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ECONOMIC POLICY AND OUTLOOK IN 1987  
for  
AGRIBUSINESS

Dennis R. Henderson, Scott H. Irwin,  
Norman Rask and Robert D. Fleming  
Agricultural Economists, Ohio State University

PURPOSE

- A. Apply economic principles to some data and observations in order to help you better understand.
  - 1. the national and international economic situation within which you operate,
  - 2. how the business of agriculture is changing,
  - 3. the factors that are influencing your markets and marketing opportunities over the next several months, and
  - 4. some emerging policy issues that may have significant implications for your business in the future.
- B. Most importantly, our aim is to provide you with some information and insights that will help you make next year more profitable.

SLIDE 1: ECONOMIC POLICY AND OUTLOOK FOR 1987

- A. Summary — what we will say!
  - 1.. The overall economic outlook continues to be plagued by the "double deficits"
    - a. The federal budget deficit
    - b. The U.S. trade deficit
    - c. But, the possibility exists to see modest improvement in both in 1987
  - 2. Excessive debt will characterize the agricultural economy for at least the next year or two
    - a. Keeping both production costs and asset values under downward pressure
  - 3. American agriculture is operating in an increasingly competitive world environment

- a. The possibility of higher export earnings over the year ahead seems remote
  - b. The probability of seeing exports return to the rapid growth rates that characterized the 1970's seemsequally remote
  - c. But, there is a realistic opportunity to restore exports to a more modest, and more stable rate of expansion over the longer term
4. Structural and technological changes are occurring in the agricultural sector at such a rapid rate that:
- a. Conventional wisdom regarding the unique importance of farming in our economy is quickly becoming out-of-date
  - b. There is a substantial premium to be earned by those most adept at managing risk, uncertainty and the process of change
5. Crop agriculture will continue to face a serious problem of excessive production capacity for the foreseeable future
- a. or at least for the next 6-8 years, whichever comes first
  - b. As a result, price support levels again dominate the outlook
6. Animal agriculture appears to be facing some encouraging opportunities
- a. Both in 1987 and over the longer term
- B. Perspectives on future trends in the economy in general, and in agriculture specifically, depend in part on the assumption of a fairly stable public policy environment
- 1. Current policies are under substantial pressure from:
    - a. High cost
    - b. Perceptions that they are not generating the desired results
  - 2. However, much of the rhetoric for change may have been little more than election-year politicking
- C. As usual, prospects differ among enterprises, individuals and firms

SLIDE 2: SUPPLIES AND PRICES: 1986

- A. What we said last year
  - 1. Our record for 1986: 11 of the 14 arrows correct

- a. 78.6% average
  - b. a better shooting average than even the highest-paid basketball players
  - c. but, still only a C+ on a college examination
- B. Our errors were relatively small
- 1. predicted a small quantity decline and a modest price increase for beef cattle
  - 2. Actually, quantity increase about 0.4% and prices averaged 1.5% lower than in 1985
  - 3. For eggs, we forecast a small decrease in production, with somewhat higher prices
    - a. we got the higher prices (up 4.5%)
    - b. but production actually increased marginally (0.7%)
- C. For the other commodities, things came out pretty close to expectations

QUESTION 1---Reducing the trade deficit and increasing business investment are key factors in determining the strength of the economy in 1987.

SLIDE 3: GROSS NATIONAL PRODUCT AND CONSUMER SPENDING

- A. Following the sharp up-turn in the economy in 1983 and 1984, growth has been much more modest in the past 2 years, and the rate of expansion is slowing
- 1. GNP in nominal terms (current dollars)
    - a. 1986: +4.5%
    - b. 1985: +6.1%
    - c. 1983-84 Average: +9.5%/YR.
  - 2. GNP in real terms (1982 dollars)
    - a. 1986: +2.5%
    - b. 1985: +2.9%
    - c. 1983-84 Average: +5.1%/YR.
- B. Inflation has behaved reasonably well, following the "double digit" experience of the early 1980's

1. Increase in the CPI peaked at 13.5% in 1980
2. Since 1982, the annual inflation rate has averaged 3.3%
3. In 1986: +2.0%

C. Employment

1. 2.2 million jobs added in 1986
2. 10 million new jobs created since 1982
  - a. Unemployment rate has fallen from 9.5% in 1982 and 1983 to 7.1% in 1985 and 1986

D. Consumer Spending

1. This has been the single most important factor in the relatively long period of sustained economic growth since the 1981-82 recession
2. Has been facilitated, or encouraged by:
  - a. Relatively low inflation rates
  - b. Increased employment
  - c. Growth in real consumer income
    - i. increased 2.7% in 1986
    - ii. annual increases have averaged 3.7% over past 3 years
  - d. Draw-down in savings
    - i. savings rate in 1986=4.4% of total personal income
    - ii. 1984=6.4%
    - iii. Each 1 percentage point decline in the savings rate generates about \$30 billion in additional consumer spending
  - e. Increase in consumer debt
    - i. 1986 consumer installment debt=19% of disposable personal income
    - ii. 1983=13.5% (recent low)
    - iii. Previous high was 16% in 1979

3. 1987, outlook for further increases in real consumer spending is not encouraging
  - a. High debt and low savings are major limits on future growth
  - b. Rapid run-up in installment debt in 1986's 3rd quarter in response to auto sales incentives probably moved considerable spending from 1987 to 1986
- E. Thus, stimulus for economic growth in 1987 will need to be generated elsewhere than in the consumer sector

SLIDE 4: U.S. DOLLAR AND INTERNATIONAL TRADE

- A. The rapidly increasing trade deficit has been one of the two major deficit problems facing the economy
- B. All U.S. trade sectors have faced problems of growing magnitudes since the early 1980's
  1. Export industries
    - a. Total U.S. exports: -22% since 1981
  2. Import substitution industries
    - a. Total U.S. imports: +15% since 1981
  3. Merchandise trade gap (deficit) has widened from:
    - a. less than \$30 billion in 1979-1981, to
    - b. more than \$140 billion in 1986
  4. Agriculture, one of the few sectors with a positive trade balance, is no exception
    - a. Agricultural trade surplus 1979-1981=about \$30 billion
    - b. 1986=\$5.1 billion (-83%)
- C. Trade deficit has essentially reduced domestic economic growth in the past 3 years (1984-1986) by about \$100 billion/year compared to the 1979-1981 period
  1. That is, 1986 GNP would have been about 2.5% higher if: 1986 trade deficit was the same as 1980's (all else unchanged)
- D. The trade-weighted value of the dollar reflects this changing trade situation

1. The X-131 index measures changes in the value of the U.S. dollar relative to currencies of all 131 countries that trade with the U.S., based upon relative market shares
    - a. The value of the dollar in 1985=81% above the 1979-1981 average
    - b. Declined about 2.5% in 1986
    - c. In the Jan.-Oct. 1986 period, the dollar actually increased in value relative to currencies of 56% of the countries with whom we trade
  2. This contrasts with the more widely quoted Federal Reserve Board index
    - a. Includes only 10 currencies: Western Europe and Japan
    - b. Shows a 20% decline in 1986 compared to 1985
      - i. or a 35% decline in October 1986 from the February 25, 1985 "peak"
  3. The X-131 index presents a much more accurate picture of the "international competitiveness" of the U.S. economy as a whole
- E. Normally, changes in the trade balance lag about 1 year from changes in the dollar value index
- F. thus, a small gain in the overall trade situation is possible in 1987
1. Trade deficit may decline by \$10-15 billion from 1986
  2. But, will still be a \$125-130 billion drag on the economy

SLIDE 5: FEDERAL BUDGET DEFICIT

- A. This is the second major deficit problem in the U.S. economy
  1. And, is closely related to the trade deficit, as will be demonstrated shortly
  2. Between 1981 and 1985:
    - a. Government spending increased at an average annual rate of 9.9%
    - b. Federal receipts increased at an average annual rate of 5.6%
    - c. The Federal Budget deficit grew from about \$70 billion/year to a record \$220 billion

- B. Rapid growth in government outlays has stimulated spending and thus the GNP growth rate
- C. But, financing the deficit has caused most of the benefits to flow to foreigners
- D. The deficit is projected to narrow in 1987
  - 1. Gramm-Rudman provisions are designed to restrain the rate of growth in government spending
  - 2. Receipts are also projected to increase
    - a. 1985 tax reforms are revenue positive in 1987, even though they are supposed to be revenue neutral in longer run
    - b. Receipts will also be expanded through sale of some government assets (conrail, some loan portfolios, etc.)
  - 3. However, there are serious questions whether federal spending can be cut enough to meet the official Gramm-Rudman expenditure targets represented here

SLIDE 6: ECONOMIC IDENTITY

- A. With prospects for economic stimulation in both the consumer and government sectors somewhat diminished in 1987:
  - 1. Investment sector will have to show appreciable growth to keep the economy expanding
- B. This slide illustrates some basic economic relationships that provide insights into:
  - 1. The outlook for business investment in 1987, and
  - 2. The interrelationships between the overall economy and the "double deficits" of
    - a. trade
    - b. the federal budget
- C. A basic economic identity, or fundamental economic "fact of life":
  - 1.  $\text{Investment} = \text{Total Savings}$
  - 2.  $\text{Total Savings} = \text{Private Savings} + \text{Public Savings} + \text{In-Flow of foreign resources}$
  - 3.  $\text{Private savings} = \text{Personal savings} + \text{retained business earnings}$

4. Government deficit = public dissavings (a negative savings)
  5. Net Exports = a net outflow of resources from the U.S. (also a negative savings)
  6. Thus, private savings minus
    - a. the government deficit, and
    - b. net exports
    - c. Equals the amount of resources available for investment
- D. Since 1979:
1. Investment has grown somewhat faster than private savings
  2. Thus, some combination of:
    - a. government savings, and
    - b. net imports
    - c. have been necessary to generate the investment resources
  3. But, government has dissaved (deficit spending)
  4. Therefore, net imports have had to increase
    - a. or, in more conventional terms, net exports have had to decrease
- E. If the 1987 projections are correct for a 25-30% decline in the Federal budget deficit, then
1. net imports can decline (or net exports increase), and
  2. Investment can expand somewhat faster than savings
    - a. Thus, providing an engine for continued economic growth in 1987 despite weaker consumer and government spending trends

SLIDE 7: GNP FOR 1987/1986

- A. Following the scenario outlined above, in nominal terms for 1987, compared to 1986:
1. Consumer outlays: +4 to 6%
  2. Government outlays: +3 to 5%



- a. Growth in state and local spending should boost total outlays despite attempts to level-out the federal component
- 3. Business Investment: +6 to 9%
- 4. Foreign Trade: still a sizeable deficit but, if the federal budget deficit does decline as projected, this should be a smaller deficit than in 1986.
- B. Overall: +4 to 6% in GNP in current dollars
  - 1. Inflation is likely to increase somewhat
    - a. particularly if the dollar falls in value, which increases the cost of imported goods
    - b. could be around 4%, compared to 1986's 2%
  - 2. This would put real growth in the marginal, 0 to +2% range
    - a. and raise the real possibility of a recession, if the budget deficit does not decline as projected

ANSWER 1: AGREE

QUESTION 2---Steadily declining operating income in the farm sector threatens the foundation of the U.S. commercial credit and banking system.

SLIDE 8: U.S. COMMERCIAL BANK FAILURES

- A. This chart shows the rising number of both commercial ag and non-ag bank failures
  - 1. Comparing the third quarter of 1986 with the first quarter of 1982 reveals that total bank failures have increased from 3 to 42, a fourteen fold increase
  - 2. Bank failures since 1984, were only exceeded during the Great Depression of the 1930's
- B. The number of ag bank failures has increased rapidly since 1982, both in absolute numbers and as proportion of all bank failures

1.	<u>Total Bank Failures</u>	<u>Ag Bank Failures</u>	<u>Ag %</u>
1982	35	11	31
1983	45	7	15
1984	78	32	41
1985	118	68	58
1986*	106	52	49

\*through third quarter

2. Ag bank failures became conspicuous during the spring and summer of 1984
  - a. In every quarter since then, with the exception of the second quarter of 1986, they have represented more than half of all bank failures
  - b. Since the fourth quarter of 1984 ag bank failures have averaged at least one per week
3. Ag bank failures have been concentrated in five states: Iowa, Kansas, Minnesota, Missouri, and Nebraska
- C. While ag bank failures have risen to highly visible levels, especially in the Western Cornbelt, the failed banks represent a small proportion of all ag banks
  1. At the end of 1985 there were approximately 4,800 ag banks
  2. Thus, the 68 failures in 1985 represented only 1.4% of all ag banks
  3. The 68 ag banks that failed in 1985 also had, on average, total assets of \$21 million, only two-thirds the average size of all ag banks

SLIDE 9: FARMING'S SHARE OF LOANS AND LOAN PROBLEMS IN THE BANKING SYSTEM

- A. This chart clearly demonstrates that commercial ag bank problems are unlikely to undermine the U.S. commercial banking system
  1. In 1982 through 1985, the total loans of ag banks averaged only 6.4 percent of total loans at U.S. commercial banks
  2. While the proportion of delinquent loans held by ag banks has risen since 1982, it has not exceeded 10% of total delinquent loans
    - a. In 1984 and 1985, delinquent loans at ag banks represented 8.1 and 8.4 percent, respectively of total delinquent loans
- B. Ag loans at failed banks support the conclusion that ag bank problems are unlikely to undermine the U.S. financial system

1. Farm Loans at All Failed Banks

	<u>Million Dollars</u>	<u>As a % of Total Loans at Failed Banks</u>
1982	49	3
1983	62	2
1984	199	10
1985	459	19
1986*	574	13

\*through the third quarter

2. While ag loan problems are not inconsequential, this shows that non-ag loan problems pose more of a potential threat to the U.S. banking system

C. Ag bank failures do represent a serious problem for many communities

1. Rural communities may only have one or two banks

2. If a bank fails:

a. Borrowers in a weak financial situation may not be able to find alternative financing

b. Depositors may be forced to find a new bank if the failed bank is not merged with a healthy bank

3. As a result, community businesses may experience a sharp drop-off in trade volume and profits

## SLIDE 10: ANNUAL FARM INCOME

A. This chart presents information on the paradox plaguing the U.S. farm sector: high operating income and a high incidence of financial stress

1. The top line on the chart measures U.S. farm operating income, which is:

a. The proceeds from the sale of commodities (crops and livestock)

b. Plus any government payments

c. Minus current expenses of production and marketing, including depreciation

2. Contrary to popular perceptions, operating income has not fallen dramatically in the 1980's

- a. Operating income in 1980-1986 averaged \$44.5 billion, compared to \$35.4 billion in 1973-1979
- b. Operating income is expected rise slightly in 1987 to about \$48 billion
- 3. The two most important factors supporting operating income are government payments and reduced input costs
  - a. In 1986, direct government payments will be about \$11.5 billion and net CCC loans about \$10 billion, or a total of \$21.5 billion
    - i. This represents 46% of operating income
    - ii. The proportion is likely to exceed 50% in 1987
  - b. Operating expenses fell \$4.1 billion in 1985, fell \$2.6 billion in 1986, and are expected to decline another \$1.4 billion in 1987
    - i. This will represent a 7.6% drop in total operating expenses in 1985-1987
- B. The second line in the chart represents the income available to pay debt obligations and equity owners in the U.S. farm sector after an allowance for farm operators' labor and management
  - 1. An alternative title is income returns to U.S. farm assets--debt and equity have claims on the income produced by the assets
  - 2. The line shows the same trend as operating income
    - a. Income to pay debt and equity averaged \$24.1 billion in 1980-1986, compared to \$17.8 billion in 1973-1979
    - b. Income returns to debt and equity are expected to rise slightly in 1987, to just over \$29 billion
- C. The bottom line in the chart subtracts interest payments on debt obligations and represents the net return to equity owners in the U.S. farm sector
  - 1. This line dramatically illustrates the financial problems created by rising debt and interest rates

a.	Interest Payments (mil. \$)	<u>Interest</u> Income to Assets
1973-1979 avg.	9,865	<u>.49</u>
1980-1986 avg.	18,979	.90

- b. In 1980 and 1983, interest payments were large enough that income returns to equity were negative
  - c. In only four other years since 1910 (1921, 1931, 1932, and 1933), was the income return to equity in agriculture negative
2. Since 1984, income returns to equity have recovered to levels only exceeded in 1973, 1974, and 1979
- a. Income returns are expected to rise marginally in 1987 to about \$13 billion
  - b. Note, however, that the recovery in returns, and the "covering" of interest costs, is totally dependent in government payments
  - c. In 1986, total government payments will be more than twice the size of income returns to equity
- D. The aggregate income data clearly show that interest costs on debt are a major source of financial problems in the U.S. farm sector
- 1. The problems are compounded by the concentration of debt in the hands of relatively few farm operators
  - 2. A recent study by the Federal Reserve Board provides the most comprehensive analysis of financial problems
    - a. To be considered in a good financial position, a farmer has to have a favorable combination of returns and equity cushion
    - b. To be considered in a vulnerable financial position a farmer had to have a highly adverse combination of returns and equity cushion
    - c. Results are for 634,000 commercial farms (sales greater than \$40,000/year) in the U.S.

<u>Financial Position</u>	<u>Operators</u>	<u>Percent of Total</u>	
		<u>Assets</u>	<u>Debts</u>
		January 1986	
Good	74	66	57
Vulnerable	9	8	18
		January 1985	
Good	70	65	51
Vulnerable	10	10	23

- 3. Financial situation is slowly improving. But, divergence of fortunes is clear

- a. A heavy debt burden will be extremely difficult to overcome
- b. Those with little or no debt are enjoying reasonable income returns

SLIDE 11: PURCHASED INPUT COSTS

- A. This table documents the production cost declines that have helped support farm income since 1985
  - 1. Interest costs have declined due to declining interest rates and a declining overall level of debt
    - a. Interest rates on operating loans have on average, fallen between 2.0 and 3.0 percentage points since late 1984
    - b. Interest rates on long-term real estate loans have fallen a similar amount, and are the lowest since 1979
    - c. Farm Credit System interest rates have not fallen as rapidly, if they have declined at all
    - d. Due to a continued weak economy and an ample supply of money, rates are not expected to change greatly in 1987
    - e. The total debt of the U.S. farm sector declined \$4 billion in 1985, and is expected to fall another \$12 billion in 1986 and 1987
  - 2. Fuel costs fell dramatically in 1986 due to the 50% decline in crude oil prices
    - a. Number 2 diesel fuel fell below 50 cents/gallon delivered to Midwest farms in the spring, 1986
    - b. Costs are expected to remain stable or decline modestly in 1987
    - c. OPEC unity on cutting production appears unlikely
    - d. Fuel costs in real terms in 1987 will be back to 1975 levels
  - 3. Machinery costs are expected to decline 10% in 1986 and 9% in 1987
    - a. Equipment inventories remain large
      - i. the mid-year 1986 inventory of farm tractors was equal to 87% of annual unit sales
      - ii. combine inventory was equal to 94% of annual unit sales

- b. Domestic manufactures have reduced costs through research and development--one manufacturer is reported to have reduced unit production costs 40% since 1980
- 4. Fertilizer costs are expected to decline sharply in 1987
  - a. Overcapacity in all types of fertilizer production
  - b. Reduction in natural gas price has reduced the cost of production of NH<sub>3</sub> by \$40/ton
  - c. Real dollar prices are similar to early 1970's levels
- 5. Chemical costs are also expected to be down in 1987
  - a. supplies will be adequate
  - b. usage has declined considerably
  - c. Products such as Lasso that are losing patent protection may experience price declines as large as 30%
- 6. Taxes are expected to be stable in 1986 but go up in 1987
  - a. The Tax Reform Act removes favorable deductions, such as the investment tax credit, before lowering tax rates
  - b. Taxes may be up 5% in 1987 as a result
  - c. However, the real tax burden of agriculture is equal to early 1960s levels
- 7. All purchased input costs are expected to decline 6 to 8% in both 1986 and 1987
  - a. In current dollar terms, this will result in costs equal to 1980
  - b. In real dollar terms, this will result in costs being reduced to early 1970s levels

SLIDE 12: U.S. FARM ASSETS, EQUITY, AND DEBT

- A. This chart shows farm assets, equity, and debt via a ratio scale, which allows equal vertical distances to be interpreted as equal percentage changes
  - 1. The chart shows that the reduction in asset values, projected through 1987, has substantially exceeded the reduction in debt
    - a. Since the 1980 peak, real asset values have dropped 45%

- b. Since the 1981 peak, real debt has dropped only 21%
  - c. This has increased the debt:asset ratio from 16.9 in 1980 to a projected 25.3 in 1987
2. This is a dramatic reversal of post-WWII trends
- a. Between 1947 and 1979, real asset value increased 274% while debt increased 572 percent
  - b. The incentive for using debt to acquire farm assets was clear:

	<u>Total Real Return to Assets</u>	<u>Total Real Cost of debt</u>
1947-1979 avg.	+5.2%	+2.3%

- c. Compared to:
 

1980-1987 avg.	-5.4%	+5.2%
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3. The combination of rapidly declining asset values and a slower decline in debt will result in a projected \$525 billion real dollar decline in farm equity in 1981-1987
- a. This is over an \$800,000 loss in real equity per commercial farm in the U.S.
- B. Asset values, of which real estate comprises about 75%, will likely continue to decline for the next several years
- 1. Asset values are still in the process of adjusting to expectations of flat, rather than increasing, income returns
    - a. Between the mid-1950s and the late-1970s, real income returns on U.S. farm assets grew at annual rates of about 4%
    - b. In the 1980s, real income returns have declined about 2.5% per year
    - c. changing expectations of income growth alone may have changed pricing multiples from about 50:1 to 20:1. This implies a 60% drop in asset values
  - 2. The glut of assets that need to be sold, or "turned-over", in order to service debt obligations also adds a downward pressure to asset values
  - 3. On the positive side, government payments and production cost declines are helping to support the income return on farm assets



4. Given current income levels, asset values in the range of \$650-\$700 billion (current dollars) appears sustainable
    - a. Depends on continued high government support payments
    - b. Implies a decline of about another 10-15% from 1986 asset values
    - c. In Ohio, this suggests land prices may decline another \$100 to \$150 per acre before bottoming
- C. Predicting the amount of total debt that needs to be "worked through" in the adjustment process is difficult
1. The debt adjustment is likely to take significantly longer than the asset adjustment
    - a. In the last boom-bust cycle, assets peaked in 1916 and bottomed in 1934
    - b. Debt peaked in 1922, but did not bottom until 1947
  2. If assets stabilize in the \$680-700 billion range and the debt:asset ratio returns to its historical average of 18 percent, then debt may have to be reduced to \$120-125 billion
    - a. Debt is currently about \$180-\$185 billion
    - b. Suggests a further debt reduction of about \$50 billion, 25% of current debt obligations
    - c. Debt peaked at \$203 billion, suggesting a total reduction of about \$80 billion
    - d. Have only reduced debt through 1986 by about \$25 billion
    - e. This suggests debt adjustment is only one-third, and at best one-half, completed
  3. Debt reduction will occur from two sources:
    - a. Financially healthy borrowers reacting to changing economic environment
    - b. Stressed borrowers working out of a debt problem

SLIDE 13: AGRIBUSINESSES AFFECTED BY FARM FINANCIAL ADJUSTMENTS

- A. The affects of financial adjustments by farmers has been and will continue to produce ripple effects within agribusiness

1. A key determinant of the ability of an agribusiness to survive the adjustment is diversification
- B. The health of farm creditors varies directly with the degree of dependency on farm loans
1. Commercial farm banks have survived relatively well due to diversification
    - a. At farm banks as a group, farm loans constitute only 36% of total loans
  2. The Farm Credit System is undiversified with nearly all loans to the farm sector
    - a. \$2.7 billion loss in 1985; \$1.7-2.7 billion loss in 1986
    - b. Federal legislation has twice been required to maintain the integrity of the system
- C. Suppliers of farm inputs have experienced substantial losses and in some cases forced into bankruptcy
1. An Iowa State study reported a 400% increase in accounts receivable write-offs from 1981 to 1984 in a sample of cooperative input supply firms
  2. Bad debts may be 1-3 percent of sales for many firms
- D. Handlers and processors of farm inputs have seen their volume of business shrink because of:
1. Shrinkage of trade credit
  2. Purchasing declines by financially pressed farmers
  3. However, many have a diversified business base, which has helped cushion the problems with ag divisions
- E. Other rural business, such as grocery stores, gas stations, hardware stores, etc., have experienced accounts receivable losses and declines in the volume of business
1. These businesses may suffer as much or more than others due to their small size and geographic tie to farming
  2. These problems are especially pronounced in rural Western Cornbelt communities

ANSWER 2: DISAGREE

QUESTION 3---The dominant position of U.S. Agriculture as the world's lowest cost producer of corn, wheat and soybeans is prompting a 10-20 percent increase in export shipments.

SLIDE 14: U.S. SHARE OF WORLD AGRICULTURAL TRADE

- A. First, lets put global grain production, use and trade in perspective
1. Food grains, feed grains and oil seeds account directly or indirectly for about 75% of human nutrition around the world
  2. Most of this grain and oilseed production is consumed where it is produced, with only 15% entering world trade
  3. China produces one-fifth of the world's total--but exports only 1% of its production
  4. The U.S. is a close second, producing 19% of the world total--but by exporting 35% of its production accounts for a dominant 45% of world trade
  5. Canada, Argentina and Australia together produce only 6% of world output but since they export more than one-half of their production, they supply almost one-fourth of world trade
  6. France produces 3% and exports almost one-half of its production
  7. Brazil produces 3% of world output, but because of a large internal market accounts for only 4% of world trade
  8. The USSR and India each produce 9% of world output of grain and oilseeds
  9. Slightly more than one-half of the production and almost one-half of the imports are accounted for by developing countries, however, 80% of the exports originate in developed countries
- B. Corn, soybeans and wheat are the principal U.S. exports, accounting for 85-90% of total--the U.S. continues to dominate world trade, but market shares of these commodities have declined in recent years
1. Market share for corn has dropped from about 80% in 1983/84 to less than 60%
  2. Soybean market share has dropped from 65 to 60%
  3. Wheat market share has fallen steadily from 50% in the early 1980s to less than 30%

	<u>U.S. Share of World Market</u>		
	Corn	Wheat	Soybeans and Products
1981-82	74	48	68
1982-83	75	40	66
1983-84	78	38	58
1984-85	70	36	50
1985-86	57	29	60

## SLIDE 15: WORLD MARKET SHARE

- A. Eight exporting countries account for about 90% or more of world trade in corn, soybeans and wheat
  1. Argentina, France and the United States are the principal corn exporters (84%)
  2. Argentina, Brazil and the U.S. are the principal soybean exporters (97%)
  3. Argentina, Australia, Canada, France and the United States are the principal wheat exporters (85%)
- B. Argentina and the United States are major suppliers of all three commodities, while France supplies both corn and wheat

## SLIDE 16: COST OF ACCESSING ASIAN MARKETS. 1985

- A. Three types of costs are considered in getting products to foreign markets--farm production costs, domestic marketing costs, and international freight--summations of these costs are shown in the slide for 5 countries (Note: some costs have been updated and are different than those shown in the Outlook Guide.)
- B. Argentina is the lowest cost supplier of corn, soybeans and wheat
  1. Principal reasons are low fertilizer, chemical and land rent costs
  2. Export taxes contribute to limited input use and low land rents which in turn result in lower yields (corn-53 bu/acre)
  3. Lower taxes could increase input use and yields--leading to greater market share--principally in corn
- C. Brazil is the second lowest cost producer of soybeans--cost factors include low machinery costs and high fertilizer and transportation costs

1. A vast land area and a relative cost disadvantage in corn and wheat production indicate that Brazil will continue as a formidable competitor in international soybean markets
- D. European wheat producers are competitive in world markets
1. High production costs are offset by very high yields (100+ bu/ac)
  2. With stable internal demand and rising production, EC wheat exports are likely to grow
- E. France is a high cost corn producer for the Asian market but is competitive in the nearby corn-deficit market in Northern Europe
- F. U.S. costs are greater than those in lower cost producing countries
1. U.S. farm level costs are substantially greater--principally fixed costs of overhead, labor, depreciation and land
  2. In general, the U.S. enjoys an advantage in internal marketing and international freight costs
  3. U.S. is second lowest cost producer of corn--with considerable long run growth potential in world feed grain demand, the U.S. long run competitive advantage probably is greater in corn than in soybeans and wheat
  4. U.S. soybean competitors, principally Brazil, have lower costs, considerable expansion potential, and fewer alternative options--result: the U.S. will be less competitive in soybeans
  5. U.S. is least competitive in wheat--world demand will grow only slowly and there are many low cost competitors with fewer alternative crops (Canada, Australia, Western Europe)

SLIDE 17: PRODUCTIVITY AND LAND RENTS -- 1980-84

- A. Corn and soybean yields per acre and associated land rents in Argentina, Brazil and the United States shown on the slide hi-light the competitive differences among the three countries
- B. Corn yields in the U.S. are double those in Argentina and triple those in Brazil
  1. Land quality in Argentina is similar to U.S., but lack of input use (fertilizer) keeps corn yields low
  2. Low corn yields in Brazil are more a factor of soil and climate differences
- C. Soybean yields are quite similar in all three countries

- D. U.S. land rents are four times greater than those in Argentina and almost double Brazilian land rents
  - 1. this is a principal reason for the competitive cost advantage for Brazil and Argentina over the U.S. in soybean production
  - 2. Brazil's land rent costs are \$1 per bushel for soybeans; the U.S. costs are \$2 per bushel--this one dollar difference is the total competitive advantage enjoyed by Brazil (\$7.90 vs. \$6.91 on previous slide
  - 3. Argentine land rents are held down due to low product prices which in turn are caused by export taxes

SLIDE 18: POLICY IMPACTS

- A. For many years, the U.S. has been a dominate force in world markets--because of this U.S. farm price supports have provided a floor to international farm commodity prices
  - 1. These higher product prices have allowed production costs to rise in the U.S. through greater input use and capitalized land values
  - 2. Output has increased in response to these higher prices, both in the U.S. and abroad
  - 3. However, U.S. and world food consumption has been lower as a result of these policies
- B. Other countries have used this price floor to their advantage in various ways--in many cases it has facilitated agricultural growth--in others countervailing policies have limited growth but encouraged consumption
- C. Argentina is one example--the Argentine government has chosen to tax the difference between their costs of production and international prices, as well as tax some inputs. The results are low farm prices, low production costs, and low output levels--low prices, however, have led to higher consumption levels
- D. The EC, like the U.S., has followed a high price support policy which has encouraged productivity, raised production costs and discouraged consumption
  - 1. Variable import levies have isolated consumers and producers from world price and world competition in the internal EC market, making it easier to maintain high domestic prices--this has become increasingly more difficult and costly as agricultural surpluses mount and exports must be subsidized
- E. A falling dollar should raise U.S. prices, costs and output as our

products become more competitive in foreign markets, but the evidence so far is not encouraging

1. To date, the dollar has fallen the most against currencies (countries) where price changes have only minimal impacts on consumption (i.e., Germany)
2. Also, many of our competitors and markets peg their currencies to the dollar, reducing further the impact of the more visible exchange rate changes
3. Because of national agriculture and food policies, and many dollar pegged currencies, it is unlikely that a falling dollar will bring about the anticipated changes in the U.S. competitive position

ANSWER 3: DISAGREE

QUESTION 4---Agricultural development in low and middle income countries benefits the U.S. farm economy.

SLIDE 19: FOREIGN AGRICULTURAL DEVELOPMENT CREATES -- COMPETITION? OR MARKETS?

- A. The slide focuses the question more specifically on a current issue that is troubling many agriculturalists--i.e. what is the impact of foreign agricultural development on U.S. export markets?
- B. A surprising answer is that among low and middle income countries agricultural development often leads to expanded markets for U.S. products
  1. The principal reason is that agricultural development along with associated development in the rest of the economy creates more income which leads to consumption increases that outpace the ability of agriculture to supply the needed quantities and kinds of foods
  2. An important factor is a diet switch to more livestock products--necessitating a greatly expanded supply of feed grains
- C. In developed countries, however, agricultural development does create more competition--or at least a declining U.S. export market
  1. In these countries income growth is not translated into more consumption, hence any agricultural development that leads to greater output creates potential competition for U.S. exports
- D. The remaining slides in this section build on these two relationships:

1. by demonstrating the shift in export market focus toward developing countries
2. by quantifying the income-consumption dynamics that accompany development
3. by showing specific country examples

SLIDE 20: BUYERS OF U.S. AGRICULTURAL EXPORTS

- A. Developed countries have been and continue to be the principal U.S. export market--their share, however, is dropping, from 68% in 1970 to 50% in 1985
- B. By contrast, the percentage of U.S. export sales to developing countries has risen from 30% in 1970 to 41% in 1985
- C. Centrally planned countries are somewhat erratic buyers of U.S. commodities--averaging about 10% of the U.S. agricultural export market in recent years

SLIDE 21: FOOD CONSUMPTION AND INCOME 1966-82

- A. This slide relates consumption of food to changes in income for 16 countries over a sixteen year period--it contains a lot of information
  1. Income in GNP/capita (1985 dollars) is shown on the horizontal axis--income growth is, of course, the result of development
  2. Consumption, shown on the vertical axis is measured in cereal (or grain) equivalents--this allows us to measure all diets on the same basis. Weighting of various foods was as follows:
 

cereals	1.0
Tubers, vegetables	.2
Sugar	1.1
Chicken	2.3
Pork	4.3
Beef	11.0
  3. The left dot for each country represents income and consumption in 1966--the right dot income and consumption in 1982
  4. The line connecting the 1966-1982 points for each country can be thought of as a consumption function for that country over the specific income range
  5. The large bold line is a generalized consumption function representing a composite of the 16 countries
- B. Several very significant relationships are demonstrated in this slide



1. At income levels above \$10,000 GNP/capita there is very little growth in food consumption. Countries at this income level continue to be our major markets--but since consumption is not increasing and production is, there is little hope for growth in agricultural exports to these countries--Japan is an exception and is discussed below
  2. At low levels of income, consumption increases very rapidly as income grows. These countries represent the best potential for market growth--since a high proportion of income is spent on food, low commodity prices have the same impact as an increase in income
- C. Japan with high income consumes less than Brazil with a lower income--several factors explain this difference
1. Japan has a high savings rate--30%, Brazil's savings rate is closer to 20%, thus Brazilians spend more of their available income
  2. Sirloin steak in Brasilia costs \$2.00/lb. In Tokyo sirloin steak costs \$20/lb. Thus, a given amount of Brazilian income will buy more food
  3. These conditions highlight the impact of domestic policies on consumption and thus on U.S. trade prospects
  4. Japan is the largest U.S. agricultural market--with lower internal food prices Japan could be a significantly larger market
- D. Land poor countries--Taiwan, Japan, South Korea, Italy, West Germany--consume less food at given levels of income than do land rich countries--Brazil, France, Canada--probably because of higher food prices

SLIDE 22: FOOD CONSUMPTION AND INCOMES--1966-82

- A. This is a repeat of the consumption function shown in the previous slide without the individual countries--several important concepts are highlighted here
1. Food consumption--measured in cereal equivalents per capita increase seven-fold from low to high income levels--.3 tons/capita to 2.1 tons/capita
  2. Only 15% of the worlds population has reached high income-high consumption levels--these are the declining markets and export competitors
  3. One-half of the world's population is at the starting gate--too

poor to increase their consumption--these countries are future markets once development and income growth get started

4. Thirty-five percent of the world's population is in the development phase and constitutes our current growth market

SLIDE 23: FOOD CONSUMPTION AND PRODUCTION IN CEREAL EQUIVALENTS

- A. West Germany is an example of a high income country that was an important U.S. export market but is now declining
  1. consumption is increasing very slowly
  2. Production has grown apace with consumption over the past 20 years and is now beginning to close the food gap
  3. Agricultural development in Germany is creating competition
- B. South Korea is an example of a middle income country where agricultural development has been very rapid--doubling in the past 20 years
  1. Consumption growth, however, has tripled in the same period leaving a substantial and growing food gap--South Korea is the 6th most important U.S. agricultural market
  2. Agricultural development in South Korea is associated with a strong U.S. export market

ANSWER 4: AGREE

QUESTION 5---"Farming" and "agriculture" mean the same thing.

SLIDE 24: THE FOOD AND FIBER SYSTEM

- A. The structure and organization of the economic system for transforming land, labor and capital into consumable food and fiber products has changed dramatically
  1. The relative importance of farms has declined
    - a. today, only about 11% of the value of food and natural fiber products consumed in the U.S. is created on farms
    - b. only about 12.5% of all employment in the agri-food system is on farms
    - c. by contrast, about 40% of the total agrisystem employment was on farms as recently as 1950

2. The relative importance of off-farm industries has increased markedly. Of the total value consumed:
    - a. 27% in wholesaling and retailing
    - b. 22% in processing and food manufacturing
    - c. 18% in service industries such as finance, insurance, custom operations, brokerage, storage and warehousing, supplying and distributing inputs, etc.
    - d. 10% in manufacturing farm inputs
    - e. 7% in food service, that is, preparing and serving foods directly to consumers in places such as restaurants, hospitals, etc.
    - f. 5% in transportation
    - g. compared to farming's 11%
  3. Labor has become more specialized--restructured from jobs once done on farm and in homes to jobs in food and fiber related industries. Since 1950 the number of people working in:
    - a. farming: -65%
    - b. manufacturing farm and food-related machinery: +85%
    - c. eating places: +250%
  4. Yet, the total number of workers in the system has remained about the same
- B. Thus, farming is only a relatively small part of agriculture
1. When agriculture is broadly defined as the entire system of providing food and fiber products to consumers

SLIDE 25: SHARE OF FARMS AND FARM OUTPUT

- A. The structure of the farming sector of the agrifood system has changed as well
  1. the number of farms counted in the census has declined
    - a. 1960 = 4 million
    - b. 1986 = 2.2 million (-45%)
    - c. Census definition: any place that in a normal year would be expected to produce and sell \$1,000 or more of farm products

2. The composition of things counted as farms has changed even more dramatically
    - a. In 1960:
      - i. 79% of all farms were small (less than \$10,000 in annual sales)
      - ii. 18% were medium sized (\$10,000 - 40,000 in annual sales)
      - iii. Only 3% were large farms (over \$14,000 in sales/year)
    - b. By 1985:
      - i. Only 70% were small farms (less than \$40,000 in sales in 1985 dollars, roughly equivalent to 10,000 1960 dollars)
      - ii. 15% were medium, or more appropriately called transitional farms (\$40,000 to \$100,000 sales in 1985 dollars)
      - iii. 15% were large scale, commercial farms (over \$100,000 in sales in 1985 dollars)
      - iv. These labels will be defined shortly
- B. The relative importance of the different classes of farms within the agrifood system has also changed
1. In 1960:
    - a. Small farms produced 27% of all farm output
    - b. Medium-sized farms produced 40% of the total
    - c. Large farms produced 33%
  2. By 1985:
    - a. Small farms had just 9%
    - b. Transitional farms had 16%
    - c. Commercial farms had 75%
  3. To re-cap:
    - a. in 1960: 3.9 million farms produced two-thirds of all farm output
    - b. in 1985: 330,000 farms produce three-fourths of all farm output

## SLIDE 26: FARM FAMILY INCOME AND SOURCE

- A. This slide helps explain the characteristics of each of these three classes or types of farms
  - 1. Net income earned from farming
    - a. large size, commercial farms = \$79,600 per farm, or average
    - b. medium sized, transitional farms = \$6,000 per farm
    - c. small farm = an average loss of \$1,400 per farm (-\$1,400)
  - 2. Income earned by the farm family off the farm (non-farm jobs, investments, etc)
    - a. commercial farms = \$11,200 per farm
    - b. transitional farms = \$9,700 per farm
    - c. small farms = \$20,200 per farm
- B. Assume that about \$20,000 of income/year is needed to pay reasonable living expenses for a farm family
  - that is, to support a life-style roughly comparable to the typical American family
  - 1. Commercial farms, on average, earn enough from the farm to support more than a single family
    - a. with non-farm income relatively unimportant
    - b. These are labeled "commercial" because they make money from farming as a business
  - 2. Transitional farms on average, don't earn enough either on or off the farm to fully support a family
    - a. Their farm operations are typically too small to generate adequate family income from the farm
    - b. Their farm operations are too large to allow sufficient time to be available for enough off-farm employment to generate an adequate family income
    - c. Thus the label:transitional
      - i. over time, some will become commercial operations
      - ii. others will get smaller, or go out of business

3. Small farms earn enough off farm to support both the family and the farm

i. Are not commercial farms because they persistently subsidize the farm operation with outside income

C. If earning sufficient farm income to support one or more families is necessary to be considered a family farm

1. Then, only those farms in the commercial category qualify

2. Or, only about 15% of all farms could be called family farms

SLIDE 27: PRODUCTION EXPENSES AND CASH INCOME

A. This slide depicts average per farm cash production expenses as a share of cash receipts, by type or size of farm

B. It provides a clear demonstration of why the large, commercial farms have experienced a substantial increase in their share of total farm output

C. Ratios of expenses to cash receipts:

	<u>1960</u>	<u>1984</u>
Small farms	0.75	1.61
Transitional (medium) farms	0.75	1.00
Commercial (large) farms	0.85	0.79

D. In 1960, all farms experienced positive operating margins

1. Operating margins were actually larger for small and medium farms (about 25% of cash receipts) than for large farms (15%)

E. In 1984, only large, commercial farms experienced positive operating margins (21% of cash receipts)

1. Small operators have substantially negative margins (-61%)

2. Transitional farms are roughly break-even operations, measured on this cash-flow basis

F. This also provides some insight into size economies in farming

1. On a cash operating margin basis, there appeared to be

a. a small disadvantage to size in 1960

b. a rather substantial advantage to size now

- c. these size advantages are primarily due to
  - i. technical scale economics in production, that is output per unit of input generally increases as farm size increases
  - ii. pecuniary economics to size, that is, selling for higher prices and buying at lower costs.
- 2. As such, this may explain much of the relative shift in farm production to the large scale farms

SLIDE 28: VERTICAL INTEGRATION IN FARMING

- A. Another important structural change is the degree to which farm production is formally integrated into the rest of the agrifood system
- B. This slide depicts the extent to which farm production occurs as part of a formally integrated system
  - 1. Ownership integration = farm production owned and controlled by firms whose primary business is elsewhere in the system, e.g. feed manufacturers, meat packers, etc.

	<u>1960</u>	<u>1980</u>
crops	4.3%	5.3%
livestock	3.2%	10.1%

- 2. Contract integration = farm production under terms of formal, written agreements between farmer and integrator such as a poultry processor, canner, or food manufacturer

	<u>1960</u>	<u>1980</u>
crops	8.6%	14.3%
livestock	27.2%	38.4%

- C. Most of this integration is concentrated among the larger farm operations (although precise distributional data by farm size are not available)
  - 1. In these cases, much of the identity of the farm as an independent decision-making business entity is lost
  - 2. Decision-making and control become joint functions of several entities within a given vertical system whose business is converting basic raw materials and natural resources into consumable food and fiber products

## D. To re-cap:

1. Only about 330,000 of the 2.2 million places called farms account for most of our farm production
2. Farming as a whole accounts for only about 11% of the end value of the food and fiber products produced by our commercial agricultural system

ANSWER 5 -- DISAGREE

QUESTION 6---Developments such as biotechnology and changes in the federal income tax law increase uncertainty yet there is no good way to manage risk.

## SLIDE 29: CRITICAL ISSUES

## A. Short Run

1. Cost control
  - a. Per unit costs
  - b. Break even price
  - c. Apply economic principles
2. Financial management
  - a. Management functions
  - b. Financial statements
  - c. Financial measures
3. Risk management
  - a. Estimate chances of a loss
  - b. Concepts to remember
    - i. Minimum risk - too little profit
    - ii. Maximum profit - too risky

## B. Long run

1. Federal tax reform
  - a. Less outside investment in agriculture



## SLIDE 31: MANAGEMENT

- A. Management functions
  1. Plan - Determination of intended course of business
  2. Organize - Coordinate tasks, people, and the work place
  3. Directing - Working through people - hired labor, family members, agribusiness personnel - to carry out decisions
  4. Control - Set standards and compare results
- B. Conscious effort and attention needs to be given to each area of the business

## SLIDE 32: RISK MANAGEMENT

- A. Risk Management
  1. Estimate chance of loss or unfavorable outcome
  2. Probability of profit plus probability of breaking even plus probability of a loss next year = 100%

## SLIDE 33: RISK MANAGEMENT TOOLS

- A. Choice of action based on chance of loss

<u>Frequency</u>	<u>Severity</u>	<u>Desirable Action</u>
Low	High	Assume risk
Low	High	Transfer risk by insurance or other means
Low	High	Prevent loss by actions or assume risk if cost of prevention or reduction can't be justified
High	High	Avoid if at all possible

QUESTION 6: DISAGREE

QUESTION 7---Marketing generic certificates is more important than marketing corn.

## SLIDE 34: CORN: SUPPLY AND USE

- A. Supplies for the 1986-87 marketing year will be 12.2 to 12.3 billion bushels, up 16 to 17% over 1985

1. Acreage harvested for grain will be 69 million acres, down 8%.  
Decline is due to:
  - a. Doubling of the government acreage reduction requirement to 20%
  - b. An increase from about 70% to over 80% of the national corn acreage base enrolled in the acreage reduction program
2. National average yield will be about 119 bushels/acre
  - a. Another new record, topping 1985's 118 bushels
  - b. Excellent growing conditions in the Midwest more than offset the effects of the severe drought in the southeast
  - c. Ohio yields are about 128 bu./acre, the same as last year
3. Production will be 8.2 to 8.3 billion bushels, down 5 to 6%
4. Carry-in for the 1986-87 marketing year was 4.0 billion bushels, 2.5 times the carry-in for the 1985-86 marketing year
  - a. 58 to 60% of projected use
- B. Use in 1986-87 is expected to be 6.7 to 6.9 billion bushels, up 3 to 7% from 1985's depressed use
  1. Domestic use will increase 50-150 million bushels, to around 5.3 to 5.4 billion bushels
  2. Industrial demand and food and seed uses have increased about 10% per year over the last decade
    - a. Growth may only be 2-4% in 1986-87
    - b. The market for corn sweeteners appears to be reaching maturity
    - c. Lower energy prices have slowed the demand for ethanol fuels
    - d. Seed use has declined due to acreage reduction programs
  3. Feed use in 1986-87 may be about 4.25 billion bushels, slightly greater than in recent years.
    - a. The number of grain consuming animal units is not likely to increase
      - i. The number of dairy cows, after increasing in 1985-86, will decline largely due to the dairy herd buyout program

- ii. A larger share of beef cattle will be placed in feedlots, but the herd is shrinking, hence, no net gain is expected
  - iii. Increases in hog numbers late in 1986-87 will not offset declines early in the year
  - iv. Increased poultry numbers will offset any decline in beef and hog numbers
- b. Average feeding rates will likely increase
- i. Generally high livestock prices and the low level of corn prices in relation to soybean meal prices will support corn feeding rates
- c. Wheat prices are substantially higher than corn prices in the midwest but still nearly equal in the high plains
- i. Wheat:corn price ratio for 1986-87 will average about 1.25
    - ratio of about 1.45 expected in the corn belt
    - ratio of 1.1 expected in the high plains
  - ii. Had been feeding 200-400 million bushels of wheat per year in recent years
  - iii. Wheat feeding will fall somewhat in 1986-87
    - but still will be considerable wheat feeding to cattle on feed in the high plain area
4. Corn exports will rise 15 to 20% in 1986-87 to 1.4 to 1.5 billion bushels
- a. This will still be 40% below the 1979-80 peak exports of 2.4 billion bushels
  - b. some of 1986-87 exports will reflect delayed buying
    - i. The Food Security Act of 1985 announced last year that support rates would be lowered substantially for the 1986-87 marketing year and the potential for larger government export subsidies
    - ii. Waiting for these 1986-87 incentives likely shifted normal buying patterns
  - c. If production and domestic use remain the same, and exports increase at a 15% annual rate, it would take a decade to reduce stocks to one billion bushels

- d. It is unlikely, then that exports will by themselves solve current oversupply problems
  - e. Growth rates of 2 to 4% are probably more realistic due to:
    - i. Rapid increases in non-U.S. production of cereal grains
    - ii. A persistently strong value of the dollar vis-a-vis the currencies of several major customers and most export competitors
    - iii. High external debt among many importing nations
    - iv. Aggressive counter-subsidies and price discounts by U.S. export competitors
- C. Corn carryout at the end of the 1986-87 marketing year is expected to be around 5.4 billion bushels
- 1. A new record level of ending stocks, exceeding the old record set in 1985-86 by 35%
  - 2. Stocks-to-use ratio is projected to be 77 to 84%
    - a. Substantially exceeds last year's post-WWII high of 62%
    - b. Stocks-to-use ratio averaged 42% over 1955-1965
    - c. Highest ratio over 1955-1965 was 54.8%, which occurred in 1960
  - 3. Over the 1981-1986 period, not considering the 1983 PIK year, production has on average exceeded use by 1.3 billion bushels
    - a. This increment has cumulatively had the effect of ballooning ending stocks

SLIDE 35: CORN STOCKS SITUATION

- A. This table outlines the prospects for tight free stocks of corn during September 1987
  - 1. Projected carryout on September 1, 1987 is around 5.4 billion bushels
  - 2. Isolated stocks projections
    - a. 1986 loan placements are projected at 3.2 to 3.6 billion bushels
      - i. 40% of 1986 crop

- ii. In 1985, 32% of the corn crop went under loan
  - b. FOR stocks are expected to be 1.1 billion bushels (maximum allowed under current law)
  - c. CCC stocks and extended loans are projected at 1.7 to 2.0 billion bushels
  - d. FOR rotation of stocks will be about 0.6-0.7 billion bushels (50-60% of total for stocks)
  - e. Stocks available to the market through redeeming generic certificates is conservatively projected to be 0.7-1.0 billion bushels
    - i. This is a conservative estimate because at least \$4 billion of certificates will be issued over the marketing year
    - ii. Important to note that certificates are generic and can be paid on one commodity and used to redeem a different commodity
  - f. Subtracting the "leakage" through reserve rotations and PIC certificate redemptions from total isolated stocks results in a projected net isolated stocks of 4.7-4.8 billion bushels on September 1, 1987
3. Subtracting net isolated stocks from the total projected carryover results in an implied free stocks projection for Sept. 1, 1987 of 0.5 to 0.6 billion bushels
4. Market use needs for the month of September largely must come from free stocks because harvest does not start until early October
- a. September market use is projected at 0.5 to 0.6 billion bushels
5. Subtracting market needs from free stocks nets to zero
6. The result is that the market will not need to redeem corn put under loan this fall
- a. The primary reason for the need not to redeem CCC loans in "leakage" through PIC certificate redemptions
  - b. There is a high probability that PIC redemptions will be larger than 1.0 billion bushels due to an increase supply of certificates

- c. This only strengthens the conclusion that CCC loans will not need to be redeemed in 1987
- B. Since CCC loan Stocks are not likely to be redeemed in 1987, it is unlikely that market prices will rise above the 1986 loan rate \$1.84 per bushel
    - 1. The effective ceiling on prices in 1986-87 is the loan rate
    - 2. Any delayed or deferred pricing decisions should consider this ceiling
- C. The season average price of corn in Ohio is expected to be in the range of \$1.60 to \$1.80 per bushel.
    - 1. Harvest-time prices dipped into the \$1.30-1.40 range due to a shortage of bin space
    - 2. Some price appreciation is expected, but the seasonal price pattern will be relatively stable compared to historical patterns

SLIDE 36: 1987 CORN PROGRAM

- A. The chart shows returns above variable costs for a representative Ohio corn producer who does and does not participate in the 1987 corn program
  - 1. Program highlights
    - a. National average loan rate of \$1.82, down the maximum 5%
      - i. However, only two cents below the Gramm-Rudman reduced loan rate in 1986
      - ii. No Gramm-rudman cuts are anticipated in 1987
    - b. Target price frozen at \$3.03/bu.
      - i. Potential deficiency payment is \$1.21/bushel
    - c. For producers to be eligible for loans and payments they must idle 20% of their corn base acreage
    - d. Producers may also voluntarily idle an additional 15% of acreage
      - i. Payment rate will be \$2.00/bu. on the 15% idled
      - ii. Deficiency payments will be foregone on 15%
      - iii. 50% of diversion payment will be received at sign-up

- iv. One-half of advance payment will be in generic PIC certificates

C. Sign-up for corn producers begins November 17

- 2. The chart shows returns above variable costs as variable costs change.
  - a. Assumptions
    - i. Market price of \$1.75/bu.
    - ii. Base of 100 acres
    - iii. Actual yield of 120 bu./acre
    - iv. ACSC base yield of 110 bu./acre
- 3. The 20% acreage reduction program (ARP) will generate returns above variable costs about 2 to 3 times that under no participation
  - a. Program advantage is greatest for the high cost producer
  - b. Shows that incentive to participate in the 1987 program will be strong
- 4. the 20% ARP and 15% paid land diversion (PLD) also generate returns above variable costs two to three times that of non-participation
  - a. Returns for the 20% ARP alone and the 20% ARP + 15% PLD are different by no more than \$500, or about 3%
  - b. 20% ARP + 15% PLD is slightly more favorable for higher cost producers
  - c. 20% ARP only is slightly more favorable for lower cost producers
    - i. Diversion payment does no more than offset the lost deficiency payment on the 15% PLD
  - d. The similarity of the two program options in terms of returns above variable costs suggest producers will generally be indifferent between the two
    - i. Participation in PLD may be substantially lower than in ARP as a result

B. Program returns suggest the following situation for corn acreage in 1987:

	<u>Acres</u>
Acreage Base	84.0 mil.
20% ARP (80% participation)	-13.5 mil.
15% PLD (40% participation)	<u>- 5.0 mil.</u>
Planted	65.6 mil.
Harvested for Grain	56.5 mil.

C. Production possibilities:

	<u>Another Record</u>	<u>Trend Line</u>	<u>Drought</u>
Yield (Bu./Ac.)	121	114	102
Production (Bil. Bu.)	6.8	6.4	5.8
Carry-Out (Bil. Bu.)	5.2	4.8	4.2

- D. Program "slippage", i.e. idling poorest land, planting non-base acres, etc., could increase acreage by 5-6 mil. and production and carryout up 500-600 million bushels.

SLIDE 37: GENERIC CERTIFICATE VALUE AND STORAGE AVAILABILITY

A. Generic certificate program

1. Certificates have been issued to participants in the 1986 wheat and feed grain programs and to grain handlers as part of:
  - a. Advanced deficiency payments
  - b. Land diversion payments
  - c. Export enhancement payments
2. Certificates give holders access to government-owned commodity stocks
3. Certificates are generic in the sense that they may be exchanged for any commodity either owned by the government or under loan
4. Certificates have a specified dollar value, are negotiable, and must be liquidated by the stated expiration date
5. Farmers who receive certificates can use them to:
  - a. Redeem commodities under the CCC loan
  - b. Sell them to others



- c. Hold the certificates until the first transfer deadline and cash them in for face value at the local ASCS office
  - 6. Selling certificates to others has been a popular alternative because prices have generally been above face value
    - a. This fall, generic certificates in central Ohio have been selling for 115 to 120% of face value
    - b. The primary purchasers have been grain dealers, whose purchases are motivated by
      - i. Potential to resell the certificates at a profit
      - ii. Opportunity to free storage space by exchange certificates for grain stored in their elevators
      - iii. Opportunity to purchase CCC commodities at advantageous locations
- B. Generic Certificates allow farmers to participate in the loan program without storing commodities
1. The "PIK and roll" strategy
    - a. Assume loan rate = \$1.82/bu.; posted county price and market price = \$1.42/bu.
    - b. Place corn under CCC loan and receive \$1.82
    - c. Use certificates to redeem the loan\* -1.42
    - d. Sell corn in the cash market and receive 1.42  

Net price \$1.82

\*Assumed to be purchased for face value

    - e. The transactions assure the farmer receives the full loan rate by not having to incur storage costs
  2. The certificates used to "PIK and roll" may be issued to the producer or purchased from a third party
  3. The value of the certificates to a farmer depends on:
    - a. The relationship between the loan rate and market price
      - i. If the market price is above the loan rate minus storage costs, there is no incentive to put commodities under loan, and certificates will be worth no more than face value

## b. Storage availability

- i. If a farmer has no storage or commercial storage is not available or too expensive, then the alternative is selling commodities for the cash price
- ii. In the example, a farmer without storage nets an additional 40 cents/bushel
- iii. This implies a farmer without storage would pay up to  $1.82/1.45 = 125\%$  for certificates
- iv. The above value is also the implicit worth of certificates issued by the government to a farmer without available storage

## c. Storage costs, if storage is available

- i. If off-farm storage is available and going under the loan is profitable, then a farmer's alternative opportunity price is the loan rate minus commercial storage costs
  - a) Assume 9 month storage costs are 20 cents/bu., then the net price is \$1.62 for storing under loan
  - b) In this case, the "PIK and roll" will at most net a farmer an additional 20cents/bu.
  - c) This implies a certificate value of  $1.82/1.62 = 112\%$
- ii. If on-farm storage is available and going under the loan is profitable, then a farmer's alternative opportunity price is the loan rate minus variable on-farm storage costs
  - a) On-farm storage variable costs are generally small
  - b) If the farmer considers the variable storage costs to be zero, then the net price is \$1.82/bu. for storing under the loan
  - c) In this case, the "PIK and roll" will be worth zero cents and the certificate value is  $1.82/1.82 = 100\%$

## C. Market premiums for generic certificates will be determined by demand and supply

1. Each buyer's value will vary with individual situation
2. But, average industry storage costs in relation to average market price will be a good indication of average demand value

3. The supply of certificates is expected to about double in 1987 from the \$2.5 billion issued in 1986
4. This may force premiums down in the fall of 1987 relative to the fall of 1986

ANSWER 7: AGREE

QUESTION 8---Too much production and too little use mean that the CCC loan rate is the dominant factor in the outlook for wheat prices.

SLIDE 38: WHEAT:SUPPLY AND USE

- A 1986-87 supply is 4.0 billion bushels, up 3.3% from last year
  1. Total supply for 1986-87 is within the narrow range of 3.9 to 4.0 billion bushels registered since 1981
  2. Production was 2.1 billion bushels, down more than 14 percent from 1985
    - a. Harvested acreage was 60.5 million acres, down 6.4%
    - b. Yields averaged 34.2 bushels per acre, down 8.6% from 1985
      - i. Yield was the lowest since 1980
      - ii. Adverse weather conditions were responsible
  3. Carry-in was a record 1.9 billion bushels, 34% larger than in 1985
    - a. Carry-in was 27% larger than the previous record of 1.5 billion bushels carryout in 1960-61 and again in 1982-83
    - b. Carry-in equals 83-89% of projected use, levels which have not been seen since the 1950s and early 1960s
- B. Use is projected to be 2.1 to 2.3 billion bushels, 10 to 17% higher than 1985 use
  1. This is still 8 to 14% below average use during 1981-1984
  2. Domestic use is projected to be about 1.1 billion bushels, up slightly from 1985
    - a. Feed use may decline as wheat prices are now substantially above corn prices in the corn belt
    - b. National average wheat:corn price ratio has increased at least 10%

3. Exports are projected to recover into the 1.0 to 1.1 billion bushel range, up 15 to 25% from 1985's depressed levels
  - a. Exports will still be below the 1981-84 average of 1.5 billion bushels by about 9%
  - b. Even if exports increased at a compound rate of 15%/year, assuming constant production and domestic use, carryout would not be reduced below a billion bushels until 1991
  - c. It will be difficult for the U.S. to attain such export increases, despite the lowering of the U.S. loan rate for wheat. Barriers to export increases include:
    - i. A continued high dollar
    - ii. Increased production in importing countries
    - iii. Unwillingness to cut production in other exporting countries
    - iv. Debt repayment problems in developing countries
    - v. Use of export subsidies by competing exporters
4. Carryout for the 1986-87 marketing year are projected to be 1.7 to 1.8 billion bushels
  - a. Down 3 to 10% from 1985-86 carryout, but still the second highest carryout on record
  - b. The stocks-use ratio is projected to be in the range of 75 to 85%

SLIDE 39: WHEAT: MARKET AND SUPPORT PRICES

- A. The graph shows that the support-price for wheat does in fact provide a floor under market wheat prices
  1. From 1966 through 1982, national season average wheat prices were only below the loan rate once
    - a. In 1968, the loan rate was one cent greater than the market price
  2. Of the four seasons 1983-1986, market prices have been below loan rates in three
    - a. The differential has not been greater than 15 cents, however

3. Stocks buildup is the reason why market prices and loan rates converge in certain years
  - a. Market prices tend to be driven down to the loan rate by ending stocks of 1.2-1.4 billion bushels or more
- B. Market prices in future years may be further below the loan rate than in similar situations in the past due to the issuance of generic certificates
  1. One-half of all advance deficiency payments and land diversion payments plus as much as half of the final deficiency payments will be made in certificates
    - a. The total face value of certificates varies over the next year may exceed \$4 billion
  2. Because they are generic, certificates used as payment on feedgrains, export-enhancement, etc., can be used to acquire CCC wheat stocks.
- C. The chart also shows the contrast in price volatility between the 1960s, 1970s, and 1980s
  1. 1960s: low and stable prices due to large stocks
    - a. Market prices were essentially set by the government support price
  2. 1970s: high and variable prices due to the drawdown in stocks
    - a. Market prices were set by market supply and demand fundamentals
  3. The 1980s appear to resemble the 1960s much more than the 1970s
    - a. Large stocks again imply the government support price is approximately the market price
    - b. As loan rates stabilize in the late 1980s and stocks prove difficult to reduce, a price environment similar to the 1960s may be the rule rather than the exception

SLIDE 40: WHEAT: OHIO AVERAGE FARM PRICES

- A. Ohio wheat prices declined sharply during July-October 1986 due to the cut in loan rates from \$3.15/bu. to \$2.40/bushel
  1. Prices have recovered recently to the \$2.40 to \$2.50 range
- B. Projected light supplies of soft red winter wheat point to further price increases

1.	<u>Production</u>	<u>Exports</u> (mil. bu.)	<u>Carryout</u>
1984-85	532	253	64
1985-86	368	149	79
1986-87*	289	130	49

\*projected

2. Carryout of soft red winter is expected to decline by 38%
- C. A seasonal pattern similar to the 1985-86 season is likely
1. Prices may average \$2.50-2.80 per bushel
  2. Holding inventories will likely be profitable as both the basis tightens and prices appreciate
  3. Use of the non-recourse loan program is likely to be profitable also as prices should rise enough to redeem loans

ANSWER 8: AGREE

QUESTION 9---Soybean prices are coming up short because of long domestic supplies of corn and foreign supplies of vegetable oils.

SLIDE 41: SOYBEANS:SUPPLY AND USE

- A. Supplies for the 1986-87 marketing year (September-August) = 2,528 million bushels, +4.7% from 1985-86
  1. Acreage harvested = 59.8 million, down 3.9%
  2. Average yields = 33.3 bu./acre
    - a. Second highest on record to 1985's 34.1 bu./acre
    - b. Well above 10 year trend of 29.6 bu./acre
  3. Total production = 1,992 million bushels, -5%
    - a. Carryover from 1985-86 = 536 million bushels, +70%
- B. Use in 1986-87 is expected to be around 1.9 billion bushels
 

—essentially unchanged from 1985-86

  1. Exports will probably just about match last year's 740 million bushels
    - a. On a weekly loading rate, exports through first 2 months of the marketing year were 10% ahead of the year earlier pace

- b. 1985-86 exports were up 24%
  - i. but still nearly 20% below the peak levels reached in 1981-82 and 1982-83
  - ii. major factors cutting U.S. export sales since the early 1980's:
    - 1) increased competition from South American soybeans
    - 2) increased supplies of world vegetable oil production, particularly sunseed in Europe and palm oil in Asia
    - 3) strong dollar through early 1985 encouraged buyers to find less expensive alternatives to U.S. soybeans
  - iii. 1985-86 exports benefited from a 15% shortfall in last year's Brazilian crop
- c. For 1986-87, prospects are for a more normal to slightly expanded South American crop
- d. Shipments should exceed the year-earlier pace until the South American harvest begins in March-April
  - i. Brazil will import beans until then to keep processing plants operating
  - ii. Thereafter, Brazil will again be an aggressive meal exporter
- e. Soyoil exports are down about 55% from their 1979 level
  - i. reflects large increases in world edible oil production
  - ii. many oil importers have switched from soyoil to sunoil and palm oil
- 2. Domestic crush: little change expected from 1985-86's 1,139 million bushels
  - a. the number of protein-consuming animal units will remain about the same
    - i. more poultry
    - ii. fewer cattle
  - b. relatively high price of soy meal compared to corn will limit gains in feeding rates of meal

- c. domestic oil use should increase modestly as low prices cause some displacement of imported palm and coconut oils
- 3. Carryout next August 31 = about 630 million bushels, + 17-18%
  - a. this equals about 33% of annual use
  - b. first time that carryover relative to use has exceeded 30% since 1968-69
  - c. largest absolute carryover ever

SLIDE 42: SOYBEANS: SUPPLY/USE-PRICE RELATIONSHIP

- A. this slide demonstrates the impact of excess supplies on market prices
  - 1. horizontal axis = annual supply as a percent of annual use
    - a. 1986 crop = 133%
    - b. 1985 crop = 128%
    - c. 1976 crop = low of 107%
  - 2. Vertical axis = season average price divided by the price support loan rate
    - a. 1985 crop = 1.02 (season average price of \$5.10 was 102% of the \$5.02 loan rate)
- B. Note that, when supplies exceed about 115% of annual use:
  - 1. prices tend to average near to slightly above loan rates
  - 2. 1979 and 1980 were exceptions, as exports jumped sharply
- C. With 1986-87 supplies = 133% of use, the loan rate again appears to be a dominant factor in the price outlook
  - 1. Announced loan rate = \$4.77
  - 2. Effective Gramm-Rudman reduced rate = \$4.56

SLIDE 43: 1986-87 SOYBEAN PRICE PROSPECTS

- A. Last year we said: a 1985-86 season average price in the \$5.00-\$5.40 range
  - 1. Actual = \$5.10



- B. This year, product values suggest a somewhat lower range of price expectations
1. soyoil prices expected to average in the 14-17 cent/pound range (basis Decatur, Illinois)
    - a. down from 18 cents in 1985-86
    - b. well below the 30 cent level reached in 1983-84 and 1984-85
    - c. primarily reflects the burgeoning world supplies of edible oil
    - d. this generates returns of about \$1.54-1.87 for the oil content of a bushel of soybeans
  2. Soymeal prices are heavily influenced by corn prices
    - a. On a per pound basis, soymeal typically sells for about 2 time the price of corn
      - i. higher relative meal prices encourage more corn and less meal in feeding rations
      - ii. vise versa for low relative meal prices
      - iii. historical range of season average soymeal:corn prices = 1.7 to 2.3
    - b. \$140 meal = 2.3 times \$1.70 corn
    - c. \$160 meal = 2.7 times \$1.70 corn, or 2.3 times \$1.95 corn
    - d. Thus, it would appear that relatively cheap corn will limit soymeal prices to this \$140-160/ton range, or below
    - e. This generates returns of about \$3.33 to 3.81 for the meal content of a bushel of beans
  3. Combined, the product values = \$4.87-5.66/bushel
  4. from this a 30-60 cent crush margin must be deducted
    - a. average industry crushing costs are in the 40-45 cent range
- C. Season average price expectation: \$4.60-5.00
1. Consistent with both
    - a. Product values, and
    - b. Price support levels

## SLIDE 44: SOYBEANS:OHIO AVERAGE FARM PRICES

- A. The 10 year average price increase from October low to May high = 71 cents
  - 1. In 1985-86, the spread was 35 cents
  - 2. In 1984-85, prices actually declined 40 cents in this period
- B. 1986-87: October low = \$4.61
  - 1. Doubtful if prices will reach the 10 year average of +71 cents by May (\$5.32)
    - a. Unless, South American crop comes in short, or
    - b. 1987 planting looks to be seriously delayed
  - 2. But, shortage of South American soybeans and soy products until next spring should cause prices to increase by at least as much as last year's 35 cents (\$4.96)
- C. An early spring, 1987 pricing target in the \$4.95-5.15 range seems reasonable
  - 1. This should come close to, if not fully redeem 1986 price support loans
    - a. Interest costs = about 17 cents (7 months)
    - b. Storage costs = about 35 cents
    - c. total redemption costs = about 52 cents
  - 2. Loan of \$4.56 + \$0.52 redemption costs = \$5.08 target to fully recover all costs and breakeven on loan redemption
  - 3. But, little potential for higher expected prices, as the opportunity to fully recover loan costs will keep the market more than adequately supplied

ANSWER 9: AGREE

## SLIDE 45: 1987 OHIO CROP COMPARISONS

- A. Before moving to livestock, let's review the crops situation from a cost and returns perspective
- B. Typical average yields and comparable average variable costs per acre for Ohio conditions

1. With reasonable "guesses" for average prices for the 1987 crops  
     --actually, these are relatively close to what can be currently  
     locked in for the 1987 crops on futures hedges

C. Market returns favor:

1. Soybeans relative to corn and wheat
2. lower cash rents in 1987

D. But, when government deficiency payments are added:

1. The situation once again looks to favor corn over soybeans, and
2. The government payments provide sufficient returns to land and fixed costs to help support the land rental market at "inflated" values

NOTE: The total returns to corn and wheat are adjusted on a per acre basis to include returns to total (planted + idled) acreage

- E. Thus, for cash grain farmers and cropland owners, 1987 look to be another year of "farming" the government program

QUESTION 10---Increased demand and lower production point to higher milk prices in 1987.

SLIDE 46: PER CAPITA CONSUMPTION OF LIVESTOCK PRODUCTS

- A. Before looking at the specifics of the dairy situation, let's review consumption trends for livestock products
1. These are long-term trends, with 5 year averages from 1960-1984, and annual data from 1985
  2. Long term trends show:
    - a. sustained declines in per capita consumption of:
      - i. fluid milk (note that the actual pounds of milk consumed are 10 times the levels shown on the vertical axis, to allow all products on one chart)
      - ii. eggs
    - b. sustained increases for:
      - i. broiler chickens
      - ii. turkey

- iii. cheese
- c. relatively stable pork consumption
- 3. Shorter term trends show:
  - a. declines in red meat consumption (beef and pork) since the mid to late 1970's
  - b. a noticeable decrease in the rate of decline in milk and egg consumption
  - c. a leveling in the rate of increase in cheese consumption
    - i. probably associated with a leveling-off in major cheese-using foods such as pizza
  - d. no signs of public disenchantment with poultry meat
- B. Of particular importance to the question at hand: how significant is the apparent "bottoming" of fluid milk consumption?
  - 1. How much reflects a change in consumer tastes and preferences?
  - 2. How much reflects the effect of lower price supports and thus, relatively lower retail prices?
  - 3. Answers to neither question are known with certainty at this point
  - 4. Probably, both factors figure in

SLIDE 47: MILK PRODUCTION, COWS, AND MILK PER COW

- A. Milk production in 1986 eased up from 1985, due entirely to a significant increase during the first half of the year
  - 1. 1986 production = 145.7 billion pounds, up 1.4%
  - 2. output during the 2nd half of the year was actually below year earlier levels
    - a. reflecting the impact of the dairy termination program that went into effect in April
  - 3. 1985 production was up 6.1% after declining 3.1% in 1984 due to:
    - a. the dairy diversion program
    - b. relatively high feed costs, associated with the 1983 PIK and drought, that discouraged high feeding rates and lowered per-cow production

- B. The number of milk cows declined 1.4% in 1986
  - 1. due to the dairy termination program
  - 2. Contrasts with a 1.8% increase in 1985 following the end of the diversion program
  - 3. For 1987, no further decline in cow numbers seems likely
    - a. The ratio of replacement heifers per 100 cows = 43.3 on July 1, 1986
    - b. this is well above the historic standard of 35
    - c. Cull cow prices have remained relatively weak in light of
      - i. the Dairy Termination Program
      - ii. continued liquidation of the beef cattle herd, albeit at a slowing pace
- C. Production per cow
  - 1. Following the 1984 down-turn, has returned to the growth trend established since 1978
  - 2. 1986 = 13,400 lbs./cow, + 2.8% from 1985
    - a. Ohio = 12,850 in 1986
      - i. 96% of national average
      - ii. 2.4% above 1985
  - 3. Another 2-3% increase appears likely in 1987
    - a. Milk-feed price ratio continues to favor heavier feeding rates
    - b. Many of the less productive herds are going out in the Dairy Termination Program
- D. Total production in 1987: up 1-2%
  - 1. Relatively level cow numbers
  - 2. Increasing per cow production

SLIDE 48: MILK:U.S. BLEND AND SUPPORT PRICES AND CCC PURCHASES

- A. The CCC purchases reflect the amount of excess milk production over commercial demand

1. CCC purchases peaked at 12% of total production in 1983
  2. Declined sharply (to 6.4%) with 1984's production cut-back
  3. Have trended downward since the 1983 peak despite production increases
    - a. Due primarily to increased commercial use
    - b. Commercial disappearance in 1986 = 134.9 billion lbs., + 2.9% from 1985
  4. If commercial use continues to expand at the rate since 1983, purchases could fall to less than 5% of 1987 production
    - a. lowest since 1978
    - b. would be in the 5.5-6.0 billion pound range
- B. Note the relationship between government purchases and the premium between blend price and support price
1. When purchases increase, premium narrows
  2. vice versa
- C. Support price
1. Peaked at \$13.49 during first 9 months of 1981
  2. Since July 1, 1985= \$11.60
  3. January 1, 1987 = \$11.35
  4. October 1, 1987 = \$11.10
  5. The effective support level has been reduced by producer assessments to defray costs of the Dairy Termination Program
    - a. April-September 1986 = 52 cents
    - b. October-December 1986 = 40 cents
    - c. January-September 1987 = 25 cents
    - d. 0 thereafter
  6. For 1988, 1989 and 1990
    - a. Support price = \$11.10, unless

- b. Projected annual surplus purchases are more than 5 billion pounds, then - 50 cents, or
  - c. Projected annual surplus purchases are less than 2.5 billion pounds, then +50 cents
- D. Blend prices
- 1. 1986 = \$12.25
    - a. about 65 cents over posted support price
    - b. about \$1 over the effective support price
      - i. compared to 90 cents in 1985
    - c. 10-20 cents above support prices in 1979, 1980 when CCC purchases were increasing rapidly
  - 2. For 1987
    - a. The average effective support price will be about 30 cents lower than in 1986
    - b. smaller CCC purchases should help hike blend price premium by about as much (30 cents)
    - c. Thus, 1987 blend price looks to be close to 1986's \$12.25 average
      - i. probably above 1986 in the 1st half
      - ii. below 1986 in the 2nd half as the termination program ends and price support drops

ANSWER 10: DISAGREE

QUESTION 11---Farrowing intentions provide a good barometer of future market conditions for slaughter hogs.

SLIDE 49: U.S. COMMERCIAL HOG SLAUGHTER

- A. This graph shows the sharp reduction in hog slaughter during the summer of 1986

1.	<u>Month</u>	<u>1986/1985</u>
	June	-5.1%
	July	-7.5
	August	-14.9
	September	-12.2

2. the slaughter declines pushed prices from April lows of \$40/cwt. to August highs over \$65/cwt
  3. Combined with the lowest corn prices in over a decade, the high hog prices have pushed production profits to record levels
- B. the slaughter declines reflected sharp cutbacks in farrowings during late 1985 and early 1986
1. The farrowing reductions were caused by a period of poor returns since mid-1983 and the attendant financial stress among hog producers
- C. Also contributing to the price recovery was a sharp drop in imports
1. During the first half of 1986, pork imports totalled 526 million pounds, down 12 percent from the same period in 1985
  2. The principal reason for the drop was the decline in the value of the dollar versus European currencies
    - a. Denmark is the second leading supplier of pork exports to the U.S.
    - b. the Danish Kroner appreciated sharply against the dollar over the first half of 1986
    - c. As a result, pork exports to the U.S. from Denmark declined by 28% in the first half of 1986

SLIDE 50: PRODUCTION PROFITS AND SOWS FARROWING

- A. This chart shows the persistent relationship between production profits, as measured by the hog:corn ratio, and sows farrowings two to three quarters later
1. The hog:corn ratio is plotted for the quarter indicated on the horizontal axis
  2. Sows farrowing are actually the average for two and three quarters later than the quarter indicated on the horizontal axis
    - a. For example, the hog:corn ratio for the first quarter of 1982 is matched with the average of sows farrowings for the third and fourth quarters of 1982
    - b. The lag in response to profit signals reflects biological and investment lags
      - i. Gilts must be held back and bred before an appreciable increase in farrowings can occur--this takes a minimum of 1 or 2 quarters.



- ii. Production facilities may have to be expanded or new operations built--this may take up to four quarters
  - iii. The result is an average lag in response to profit opportunities of about two to three quarters
- B. The hog:corn ration is not a perfect predictor of sows farrowings, but it does a good job of predicting the turning points in farrowings and gives a reasonable idea of the magnitude of future farrowings
- 1. Over the 1982.1 through 1986.2 period, the hog:corn ratio correctly signaled two-thirds of the turning points in sows farrowings
- C. Note the widening gap between sows farrowing and the hog:corn ratio over the first two quarters of 1986

- 1. The dashed line on sows farrowing s indicates the farrowings as intended, not actual

2.

<u>Period</u>	<u>Farrowing Intentions</u> (mil. hd.)	<u>Change from year earlier</u>
Sep 86 - Nov 86	2,060	-9%
Dec 87 - Feb 87	1,827	-6%

- a. Sep - Nov farrowings are second reported intentions
  - b. Dec - Feb farrowings are first reported intentions
- 3. Available data on gilt retention suggests Sep. 86-Nov. 86 farrowings will be near intended levels
  - 4. The Dec. 86-Feb. 87 farrowing intentions are more suspect
    - a. A full two quarters of all-time record hog:corn ratios will have preceded this quarter:

	<u>Hog:Corn Ratio</u>
Jun - Aug 86	30:1
Sep - Nov 87*	35:1

\*projected

- b. Actual farrowings are likely to be down only slightly or unchanged for the Dec 86 - Feb 87 period
  - c. This implies a reasonable probability of larger than expected slaughter during the summer of 1987
- 5. The intentions to monitor most closely in the December 86 and

March'87 Hogs and Pigs Reports will be the farrowing intentions for Mar - May 87 and Jun - Aug 87

- a. First intentions for the Mar - May 87 period, given in the December 86 report, may be unchanged or up modestly from 1986 levels
  - b. The hog:corn ratio will have been at record levels for a full three quarters by March 1987
    - i. Hog:corn ratio is expected to remain in the 30-35:1 range during early 1987
  - c. This signals a sharp increase in sows farrowings during the March-August 87 period--the increase may be as much as 15% over 86 levels
  - d. The pig crops from the Mar - May 87 and Jun - Aug 87 periods will be marketed during the fourth quarter of 1987 and first quarter of 1988
  - e. Thus, a large increase in marketing's is likely for late 1987 and early 1988
- C. Hog producers have reported farrowing intentions well below actual farrowings at similar points in past hog cycles
1. The September 1982 Hogs and Pigs Report showed:
    - a. Second intentions for Sep - Nov 82 farrowings down 10.8%
    - b. First intentions for Dec 82 - Feb 83 farrowings down 6.1%
  2. Actual Sep-Nov 82 farrowings were down only 1.2% and Dec 82 - Feb 83 farrowings were up 6.3%
  3. this followed a steep rise in the hog:corn ratio over 1981.3 through 1982.2

SLIDE 51: RATIO OF RETAIL BEEF AND PORK PRICES TO RETAIL BROILER PRICES

- A. this chart shows the large increases since 1960 in the retail prices of beef and pork relative to broilers

1.	<u>Beef/Broilers</u>	<u>Pork/Broilers</u>
1960s	2.3	1.7
1970s	2.8	2.1
1980s	3.3	2.2
1985/1960	+42%	+50%

2. The rise in relative prices of beef and pork explain a substantial portion of the declines in per capita consumption of beef and pork
    - a. Note the 35% increase in the relative price of beef during 1976-1982
  3. Health and dietary concerns have certainly contributed to the consumption declines but are, probably not as overwhelming of an influence as many have asserted.
- B. The source of the rise in relative beef and pork prices was not increases in retail beef and pork prices, but declines in broiler prices. The changes in retail prices are associated with changes in production costs

1.	Real Retail Prices <u>1985/1960</u>	Real Production Costs <u>(1985/1960)</u>
Beef	-13.9%	- 9.6%
Pork	- 8.9	-13.4
Broilers	-40.2	-57.5

2. Thus, much of the increase in relative beef and pork prices is in reality due to cost of production declines in broilers
  3. Broiler producers have been highly innovative in their adoption of cost-reducing technology
  4. A major challenge for red meat producers is to be as innovative as broiler producers in reducing costs
    - a. Such pressures have structural implications--it may be that in the long-run only large beef and pork producers will be able to compete effectively
    - b. The structure of beef and pork production is likely to more and more resemble that of large, vertically-integrated poultry producers
- C. A positive factor for beef and pork producers relative to broiler producers is the onset of low and stable feed costs
1. Part of the rise in relative beef and pork prices during the 1970s and early 1980s may be due to high and highly variable feed costs
  2. High and variable feed costs may have caused beef and pork production to be financially riskier than broiler production, due to their higher use of feeds such as corn and soybean meal

3. Beef and pork producers likely had to be compensated by higher prices than otherwise would be the case
4. If low and stable feed prices continue for the next 5-10 years, beef and pork retail prices may be reduced relative to broiler retail prices as the "risk premium" is reduced
  - a. However, the magnitude of the beef and pork production "risk premium" may be small relative to the underlying technological advantage of poultry production

SLIDE 52: HOGS: BARROW AND GILT PRICES AT 7 MARKETS

- A. The chart shows the over 50% increase in hog prices from April to July
  1. Marketings may be down 7-9% during the last quarter of 1986
  2. Prices are expected to follow the normal seasonal pattern and may average \$52-55/cwt. for the remainder of the year
- B. Prospects are excellent for the first half of 1987
  1. Marketings will be down about 6% based on the Jun - Aug 86 and Sep - Nov 86 pig crops
  2. Large gilt retention may decrease slaughter an additional 1 to 2%
  3. Beef supplies will be down, probably sharply in the second quarter
  4. Prices will likely range from the mid-fifties to the upper forties
- C. Prospects for the second half of 1987 are more uncertain, but are unlikely to be as good as the first half
  1. If producers respond to profit signals as they have historically, then marketings may be up 5 to 10%
    - a. Financial problems may slow the expansion
  2. Imports will probably increase in response to high U.S. hog prices
  3. Poultry supplies may be up 6-7%, which will pressure hog prices
    - a. Recent studies show that poultry supplies have a larger impact than beef prices on pork prices
  4. Prices may range from the low to upper forties

ANSWER 11: DISAGREE

QUESTION 12---Steer price in the first half of 1987 should break the patterns of seasonal lows established in 1985 and 1986.

SLIDE 53: ALL CATTLE AND CALVES: JANUARY 1 INVENTORY

- A. This chart gives a long-term perspective on the cattle industry
1. the post-WWII period up to the mid-1970s was generally a period of prosperity, with the attendant increase in cattle numbers and production
    - a. From 1949 to 1975, the cattle herd grew from 76.8 million head to 132.0 million head, an increase of 72%
  2. Since 1975, the cattle industry has experienced only brief periods of prosperity
    - a. As a result, a substantial portion of the cattle herd has been liquidated
    - b. The projected cattle inventory on January 1, 1987 is 102.5 million head, 22% below the 1975 peak, and the smallest January 1 inventory since 1963

3. The major problem facing the cattle industry since 1975 has been declines in per capita consumption

a.	<u>Per Capita Beef Consumption</u>	<u>Percent Change</u>
1975	91 lbs.	
1987 (f)	73 lbs.	-20%

f: forecast

- b. Note that the decline in per capita consumption, 20%, is almost the same as the decline in the cattle inventory 1975-1987
4. The decline in per capita consumption reflects the downward shifts in demand for beef in the late 1970s and early 1980s—the shifts reflect:
  - a. Increase in beef prices relative to poultry; during 1975-1982 the relative retail price of beef increased 35%
  - b. Health and dietary concerns, which have led to more white meat and plant product consumption
  - c. An aging population

## d. Geographic population shifts

- B. Recent events suggests that beef demand may stabilize
1. Relative price of beef to broilers has declined from a peak of 3.5 in 1982 to 3.0 in 1985, a 17% decline
  2. Low and stable feed costs may reduce the riskiness of beef production relative to broiler production, which may allow the relative price of beef to fall further
- C. The stabilization is reflected in the slowing rate of inventory liquidation:

	Liquidation Rate
1985	<u>3.8%</u>
1986	3.8
1987(f)	2.8

f: forecast

1. The herd may stabilize at about 100 million head in 1987
2. Herd stabilization would be a strong, positive factor for beef prices by removing 3 to 4 percent of recent beef supplies from the market

## SLIDE 54: BEEF PRODUCTION IN 1987

- A. Beef slaughter in 1987 is expected to be down 4 to 6% from 1986 levels.
1. First half of 1987
    - a. The number of cattle and calves under 500 pounds on July 1, 1986 gives an indication of slaughter
    - b. Assuming a 55% slaughter rate, which is relatively high due to herd liquidation, then slaughter may be about 17.7 million head
    - c. Seasonal patterns suggest

	Slaughter (mil. hd.)	<u>1987/86</u>
Jan - Mar	8.9	n.c.
Apr - Jun	8.6	-11%

2. Second half of 1987
  - a. Slaughter is expected to be down 8-10% in the third quarter

- b. Slaughter may be near 1986 levels during the fourth quarter
- B. The large expected declines in total beef slaughter during the second and third quarters of 1987 reflect an expected 10 to 14 percent drop in nonfed slaughter
  - 1. Fed slaughter will be down slightly or unchanged in 1987
  - 2. The Dairy Herd Termination Program (DTP) brought on a large increase in cow slaughter during 1986
    - a. Through early July, 1986 cumulative weekly dairy cow slaughter was up 35% over 1985 levels
    - b. Beef cow slaughter was below 1985 levels by 3% over the same period
  - 3. The biggest proportion of slaughter from the DTP will be completed during early 1987
- C. Since mid-1984, high slaughter weights have added significant supplies of beef to the market
  - 1. Live weights rose from about 1060 lbs. to 1115 lbs., a 5% increase in beef supplies alone
  - 2. Given low feed costs and a higher proportion of fed cattle in the slaughter mix, it is unlikely that weights will decline from 1986 levels in 1987
- D. With slaughter weights unchanged, total beef output is expected to be down the same as slaughter, 4 to 6%
- E. Imports will be up in 1987
- F. Per capita beef consumption in 1987 is expected to be down slightly from 1985 levels
  - 1. The decline for 1987 to 73 pounds will largely reflect the smaller market supplies due to herd liquidation slowing
  - 2. Per capita consumption of poultry meat (chicken & turkey) in 1987 is expected to surpass that of beef
- G. Retail beef prices may rise 4-5% in response to lessened supplies
  - 1. Prices may range from \$2.45 to \$2.50

SLIDE 55: FED CATTLE PRICES: CHOICE STEERS

- A. Review of 1986

1. Omaha choice steer prices average \$56/cwt. during the first half of 1986, which was lower than the \$59 average in 1985
  2. Beef production was up 1.4% in the first quarter of 1986 and up 6% the second quarter
  3. The increased second quarter production came from:
    - a. Higher weights
    - b. Increased slaughter; steer slaughter was up 4.9% and cow slaughter was up 23.6%
    - c. the large increase in cow slaughter was due primarily to the Dairy Herd Termination program
    - d. However, since cows weigh less than steers, cow slaughter probably contributed about half of the increase in beef supply
    - e. It should be noted that red meat purchases for domestic and export use under provisions of the Food Security Act of 1985 have likely more than offset the impact of increased dairy cow slaughter
  4. The total number of steers and heifers over 500 pounds on July 1, 1986 suggests second-half 1986 beef slaughter of about 18 million head, down 2% from 1985
    - a. Prices have recovered to the \$60/cwt. range through late October
    - b. Choice steer are expected to range from \$59-62/cwt. for the remainder of 1986
- B. 1987 prospects, first half of year
1. Beef output may be down 4 to 6%
    - a. Most, if not all, of the decline will occur during the second quarter
    - b. Non-fed slaughter will be down sharply
  2. Choice steer prices will likely move in the \$58-\$63/cwt. range during the first quarter and the \$61-\$68/cwt. range during the second quarter
- C. 1987 prospects, second half of year
1. Beef output may again be down 4 to 6%
    - a. Much of the decline is expected to occur in the third quarter



2. Choice steer prices may range from the low to upper sixties
- D. Price increases will likely be the largest during the second and third quarters of 1987
1. Prices will be strengthened by pork production declines early in 1986
  2. If pork producers follow current signals to expand, large pork supplies may offset beef output declines during the third quarter
  3. Poultry production may be up 6-7% in 1987--this will be a key factor in limiting beef price increases

SLIDE 56: FEEDER CATTLE PRICES

- A. Prices during September recovered sharply from June lows of \$58/cwt. to \$65/cwt.
1. The primary reasons for the price rise are a reduced supply of feeder cattle and low corn prices
  2. The July 1 inventory showed that the supply of yearlings 500 pounds and over was down about one percent, while the supply of all calves was down about 4%
  3. In addition, forage supplies are plentiful across the U.S., with the exception of the Southeast
  4. Substantially higher steer-corn ratios, due to falling corn prices, have stimulated finishing profits, and hence, the demand for feeders
- B. Prospects for 1987
1. Supply of feeder cattle will be down 3-4%
  2. A turnaround in fed cattle prices and substantially lower feed costs may support aggressive feedlot demand
  3. If herd liquidation slows further or stops in 1987, a further tightening of feeder cattle supplies could occur
  4. Cow-calf producers in Ohio again have adequate forage and may hold feeders tightly
  5. Expectations are that 500-600 pound feeders in Kentucky grading medium No.1 will range in the mid and upper sixties to the low seventies

ANSWER 12: AGREE

QUESTION 13---Hot, humid weather in the southeast during the summer derailed the approach of lower egg prices.

SLIDE 57: U.S. EGG PRODUCTION AND PRICES

- A. Total egg production in 1986 = 5,740 million dozen, +0.7 from 1985
  - 1. Hatch of laying hens was cut-back in the first half of 1985 due to low returns
    - a. this set the stage for lower egg production through 1986's 1st quarter, - 0.5%
  - 2. Lower production and stable demand yielded higher prices
    - a. 1986 first quarter prices: +20%
    - b. Combined with 1985 fourth quarter prices: +14%
    - c. this stimulated increased production for the April-December, 1986 period
- B. Hatch of layers during the first half of 1986: +12%
  - 1. Prompted by strong prices and prospects for lower feed costs
  - 2. But, the on-set of increased production was delayed by weather problems in the southeast during the summer which
    - a. increased death loss of layers in the region
    - b. temporarily reduced the average rate of lay
  - 3. By fourth quarter of 1986, increased production capacity was evident in egg output, + 1%
  - 4. With expanded flock size and younger average age:
    - a. production increases in the 1-1.5% range are expected through 1987's third quarter
- C. Demand
  - 1. Overall, demand for eggs appears to be relatively stable
    - a. domestic consumption continues downward at a rate of 3-4 eggs per capita per year
    - b. export demand has strengthened as dollar has fallen relative to the Japanese yen

- c. exports up 45% in 1986
- d. Japan is the leading buyer, with a 120% increase in 1986

D. Prices

1. With a normal or stable demand situation:
  - a. Each 1% increase in the quantity available
  - b. reduces price by about 5 cents/dozen
2. Thus, with availability up 1-1.5% for 1986.4 through 1987.3:
  - a. prices are expected to average 5-8% below the year-earlier levels
  - b. For 1987, prices should average 62-67 cents, down from about 70 cents for 1986
3. Thus, even with lower feed costs, profits are likely to be elusive during much of 1987

ANSWER 13: DISAGREE - delayed but not derailed!

SLIDE 58: SUPPLIES AND PRICES:1987

- A. See slide for summary
- B. This will be next year's score card

QUESTION 14---Despite the enactment of the Food Security Act of 1985, public policy affecting agriculture is unsettled and evolving.

SLIDE 59: MAJOR FEATURES OF U.S. AGRICULTURAL POLICY

- A. Agricultural policy is a mixed bag, reflecting a myriad of often conflicting objectives and goals
  1. When family farms were the single most dominant institution in our society, it was reasonably easy to generate concurrence, if not agreement, on the objectives of public policy
  2. As the relative contribution of farming to the economy declines, and
  3. As farmers themselves become more specialized, and thus more different from one another
  4. consensus becomes more elusive

- B. Nonetheless, a number of general or basic themes can be identified that cut across much of our agricultural policy
1. Export Orientation
    - a. Rapid export growth stimulated unprecedented growth in the farm and agribusiness sectors in the 1970's
    - b. The decline in exports since 1981 has been associated with economic stress in agriculture
    - c. thus, much of the focus of the 1985 farm bill was on policy measures that could stimulate export sales
      - i. lower price supports to increase international competitiveness
      - ii. larger export subsidies
 

--in 1986, subsidized exports = 30% of total, up from 7% in 1981
      - iii. numerous other provisions such as cargo preference, contract sanctity, food for progress, etc.
    - d. The basic concept or philosophy:
      - i. expand export sales, which will
      - ii. increase cash income to farmers, which will
      - iii. reduce government outlays to support farm income
    - e. At least in the short run, this does not appear to be working
      - i. export demand appears to be price inelastic, thus
      - ii. lower prices bring larger sales volume but lower total revenues
  2. Production Adjustment
    - a. This is an attempt to reduce surplus production and government storage through incentives for farmers to reduce planted acreage or herd size
    - b. Programs include:
      - i. acreage reduction program
      - ii. paid land diversion
      - iii. conservation reserve program

iv. dairy termination program

3. Farm Income Support

- a. This is primarily in the form of deficiency payments tied to target prices; also disaster, storage and inventory reduction payments
- b. In part, designed to compensate farmers for losses in market receipts due to lower price supports
  - i. Payments increase proportionately to decreases in loan rates
  - ii. A significant share of payments are now in the form of generic certificates, which have an above-par value, thus adding to effective income support levels
- c. Income payments encourage increased production and discourage out-migration of resources from farming

4. Self-help programs

- a. Increasingly, policy includes provisions that help farmers, collectively, help themselves
- b. Examples include:
  - i. Mandatory check-off advertising and promotion programs for commodities such as beef, pork, milk, eggs and cotton
  - ii. Producer assessments to pay program costs, e.g.
    - dairy diversion and termination programs
    - "no net cost" tobacco program
- c. Basic concept is to:
  - i. put more control over the commodity programs in the hands of producers
  - ii. Reduce government expenditures

5. Federal Cost Containment

- a. This is the major impetus of the Gramm-Rudman federal deficit reduction act
- b. It is also a motivation for several specific provisions in agricultural policy
  - i. self-help programs

- ii. payment limitations
- iii. "Conservative" rules on acreage bases, program yields, etc.
- iv. the use of generic certificates
- v. export enhancement

SLIDE 60: COST OF FEDERAL FARM PROGRAMS

- A. This slide depicts the federal budget outlays on farm commodity and income support programs
  - 1. Excluded are other USDA expenditures on such things as food stamps, research, education and regulatory activities
  - 2. The projected costs for the 1985 farm bill include just the first 3 years compared to:
    - a. 4 years for each of the 3 previous laws
    - b. 5 years of commodity programs actually provided for in the 1985 law (but the final 2 years have not been costed-out)
- B. Increases in outlays on farm programs:
  - 1. From 1973 Act to 1977 Act = +118%
  - 2. From 1977 Act to 1981 Act = 129%
  - 3. From 1981 Act to 1985 Act, as projected at the time of enactment = +9% on an average annual basis (e.g. \$15.8 bil./year for the 1981 Act; \$17.3 bil./year for the 1985 Act.)
  - 4. But, actual outlays are running 29% above projections at enactment
    - a. this is the largest budget over-run (on a percentage basis) for any major line in the federal budget
    - b. puts actual outlays 41% above those in the 1981 Act on an annualized basis (compared to 9% projected)
- C. Thus, the objective of cost containment has apparently not been achieved with the 1985 Act

SLIDE 61: FEDERAL GOVERNMENT: INCOME AND SPENDING

- A. This shows the rate of increase in federal spending on farm programs during the current Administration, relative to

1. total federal government receipts
  2. total outlays
  3. outlays for social programs (medicare, health care, income assurance, social security)
  4. outlays for defense
- B. This raises the question, how long will the public be willing to finance transfer payments of this magnitude to farmers?
- C. Fiscal year 1987 projections (to meet Gramm-Rudman deficit target)
1. Total spending = +1.4%
  2. Spending on agricultural programs = -24.5%
    - a. Not clear how this target will be achieved
    - b. Projected deficiency payments alone = +12% in 1987
  3. thus, budgetary pressure to modify agricultural policy is certain to intensify
- D. Budget problem combine with perceptions that the current program is:
1. not meeting its objectives,
  2. favors the largest producers, and
  3. internally inconsistent
  4. is generating considerable discussion of, and proposals for, changes in agricultural policy

SLIDE 62: AGRICULTURAL POLICY OPTIONS

- A. These are some concepts, ideas and proposals for farm policy
1. Some have strong advocates and equally strong opponents
  2. Others are interesting concepts that, as of yet, have attracted little support or opposition
  3. Many other ideas could be identified or developed, some of which may be more desirable than these
  4. Nonetheless, these provide a foundation for framing the discussion on emerging policies
- B. Quit government programs

1. This is basically the "free market" approach
  2. Would eliminate about \$20 million in annual government expenditures on agriculture
  3. "Survival of the fittest", most competitive
- C. Stay the course
1. Give the current program time to work
    - a. Let lower prices work their way through to production adjustments around the world
    - b. provide income assistance to American farmers until foreign production adjustments are made
  2. Not clear that these things will occur
  3. Equally clear that many people are not willing to wait
- D. Expand the Marketing Loan
1. Accelerate the rate of decline in U.S. price support levels
    - a. Thus, put more "heat" on foreign countries and foreign producers to speed-up their downward adjustment in production
    - b. would also help move surplus commodities into world distribution channels
    - c. should stimulate domestic use due to lower prices (e.g. more livestock feeding, alternative uses such as industrial products, etc.)
  2. Given the price inelasticity of demand, would probably reduce market revenues
  3. Would increase government costs
- E. Drop Findley and Marketing Loan Provisions
1. The basic premise is, these have had more negative than positive effects
    - a. They have significantly reduced price levels for cash grains, thus sharply lowering producers' cash receipts
    - b. Have sharply increased government outlays due to higher deficiency payments



- c. Have encouraged retaliation by our export competitors in the form of competitive price-cutting and increased export subsidies
  - d. Have not resulted in higher revenues from export sales
2. Proponents of this suggestion argue that, dropping price supports only through the "95% rule" (no less than 95% of the previous year's support level) would:
    - a. provide a strong signal to the world market of the competitive pricing intentions of the U.S.,
    - b. but, allow time for a more orderly transition in both the U.S. and foreign agricultures
  3. Is the opposite approach to an expanded marketing loan

#### F. Targeted Payments

1. This is primarily a response to those who hold that the benefits of government farm payments go primarily to those who need them the least
2. The idea is to restrict payments only to those targeted groups who are considered to be most deserving, e.g.
  - a. Farmers with annual sales between \$40,000 and \$100,000
  - b. Farmers with debt:asset ratios exceeding 40%
  - c. Farmers with losses from natural disasters
  - d. etc.
3. Biggest problem: determining what group or groups should be targeted
  - a. Farmers ability to do an "end run" around payment limitations demonstrates some of the enforcement or administrative problems
  - b. Also, if payments are used as incentives to participate in production reduction programs, targeting could reduce the effectiveness of such programs

#### G. Food Tax

1. The concept here is to put a tax on (some or all) retail food purchases
2. The tax receipts would be earmarked for federal farm programs

## 3. Several advantages

- a. Would provide a funding source that would be relatively stable and largely outside of short-term political budget squabbles
- b. Could be tied to a producer board or panel that would advise on or even vote on farm programs, thus removing much of the political populism associated with farm programs
- c. Would separate the funding of farm programs from issues such as the federal budget deficit
- d. Is consistent with the concept of user fees or self-help programs
- e. Would seem to have the support of the general public, based upon recent opinion polls

## 4. But also some disadvantages

- a. Would probably raise net food costs to consumers
- b. Would be discriminatory toward the relatively poor, as a larger share of their income is spent on food
- c. Could generate public resentment toward farmers or the food system in general

## H. Mandatory Production Controls

- 1. Both strong support and strong opposition already exists
- 2. Proponents argue that this would raise farm income and cut government costs
- 3. Opponents argue that this would protect the inefficient producers, reduce or eliminate export sales, and lead to a stagnant farm sector

## I. Regardless, the debate will continue, and changes will be made

- 1. But, the outcome remains elusive and virtually impossible to predict

ANSWER 14: AGREE

SLIDE 63: CREDITS

- b. Capital investments based on profitability and cash flow, not tax savings
- 2. Non-farm income
  - a. Off farm income make up over 62% of farm family income
  - b. Reliance on the income affects decisions such as land purchase, enterprise selections, debt load, available labor
- 3. Biotechnology
  - a. Research geared toward cost control or quality improvement as well as production
  - b. Early adopter, highly productive farms, and financially strong farms will benefit most
- 4. Replacing machinery
  - a. New machinery sales down 54% from 1979 to 1985
  - b. Changes in manufacturers, dealers, and service
  - c. Very high inventories at present

SLIDE 30: INCOME, EXPENSE, AND MEASURES OF EARNINGS

- A. Data are from 1984 Ohio users of Agri-Fax records
- 1. net farm earnings = value of farm production minus variable and fixed expenses
  - 2. return to unpaid labor and mgt. = net farm earnings minus 6% of total assets
  - 3. return to investment = net farm earnings plus interest paid minus unpaid labor and management
  - 4. returns to equity = net farm earnings minus unpaid labor and management
- |   |                                |                          |
|---|--------------------------------|--------------------------|
| 5. Variable expenses                                | <u>Range</u><br>\$146-190/acre | <u>Ave</u><br>\$143/acre |
| Fixed expenses                                      | \$135-176/acre                 | \$139/acre               |
| Debt/Asset ratio                                    | 30% to 71%+/farm               | 50%/farm                 |
| Profitability (profits as a % of total farm assets) | -4.46% to +0.7%/farm           | -0.81%/farm              |