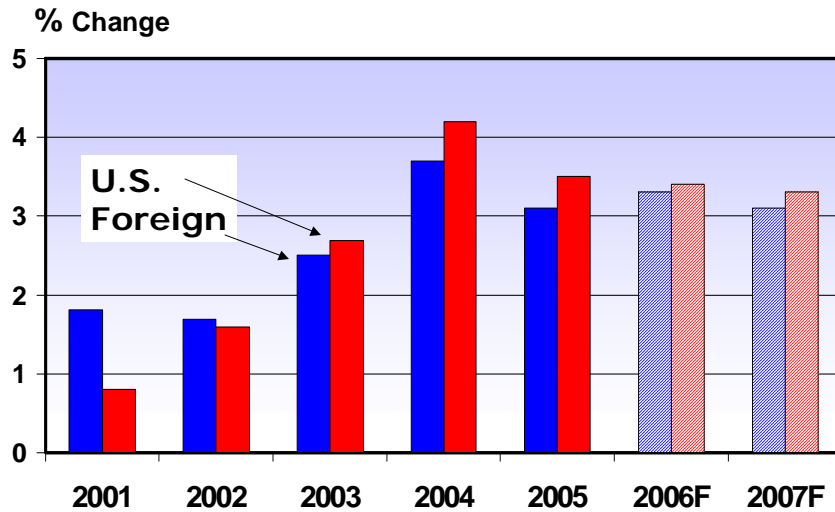
Net farm income is expected to decline for all major types of crop and livestock farms and in all production regions. Farm household income is also expected to decline for the first time in 7 years, but at over \$83,300, would still be 20 percent higher than in 2003 and well above the average of all U.S. households.

Despite the drop in income and the increase in interest rates, we project that farm real estate values will rise 6.5 percent in 2006, down slightly from the 7 percent gain in 2005. Another land value increase would continue the recent strong improvement in the farm sector balance sheet. (Figure 13). The red line on the Figure shows real estate value divided by net cash income, similar in concept to a price-to-earnings (P/E) ratio. The forecast suggests that the P/E ratio will spike up in 2006. If that ratio were to stay high over the next few years, it would suggest the increase in farmland values could be getting over extended. Farm net worth, or equity is now a record high at \$1.4 trillion and the debt-to-asset ratio at the end of 2006 is forecast at 13.1 percent, the lowest in 45 years (Figure 14). For the last 3 years in a row, farm net worth has gone up by an average of nearly \$90 billion per year, which is more than the increase in farm income each year. That is expected to be true again in 2006.

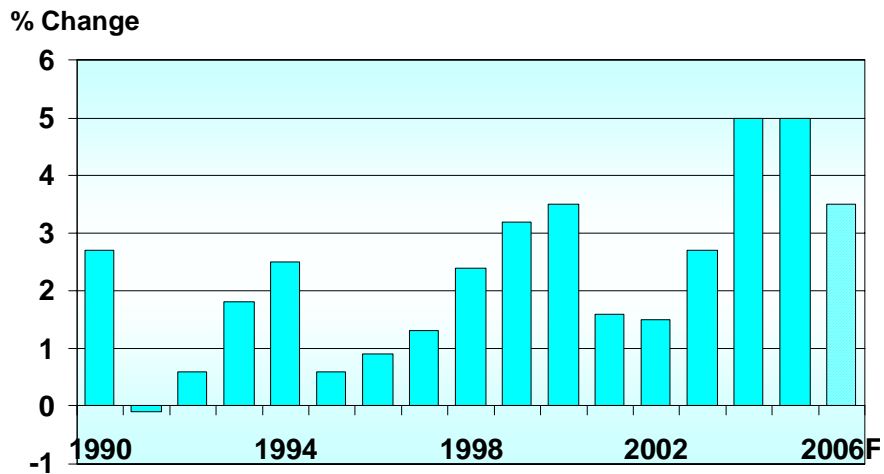


From indicators such as a return to average national farm income, lower enterprise and regional farm income, lower cash margins, higher net worth, and greater utilization of debt repayment capacity, we can draw several conclusions for 2006. There is not an impending financial crisis in U.S. agriculture, yet there will be greater financial stress for an increasing number of crop producers in many regions. That stress will likely show up in tighter credit standards and delayed loan repayments and loan extensions. The coming year will present more of a financial challenge for U.S. agriculture than in recent years. In addition, agriculture will have to contend with questions over the effect of rising interest rates on the durability of the U.S. economic recovery, the value of the dollar, issues raised by the Federal budget deficit, trade negotiations, bird flu, BSE, oil prices, Middle East issues, and terrorism. Producers will likely need to draw more on their resiliency and managerial capabilities in 2006 than during the past couple of years of abnormally high farm income. That completes my comments and thank you.

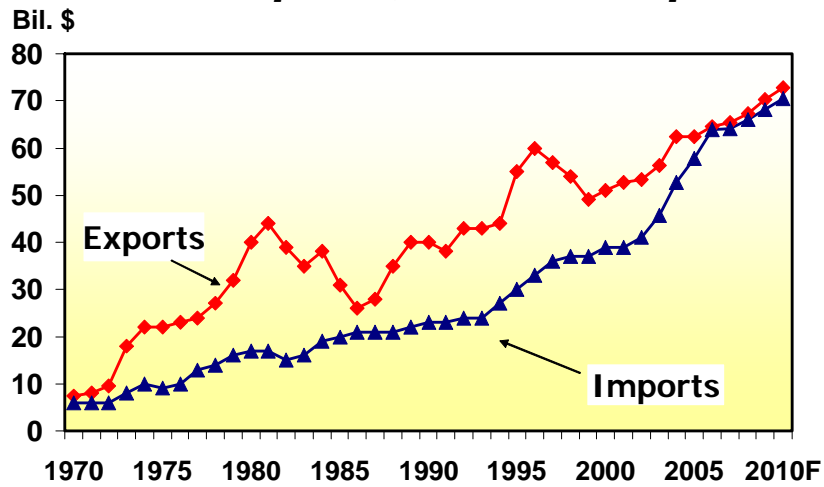
## 1--U.S. & Foreign GDP Growth ... *should again help food demand*



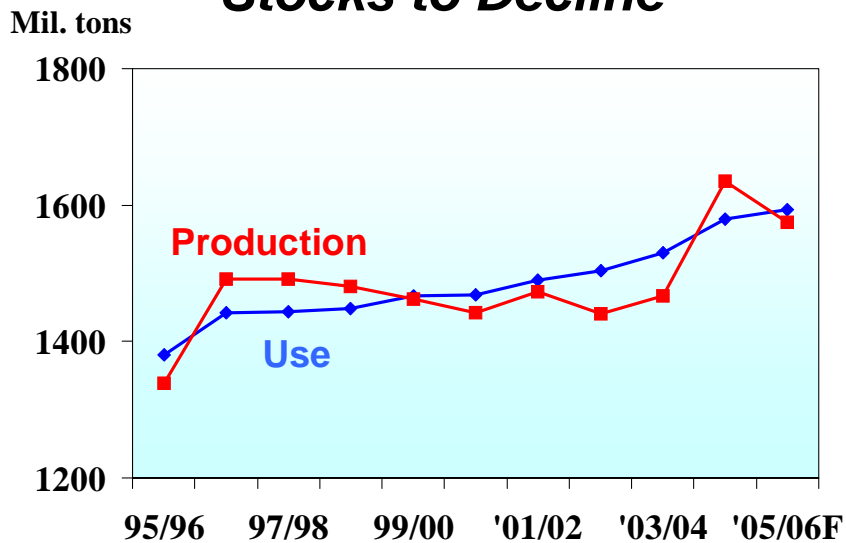
## 2--Real Consumption Spending on Food... *solid, but slower growth*



### 3--U.S. Ag. Trade ... *record exports, narrow surplus*



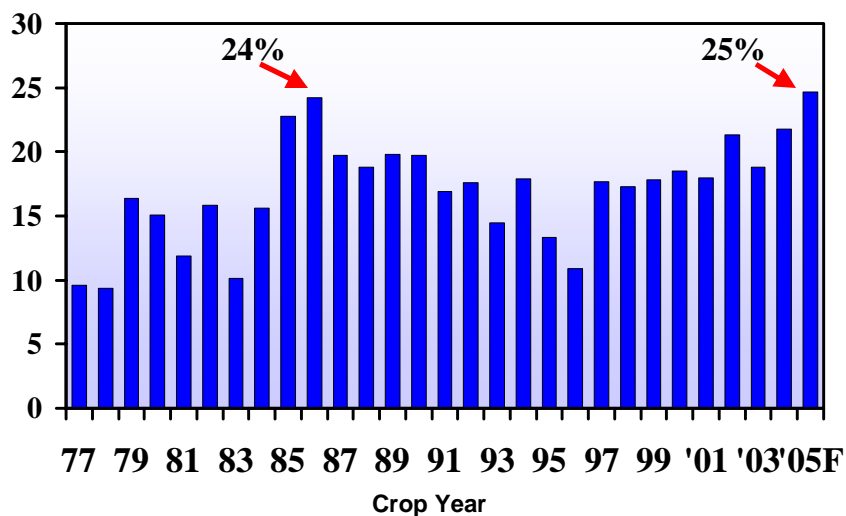
### 4--Global Grain ... *Stocks to Decline*



## 5--World Soybean Stocks ...

### *Rising and Very Large*

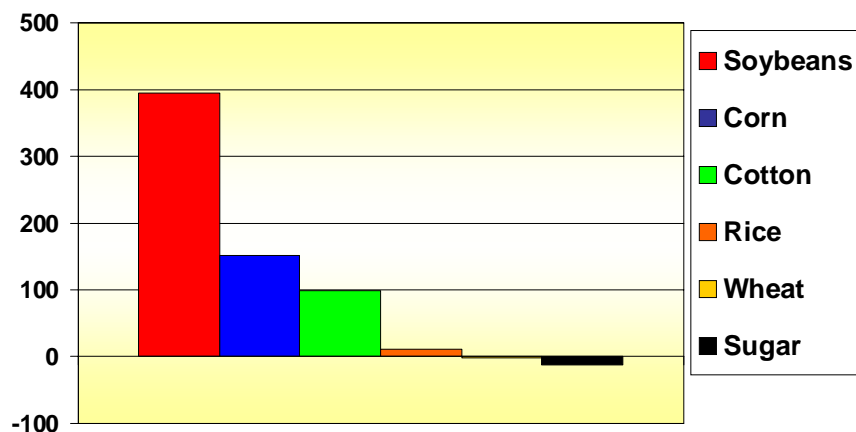
% of total use



## 6--U.S. Carryover Stocks ...

### *generally up 2005/06F v. 2003/04*

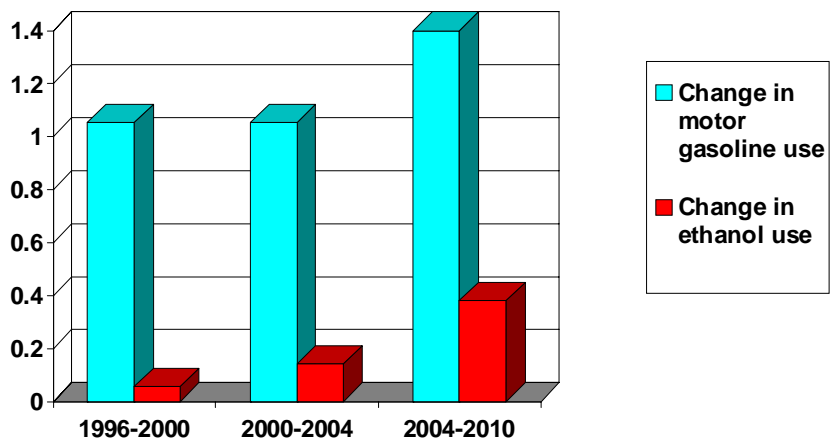
Percent



## 7--Ethanol ...

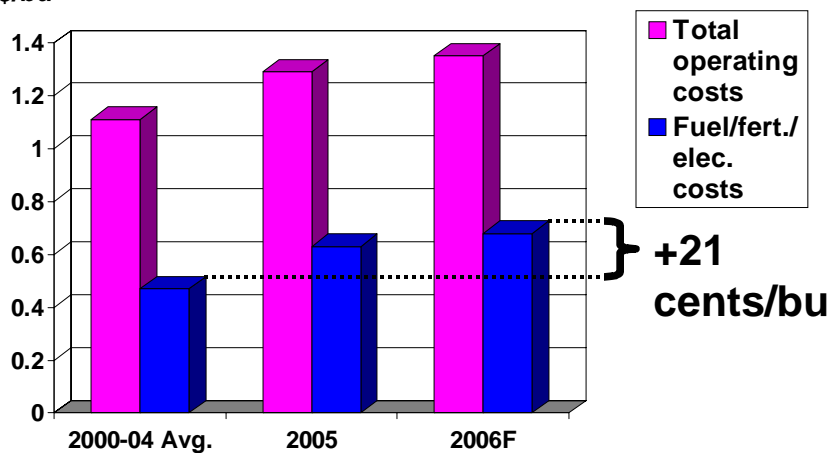
*rising share of increased gas demand*

Quad Btus



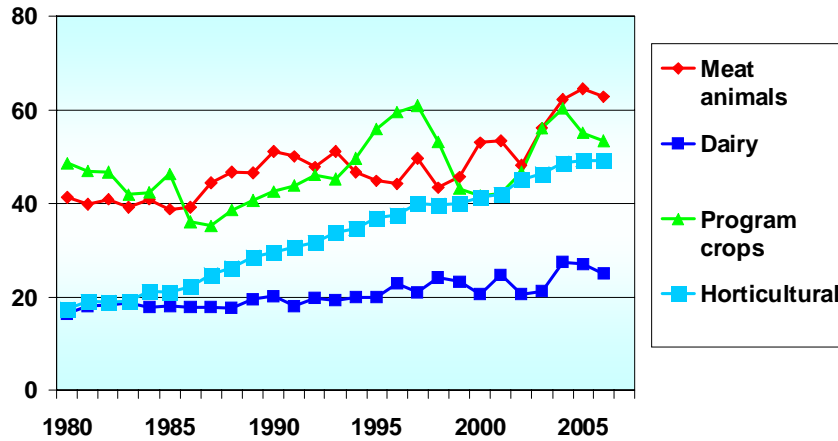
## 8--Energy Costs for Corn

\$/bu



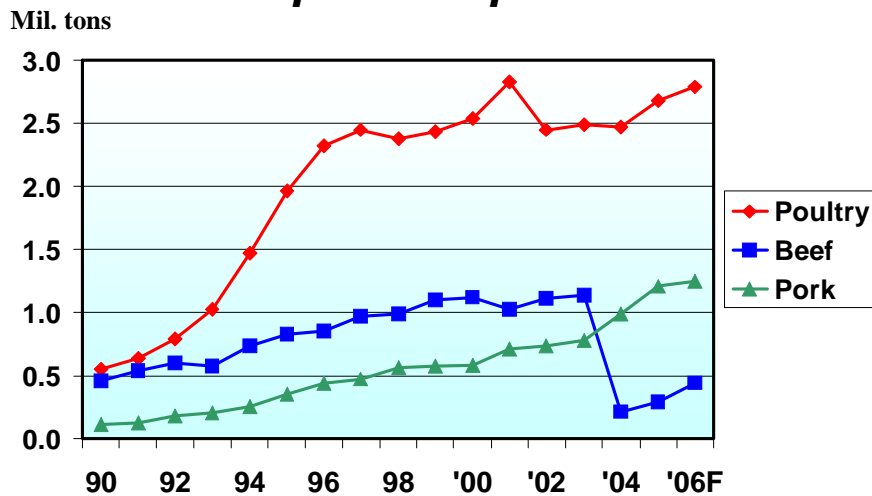
## 9--Cash Receipts ...

*horticulture fastest growing major sector*

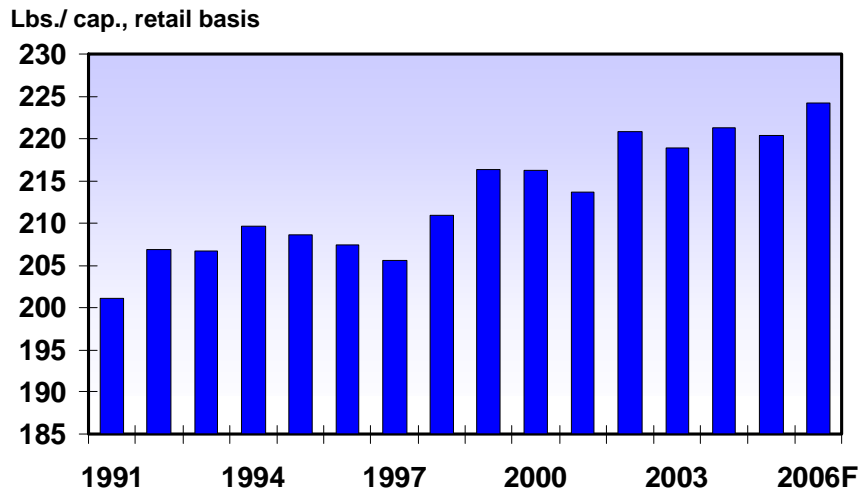


## 10--Meat & Poultry Exports ...

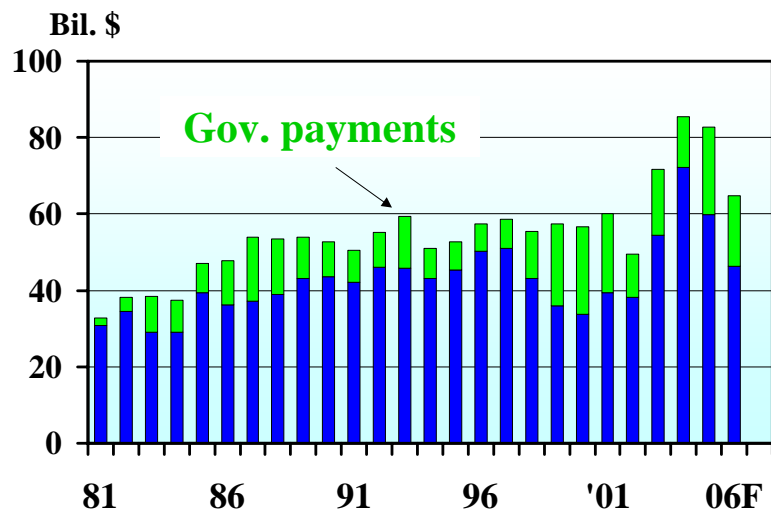
*all expected up in 2006*



## 11--Retail Meat Consumption ... *record-high per capita*

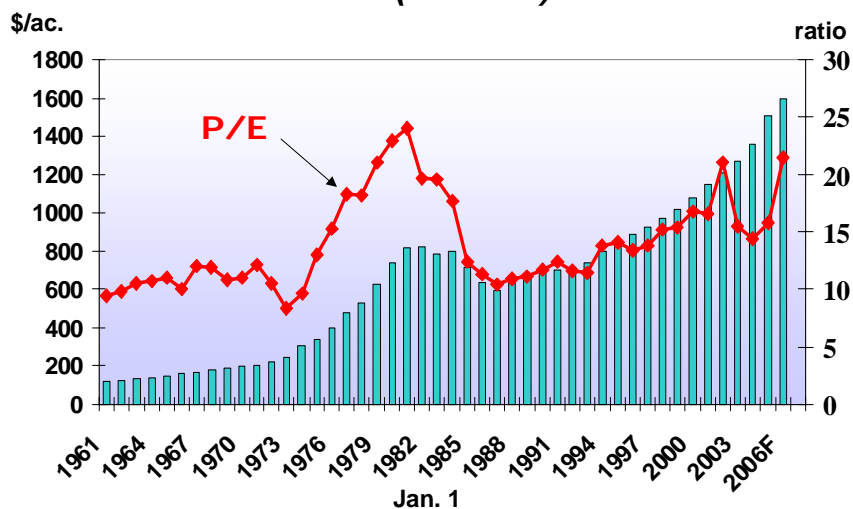


## 12--U.S. Net Cash Farm Income ... *dropping to trend*

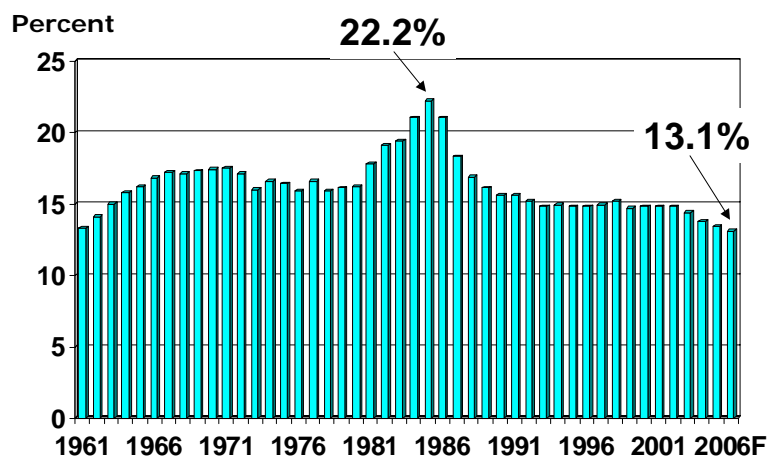


### 13--Value of Farm Real Estate ...

*Total Value per \$ of Net Cash Farm Income*  
(red line)



### 14--Farm Debt-to-Asset Ratio



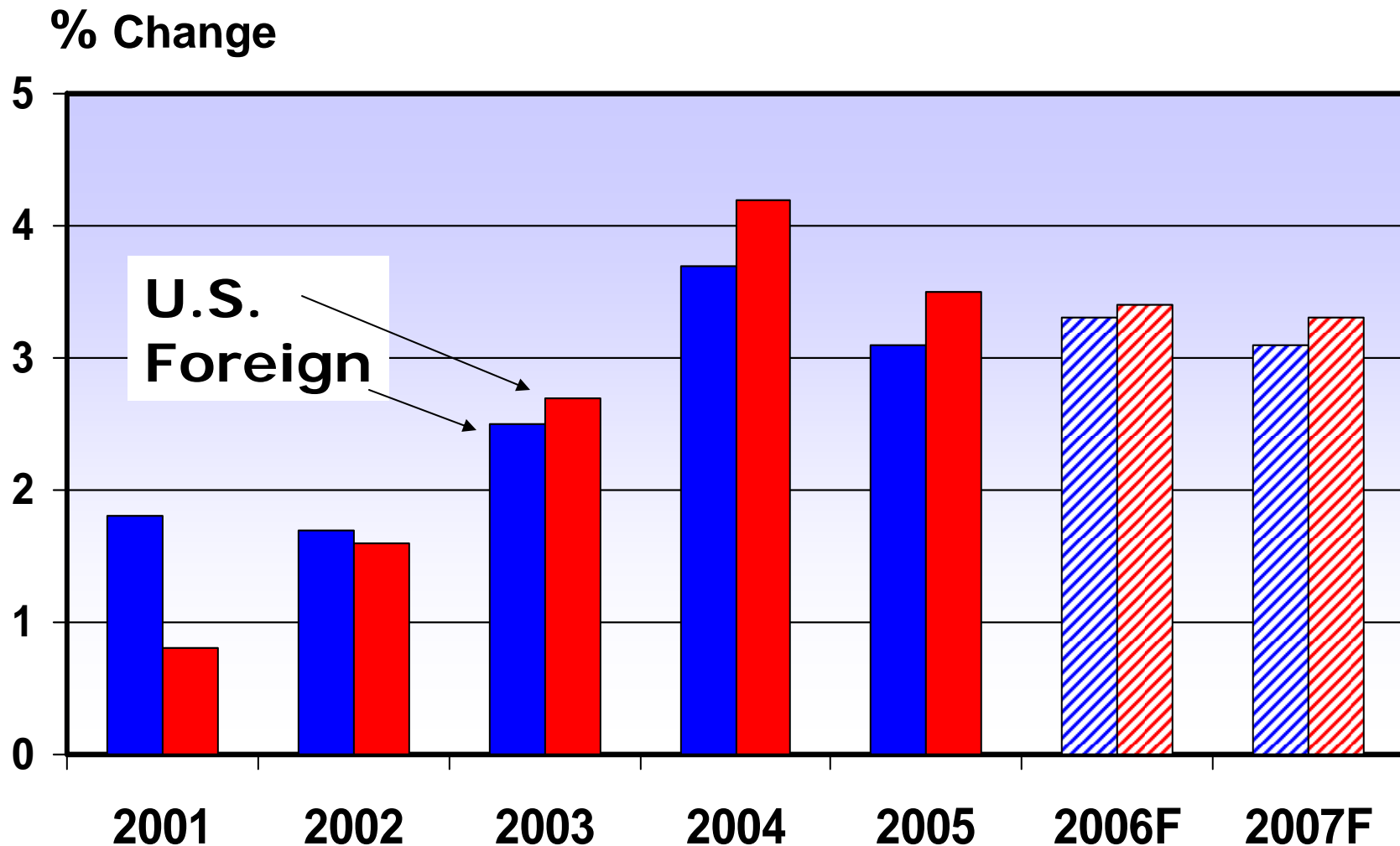


# Prospects for the Farm Economy in 2006

***Keith Collins***  
***February 16, 2006***

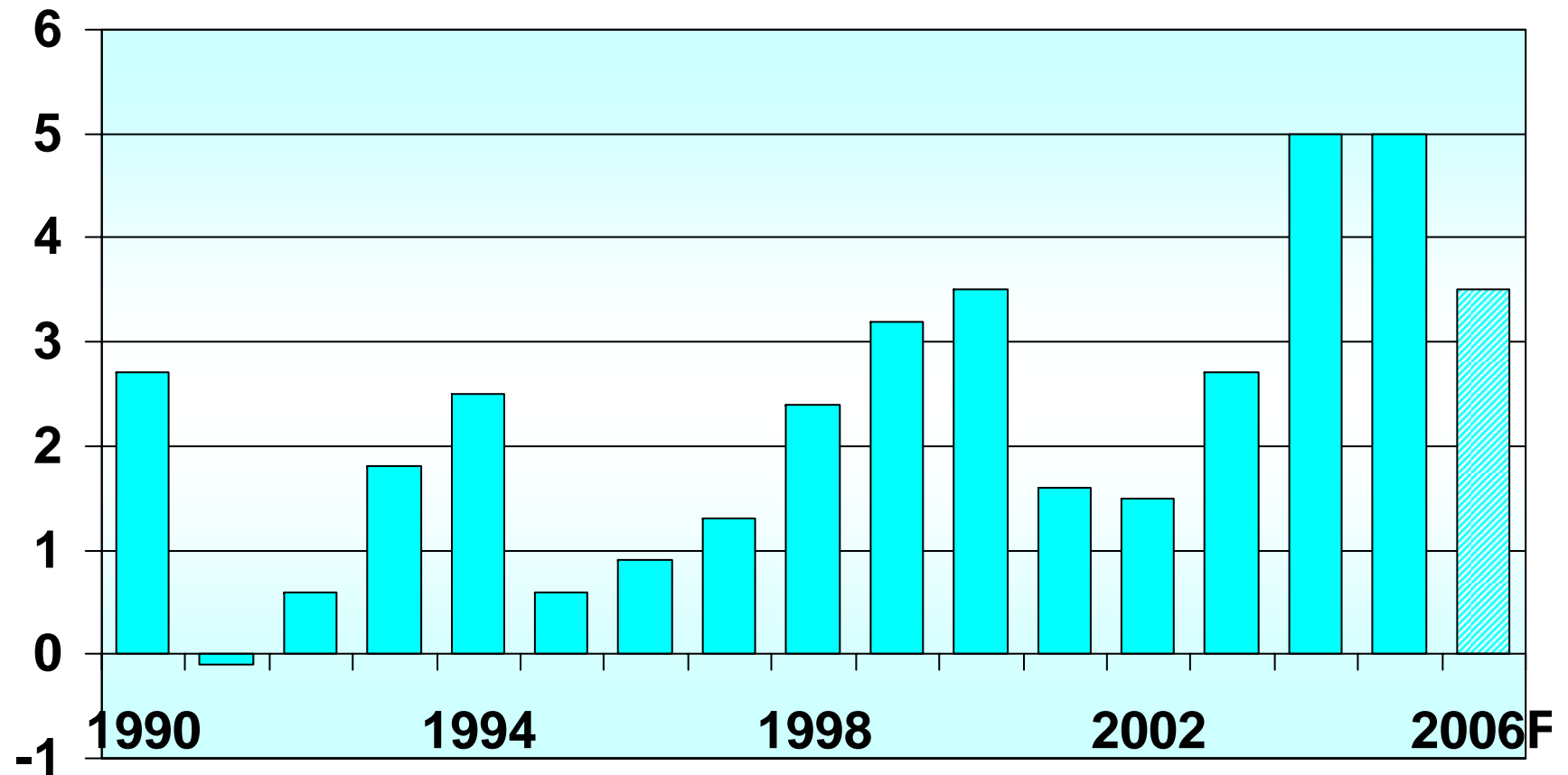


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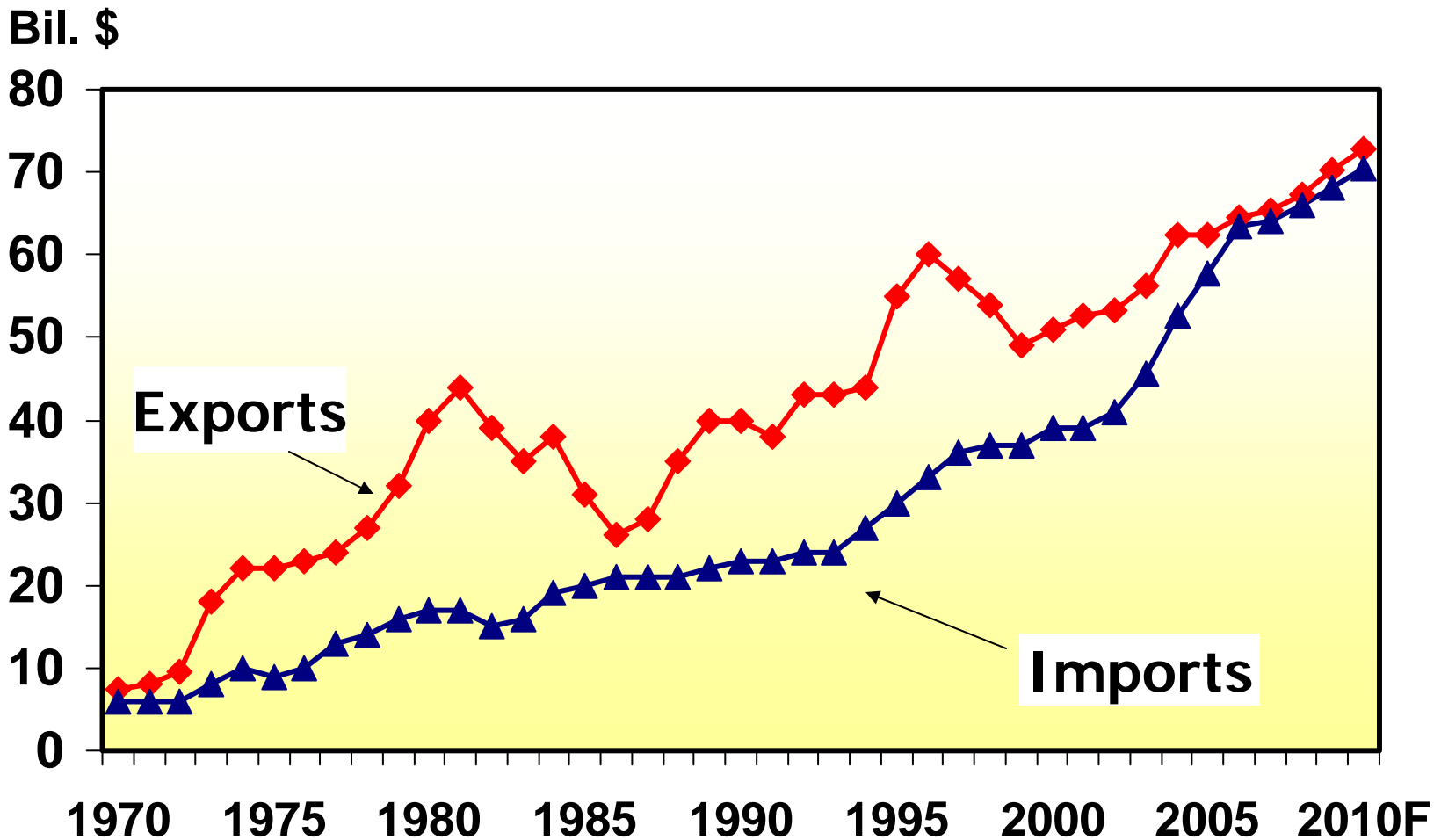
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% Change



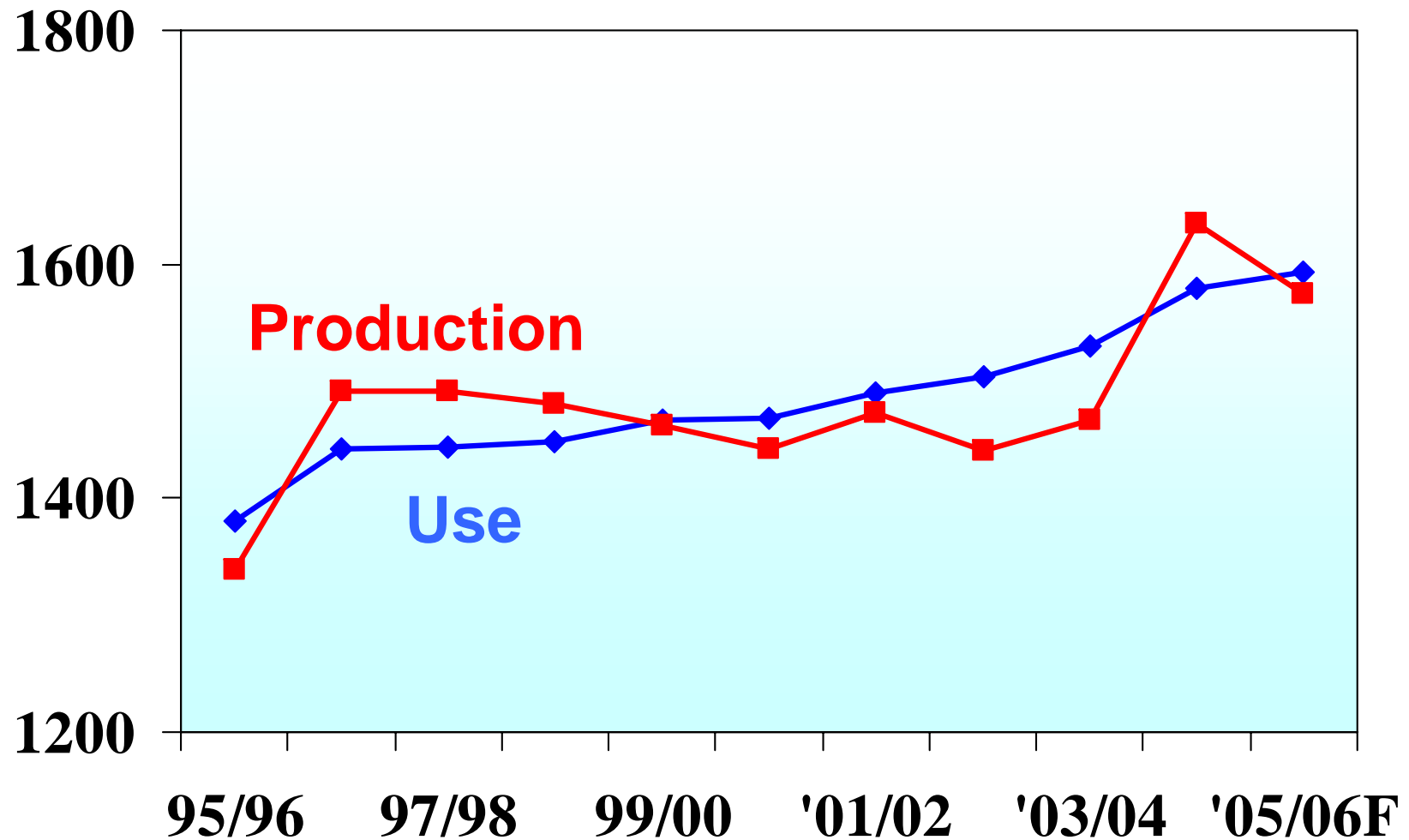
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## *record exports, narrow surplus*



## 4--Global Grain ... *Stocks to Decline*

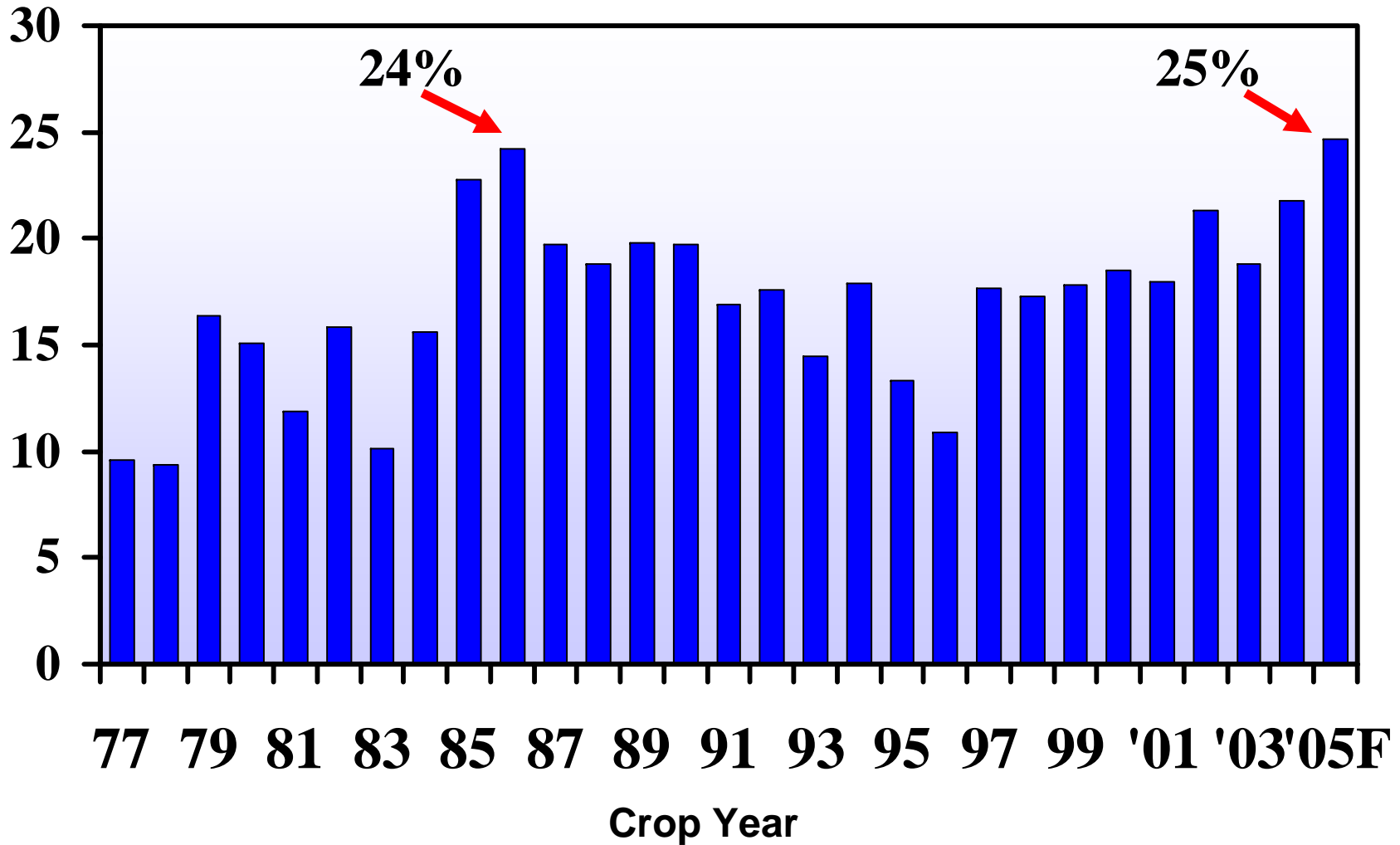
Mil. tons



# 5--World Soybean Stocks ...

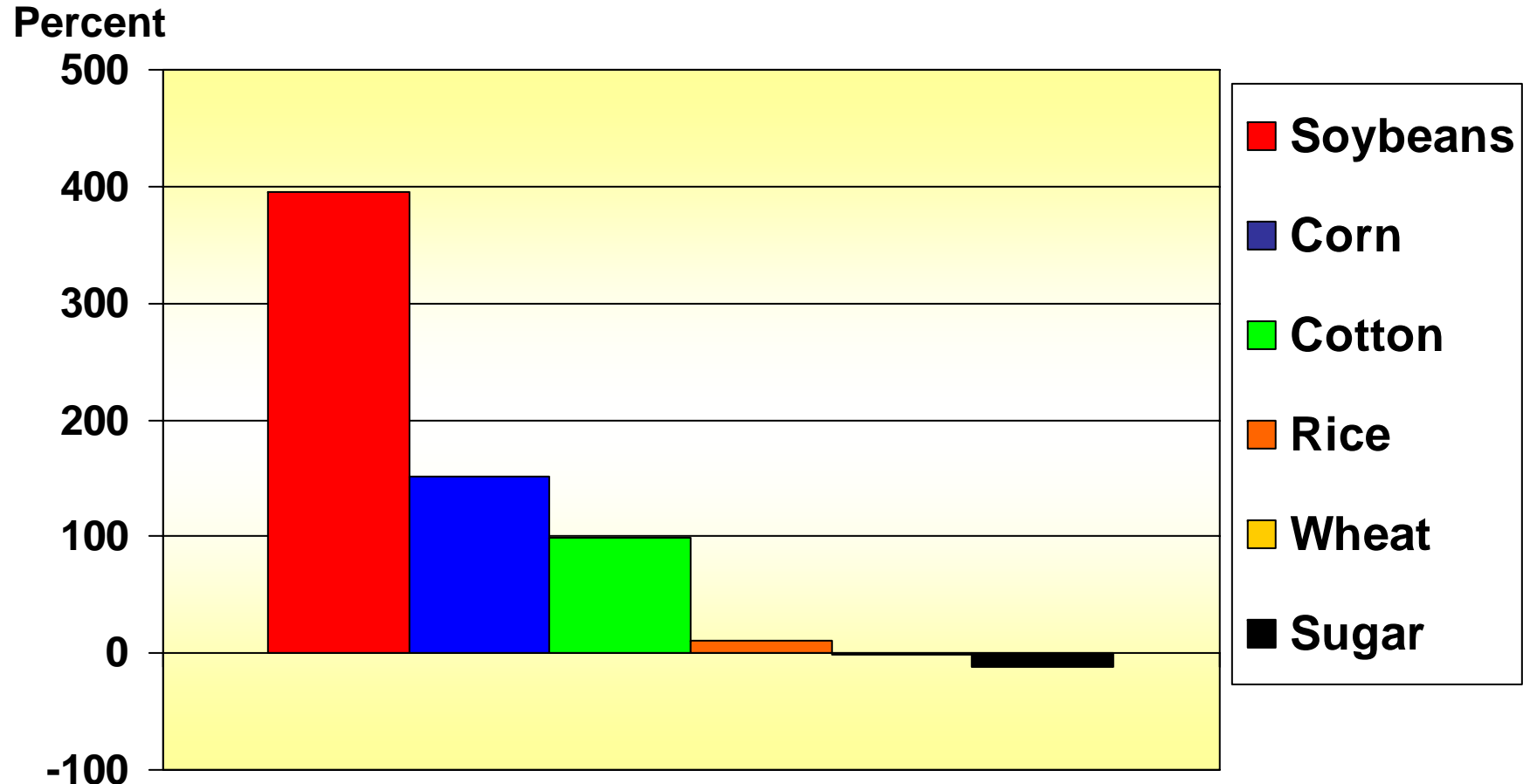
## *Rising and Very Large*

% of total use



# 6--U.S. Carryover Stocks ...

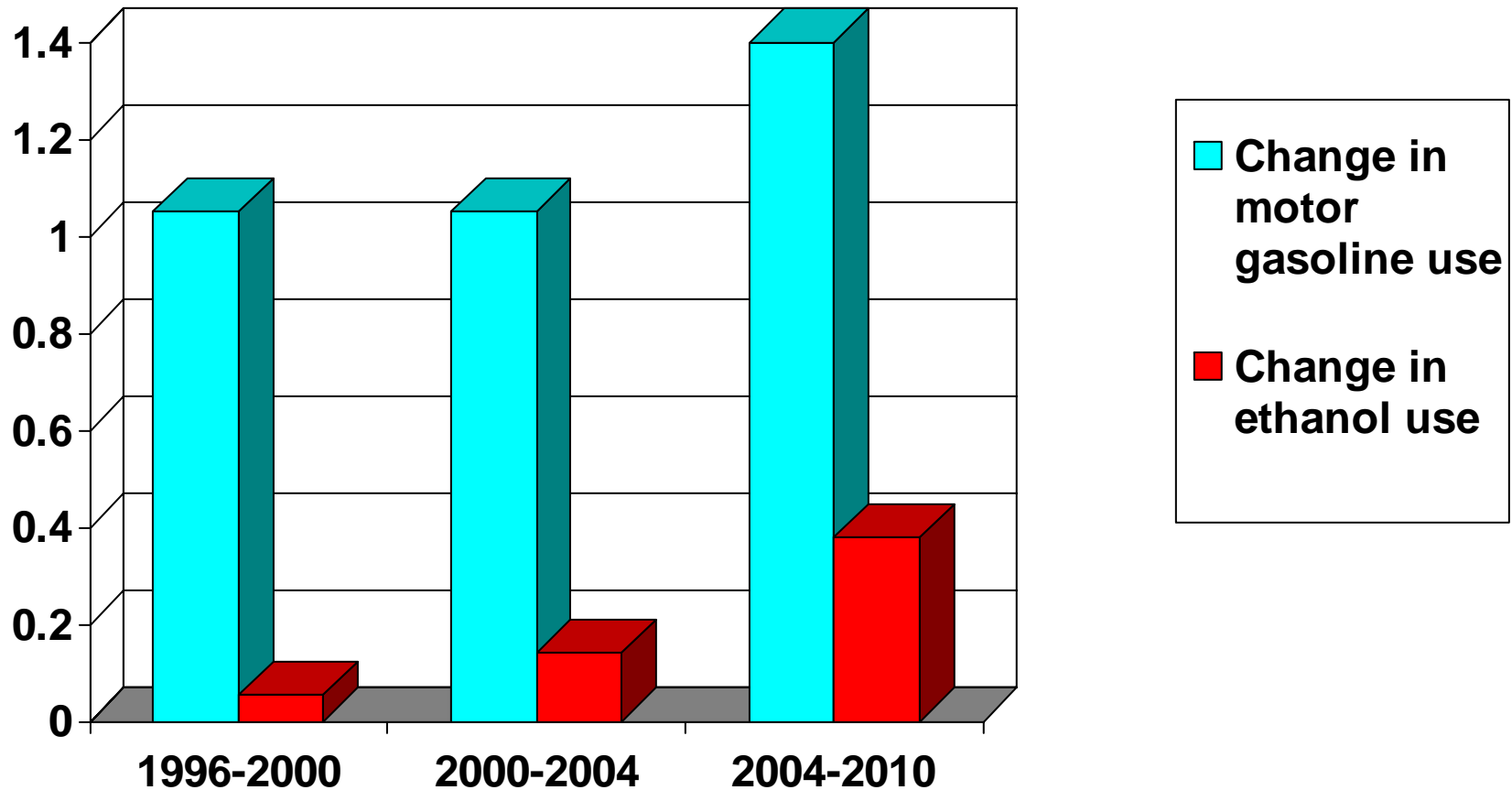
*generally up: 2005/06F v. 2003/04*



# 7--Ethanol ...

*rising share of increased gas demand*

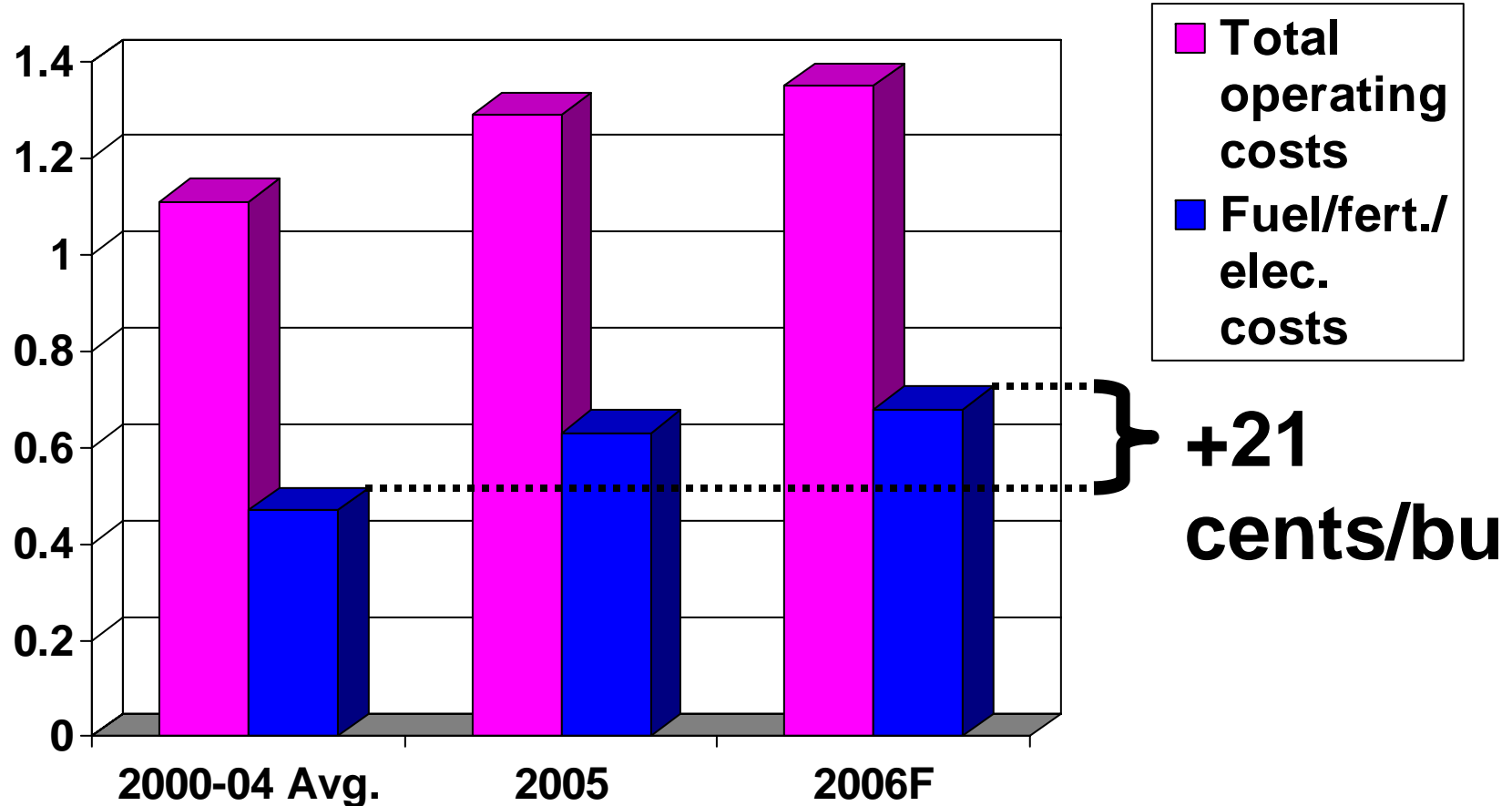
Quad Btus





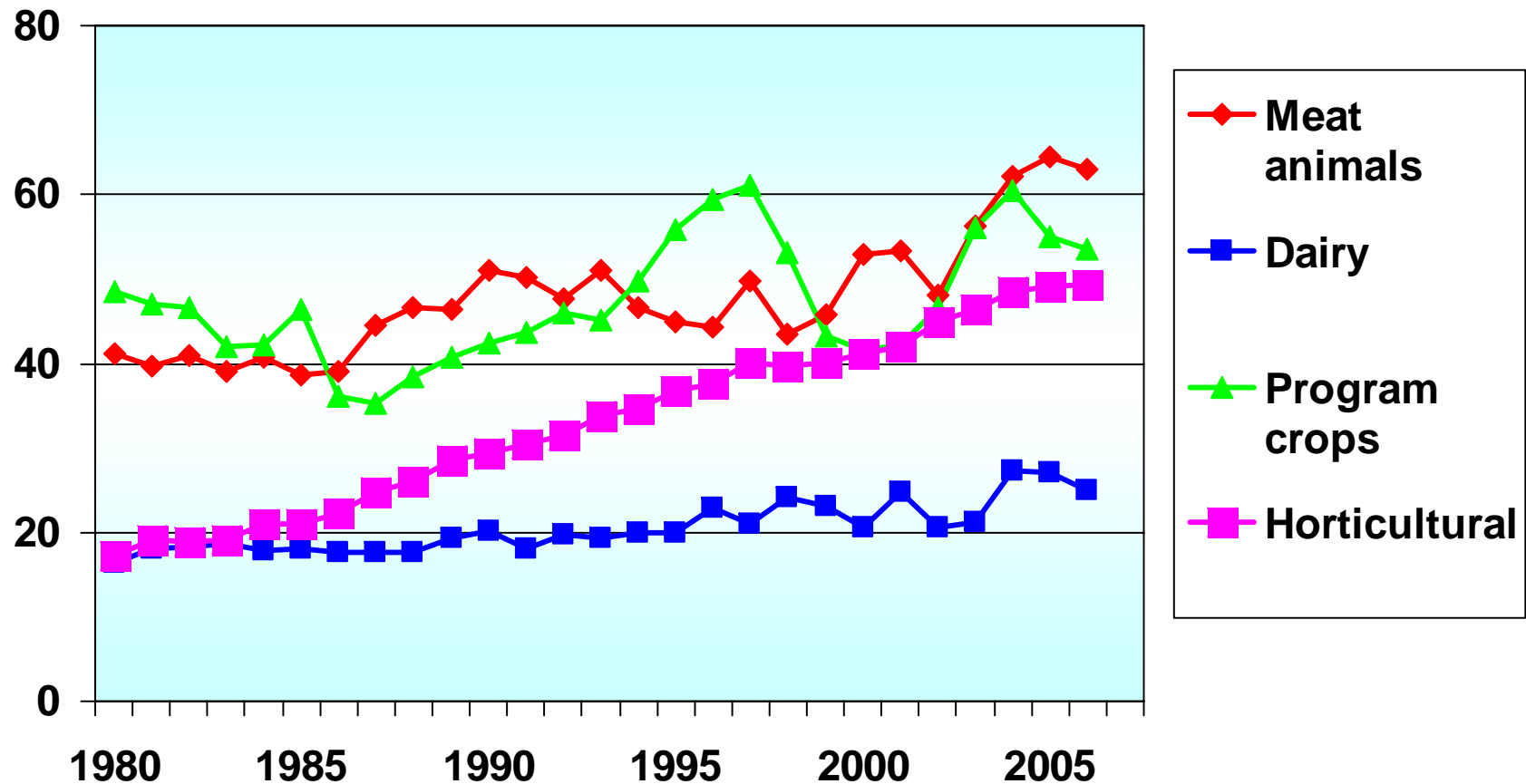
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\$/bu



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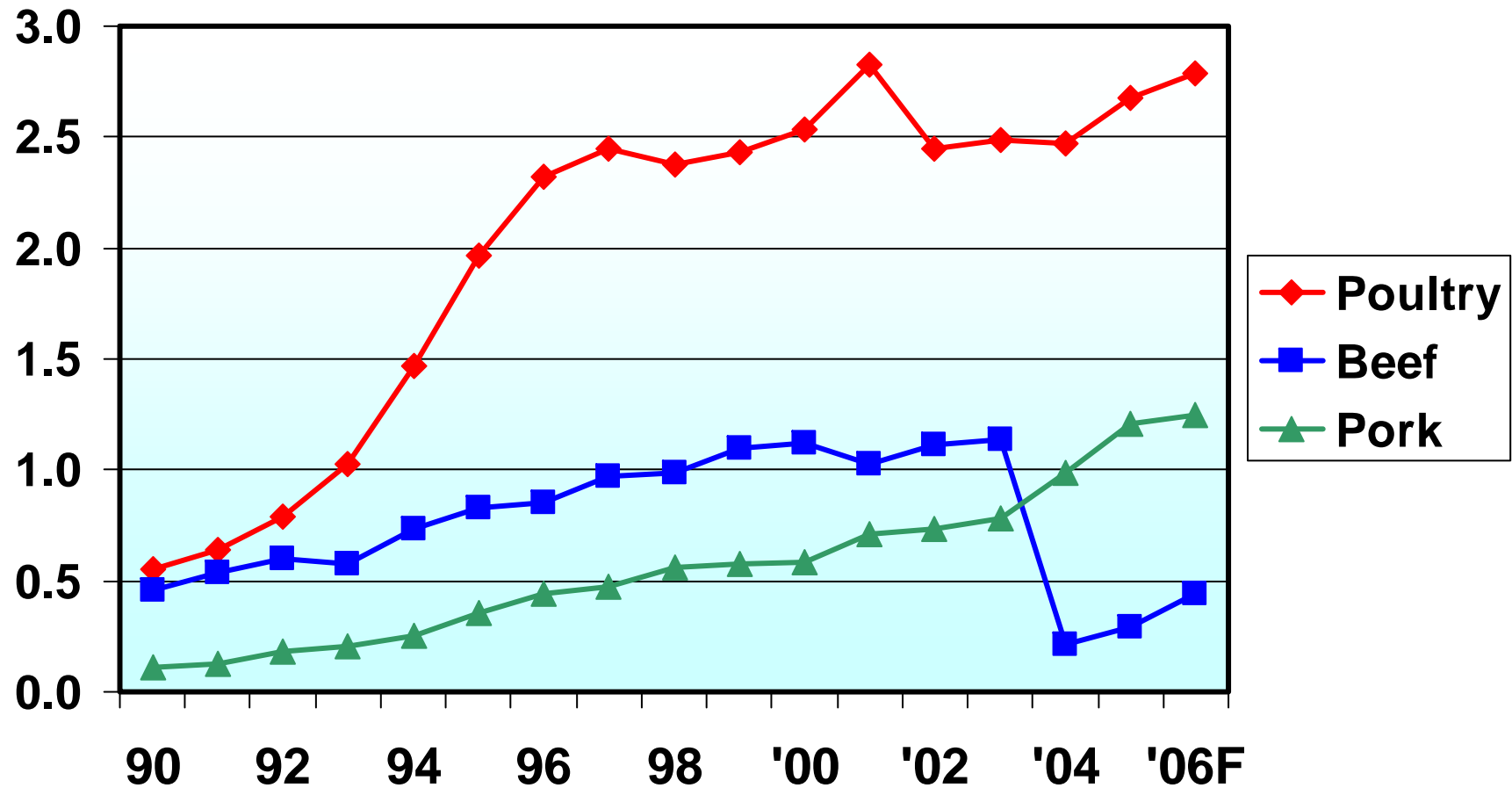
*horticulture fastest growing major sector*



# 10--Meat & Poultry Exports ...

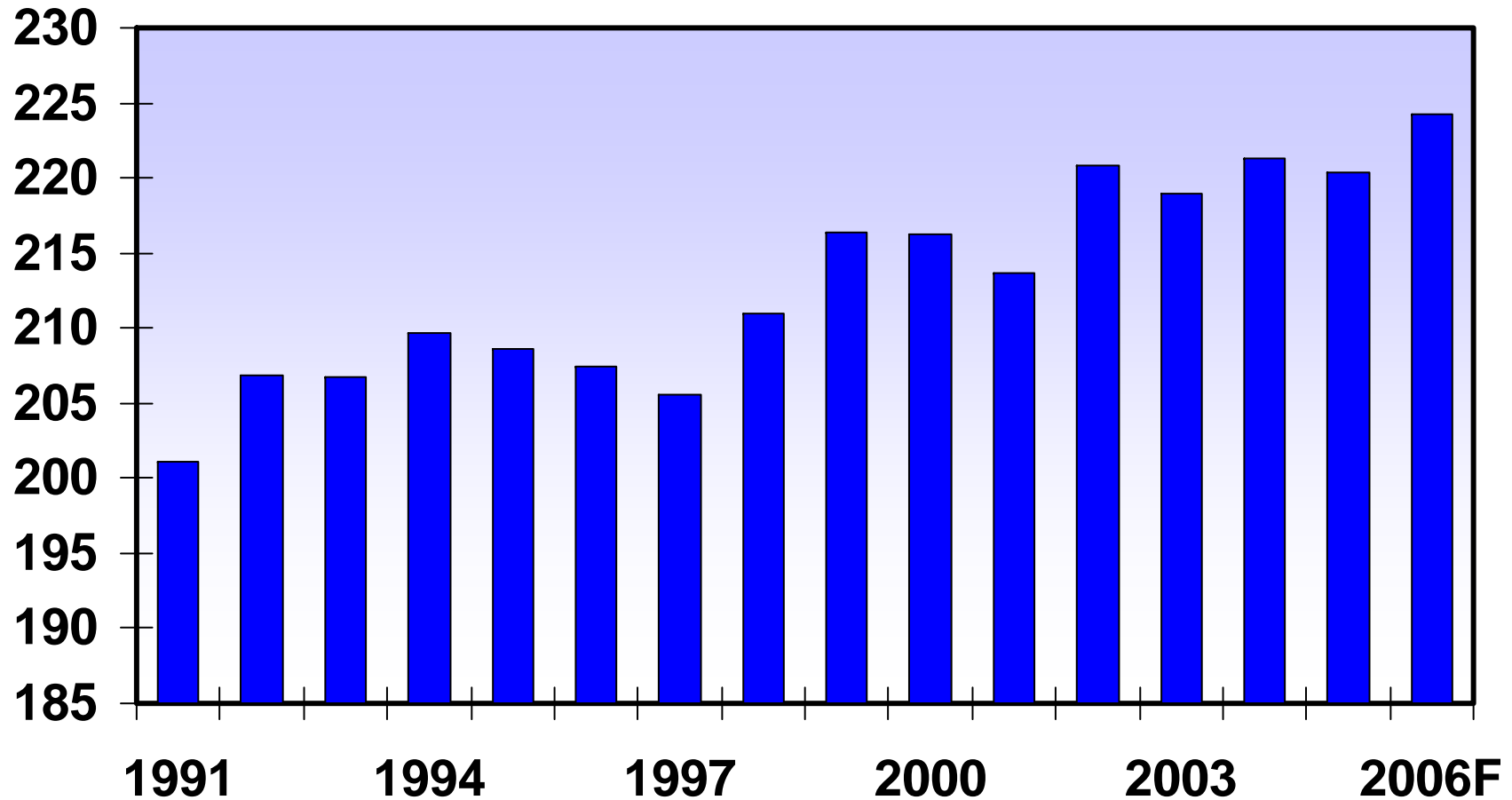
## *all expected up in 2006*

Mil. tons



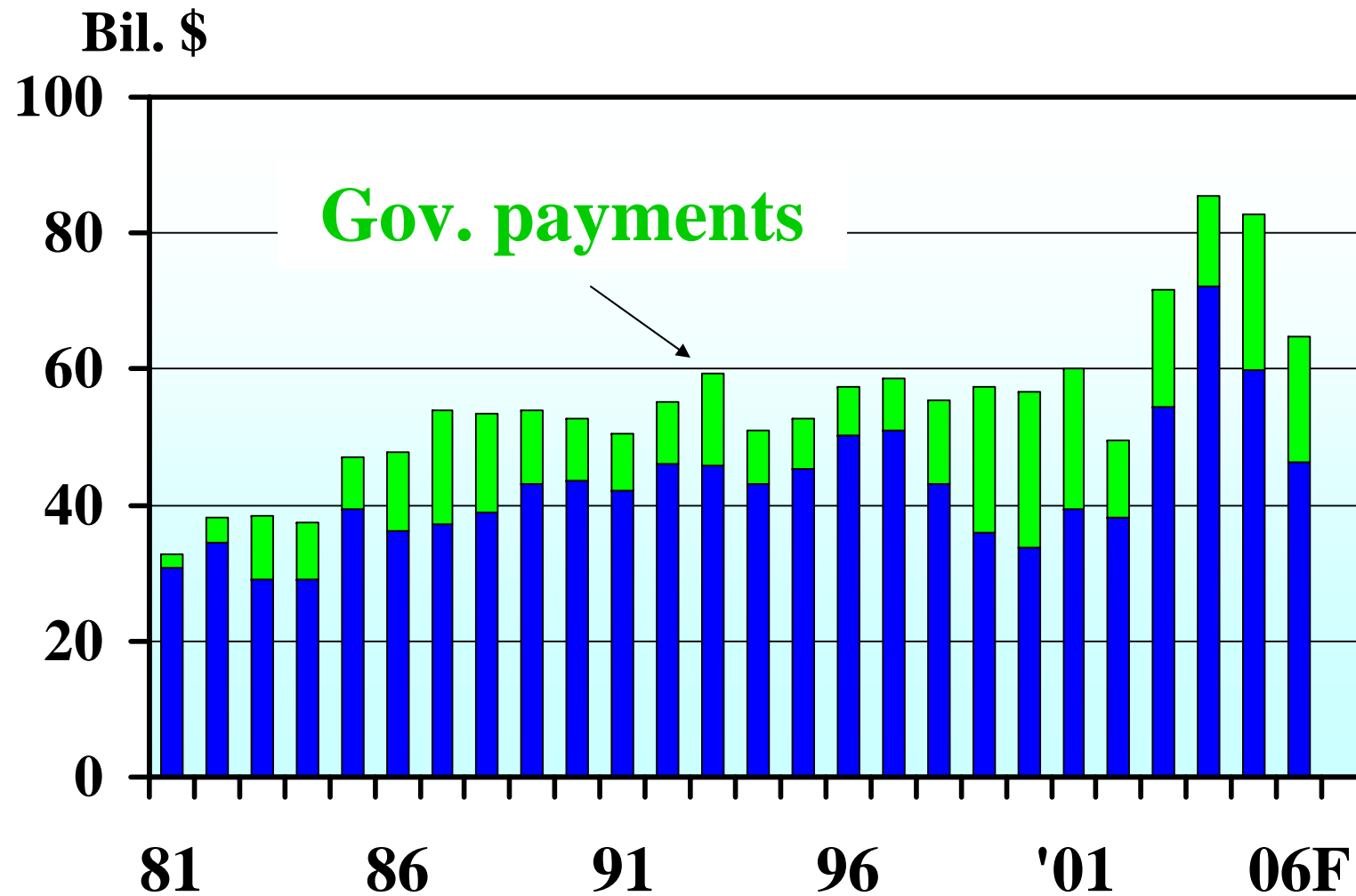
# 11--Retail Meat Consumption ... *record-high per capita*

Lbs./ cap., retail basis



# 12--U.S. Net Cash Farm Income ...

## *dropping to trend*



# 13--Farm Debt-to-Asset Ratio

