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New York Economic Handbook 1995

AGRICULTURAL SITUATION AND OUTLOOK

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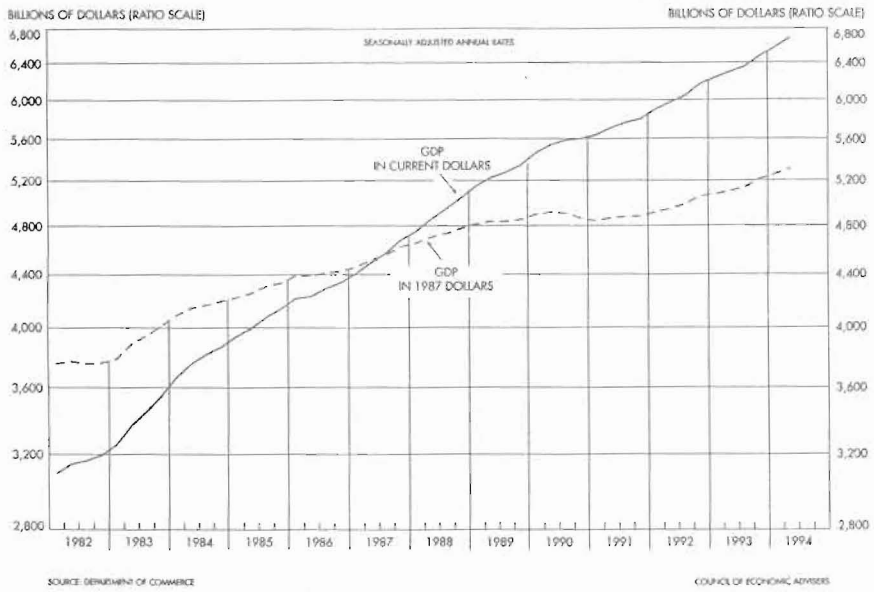
This publication contains information pertaining to the general economic situation and New York agriculture. It is prepared primarily for use of professional agricultural workers in New York State. USDA reports provide current reference material pertaining to the nation's agricultural situation.

"Current Economic Situation" is a monthly release that carries the latest figures for selected economic indicators and highlights current developments. This release is a supplement to the Economic Handbook and is available to anyone. To request being added to the mailing list, write to the Department Extension Leader, Department of Agricultural, Resource, and Managerial Economics, 452 Warren Hall, Cornell University, Ithaca, NY 14853-7801.

GROSS DOMESTIC PRODUCT AND COMPONENTS



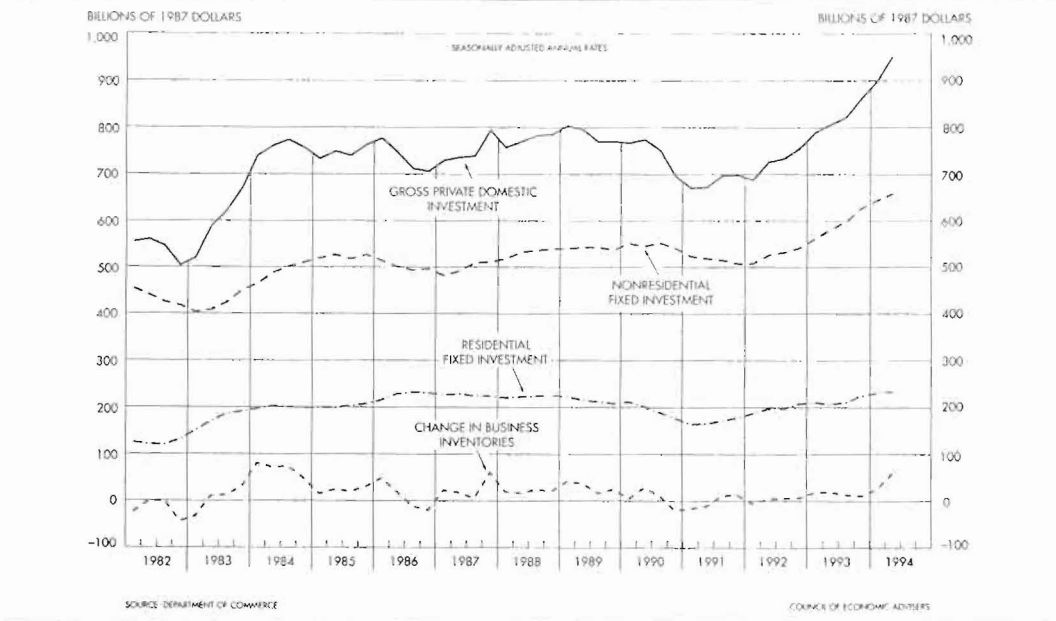
After a slow start in the first two quarters of 1993, gross domestic product (GDP) gained momentum the last two quarters and continued its strong growth in 1994. For 1993, real growth in GDP averaged 3.1%. In 1994, GDP growth was 3.3% in the first quarter, 4.1% in the second quarter, and 3.4% in the third. Growth of 4.0% in the fourth quarter would bring growth for the year to about 3.9%, the highest rate in six years. Economic growth came from broad strength in many sectors: 1) consumer spending, 2) business capital and equipment investments, 3) new construction, 4) manufactured durables, and 5) improving economies in other industrialized countries. Virtually the only sector in a downturn was defense spending.

GDP growth in 1995 is likely to be slightly lower than in 1994. Federal Reserve monetary policy to raise interest rates and slow economic growth will probably bring real growth down closer to 3%. The higher interest rates will affect new construction, and to a lesser extent, consumer willingness to increase installment credit. Business inventories, though rising, are still at a moderate level.

	Gross domestic product	Personal consumption expenditures	Gross private domestic investment	Government purchases of goods and services	Net exports of goods and services
	billions of current dollars				
1984	3,775	2,460	719	701	-103
1985	4,039	2,667	715	772	-116
1986	4,269	2,851	718	833	-133
1987	4,540	3,052	749	881	-143
1988	4,900	3,296	794	919	-108
1989	5,251	3,523	832	975	-80
1990	5,546	3,761	809	1,047	-71
1991	5,725	3,902	745	1,097	-20
1992	6,020	4,137	788	1,125	-30
1993	6,343	4,378	882	1,148	-65
1994[a]	6,685	4,587	1,032	1,166	-100

[a] Annualized rate for second quarter, 1994.

GROSS PRIVATE DOMESTIC INVESTMENT
(Constant 1987 dollars)



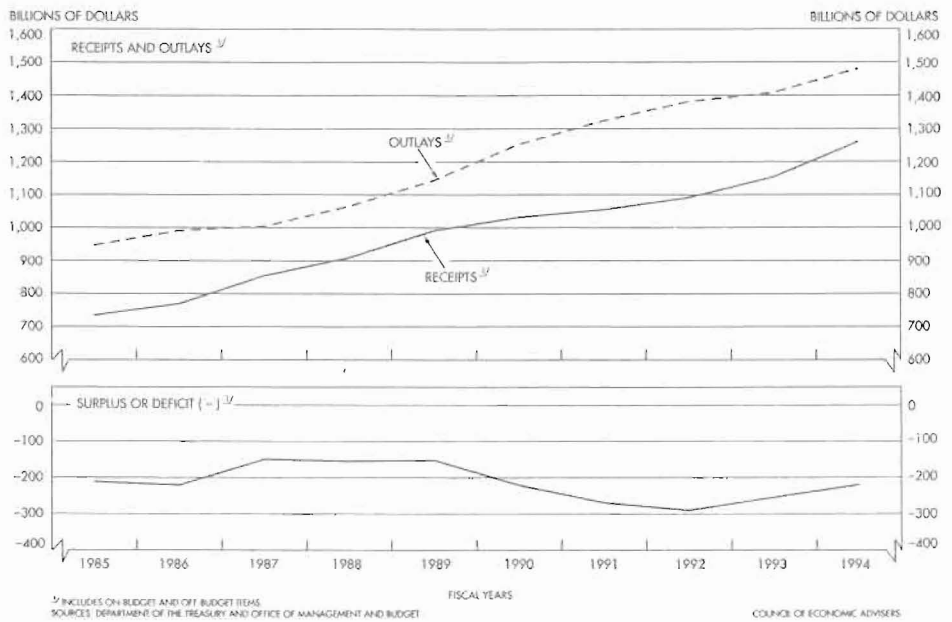
Gross private domestic investment has risen strongly since 1991, and the rate of increase has been stronger each year. Nonresidential fixed investment was particularly strong in 1993 and 1994. Business inventories, however, rose strongly in early 1994. Producer's durable equipment (see table on page 6) moved strongly upward. While government new construction showed little increase, all other construction was substantially higher in 1993 and 1994. Even private commercial industrial construction ended its down trend and moved higher. New housing units and housing permits continued to benefit from the low interest rates of early 1994, but increases in interest rates were starting to impact the housing industry by late 1994.

NEW CONSTRUCTION 1984-94

	Total new construction	Private residential	Private commercial industrial	Federal, state & local	New private housing	Private housing permits	New private homes sold
	billions of dollars				*1,000 units*		
1984	349	154	74	70	1,750	1,682	639
1985	377	159	90	78	1,742	1,733	688
1986	408	187	84	85	1,805	1,769	750
1987	419	195	84	91	1,621	1,535	671
1988	432	198	88	95	1,488	1,456	676
1989	444	197	94	98	1,376	1,338	650
1990	442	183	96	108	1,193	1,111	534
1991	404	158	77	110	1,014	949	509
1992	435	188	66	119	1,200	1,095	610
1993	466	210	66	125	1,288	1,199	666
1994[a]	506	239	73	129	1,404	1,336	691

[a] Annualized rate for June, July, and August.

FEDERAL FINANCE
The Federal Deficit and Debt



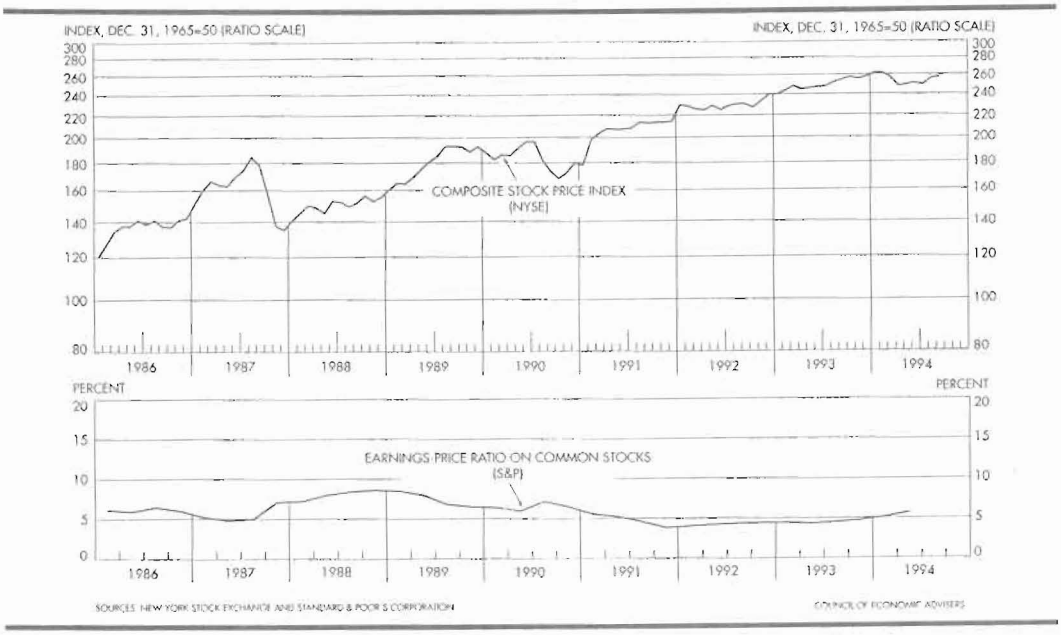
The Omnibus Budget Reduction Act of 1993 and an improving economy in 1993-94 have narrowed the Federal deficit from $290 billion in FY92 to an estimated $220 billion in FY94. Without further action to reduce future deficits, the annual deficit will drop in 1995 only to about $167 billion; and by the latter 1990's, the deficit will begin to rise again. Given the massive Federal debt, now about $4.68 trillion, increases in the levels of interest rates will have important implications for future budget deficits. While it takes time to roll over the entire national debt, note that a 1% increase in interest on the whole debt would amount to almost $47 billion in additional interest charges.

FEDERAL GOVERNMENT FINANCES

Fiscal year	Receipts	Outlays	Deficit	Gross Federal debt
		billions of dollars		
1980	517	591	-74	909
1985	734	946	-212	1,817
1986	769	990	-221	2,120
1987	854	1,004	-150	2,346
1988	909	1,064	-155	2,601
1989	991	1,143	-153	2,868
1990	1,031	1,253	-221	3,206
1991	1,054	1,324	-270	3,598
1992	1,091	1,381	-290	4,002
1993	1,154	1,408	-255	4,351
1994[a]	1,260	1,480	-220	4,677
1995[b]	1,354	1,521	-167	4,980

[a] Estimate from *Mid-Session Review of 1995 Budget.*
[b] Estimates from, or based on, *National Economic Trends*, Federal Reserve Bank of St. Louis, October 1994.

COMMON STOCK PRICES AND YIELDS
NYSE, 1986-1994

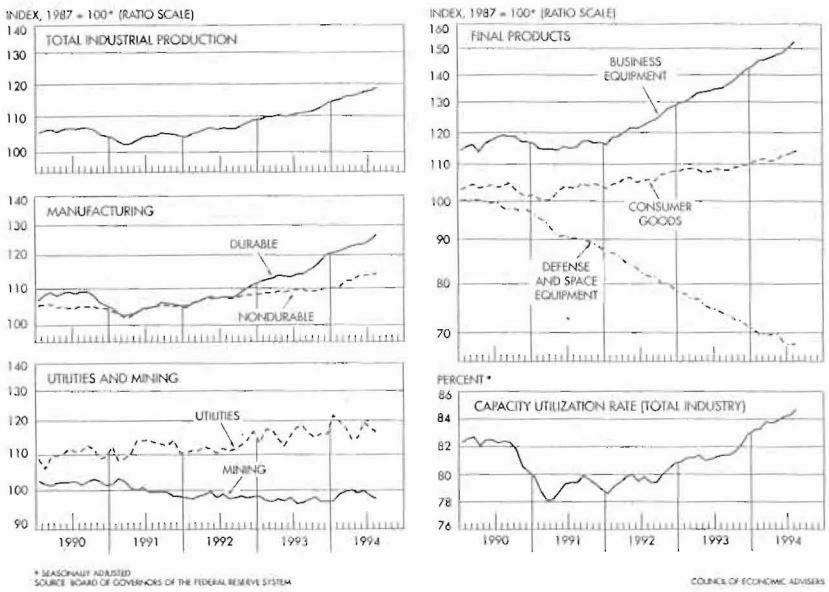


Common stock prices reached all time highs in the first two months of 1994. Stock prices then backed off somewhat in the spring and summer. The Dow-Jones Industrial Average made several attempts at the 4000 level, but each time backed off. Higher interest rates became a factor when the Federal Reserve System implemented tighter monetary policies to head off inflation. Corporate profits continued to improve and reached historical highs in 1994. The PE ratio in 1994 (reciprocal of the earnings-price ratio) dropped slightly below 20, still a relatively high ratio by historical standards.

CORPORATE PROFITS BEFORE AND AFTER TAXES, 1985-1994

	Profits BEFORE taxes	Profits AFTER taxes
	billions of dollars	
1985	225	129
1986	218	111
1987	288	161
1988	348	211
1989	343	202
1990	366	227
1991	365	234
1992	396	256
1993	462	289
1994, 1st Q	484	299
1994, 2nd Q	523	322

INDUSTRIAL PRODUCTION AND BUSINESS ACTIVITY



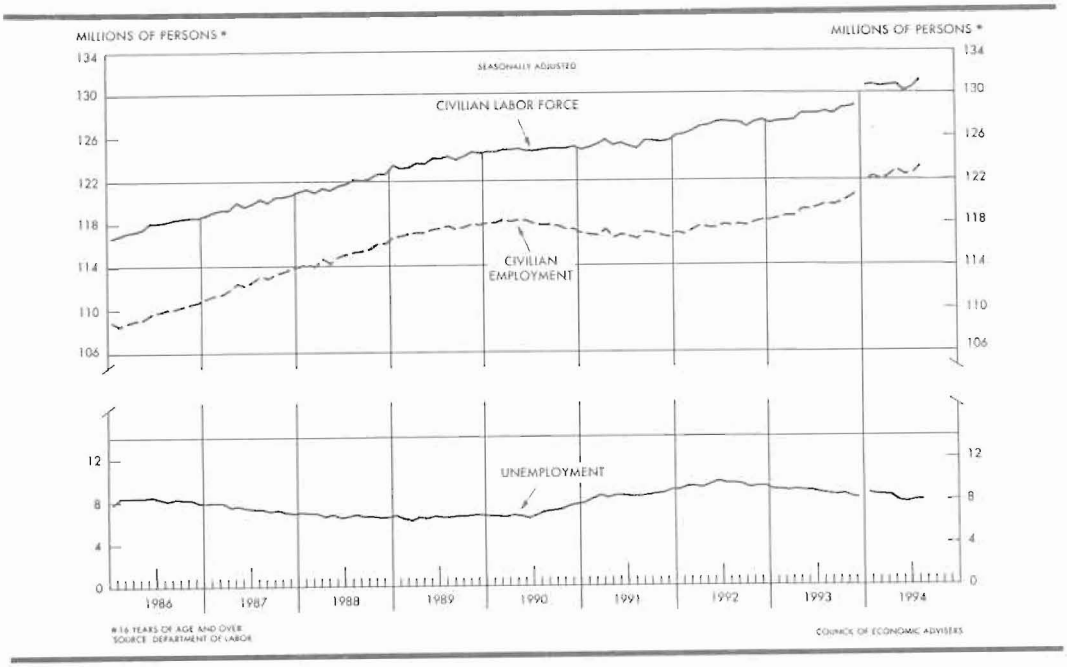
The Index of Industrial Production continued upward in 1994 with every sector showing strength. Industrial machinery and equipment, electrical equipment, and motor vehicles and parts were particularly strong. Only the defense and space equipment sector was caught in a down trend. Apparel manufacturing was at a level below 1987, but even that sector was improved over last year. Capacity utilization moved up substantially from under 80% in 1992 to over 84% by mid 1994.

INDUSTRIAL PRODUCTION, SELECTED MANUFACTURES, 1984-94

	Iron and steel	Fabricated metals	Industrial machinery & equipment	Electrical machinery	Motor vehicles and parts	Apparel products	Chemicals & products	Foods
				1987 = 100				
1984	105.9	93.3	80.8	94.1	90.6	95.7	91.4	92.1
1985	104.5	94.5	86.8	93.1	99.0	92.6	91.4	94.9
1986	90.8	93.8	90.3	94.3	98.5	96.3	94.6	97.4
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	112.7	104.2	113.0	108.5	105.7	98.1	106.0	101.5
1989	111.2	102.8	117.3	111.0	106.9	95.0	109.2	102.5
1990	111.5	99.5	117.6	111.4	101.0	92.2	111.8	103.7
1991	100.5	94.9	113.8	112.7	94.5	91.8	111.4	105.3
1992	104.7	95.6	123.4	115.7	106.4	93.6	114.3	107.7
1993	111.6	99.5	144.1	127.5	120.7	93.1	117.8	108.6
1994[a]	119.4	106.6	168.7	146.9	134.5	95.8	123.7	113.5

[a] Annualized rate for June, July, and August

EMPLOYMENT AND THE LABOR FORCE



Civilian employment grew to over 123 million in August 1994 from under 121 million in December 1993. The unemployment rate which was 6.8% in October 1993, dropped to 6% in the second quarter of 1994 and has remained near 6% since. Slightly over one-third of the unemployed had been unemployed for 15 weeks or more. By August 1994, the employment to population ratio was at 62.5%, the highest rate since 62.7% in 1990. Some large firms are still downsizing and laying off employees. Many firms are utilizing temporary employees, "temps", whose benefits are less costly than full time employees.

Economic productivity continues to increase. Output per hour in 1994 was 19% above 1982. Compensation per hour was up about 65% over 1982, and unit labor costs were up 38.5%. While real compensation per hour has improved steadily, it is up only 7.7% over 1982 levels.

PRODUCTIVITY AND RELATED DATA, BUSINESS SECTOR

Period	Total output	Output per hour	Compensation per hour	Real compensation per hour	Unit labor costs
		1982 = 100; quarterly data seasonally adjusted			
1983	104.1	102.3	103.8	100.6	101.5
1984	112.6	104.8	108.3	100.6	103.4
1985	116.7	106.3	113.2	101.5	106.5
1986	119.9	108.5	118.8	104.6	109.5
1987	124.8	109.6	123.1	104.6	112.3
1988	130.1	110.7	128.5	104.8	116.0
1989	132.3	109.9	133.0	103.5	121.0
1990	133.3	110.7	140.6	103.8	127.1
1991	132.0	112.1	147.4	104.4	131.5
1992	135.5	115.5	154.9	106.6	134.2
1993	140.6	117.3	160.6	107.3	136.9
1994[a]	146.9	119.1	164.9	107.7	138.5

[a] Second quarter.
Source: Department of Labor, Bureau of Labor Statistics.

CONSUMER AND PRODUCER PRICES

Year	Consumer price index		Producer price index		
	All items	Food	All finished goods	All intermediate goods	All crude materials
	(1982-84 = 100)		*(1982 = 100)*		
1984	103.9	103.2	103.7	103.1	103.5
1985	107.6	105.6	104.7	102.7	95.8
1986	109.6	109.0	103.2	99.1	87.7
1987	113.6	113.5	105.4	101.5	93.7
1988	118.3	118.2	108.0	107.1	96.0
1989	124.0	125.1	113.6	112.0	103.1
1990	130.7	132.4	119.2	114.5	108.9
1991	136.2	136.3	121.7	114.4	101.2
1992	140.3	137.9	123.2	114.7	100.4
1993	144.5	140.9	124.7	116.2	102.4
1994[a]	148.4	144.6	125.8	118.3	102.0

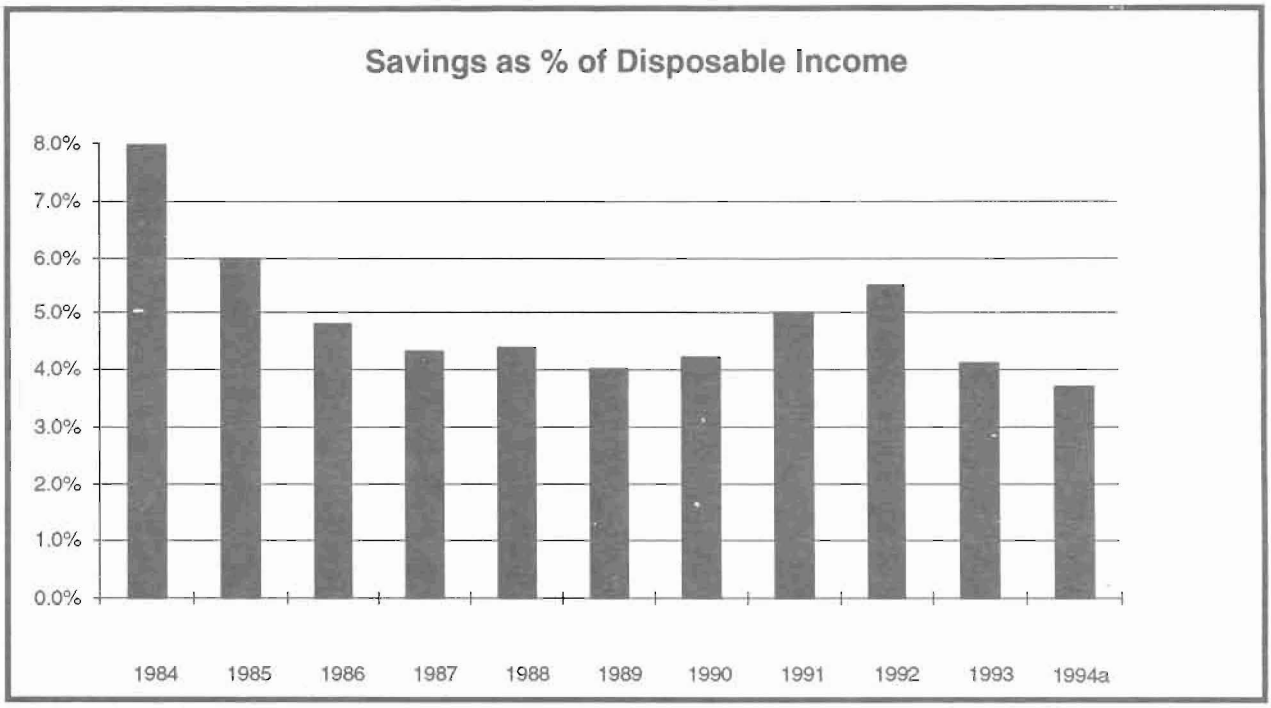
[a] July index number.
Source: Department of Commerce; Council of Economic Advisers.

Consumer prices (CPI) for all items were up 2.7% in 1993, the slowest rate of increase since 1986. The rate of increase without food and energy prices included, sometimes considered a better measure of inflation was 3.2%. In 1994, the CPI each month has continued to rise at just under 3% compared to 12 months earlier. Producer prices, while increasing over time, have had a slower rate of increase than consumer prices. Crude materials have risen substantially slower than intermediate or finished goods.

From mid-1993 to mid-1994, housing and apparel have increased in price less than all prices while transportation and medical care have increased faster than average prices. Food prices rose in 1994 at about the average for all prices. While medical costs were the fastest rising component, the rate of increase was the slowest in the past 10 years.

RELATIVE IMPORTANCE OF COMPONENTS IN THE CPI

Component	December 1993 weights in the price index	July 1994 price Index	% Change in component from July 1993 to July 1994
	percent	*1982-84=100*	*percent*
Housing	41.4	141.6	2.5
Transportation	17.0	130.3	3.3
Food	15.8	141.0	2.8
Apparel	5.9	134.1	1.0
Medical Care	7.1	202.9	4.6
All Other	12.8	N.A.	N.A.
Total	100.0	144.8	2.8



[a] Estimated.

The savings rate as a percent of disposable income increased from 1989 through 1992; then it dropped off sharply in 1993 and has fallen still further in 1994. The decrease in the savings rate has been a factor in economic growth as consumers have continued to spend a high proportion of their incomes. While a 4% savings rate is low by historical standards, it is consistent with the 1987-90 period.

Total installment credit increased substantially in 1993 as consumers led the economy out of the 1990-92 doldrums. Auto loans were up sharply in 1993 and are up further still in 1994. Nevertheless, auto loans are a smaller proportion of total installment credit than in 1986-89. Total installment credit is expected to be up sharply by the end of 1994; yet installment credit as a percent of personal consumption expenditures remains below levels of 1985-89.

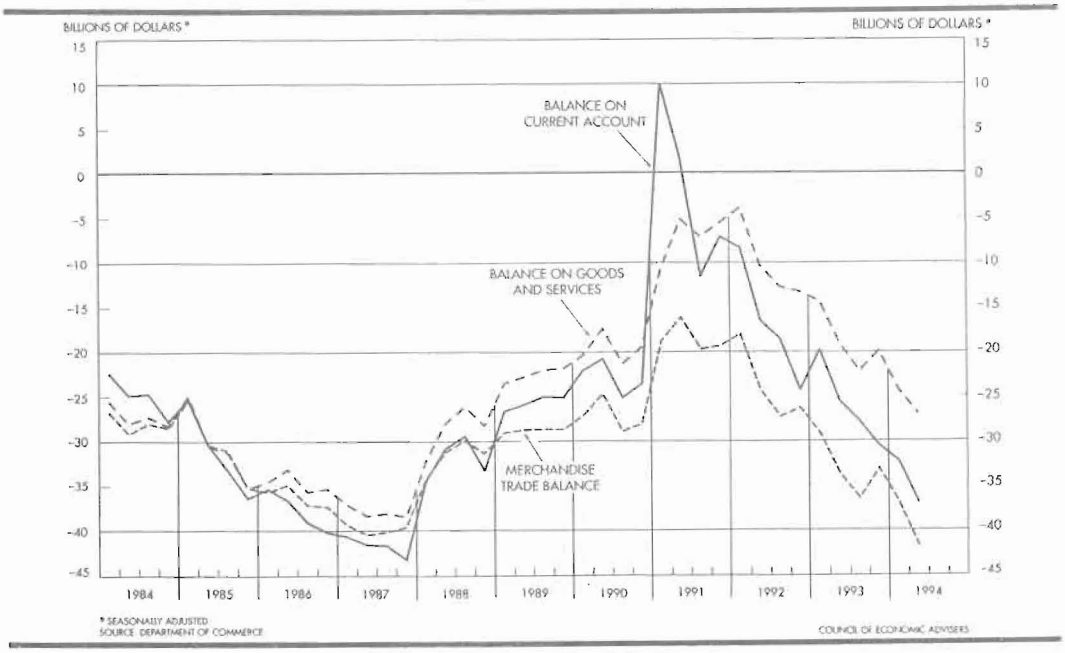
CONSUMER INSTALLMENT CREDIT

	Personal consumption expenditures[a]	Total installment credit outstanding	Auto loans	Auto loans as a percent of total installment credit	Total installment credit as a percent of personal consumption expenditures
	- - - billions of dollars - - -			*- - - percent - - -*	
December 1985	2,667	518	210	40.5	19.4
December 1986	2,851	572	248	43.4	20.1
December 1987	3,052	609	266	43.7	20.0
December 1988	3,296	663	285	43.0	20.1
December 1989	3,523	717	292	40.7	20.4
December 1990	3,761	735	283	38.5	19.5
December 1991	3,902	728	261	35.8	18.7
December 1992	4,137	730	258	35.3	17.6
December 1993	4,378	796	282	35.4	18.2
December 1994[b]	4,620	904	317	35.1	19.6

[a] Annual totals.
[b] Forecast.

AN INTERNATIONAL VIEW

U.S. Trade Deficit, Quarterly Data, 1984-1994



The improvements that were made in reducing the trade deficit from 1988-91 have ended, and since 1991 the trade deficit has again worsened. Indications are that the trade deficit for 1994 may exceed $100 billion, the largest deficit since 1988. One contributing factor in the past couple of years was the recession in a number of other industrialized countries. Because of their recessions they reduced imports of U.S. products. However, that situation has started to change. In 1994, the major industrialized countries have increased production over their 1993 levels. Net exports of the U.S. are shown on page 2.

INDUSTRIAL PRODUCTION, MAJOR INDUSTRIALIZED COUNTRIES, 1984-94

Period	United States	Canada	Japan	France	Germany	Italy	United Kingdom
	Index of Industrial production (1987 = 100; seasonally adjusted)						
1984	92.8	91.0	93.4	97.1	93.5	91.8	89.7
1985	94.4	96.1	96.8	97.2	97.7	92.9	94.6
1986	95.3	95.4	96.6	98.0	99.6	96.2	96.9
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	104.4	105.3	109.3	104.6	103.9	105.9	104.8
1989	106.0	105.2	115.9	108.9	108.8	109.2	107.0
1990	106.0	101.8	121.4	111.0	114.5	109.4	106.7
1991	104.1	98.1	123.7	111.0	117.9	108.4	102.5
1992	106.5	98.5	116.5	109.7	115.6	108.2	102.0
1993	110.9	103.2	111.7	106.8	107.2	105.4	104.5
1994[a]	117.3	109.2	113.0	109.5	111.7	121.7	109.9

[a] As of June 1994.

NUMBER OF FARMS, FARM CASH INCOME AND FARM ASSETS, BY VALUE OF SALES, UNITED STATES, 1988 AND 1992

Item	Units	*Value of sales per farm* $1M and Over	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$40,000 to $99,999	$20,000 to $39,999	Less than $20,000
				1988				
Number of Farms	Thou.	12	21	60	218	312	248	1,327
Gross Cash Income	Bil. $	44.0	17.5	24.9	41.8	25.8	9.2	9.8
NCI[a]	Bil. $	13.3	6.1	9.5	15.5	8.4	2.5	-0.7
NCI/Farm	Thou. $	1,141	287	159	71	27	10	-0.5
Farm Assets	Bil. $	56.8	45.5	92.5	181.4	150.2	87.8	186.8
Farm Debt	Bil. $	11.9	10.6	16.3	35.2	27.0	11.4	26.9
Assets/Farm	Thou. $	4,887	2,156	1,554	834	482	354	141
				1992				
Number of Farms	Thou.	15	32	76	247	338	254	1,132
Gross Cash Income	Bil. $	39.5	24.5	29.9	46.0	29.1	9.4	9.4
NCI[a]	Bil. $	15.5	9.1	10.1	14.7	9.0	1.9	-2.6
NCI/Farm	Thou. $	1,065	282	132	60	27	8	-2
Farm Assets	Bil. $	56.3	55.4	101.2	194.3	158.7	93.2	202.4
Farm Debt	Bil. $	14.2	14.3	17.7	33.0	24.5	10.4	24.6
Assets/Farm	Thou. $	4,329	1,920	1,510	901	523	397	164

[a] NCI is net cash income

Source: Economic Indicators of the Farm Sector, National Financial Summary, 1992, ERS, USDA.

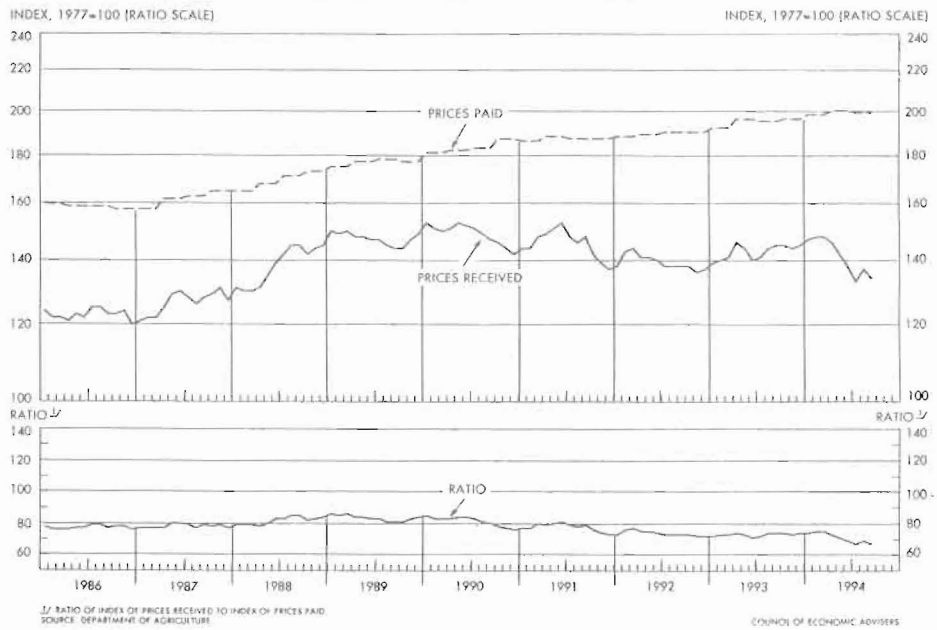
One way of looking at changes in farm structure is to compare characteristics for different size classes. By 1992, a higher proportion of farms was in the larger size categories even though all categories except those with value of sales under $20,000 per year contained more farms than in 1988. Farm numbers increased 25% or more in each of the three largest value of sales categories, in part because farm net cash income in 1992 was the highest ever. About 100,000 farms disappeared from the table above between 1988 and 1992. Census data released in November 1994, however, indicated U.S. farm numbers had dropped to 1.925 million by 1992, rather than the 2.094 million listed in the table.

Sometimes statistics are surprising. One might expect that assets per farm would increase in the larger size classes as was true from 1987-91. Instead, assets per farm decreased in the larger value of sales classes from 1988 to 1992. Because 1992 was a year of high gross sales from the sector, a number of farms moved into the next higher sales category, thereby lowering the average asset values per farm. Perhaps another way of saying it is that, in 1992 farms were able to produce more sales relative to their assets than in 1988. The larger farms, at least, achieved a higher capital turnover ratio.

Aggregate outstanding farm debt also shifted slightly toward the larger farm size classes from 1988 to 1992. More of the total farm debt remains associated with larger farm size classes.

Net cash income per farm was smaller for most size classes in 1992 than in 1988. The reason relates to the general movement of a number of farms into the lower part of the next higher value of sales category.

PRICES RECEIVED AND PAID BY FARMERS



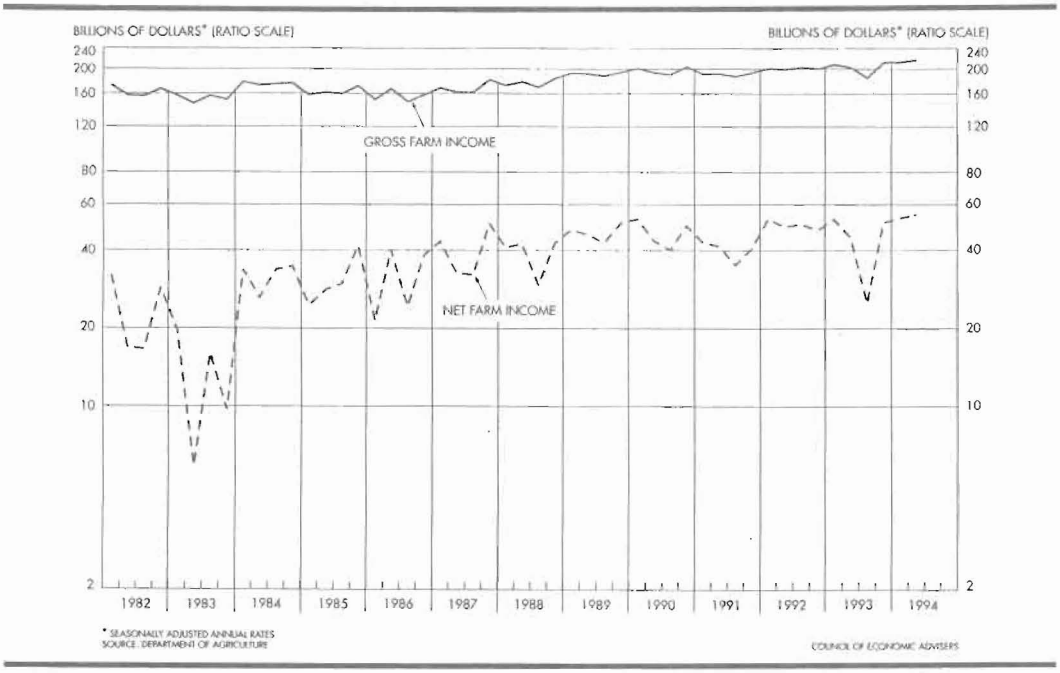
Prices received by farmers turned up somewhat in 1993, though they didn't reach the levels of 1989-91. The improvement, however, didn't offset the increases in prices paid; so the ratio of prices received to prices paid remained at or near the lowest ratio in the past 11 years. In 1994, crop prices started the year at relatively high levels following the reduced production from the floods of 1993. However, as the year progressed, prices of both livestock and crops turned down, and the ratio of prices received to prices paid dropped below 70% for the first time in the past 10 years.

The higher levels of beef production in 1994 led to somewhat lower prices. Hog supplies were also up; and, combined with the price pressures from beef, pork prices dropped substantially in the latter part of 1994. As a result, weighted average prices were off in 1994 about 8% from 1993 levels.

	Prices received by farmers			Prices paid by farmers			
Year	Crops	Livestock	All farm products	Production items	Production items, interest, taxes & wage rates	All inputs and services	Ratio
	(1987 = 100; not seasonally adjusted)						*percent*
1984	138	146	142	155	161	164	87
1985	120	136	128	151	156	162	79
1986	107	138	123	144	150	159	77
1987	106	146	127	148	152	162	78
1988	126	150	138	157	159	170	82
1989	134	160	147	165	167	178	83
1990	127	170	149	171	171	184	81
1991	129	161	145	173	172	189	78
1992	121	157	140	174	173	191	74
1993	123	162	143	179	178	195	73
1994[a]	120	148	134	181	180	199	67

[a] July 1994.

FARM INCOME AND EXPENSES



Gross farm income in 1993 was up only slightly from 1992. In 1994, gross farm income is expected to be up about 5% over 1993. While net farm income dropped about 13% between 1992 and 1993, improvement is expected in 1994 to bring net farm income back near the 1992 level, the highest of the past 10 years.

Similarly, New York net farm income is expected to rebound in 1994 to a level near that of 1992. New York crops have been near normal in 1994, and milk prices have, except for a couple of months, been as high or higher than in 1993.

	United States				New York
Year	Gross farm income	Total farm expenses	Net cash income	Net farm Income	Net farm income
	- - - - - - - - billions of dollars - - - - - - - -				*millions of dollars*
1984	168	142	37.4	26.1	408
1985	161	132	47.1	28.8	522
1986	156	125	47.8	31.0	532
1987	168	129	55.8	39.7	641
1988	176	138	53.9	38.0	533
1989	193	145	54,2	47.9	682
1990	198	151	55.1	46.9	643
1991	192	151	53.2	41.1	543
1992	200	150	57.4	50.1	622
1993[a]	201	158	58.5	43.4	580
1994[b]	211	162	55	49	620

[a] Preliminary. [b] Forecast midpoint.

Source: Agricultural Outlook, ERS, USDA, October 1993, and NY Agricultural Statistics Service.

PRODUCTION, CARRYOVER STOCKS AND PRICES, WHEAT AND CORN, U.S., 1986-94

Year	Production	Ending stocks	Stocks as % of use	Average price per bu.	Production	Ending stocks	Stocks as % of use	Average price per bu.
	Wheat				Corn			
	million bushels		percent	dollars	million bushels		percent	dollars
1986-87	2,091	1,821	83	2.42	8,226	4,882	66	1.50
1987-88	2,108	1,261	47	2.57	7,131	4,259	56	1.94
1988-89	1,812	702	29	3.72	4,929	1,930	27	2.54
1989-90	2,037	536	24	3.72	7,526	1,344	17	2.36
1990-91	2,736	866	35	2.61	7,934	1,521	20	2.28
1991-92	1,981	472	20	3.00	7,475	1,100	14	2.37
1992-93	2,459	529	21	3.24	9,482	2,113	25	2.07
1993-94[a]	2,403	570	23	3.26	6,344	850	11	2.50
1994-95[b]	2,320	513	21	3.45	10,010	2,055	23	2.05

[a] Preliminary. [b] Forecast.
Source: Various issues of World Agricultural Supply and Demand Estimates, ERS & FAS, USDA.

U.S. Wheat stocks in the 1994-95 year are expected to decline to the lowest levels since 1991-92. Average price for the crop is expected to be near $3.45 per bushel, about $.20 per bushel above the 1993-94 crop. Wheat prices will be helped by the fact that world stocks of wheat are at the lowest levels of the past 10 years, 21% of expected use.

In 1994, the U.S. harvested its first 10 billion bushel corn crop, the largest U.S. corn crop in history by over 500 million bushels. That bumper crop will push up year ending corn stocks by about 1.2 billion bushels to levels nearly as high as before the flooding of 1993. USDA estimates corn prices in the 1994-95 crop year at near $2.05 per bushel, but prices will be somewhat lower in the fall from pressures of the large harvest and lack of storage capacity. Typically, large corn crops with depressed fall prices have a favorable return for storage. The soybean harvest at 2.52 billion bushels also set records in 1994; so prices will be down and ending stocks substantially higher in the 1994-95 crop year. (See Crops section, page 39.)

WORLD PRODUCTION, USE AND STOCKS OF WHEAT AND CORN, 1984-94

Year	Production	Use	Export trade	Ending stocks	Stocks as % of use	Production	Use	Export trade	Ending stocks	Stocks as % of use
	Wheat					Corn				
	million metric tons				percent	million metric tons				percent
1984-85	509	489	106	166	34	458	434	67	90	21
1985-86	495	490	85	171	35	479	424	54	145	34
1986-87	524	516	91	179	35	475	457	57	163	36
1987-88	496	525	112	150	29	450	467	57	149	32
1988-89	495	525	103	120	23	401	460	66	89	19
1989-90	538	532	102	121	23	461	477	74	73	15
1990-91	588	564	102	145	26	478	471	59	80	17
1991-92	542	559	123	129	23	487	488	67	79	16
1992-93	562	545	124	147	27	533	509	70	105	21
1993-94[a]	559	567	116	139	25	468	504	66	69	14
1994-95[b]	532	556	111	115	21	556	531	66	94	18

[a] Preliminary. [b] Forecast.
Source: Various issues of World Agricultural Supply and Demand Estimates, ERS and FAS, USDA.

FARM PROGRAMS AND PRICE SUPPORTS

United States, 1988-89 to 1994-95

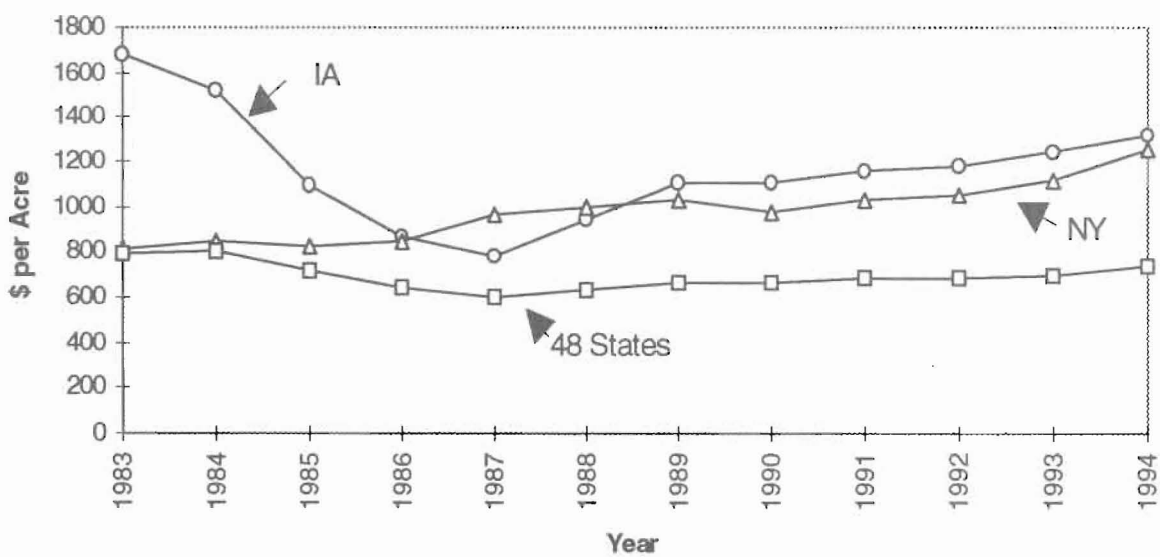
Year	Target price	Effective loan rate	Market price	Deficiency payment	Set aside requirement
		dollars per bushel			*percent*
Wheat:					
1988-89	4.23	2.21	3.72	.69	27.5
1989-90	4.10	2.06	3.72	.32	10
1990-91	4.00	1.95	2.61	1.28	5
1991-92	4.00	2.04	3.00	1.35	15
1992-93	4.00	2.21	3.24	.81	5
1993-94	4.00	2.45	3.26	1.03	0
1994-95	4.00	2.58	3.45[a]	.95[b]	0
Corn:					
1988-89	2.93	1.77	2.54	.36	20
1989-90	2.84	1.65	2.36	.58	10
1990-91	2.75	1.57	2.28	.51	10
1991-92	2.75	1.62	2.37	.41	7.5
1992-93	2.75	1.72	2.07	.73	5
1993-94	2.75	1.72	2.50	.28	10
1994-95	2.75	1.89	2.10[a]	.45[b]	0

[a] Forecast. [b] Estimate based on President's Budget.
Source: Agricultural Outlook, ERS, USDA, October 1994.

Farm programs and price supports have been changed relatively little since passage of the Food, Agriculture, Conservation and Trade Act of 1990. Setaside requirements were reduced to zero for the 1994 crops after the large reduction in stocks from the floods of 1993. New farm legislation will be considered in 1995, but it seems unlikely that the 1995 "Farm Bill" will depart significantly from the direction followed in the 1990 legislation.

The average value per acre of land and buildings is recovering from the financial stress of the mid- 80's. Average values for the 48 states have moved slowly but steadily upward since 1987. Note, however, that Iowa's values while improving since 1987 still have not reached the levels of 1983. New York land and building values, on the other hand, have been relatively stable but are also moving upward.

Average Value per Acre of Land and Buildings



OUTLOOK: SUMMARY AND PERSPECTIVE

The U.S. economy showed strong and broad-based growth in 1994. Gross domestic product rose 3.3%, 4.1% and 3.4%, respectively, in the first three quarters of the year. It now seems likely growth will be near, maybe exceed, 4% for the entire year. Industrial production has been strong and broad based. Personal consumption expenditures continued to be a strong factor, but most business sectors, iron and steel, industrial machinery and equipment, and new plant and equipment, were strong as well. Gross private domestic investment rose 17%. The only economic negatives in the otherwise strong picture were the increasing trade deficit and the continuing reduction in defense spending. The strong economy was also evident in the employment statistics. Civilian employment grew from 119.94 million in October 1993 to 124.24 million in October 1994, the biggest yearly increase in over 10 years. During the same period, the unemployment rate dropped from 6.8% to 5.8%.

The increasing merchandise trade deficit in 1994 relates, in part, to weak economies in several other industrialized countries. By mid 1994, however, most other industrialized countries showed signs of improvement in their economies, and that improvement may help restrain further growth in, or reduce, the annual U.S. trade deficit in the future. The trade deficit also impacts the dollar exchange rate. By fall of 1994, the dollar was near all time lows against the mark and the yen. The falling dollar tends to exert pressure for higher U.S. interest rates.

The strength and growth rate of the U.S. economy have raised concerns over possible future inflation. The Federal Reserve Board in February 1994 began to nudge interest rates higher by targeting an increase in the Federal funds rate, the rate banks pay to borrow funds for meeting reserve requirements. During the year, the Fed raised the discount rate several times. From late January through October, the Federal funds rate rose 1.8 percentage points, and both 3 month Treasury Bills and 10 year Treasury Securities rose slightly over 2 percentage points. Then, in mid November, the Fed raised rates another 3/4 percentage point. The question is whether the tighter monetary policies will be sufficient to keep inflation from increasing. Most analysts expect still further monetary tightening by the Fed and increases in interest rates well into 1995.

Given my interpretation of economic events, my forecast for 1995 is as follows:

- **Gross domestic product will grow by 3.5%.** After a 4% or better growth rate in 1994, economic growth will start to slow in 1995. Growth rates may be higher in the early part of 1995 compared to the same quarters of 1994; but, by late in the year, monetary policy will begin to effect a slowdown. Also, an important part of consumer spending in 1994 came from build-up in installment credit, and higher interest rates in 1995 will slow the increase in installment credit.

- **Inflation will increase to 3.5% to 4.0%.** The strength of the economic growth in 1994 suggests that it will not easily nor quickly be curbed. Capacity utilization is approaching 85% and the unemployment rate was below 6% in September and October 1994. In the past, at those levels both sets of data have indicated inflationary pressures.

- **Interest rates will rise further in 1995.** Expect a 3 month Treasury Bill rate of 7.0% to 7.5% and a long term treasury rate of about 8.5% to 8.75% by fall of 1995. Those figures compare to 5.07% and 8.1%, respectively, the first week in November 1994. The Fed will increase short term rates, primarily, with tightening of monetary policy well into 1995. Long term rates will rise as well, but likely will rise less than short term rates, so the yield curve will flatten.

- **The unemployment rate will remain around 6% for the year.** While unemployment may be below the 6% level early in the year, it's expected that the unemployment rate will rise as tighter monetary policies take hold.

- **U.S. net farm income will decrease by 5-10% in 1995 from 1994 levels.** Gross farm income will decrease slightly due to lower prices of both crops and livestock even though marketings of both should be higher than in 1994. Input prices, except for feed, will continue to inch up.

Though the gap between retail prices and farm prices of farm foods continues to grow, reflecting the expanding marketing bill, competitive pressures at the retail level and focused activities throughout the marketing system to coordinate functions and eliminate inefficiencies are beginning to have an impact. These activities coupled with relatively low inflation are likely to moderate marketing cost increases in the coming year. The outlook for subsequent years might be even better as the initiatives that marketers are beginning to embrace now will begin to show system wide savings farther on.

Competition from usually more efficient alternative retailing channels has forced supermarkets and other traditional grocery distributors to become more efficient as well. The list of alternative retailing channels continues to grow with the rapid expansion of food and grocery sales through retailers such as supercenters, discount drug stores, limited assortment stores, wholesale club stores, and discount department stores. Each of these supermarket competitors offers food and grocery products at significantly lower prices than most traditional grocery retailers. In response, supermarkets, convenience stores, and small grocery stores have been examining their own operations seeking similar efficiencies and cost savings in order to offer prices which are comparable with the new competition.

As the major mass merchandisers (e.g. K-mart and Walmart) endeavor to expand food and grocery sales in order to increase customer traffic, they are aggressively investing in a new hybrid store format called the supercenter. As of November, 1994, K-mart had opened two supercenters in New York state, with sites planned for several others, and Walmart had announced plans for several sites as well. This new format essentially combines a complete discount department store and combination supermarket and pharmacy under one roof with common checkout lanes. These stores typically are over 100,000 square feet in size and could be as much as 200,000 square feet. The average supermarket in the U.S. is about 35,000 square feet in area. Supercenters feature a broad assortment of food and non-food merchandise with over 100,000 individual items in stock.

Another recent addition to the food retailing market in New York state is the limited assortment store which represents the opposite end of the store size and product variety spectrum, with less than 15,000 square feet of selling area and fewer than 1,000 items in stock. The first limited assortment store in New York state, operated by the Aldi company of Germany, opened in October, 1994 in Cortland. Limited assortment stores can offer significantly lower prices than other retail formats because of the efficiency of the distribution system and the minimal capital investment in fixtures and

equipment in such stores. Other factors contributing to lower prices are minimal operating costs due to limited labor, services, operating hours, product handling, supplies, and other expenses.

Wholesale membership club stores first appeared in New York state around 1984 with the entry of BJ's Wholesale Club but really took off in 1991 with the entry of Sam's Club, a division of Walmart, into the state. Wholesale membership clubs offer annual-dues-paying members low prices on an assortment of approximately 3,000 items covering a wide variety of product categories, including many food and grocery products. Efficient operations, limited capital investment, membership fees and other operational aspects contribute to significantly lower prices than supermarkets and other retailers on comparable items. The expansion of this format in the state has slowed since most of the viable sites have been developed, competition has cut into profits, and consumer response has cooled after initial excitement resulted in large numbers of consumer memberships.

Wholesale clubs throughout the U.S. have experienced the same conditions and have refocused their attention on their original target market, the small business owner. The industry has rapidly matured and is now dominated by two firms, Sam's Club which purchased Pace Clubs from K-mart in 1993 and Price/Costco which resulted from the 1993 merger of Price Club and Costco. BJ's Wholesale Club is the third remaining significant competitor though it is much smaller than Sam's or Price/Costco. Wholesale Depot, another wholesale club operator which focused on smaller market areas including some in New York state, ended operations and liquidated assets in September, 1994.

Total U.S. food marketing sales were $812 billion in 1993, a gain of 3.6 percent over 1992 in actual dollars and 1.5 percent higher in real, inflation-adjusted dollars. Just over 41 percent of total food marketing sales were generated in retail food stores (Table 1).

Table 1
Food marketing sales, 1993

Sector	Sales ($ Bil.)	Percent
Retail food	336	41.4
Food service	282	34.3
Nonfood	109	13.1
Packaged alcoholic beverages	48	6.1
Alcoholic drinks	37	5.1
Total sales	812	100.0

Source: The Food Marketing System in 1993, Anthony E. Gallo, USDA-ERS, AIB#706, September, 1994.

The estimated value added by the food marketing system represented $635 billion, or 78 percent, of the $812 billion in total food marketing sales in 1993 (Table 2). Retailing and wholesaling activities comprised the largest component of the total value added, over 24 percent. The next largest component of value added was accounted for by food processing.

Table 2
Estimated value added in food marketing system, 1993

Sector	Sales ($ Bil.)	Percent
Retailing and wholesaling	154	24.3
Food processing	121	19.0
Eating & drinking places	99	15.6
Transportation	26	4.1
Other supporting sectors	235	37.0
Total value added	635	100.0

Source: The Food Marketing System in 1993, Anthony E. Gallo, USDA-ERS, AIB#706, September, 1994.

After years of steady declines, the share of U.S. disposable income spent for food leveled off in 1993 at 11.2 percent, slightly higher than the 1992 level of 11.1 percent (Table 3). Of the two major components of food sales, the share of income spent at food service establishments (i.e. restaurants, fast food, school cafeterias, etc.) increased in 1993 to 4.2 percent from 4.0 percent in 1992. Conversely, the share of income spent in retail food stores (i.e. supermarkets, convenience stores, etc.) declined to 7.0 percent in 1993 from 7.1 percent in 1992.

Table 3
Food marketing system's share of disposable personal income, selected years, 1972-1993

Year	Food stores	Food service	Total
1972	10.0	3.7	13.7
1983	8.4	4.6	13.0
1985	7.8	4.4	12.2
1988	7.4	4.4	11.8
1990	7.6	4.3	11.9
1991	7.6	4.1	11.7
1992	7.1	4.0	11.1
1993	7.0	4.2	11.2

Source: The Food Marketing System in 1993, Anthony E. Gallo, USDA-ERS, AIB#706, September, 1994.

After increasing through the early 1980's, the percentage of income spent on food away from home began to level off and decline in the 1990's, reflecting

increased price competition particularly among fast food restaurants (Table 3).

The share of disposable income spent on food is an indication of the relative affordability of food for the average consumer. Another slightly different measure of food affordability is the percentage of personal consumption expenditures spent on food. On average, U.S. consumers spend the smallest portion of their personal consumption expenditures on food of all countries in the world (this is also true of food spending as a percent of disposable personal income as presented in Table 3). Table 4 lists estimates of the share of personal consumption expenditures spent on food for the twenty countries with the lowest percentages in 1990. At the other end of the spectrum are countries such as Sri Lanka, India and the Sudan where food spending represents more than 50 percent of personal consumption expenditures.

Table 4
Percent of total personal consumption expenditures spent on food, selected countries, 1990

Country	%	Country	%
United States	8.0	New Zealand	16.0
Canada	11.0	Finland	16.1
United Kingdom	11.8	Belgium	16.1
Luxembourg	12.7	France	16.2
Netherlands	14.5	Austria	17.2
Australia	14.8	Hong Kong	17.5
Sweden	15.4	Iceland	18.1
Denmark	15.5	Italy	18.3

Source: Food Marketing Review, 1992-93, USDA-ERS,.AE Report #678, April, 1993

The components of the marketing bill include the general categories of expenses listed in Table 5. The overall marketing cost index rose slightly from 1992 to 1993, moderated by declines in such key components as petroleum, natural gas and short term interest rates. Lower petroleum prices contributed to lower price indexes for marketing cost components which are largely dependent on oil prices such as transportation services and plastic packaging.

Oil price increases in 1994 are likely to increase the petroleum based components of the marketing bill perhaps thereby pushing the overall index up at a greater rate in 1994 than in 1993.

Table 5
Price indexes of food marketing costs for food purchased for at-home consumption
(1967=100*)

	1975	1985	1990	1992	1993
Total labor- hourly earnings and benefits	187.4	363.0	395.7	418.7	431.9
Processing	184.1	357.9	405.8	435.3	448.9
Wholesaling	182.3	373.5	428.7	458.7	475.2
Retailing	192.9	363.5	371.2	384.4	395.7
Total packaging and containers	174.4	312.1	367.6	370.1	371.1
Paper boxes and containers	170.3	271.6	323.9	324.8	322.9
Metal cans	200.2	416.9	455.0	478.1	487.7
Paper bags and sacks	161.6	294.7	413.0	387.8	387.3
Plastic packaging	170.8	274.4	307.1	309.9	307.9
Glass containers	181.8	380.0	427.3	444.4	446.8
Metal foil	116.6	213.8	258.4	241.0	238.8
Transportation services	176.9	393.9	411.3	426.1	425.7
Advertising	136.9	320.2	433.0	484.0	507.6
Fuel and power	236.1	700.0	671.4	654.6	671.7
Electric	193.4	453.5	477.7	514.0	522.3
Petroleum	309.4	821.5	744.8	639.9	638.9
Natural gas	216.7	1158.2	1071.0	1061.1	1132.9
Communications, water, and sewage	131.8	224.9	253.1	266.8	270.0
Rent	167.0	262.9	280.0	278.3	273.1
Maintenance and repair	182.2	360.3	426.7	454.8	465.2
Business services	159.6	321.9	399.5	440.9	459.9
Supplies	169.9	287.9	321.1	318.1	321.3
Property taxes and insurance	180.1	362.0	462.2	496.7	512.9
Interest, short-term	123.7	157.2	155.4	74.5	64.7
Total marketing cost index	178.8	358.6	398.7	415.7	425.2

*indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption.
Source: Agricultural Outlook, USDA-ERS, November, 1994 and past years.

Farm-to-retail price spreads measure the magnitude of the marketing bill, the difference between retail prices and farm prices for farm foods. Table 6 lists farm to retail prices spreads for major food commodity groups and for a typical market basket of all food groups. The figures presented are indexes comparing the size of the spread between farm and retail prices for the indicated time period with the average price spread for the base years of 1982 through 1984. For example, the 1993 price spread for meat products was 162.8 percent of the average meat price spread in 1982 through 1984. In other words, the 1993 price spread is 62.8 percent larger than the 1982-84 average price spread.

Only one category, fats and oils, declined between 1992 and 1993 in the price spread between farm prices and retail prices. When the latest monthly data, for August 1994, are compared with the same month in 1993, the farm-to-retail price spreads for all commodity groups increased.

Table 6
Farm-retail price spreads
(1982-84=100)

	1991	1992	1993	Aug.'93	Aug.'94
Market basket	154.2	157.3	161.9	162.2	170.1
Meat products	155.6	157.5	162.8	168.3	177.1
Dairy products	157.5	158.6	162.9	164.6	171.3
Poultry	164.9	163.0	166.2	160.5	172.1
Eggs	157.6	163.2	167.8	170.2	178.2
Cereal & bakery	154.3	159.4	165.6	167.2	174.7
Fresh fruits	211.9	220.6	224.0	216.4	249.6
Fresh vegetables	176.8	177.2	189.0	176.2	188.8
Processed fruits/vegetables	133.2	135.2	139.4	139.8	140.8
Fats & Oils	144.2	143.3	138.3	138.3	142.1

Source: Agricultural Outlook, USDA-ERS, November, 1994 and past years.

The farm value of food products as a percentage of the retail price of the final product varies widely by product category, typically reflecting the varying amount of value added processes through which the raw farm product passes before reaching the retail shelf in its final form. For example, the farm value as a percentage of the retail price of eggs is relatively high, 48.8 percent in 1993, compared with that of cereal and bakery, 7.1 percent in 1993. There are fewer marketing functions performed on eggs before they reach the retail store than are performed on grains which are transformed into flour, transported, mixed with other ingredients, baked, and packaged before being ready for retail sale. Therefore, much more value is added by the marketing system to cereals and bakery products than to eggs.

In summary, though marketing costs continue to take a greater share of the retail price of food products, competition, coordinated efficiency initiatives, and relatively low inflation will likely combine to moderate the growth of the spread between farm and retail prices. Although, initially, there are some additional costs of the coordinated efficiency efforts of food manufacturers and distributors to eliminate costs from the marketing system, eventually these capital investments in technology and other start up costs will reap cost savings which will likely slow the growth of marketing costs.

U.S. Situation

The most complete data available on U.S. agricultural cooperatives are collected through an annual survey of marketing, farm supply and selected service cooperatives conducted by Cooperative Services, RDA, USDA. Results of the most recent survey are summarized in Table 1.

Table 1. United States Agricultural Cooperative Numbers, Business Volume, and Net Income 1992-93[1]

Major Business Activity	Number		Net Volume		Net Income	
	1992	1993	1992	1993	1992	1993
			($ billion)		($ million)	
Marketing	2,218	2,214	58.2	60.9	780.7	856.0
Supply	1,618	1,547	18.5	19.2	586.7	435.9
Service	479	483	2.6	2.7	72.8	66.4
TOTAL	4,315	4,244	79.3	82.9	1,440.3	1,358.4

[1] Totals may not add due to rounding.

Source: Farmer Cooperative Statistics, 1992, Service Report No. 39, USDA, ACS, Washington, DC., November, 1993 and Farmer Cooperative Statistics, 1993, CS Service Report 43, USDA, CS, RDA, Washington, DC, November 1994.

The number of cooperatives in the United States has continued to decline to a total of 4,244 in 1993, a net decrease of 71 associations. This is primarily due to the consolidation and merger of local marketing and supply cooperatives in the mid-west. Total net business volume which excludes intercooperative business amounted to $82.9 billion, surpassing the record $79.3 billion in 1992. Total net income for 1993 was $1.36 billion, down from $1.44 billion in 1992.

Combined assets in 1993 for all cooperatives totaled $33.4 billion, a 4.4 percent increase from 1992. Net worth totaled $14.8 billion, up 4.2 percent. Total liabilities were $18.6 billion in 1993 up 4.4 percent from the previous year.

New York State Situation

Data for agricultural cooperatives headquartered in New York State were obtained from the Cooperative Services survey cited previously. State level data are collected every other year. The most current statistics available are for 1991 and 1993. Table 2 summarizes cooperative numbers and business volume for New York State.

Table 2. New York State Agricultural Cooperative Numbers and Net Business Volume by Major Business Activity, 1991 and 1993[1].

Major Business Activity	Number Headquartered in State		Net Volume	
	1991	1993	1991	1993
			($ million)	
Marketing:				
Dairy	65	63	966.4	1,154.8
Fruit & Veg.	8	11	116.9	178.4
Livestock	5	4	61.3	89.0
Misc[2]	4	4	42.8	47.8
TOTAL MARKETING	82	82	1,287.9	1,327.3
Supply:				
Chemicals			32.4	26.6
Feed			202.3	190.7
Fertilizer			83.8	33.9
Petroleum			232.0	218.8
Seed			25.5	20.4
Other			203.3	177.8
TOTAL SUPPLY	82	21	779.4	668.2
Service[3]	6	5	113.2	101.7
TOTAL	170	108	2,080.0	2,240.0

Source: Farmer Cooperative Statistics, 1991, Service Report No. 33, USDA, ACS, Washington, DC., November, 1992 and Farmer Cooperative Statistics, 1993, CS Service Report 43, USDA, CS, RDA, Washington, DC., November 1994.

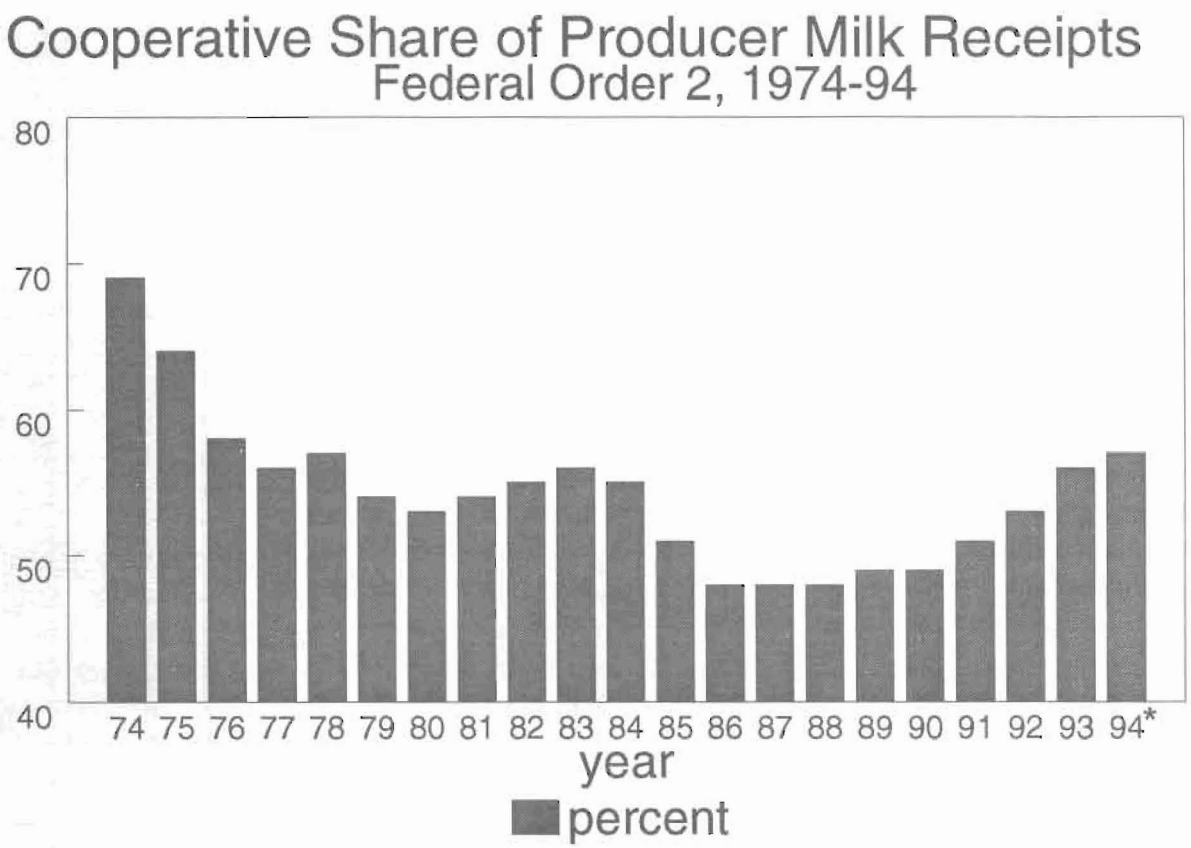
1 Totals may not add due to rounding.
2 Includes wool, poultry, dry bean, grains and miscellaneous.
3 Includes those cooperatives that provide services related to cooperative marketing and purchasing.

The number of agricultural cooperatives in New York State in 1993 showed a net decrease of 62 cooperatives with a decrease in dairy cooperatives and a significant decrease in the number of supply cooperatives due to a major supply cooperative's restructuring. Total net business volume increased by $160 million, an increase of 7.6 percent from 1991. Supply cooperative volume decreased while cooperative marketing volume increased. Dairy, fruit & vegetable and livestock cooperatives showed substantial increases in volume over the two year period.

New York Cooperative Performance

New York cooperatives seem poised for improved performance in 1995. We will first review 1994 developments in the various types of cooperatives, then look at major factors that are likely to have an impact on the year to come.

As usual we start our review with the dairy industry. Figure 1 illustrates the proportion of Order 2 milk marketed by Northeast cooperatives. The share of milk marketed by cooperatives continued to increase in 1994. Cooperative market share increased from a low of 47 percent in 1987 to 57 percent for the last four months of 1994. Moreover, a major proprietor handler recently released approximately 700 producers. While many of those producers are not in Order 2, we anticipate an increase in next years' market share, as some of those producers join New York milk marketing cooperatives. Fewer proprietary alternatives combined with improved cooperative financial performance are the major reasons cooperative market share is growing.



* 1994 based on first four months

Source: Market Administrator's Office, NY-NJ Federal Milk Marketing Order.

Sales of the major dairy bargaining cooperatives increased significantly in 1994. This was primarily due to increases in membership. While sales were up, profitability slipped. New York bargaining cooperatives are expected to benefit from membership recruitment of several proprietary firms releasing producers.

Dairy cooperatives processing milk and milk products experienced mixed performance. Their sales increased modestly. One cooperative turned a previous year's loss into a modest profit despite a sizable inventory write-down from its major subsidiary. Another cooperative experienced its first major loss. Steps are being taken to turn their operations around.

Dairy service cooperatives, such as dairy herd improvement, artificial insemination and livestock auctions had increased sales and earnings. The dairy herd improvement cooperative has reacted pro-actively to the loosening of national dairy herd improvement competition rules. The major artificial insemination cooperative is involved in active merger discussions with two other organizations. And the livestock auction cooperative has developed strong links to a major dairy bargaining cooperative as well as expanding auction markets during the year. All these developments are designed to effectively deal with the primary factor driving their organizations, decreasing dairy cow numbers.

The major supply cooperative in the region reported slightly lower sales, and a loss for the year. While there was a small profit from operations, the loss was due to a charge from discontinued operations. Moreover, the supply cooperative seems to be struggling with implementation of the second phase of its restructuring efforts.

For over a year the supply cooperative has carried two former wholly owned subsidiaries as discontinued operations. While charges were previously taken for the projected operating losses from one of those subsidiaries, the delayed sale of those operations caused additional losses. In early November, the sale of the other subsidiary was completed. It is expected that this will result in a significant capital gain to the organization and a much needed infusion of equity. Sale of the other subsidiary is still pending.

The buyer of the supply cooperative's subsidiary is the major fruit and vegetable processing cooperative in the state. That cooperative's performance for the year is very strong, returning members a patronage refund well in excess of twenty percent of their patronage. The acquisition of the processing and marketing arm of it's previous partner eliminates the uncertainty members have had concerning a secure market for well over a year. After the acquisition the cooperative will be the parent of the processing and marketing organization. The new subsidiary will be operated with a separate board including outside expert directors. From an operational point of view, very little change is expected. However, the acquisition required the assumption of significant amounts of debt. Job one will be trying to retire some of that debt, presumably through earnings because currently no major assets sales are expected.

The major grape processing cooperative had an improved year of sales and earnings for the year. However, returns per ton were down slightly due to an extremely large 1993 crop on the west coast. This cooperative made an acquisition during the year

buying a fruit processing firm with major markets in the southeast U.S. The acquisition appears to be an excellent fit with existing operations.

The farm credit cooperative in the northeast again had a year of strong performance. It too has announced and voted on a structural change. As of January 1, 1995 it will merge both its farm lending and cooperative lending operations with the major agricultural cooperative lending organization in the country. The merger is expected to increase financial strength and service alternatives while maintaining a degree of decentralized decision making.

Cooperative Outlook

Last year we pointed out that organizational restructuring is a significant reality among agricultural cooperatives as well as many major U.S. corporations. As the above discussion illustrates, there were several examples of cooperative restructuring (mergers, acquisitions, re-engineering) that occurred in New York over the last year. There is every reason to believe that restructuring will continue unabated in 1995. This phenomena is being driven by several factors: the declining number of farmers, the necessity to spread fixed costs over a larger volume of output, increased size to better serve larger and more diverse farmers, to meet the increased purchasing power of large buyers, and the desire to reduce aggregate administrative overhead costs. This is an inevitable trend, and in many cases long overdue in some cooperative sectors. It represents change for farmers, but no different than the change being experienced on their own operations.

The U.S. economy is expected to continue to grow in 1995, although as interest rates rise, not as vigorously as in 1994. This should have a positive impact on cooperatives producing consumer products.

Milk production appears to continue to increase nationwide having a negative impact on milk prices. The magnitude of price decline is uncertain, but could have both positive and negative impacts on dairy marketing and service cooperatives.

Increased interest rates will increase loan costs to all cooperatives. Those with high degrees of financial leverage will feel the impact the most.

In summary while there are some questionable developments that could negatively influence the 1995 performance of New York cooperatives, today they are probably better positioned to deal with the coming year than any time in the recent past.

United States Farm Balance Sheet
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	billion dollars						
Assets							
Real Estate	202	384	783	586	628	633	656
Livestock	24	29	61	47	71	71	73
Machinery	30	57	80	83	85	86	85
Crops[a]	9	21	33	23	23	24	24
Purchased Inputs	c	c	c	1	3	4	4
Financial Assets	7	7	7	9	11	14	15
Coop. Investments	7	13	19	24	27	30	31
Total	279	511	983	773	848	862	888
Liabilities & Equity							
Real Estate Debt	28	45	90	100	74	75	76
Nonreal Estate Debt[b]	21	40	77	78	63	64	66
Total	49	85	167	178	137	139	142
Owner Equity	230	426	816	595	711	723	746
Total	279	511	983	773	848	862	888
Percent Equity	82	83	83	77	84	84	84

[a] Excludes crops under CCC loan.
[b] Excludes CCC loans.
[c] Not available.

Changes in Structure, United States Farm Balance Sheet
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	percent of total						
Assets							
Real Estate	72	75	80	76	74	74	74
Livestock	9	6	6	6	8	8	8
Machinery	11	11	8	11	10	10	10
All Other[a]	8	8	6	7	8	8	8
Total	100	100	100	100	100	100	100
Liabilities							
Real Estate Debt	57	53	54	56	54	54	54
Nonreal Estate Debt[b]	43	47	46	44	46	46	46
Total	100	100	100	100	100	100	100

[a] Excludes crops under CCC loan.
[b] Excludes CCC loans.

Source: Economic Research Service, USDA.

Distribution of United States Farm Debt by Lender
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	billion dollars						
Real Estate							
Farm Credit System	6.5	14.5	33.2	42.2	25.7	25.3	24.9
Individuals & Others	10.3	15.8	27.8	25.8	15.0	16.0	16.7
Commercial Banks	3.3	5.6	7.8	10.7	16.2	18.6	19.6
Farmers Home Admin.	2.1	3.0	7.4	9.8	7.6	6.4	5.8
Insurance Companies	5.1	6.2	12.0	11.3	9.6	8.7	9.0
CCC - Storage	.2	.2	1.5	.3	a	a	0
Total	27.5	45.3	89.7	100.1	74.1	75.0	76.0
Nonreal Estate[b]							
Commercial Banks	10.5	19.0	30.0	33.7	31.3	32.9	34.9
Farmers Home Admin.	.7	1.6	10.0	14.7	9.4	7.1	6.2
Merchants & Dealers	4.7	8.4	17.4	15.1	12.7	13.2	14.2
Farm Credit System	5.3	10.7	19.7	14.0	9.8	10.4	10.6
Total	21.2	39.7	77.1	77.5	63.2	63.6	65.9

[a] Less than .5 billion.
[b] Excludes crops under CCC loan.

Market Shares of United States Farm Debt by Lender
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	percent of total						
Farm Credit System	24	30	32	32	26	26	25
Commercial Banks	28	29	23	25	35	37	38
Farmers Home Admin.	6	5	11	14	12	10	9
Insurance Companies	11	7	7	6	7	6	6
Individuals & Others	31	29	27	23	20	21	22
Total[a]	100	100	100	100	100	100	100

[a] Excludes crops under CCC loan.

Source: Economic Research Service, USDA.

New York Farm Balance Sheet
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	million dollars						
Assets							
Real Estate	2614	4881	6178	6520	7595	8047	8688
Livestock	536	653	1527	983	1258	1303	1294
Machinery	822	1303	1718	1875	1842	1865	1885
Crops[a]	204	396	561	491	535	439	393
Purchased Inputs	c	c	c	27	69	90	98
Financial Assets	135	140	145	175	197	250	285
Coop. Investments	180	341	462	493	470	461	463
Total	4491	7714	10591	10564	11966	12455	13106
Liabilities & Equity							
Real Estate Debt	353	634	1038	1125	892	869	877
Nonreal Estate Debt[b]	411	748	1582	1472	1268	1216	1206
Total	764	1382	2620	2597	2160	2085	2083
Owner Equity	3727	6332	7971	7967	9806	10370	11023
Total	4491	7714	10591	10564	11966	12455	13106
Percent Equity	83	82	75	75	82	83	84

[a] Excludes crops under CCC loan.
[b] Excludes CCC loans. All FmHA Emergency Loans are classified as nonreal estate. Total includes some nonreal estate loans made by New York City institutions to businesses outside New York State.
[c] Not available.

Changes in Structure, New York Farm Balance Sheet
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	percent of total						
Assets							
Real Estate	58	63	58	62	63	65	66
Livestock	12	9	15	9	11	10	10
Machinery	18	17	16	18	15	15	14
All Other	12	11	11	11	11	10	10
Total[a]	100	100	100	100	100	100	100
Liabilities							
Real Estate Debt	46	46	40	43	41	42	42
Nonreal Estate Debt[b]	54	54	60	57	59	58	58
Total	100	100	100	100	100	100	100

[a] Excludes crops under CCC loan.
[b] Excludes CCC loans. All FmHA Emergency Loans are classified as nonreal estate. Total includes some nonreal estate loans made by New York City institutions to businesses outside New York State.

Source: Economic Research Service, USDA.

New York Farm Debt by Lender
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	million dollars						
Real Estate							
Farm Credit System	98	262	367	449	400	359	354
Individuals & Others	142	214	373	363	214	227	236
Commercial Banks	69	101	108	89	115	143	156
Farmers Home Admin.	34	45	145	192	154	134	126
Insurance Companies	7	8	26	26	9	6	5
CCC - Storage	3	4	19	6	a	a	0
Total	353	634	1038	1125	892	869	877
Nonreal Estate							
Commercial Banks	155	266	632	597	417	375	341
Farmers Home Admin.	26	37	284	287	219	196	195
Merchants & Dealers	91	164	339	257	216	224	241
Farm Credit System	139	281	328	331	416	421	429
Total[b]	411	748	1583	1472	1268	1216	1206

[a] Less than .5 million.
[b] Excludes CCC loans. All FmHA Emergency Loans are classified as nonreal estate. Total includes some nonreal estate loans made by New York City institutions to businesses outside New York State.

Market Shares of New York Farm Debt by Lender
Current Dollars, December 31
Excluding Operator Households

Item	1970	1975	1980	1985	1990	1992	1993
	percent of total						
Farm Credit System	31	39	27	30	38	37	38
Commercial Banks	29	27	28	26	25	25	24
Farmers Home Admin.	8	6	17	19	17	16	15
Insurance Companies	1	1	1	1	a	a	a
Individuals & Others	31	27	27	24	20	22	23
Total	100	100	100	100	100	100	100

[a] Less than .5 percent.

Source: Economic Research Service, USDA.

Nonaccrual and Nonperforming Loans
Farm Credit System, December 31

	Total System (FCB's and BC's)		Farm Credit Banks (FCB)		
			United States		Springfield District
Year	Nonaccrual	Nonperforming	Nonaccrual	Nonperforming[a]	Nonaccrual
	percent of loan volume				
1984[b]	c	c	2.3	c	1.1
1985	c	c	7.7	c	.8
1986	c	c	12.9	c	2.4
1987	c	c	11.1	c	1.1
1988	6.5	12.3	8.0	15.0	0.6
1989	5.0	11.0	6.3	13.6	0.4
1990	5.1	9.7	6.3	11.9	1.5[d]
1991	4.5	8.0	5.5	10.0	2.5
1992	3.7	6.0	4.7	7.6	2.9
1993	2.7	4.1	3.6	5.5	3.1
1994 (6/30)	2.3	3.6	c	c	2.9

[a] Nonperforming assets as a percentage of total loans and other property owned.
[b] Weighted average for PCA and FLB's for 1984-87.
[c] Not available.
[d] More conservative standards implemented.

Source: Annual and Quarterly Reports.

Nonaccrual, Nonperforming, and Total Delinquent Farm Nonreal Estate Loans
United States Commercial Banks, December 31

Year	Nonaccrual	Nonperforming[a]	Delinquent[b]
	percent of loan volume		
1982	1.3	2.5	5.1
1983	2.7	3.8	6.3
1984	4.1	5.2	7.8
1985	6.1	7.3	10.1
1986	5.9	7.0	9.4
1987	4.2	4.8	6.5
1988	2.9	3.3	4.5
1989	1.9	2.3	3.7
1990	1.6	1.9	3.1
1991	1.6	1.9	3.2
1992	1.5	1.8	2.8
1993	1.2	1.4	2.2
1994 (6/30)	1.1	1.5	2.2

[a] Includes nonaccrual and past due 90 days but accruing.
[b] Includes nonperforming and past due 30 to 89 days but accruing.

Source: Agricultural Finance Databook. Reports of Condition and Income.

Delinquent Major Farm Program Direct Loans
Farmers Home Administration

Date	Farm Ownership[a]		Operating Loans[a]		Emergency Loans		Economic Emergency		Soil and Water[a]	
	U.S.	N.Y.	U.S.	N.Y.	U.S.	N.Y.	U.S.	N.Y.	U.S.	N.Y.
	percent of loan volume									
9/30/83	3	4	13	8	25	13	16	11	7	4
9/30/84	4	4	17	11	32	22	20	15	9	5
9/30/85	5	5	13	10	37	25	23	19	11	7
9/30/86	5	5	16	12	41	31	27	25	12	9
9/30/87	6	7	19	14	45	34	31	34	14	10
9/30/88	8	9	25	19	57	38	42	45	20	12
9/30/89	9	10	26	20	60	41	44	51	23	13
9/30/90	7	9	23	17	60	37	42	50	18	10
9/30/91	7	9	24	16	61	38	42	51	18	11
9/30/92	7	9	25	19	61	41	42	55	19	9
9/30/93	7	10	24	19	62	40	40	61	18	10
9/30/94	6	11	23	18	60	41	40	63	17	11

[a] Includes limited resource loans.

Source: FmHA Report Code 616.

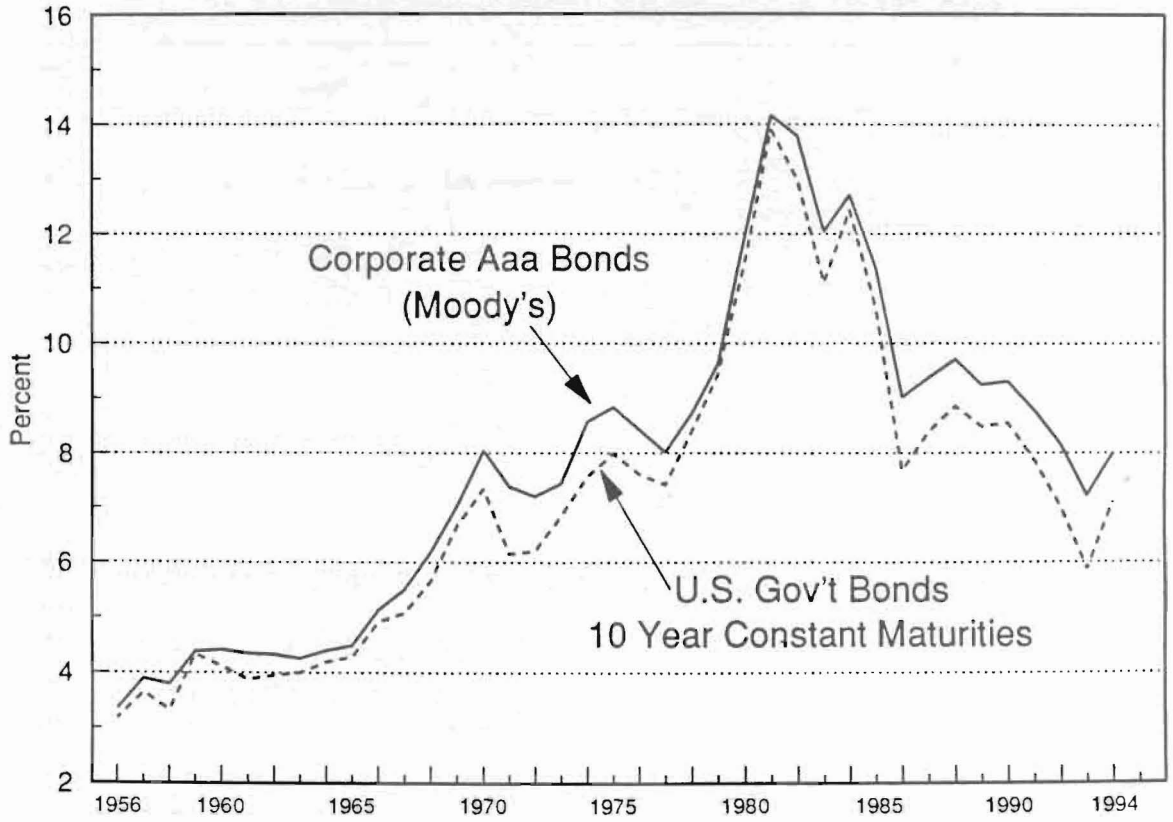
Nationally, farmers continued to be cautious about adding debt during 1993. Total farm debt increased by only two percent. With modest increases in farm owner equity, the US farm sector maintained an 84 percent equity position. Lender market shares changed little, with the commercial banking system continuing to show increases compared to the Farm Credit System (FCS) and the Farmers Home Administration (FmHA).

In New York State farm debt remained unchanged during 1993. Average farm percent equity was also at 84 percent. Lender market shares changed little with the FCS showing modest increases at the expense of the commercial banking system and FmHA.

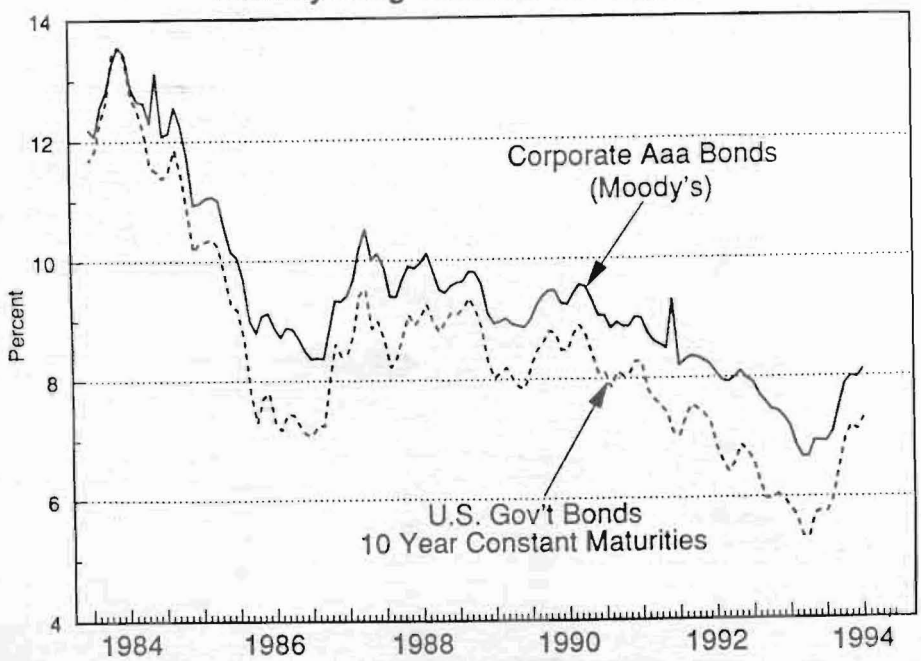
At the national level, both the Farm Credit System and the commercial banking sector continue to improve the quality of their agricultural loan portfolios. Commercial bank delinquencies are now at or below the levels experienced prior to the 1980's financial crisis. The FCS's nonperforming loan levels continue to decline, although they remain considerably above the levels currently being experienced by commercial banks.

In spite of tremendous efforts to service (write down, write off, etc.) FmHA loans, emergency type loans by the FmHA, continue to have very high delinquency levels. Delinquencies for the other programs are much lower, and in some cases may not be out of line for a lender of last resort. During the last year, delinquencies for the entire US have declined slightly while New York State levels have increased slightly.

Annual Long Term Interest Rates

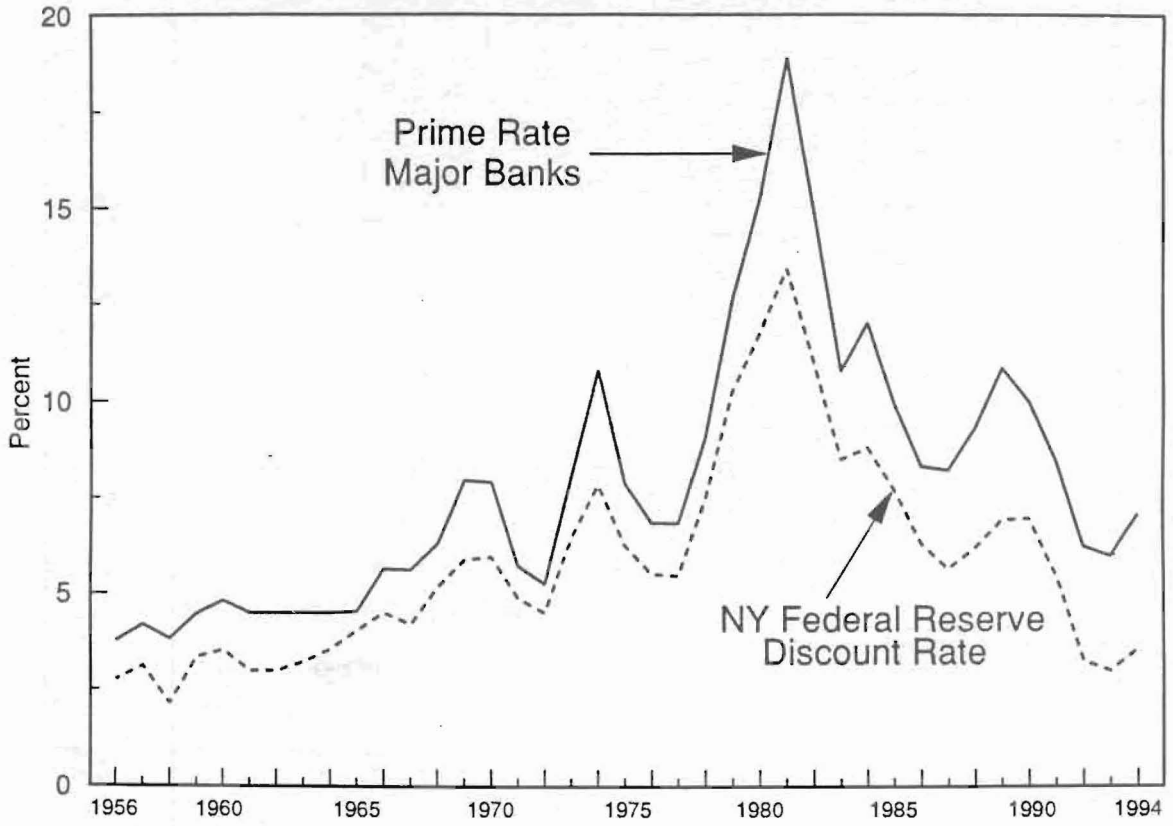


Monthly Long Term Interest Rates

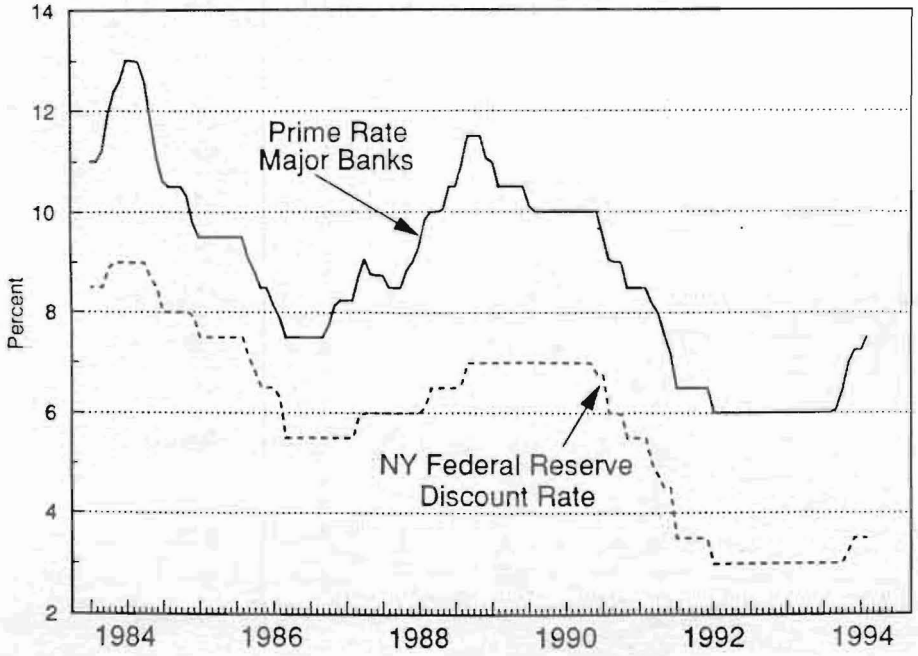


U.S. Govt. Bonds 10 Year Constant Maturity		
	1993	1994
Jan	6.60	5.75
Feb	6.26	5.97
Mar	5.98	6.48
Apr	5.97	6.97
May	6.04	7.18
Jun	5.96	7.10
Jul	5.81	7.30
Aug	5.68	
Sep	5.36	
Oct	5.33	
Nov	5.72	
Dec	5.77	

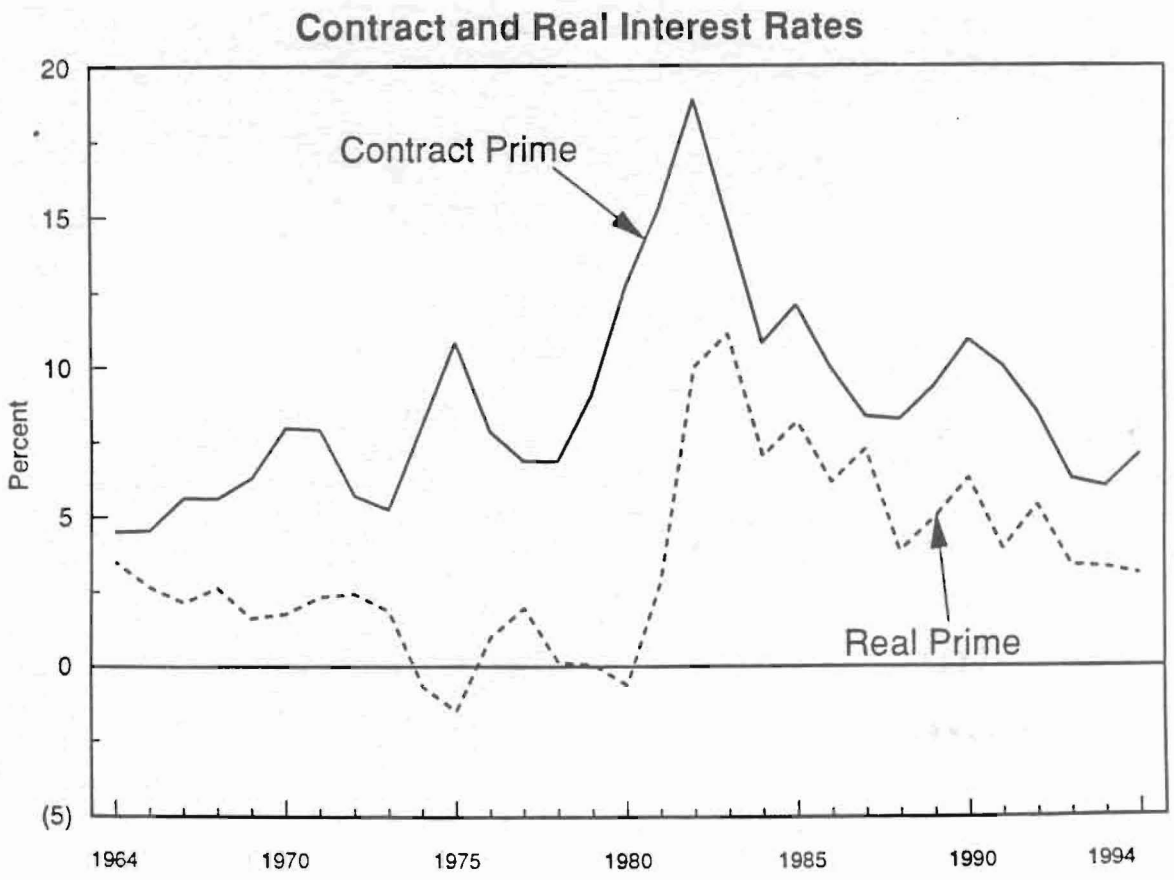
Annual Average Short Term Interest Rates



Monthly Short Term Interest Rates



Prime Rate Major Banks		
	1993	1994
Jan	6.0	6.0
Feb	6.0	6.0
Mar	6.0	6.06
Apr	6.0	6.45
May	6.0	6.99
Jun	6.0	7.25
Jul	6.0	7.25
Aug	6.0	7.51
Sep	6.0	
Oct	6.0	
Nov	6.0	
Dec	6.0	

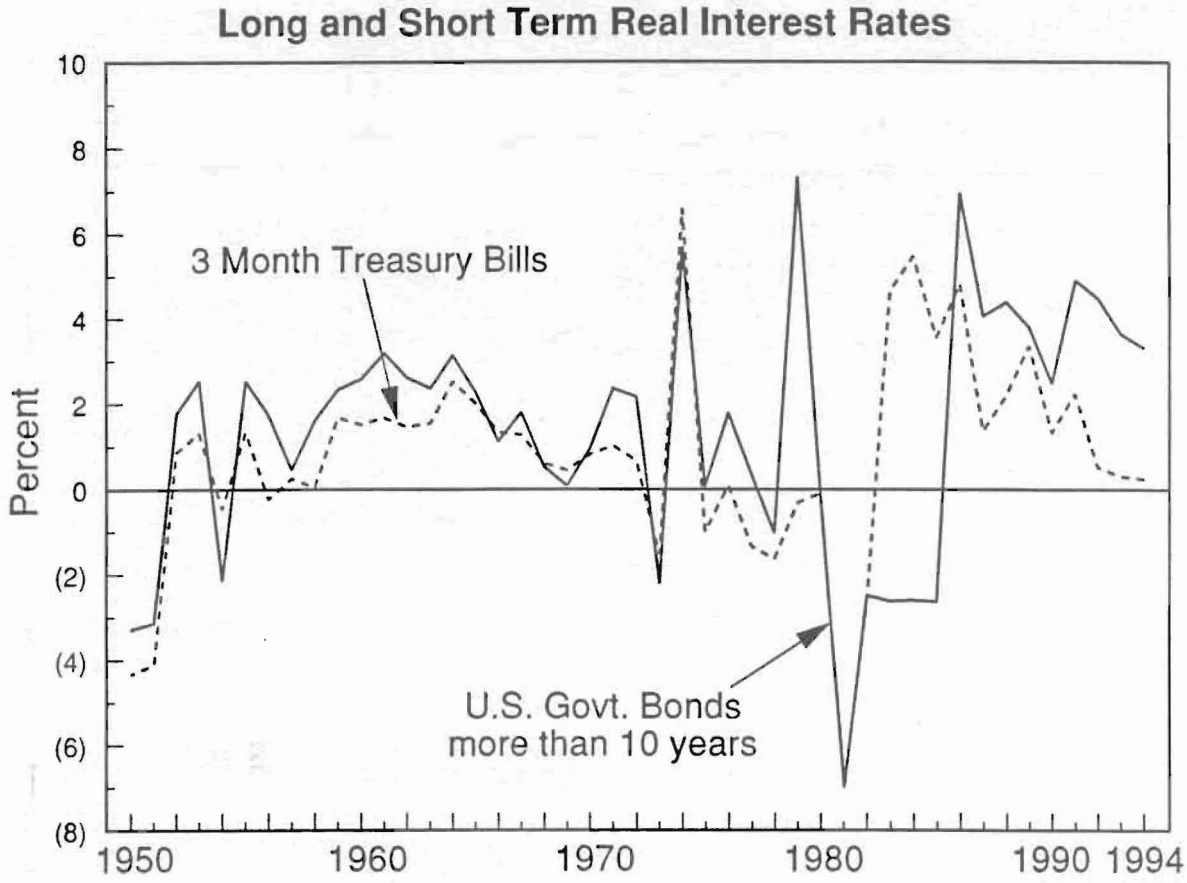


Basic short term interest rates remained at their lowest level in 30 years, from mid 1992 through early 1994. Rates increased sharply during 1994 with a total increase about 2.5 percentage points for the year.

Basic long term interest rates reached a low in 1993 and have gradually increased since that time. Although they did not increase quite as rapidly as short term rates, the total increase for 1994 is expected to be over two percent.

The more modest increase in long term rates means that the amount that long term rates exceed short term rates declined somewhat. However, the difference between long an short term rates remains large. This large difference resulted in many farmers not moving credit to long term fixed rates during the low rate period of mid 1992 to early 1994.

Long term real rates remain high by historical standards. With long term rates in the eight percent range, bond purchasers appear to have built in about a six percent average inflation rate. Since inflation has been in the three percent range for the past few years, the prediction, or even experience, of slightly higher inflation rates is unlikely to cause a major rise in the long term average expected inflation rate.



Interest rates paid by farmers are expected to be considerably higher in 1995 than in 1993 or 1994. Only farmers who took advantage of the low rates of the last two years and fixed part or all of their interest costs have much chance of avoiding significant increases in interest costs.

By the end of 1995 basic short term rates are expected to increase by 2.25 percent over the early November 1994 level. For example, rates on three month treasury bills sold by the US government were a little under 5.25 percent in early November 1994. These rates are expected to rise to 7.5 percent by the end of 1995. Because rates are expected to rise early in 1995 the average treasury bill rate is likely to be around 6.75 percent for 1995 compared to about 4.25 percent in 1994. Although average rates paid by farmers on operating and other short term loans may not increase by the complete 2.5 percent (6.75 - 4.25), the rise will likely be of that magnitude.

Fortunately, long term rates are not expected to rise quite as much. Basic long term rates are expected to rise about three quarters of a percent by the end of 1995. For example, long term treasury bonds sold by the US government are expected to rise from the early November 1994 level of slightly over eight percent to about 8.75 percent. For all of 1994 the rate will average about 7.45 percent. The average in 1995 is likely to be about 8.5 percent. Thus, the rates that farmers pay on mortgages and similar long term loans are likely to average about one percent higher in 1995 than in 1994.

Intermediate term loans for cattle and equipment that are usually three, five, or seven years in duration will experience increases that are closer to long term rates than short term rates. Average rates for 1995 will likely be 1.25 to 1.5 percent higher than experienced in 1994.

CROP PRODUCTION
United States and New York
1992-94 a/

Crop	Acres Harvested			Yield Per Acre			Production		
	1992	1993	1994	1992	1993	1994	1992	1993	1994
United States	(million)			(bu.)			(million bu.)		
Corn grain	72.1	63.0	72.3	131.4	100.7	138.4	9,479	6,344	10,010
Sorghum	12.2	9.5	8.8	72.8	59.9	70.5	884	635	622
Oats	4.5	3.8	4.0	65.6	54.4	57.2	295	206	230
Barley	7.3	6.8	6.7	62.4	58.9	56.2	458	400	375
Wheat	62.4	62.6	61.7	39.4	38.3	37.6	2,459	2,402	2,320
Soybeans	58.4	57.3	60.8	37.6	32.6	41.5	2,197	1,869	2,523
New York	(thousand)			(bu.)			(thousand bu.)		
Corn grain	670	580	540	92	105	115	61,640	60,900	62,100
Oats	110	105	100	70	62	64	7,700	6,510	7,040
Wheat	110	85	115	56	46	53	6,160	3,910	6,095
				(tons)			(thousand tons)		
Corn silage	530	560	NA	14.50	14.20	NA	7,685	7,952	NA
All hay	1,700	1,750	1,800	2.11	2.06	2.34	3,590	3,605	4,212
Alfalfa b/	800	700	680	2.35	2.45	2.90	1,880	1,715	1,972

Source: USDA Crop Production and New York Crop Reporting Service.

a/ All 1994 data are preliminary and subject to revision. Estimates for the United States are as of November 1, 1994. New York estimates are as of October 1994, except for corn which is November 1994.
b/ Includes alfalfa mixtures.

Grain production in the United States in 1994 is estimated to be well above year-earlier levels. The corn yield of 138 bushels per acre is 7 bushels higher than the previous record which was set in 1992. Corn for grain production of 10.0 billion bushels is 58 percent above the 1993 crop and is the largest crop ever produced. Sorghum production is down slightly from the 1993 level.

The production of oats is up 20 percent from the 1993 level. Barley production is down slightly from last year. Total feed grain production is up 50 percent from the 1993 level.

The soybean crop of 2.5 billion bushels is 35 percent above the 1993 crop and is the largest crop on record. The 41.5 bushels per acre yield is a record. Wheat production of 2.4 billion bushels is about equal to the 1993 crop.

The New York corn for grain crop is estimated to be 62 million bushels, up slightly from the 1993 crop. New York corn yield is estimated to be 115 bushels per acre, up from 105 in 1993. Wheat production is up 56 percent from 1993. The production of oats is estimated to be up 8 percent from 1993. Hay production is up 17 percent from the 1993 level.

CORN AND FEED GRAIN BALANCE SHEETS, 1992-95

Item	1991/92	1992/93	1993/94 (Prelim.)	1994/95 (Proj.)
Supply	----- CORN (million bushels) -----			
Beginning Stocks (Sept. 1)	1,521	1,100	2,113	850
Production	7,475	9,482	6,344	10,010
Imports	20	7	21	5
Total	9,016	10,589	8,478	10,865
Disappearance				
Feed and Residual	4,878	5,301	4,711	5,500
Food, Ind. and Seed	1,454	1,511	1,588	1,685
Total Domestic	6,332	6,813	6,299	7,185
Exports	1,584	1,663	1,328	1,625
Total	7,916	8,476	7,628	8,810
Ending Stocks (Aug. 30)	1,100	2,113	850	2,055
Season average farm price	$2.37	$2.07	$2.50	$1.85-2.25
Supply	-- FEED GRAINS a/ (million metric tons) --			
Beginning Stocks	47.7	34.0	63.1	27.4
Production	218.2	277.5	187.3	281.6
Imports	2.1	1.2	3.6	2.7
Total	268.0	312.7	254.0	311.6
Disappearance				
Feed and Residual	142.2	154.4	140.2	156.5
Food, Ind. and Seed	42.2	44.1	46.2	48.6
Total Domestic	184.4	198.6	186.4	205.1
Exports	49.7	51.1	40.2	48.2
Total	234.1	249.7	226.6	253.2
Ending Stocks	34.0	63.1	27.4	58.4

Source: Agricultural Supply and Demand Estimates, USDA, November 9, 1994.

a/ Marketing year beginning September 1 for corn and sorghum, June 1 for barley and oats.

The fall 1994 corn supply of 10.9 billion bushels is up 28 percent from the 1993 level and is the largest since 1987. Feed use is projected to increase 17 percent. Exports are projected to increase 22 percent from the 1993/94 level. Total utilization is expected to be 15 percent greater than in 1993/94. Projected carryover in the fall of 1995 of 2.06 billion bushels is more than double the fall 1994 carryover but slightly smaller than the carryover of 2.1 billion bushels in 1993.

Feedgrain supplies are dominated by corn, so changes in supply and demand are similar. The total supply of feedgrains is 23 percent above last year. Domestic feed use in the 1994/95 marketing year is projected to increase about 12 percent. Exports are projected to increase 20 percent. Carryover stocks at the end of the 1994/95 marketing year are projected to be 58 million metric tons, more than double the 1994 level but smaller than the fall 1993 carryover.

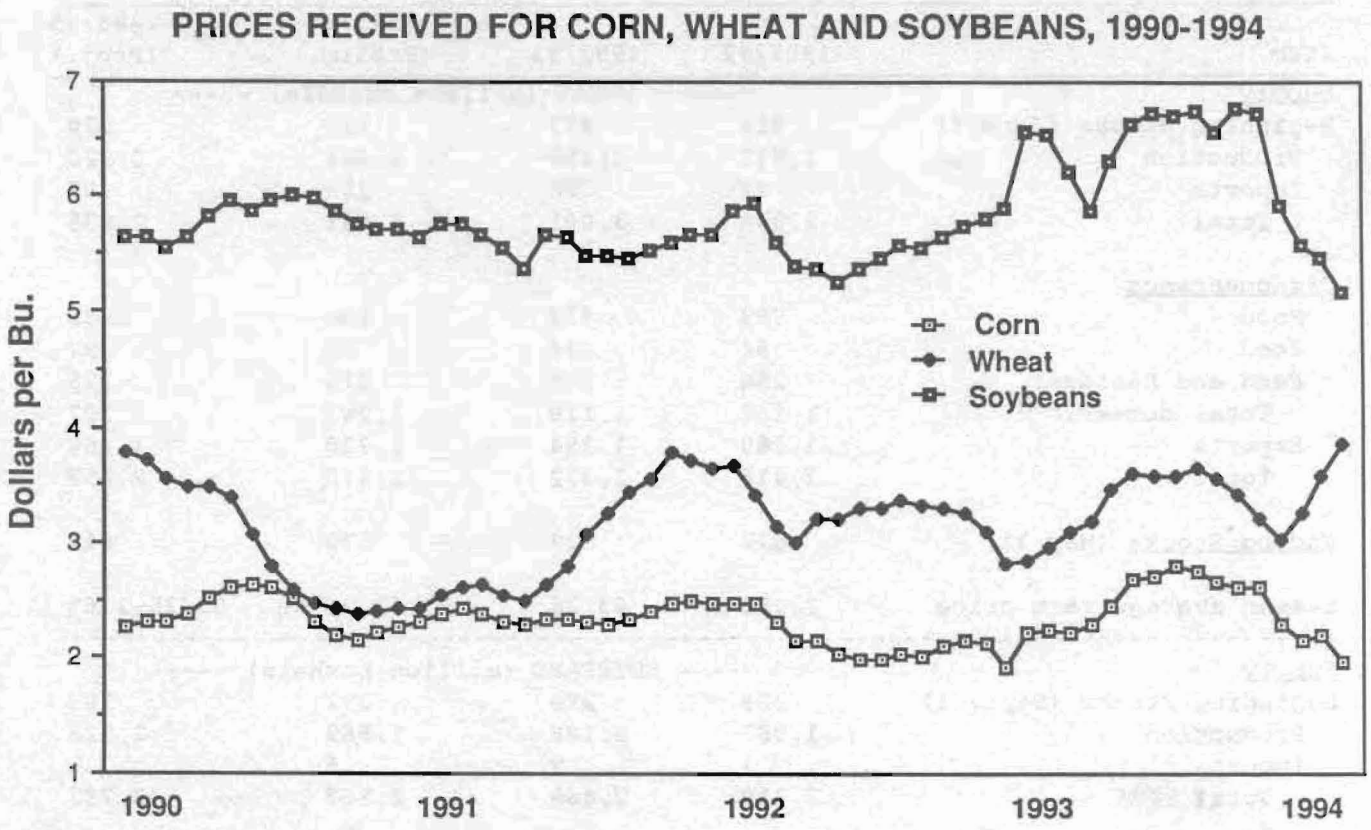
WHEAT AND SOYBEAN BALANCE SHEETS, 1992-95

Item	1991/92	1992/93	1993/94 (Prelim.)	1994/95 (Proj.)
Supply	----- WHEAT (million bushels) -----			
Beginning Stocks (June 1)	866	472	529	570
Production	1,981	2,459	2,403	2,320
Imports	41	70	109	85
Total	2,888	3,001	3,041	2,975
Disappearance				
Food	789	834	869	885
Seed	94	98	95	97
Feed and Residual	254	186	278	225
Total domestic	1,137	1,118	1,243	1,207
Exports	1,280	1,354	1,228	1,250
Total	2,416	2,472	2,470	2,457
Ending Stocks (May 31)	472	529	570	518
Season average farm price	$3.00	$3.24	$3.26	$3.25-3.65
Supply	----- SOYBEANS (million bushels) -----			
Beginning Stocks (Sept. 1)	329	278	292	209
Production	1,987	2,188	1,869	2,523
Imports	3	2	6	5
Total	2,319	2,468	2,167	2,737
Disappearance				
Crushings	1,254	1,279	1,272	1,355
Exports	684	770	589	770
Seed, Feed	55	64	67	64
Residual	48	63	30	53
Total	2,041	2,176	1,958	2,242
Ending Stocks (Aug. 30)	278	292	209	495
Season average farm price	$5.58	$5.56	$6.40	$4.80-5.50

Source: Agricultural Supply and Demand Estimates, USDA, November 9, 1994.

The 1994 United States wheat supply of 2.98 billion bushels is slightly below the 1993 level. Domestic food use is projected to increase 2 percent. Feed use is projected to decrease 19 percent. Exports are projected to increase 2 percent from the previous year. Carryover on May 31, 1995 is projected to be 518 million bushels, down 9 percent from the 1994 level.

The total soybean supply is 2.7 billion bushels, up 26 percent from 1993. Crushings are projected to increase 7 percent and exports to increase 31 percent from year-earlier levels. Carryover in the fall of 1995 is projected to be 495 million bushels, well over double the 1994 carryover and the largest since 1986.



Source: USDA Agricultural Prices.

Soybean prices reached a peak of around $6.75 in early 1994 and then declined to just over $5.00 in October. The October 1994 average price received by U.S. farmers was $5.15, $0.86 per bushel below the level of October 1993. USDA's projection for the season average price for 1994 crop soybeans is $4.80 to $5.50, with a mid point $1.25 below the average price for the 1993 crop.

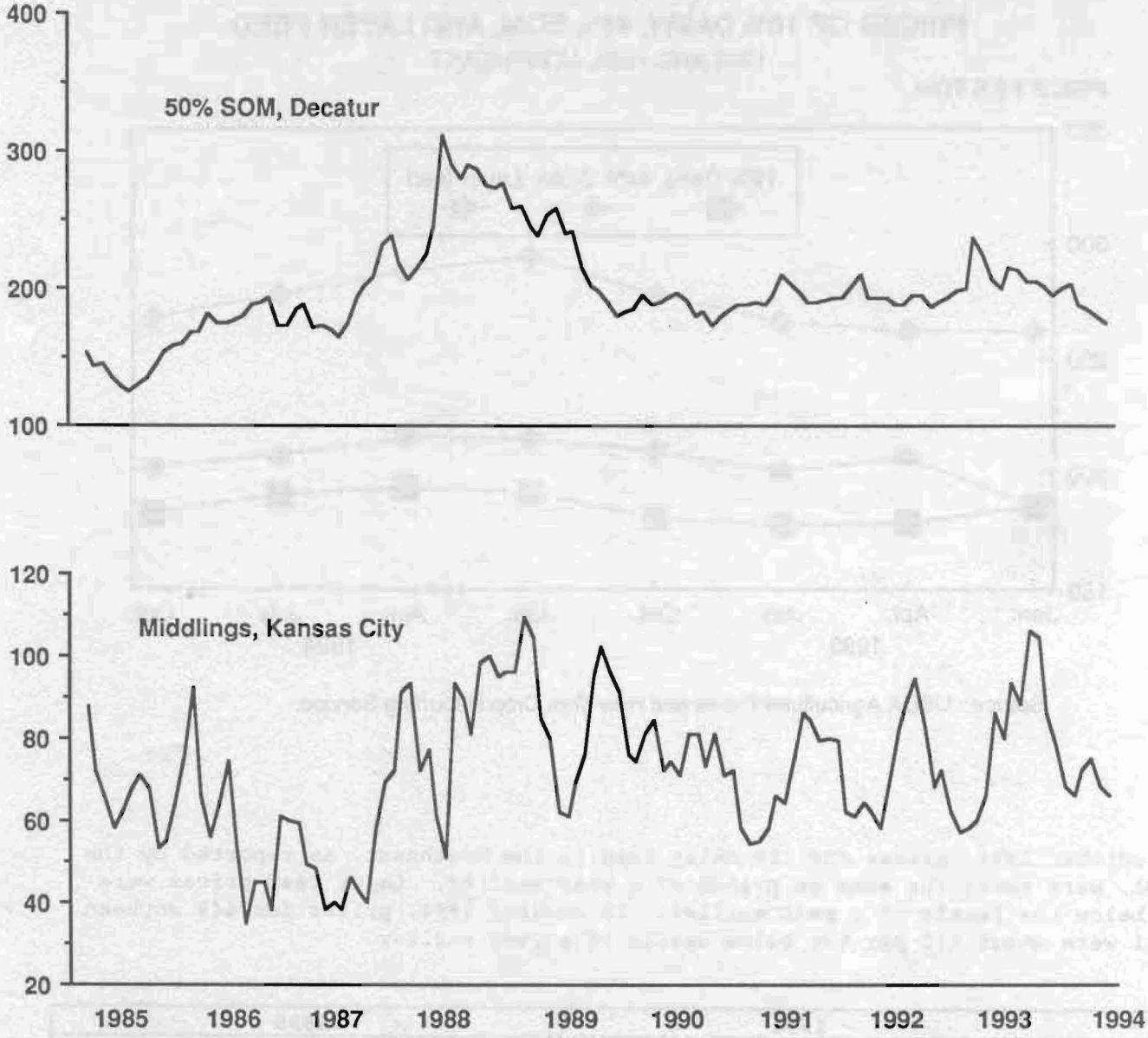
Wheat prices in mid-1994 were above mid-1993 levels. Prices in the mid fall of 1994 were well above year-earlier levels. The mid October 1994 price received by U.S. farmers was $3.85, $0.60 above the year-earlier price. The New York price of $3.07 was $0.03 below the October 1993 level.

The projected season average price for the 1994 U.S. wheat crop is $3.25 to $3.65. The mid point is $0.19 above the average price received by farmers for the 1993 crop.

Corn prices reached a high of about $2.80 in early 1994 before gradually declining to below $2.00 in October. The U.S. average price received by farmers in mid October 1994 was $1.96, $0.33 below the year-earlier level. The New York price in mid October was $2.47 per bushel, only $0.03 below the average level for the entire month of October 1993.

The mid November USDA projection of the season average price received by U.S. farmers for the 1994 corn crop was $1.85 to $2.25 per bushel. The mid point is $0.45 below the season average price for the 1993 crop.

MONTHLY PRICES OF SOYBEAN MEAL AND MIDDLINGS, 1985 TO DATE



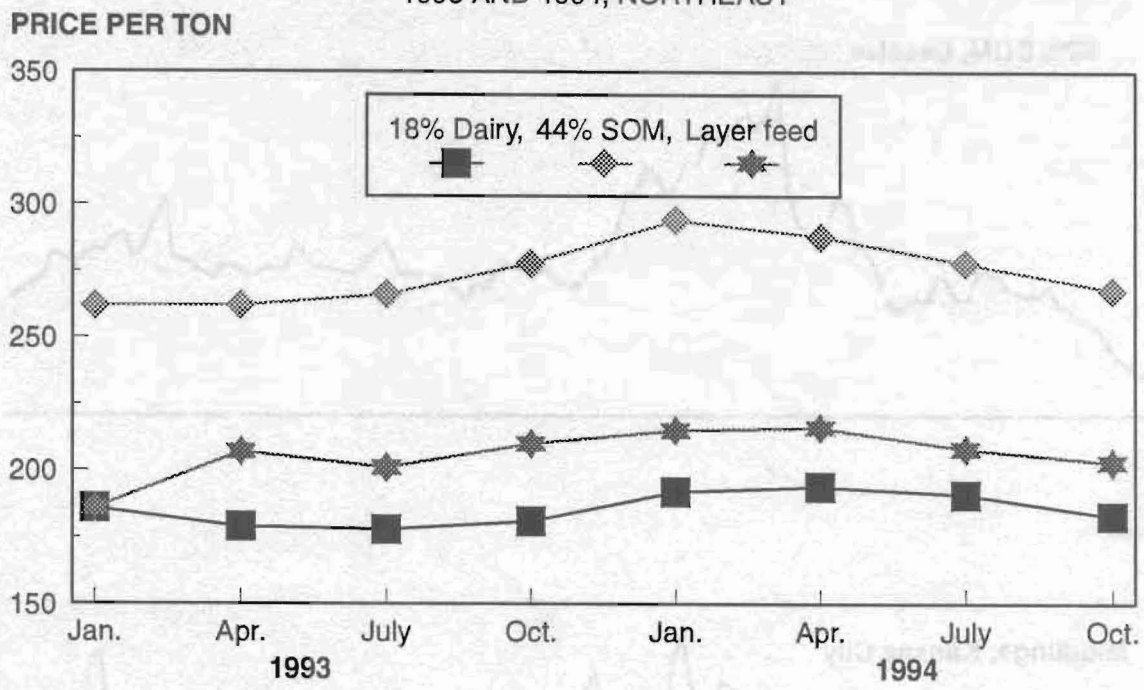
Source: USDA Feed Situation and Feedstuffs.

Prices for soybean oil meal (50%, Decatur) peaked at $230 per ton in July 1993 and declined to the $200 level in the fall of 1993. Prices were in the $190 to $200 range during the first half of 1994 and then declined to $168 in October 1994. Prices will be appreciably below year-earlier levels during the winter and spring of 1995.

Prices for byproducts such as middlings continue to fluctuate widely and are not closely related to the prices of the grains from which they are derived. Prices of these byproducts in the fall of 1994 were somewhat lower than a year earlier.

PRICES OF 18% DAIRY, 44% SOM, AND LAYER FEED

1993 AND 1994, NORTHEAST



Source: USDA Agricultural Prices and New York Crop Reporting Service.

In October 1994, prices for 18% dairy feed in the Northeast, as reported by the USDA, were about the same as prices of a year earlier. Layer feed prices were $7 below the levels of a year earlier. In October 1994, prices for 44% soybean meal were about $10 per ton below levels of a year earlier.

	1994			1995		
Month	18% Dairy	44% SOM	Layer Feed	18% Dairy	44% SOM	Layer Feed
January	192	294	215			
April	194	288	216			
July	191	278	208			
October	183	268	203			

Prices for soybean meal, dairy feed, and layer feed in the first half of 1995 are likely to be lower than the levels of the first half of 1994. Prices later in the year will depend on 1995 crop prospects, but carryovers of corn and soybeans will be large enough that prices will not be drastically higher, unless 1995 brings small crops.

1995 Dairy Outlook

Overview

Positive Factors:

- Lower feed prices
- Abundant feed
- Strong economy and commercial disappearance
- Processor funded promotion

Negative Factors:

- Rising interest rates
- Environmental issues

Uncertainties:

- Environmental regulation and enforcement
- Impact of new M–W *[price volatility]*

New York Dairy Situation and Outlook
1992, 1993, Preliminary 1994, and Projected 1995

Item	Year				Percent Change	
	1992	1993	1994	1995	93-94	94-95
Number of milk cows (thousand head)	749	748	737	730	-1.5	-0.9
Milk per cow (lbs.)	15,463	15,310	15,475	15,850	1.1	2.4
Total milk production (million lbs.)	11,582	11,452	11,405	11,571	-0.4	1.5
Blended milk price ($/cwt.)[a]	12.81	12.61	13.00	12.44	3.1	-4.3
Index of prices paid by dairy farmers	173	176	184	187	4.5	1.6

[a] New York–New Jersey blend price, 201–210 mile zone, 3.5 percent fat, this price excludes any premiums or assessments. The effective blend price after milk price assessments is $12.68 for 1992; $12.46 for 1993 and $12.82 for 1994, assuming no refund.

Table 1. U.S. Milk Supply and Utilization, 1987–1995.

	1987	1988*	1989	1990	1991	1992*	1993[a]	1994[b]	1995[c]
Supply									
Cows Numbers (thous.)	10,327	10,262	10,126	10,127	9,992	9,835	9,705	9,638	9,608
Production/cow (lbs)	13,819	14,145	14,244	14,655	14,860	15,419	15,554	15,958	16,408
				(Billions of Pounds)					
Production	142.7	145.2	144.2	148.3	148.5	151.6	151.0	153.8	157.6
Farm Use	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9
Marketings	140.5	142.9	142.1	146.3	146.5	149.7	149.1	151.9	155.7
Beginning Commercial Stocks	4.1	4.6	4.3	4.1	5.1	4.5	4.7	4.6	4.3
Imports	2.5	2.4	2.5	2.7	2.6	2.5	2.8	2.8	2.8
Total Supply	**147.0**	**149.9**	**148.9**	**153.1**	**154.2**	**156.7**	**156.5**	**159.3**	**162.8**
Utilization									
Commercial Disappearance	135.6	136.6	135.4	139.0	139.3	142.1	145.3	149.9	152.7
Ending Commercial Stocks	4.6	4.3	4.1	5.1	4.5	4.7	4.6	4.3	4.5
DEIP	0.0	0.0	0.0	0.0	0.7	1.5	1.4	2.0	2.0
Net Removals (excluding DEIP)	6.8	9.1	9.4	9.0	9.7	8.4	5.3	3.1	3.6
Total Use	**147.0**	**149.9**	**148.9**	**153.1**	**154.2**	**156.7**	**156.5**	**159.3**	**162.8**

Source: Dairy Situation and Outlook, Milk Production, and Dairy Market News, U.S. Department of Agriculture. Note that total may not add exactly due to rounding.

* Leap year.
[a] Preliminary.
[b] Based on preliminary USDA data and Cornell estimates.
[c] Projected by Mark Stephenson & Andrew Novakovic.

The U.S. Dairy Situation and Outlook

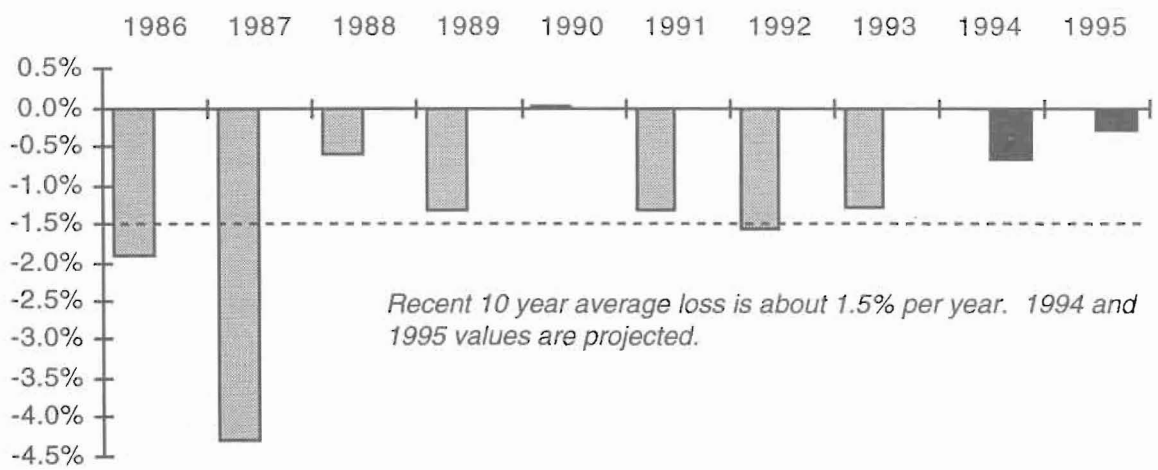
Milk Supplies

The national milk production story this year picks up where 1993 left off. The extremely wet summer and poor harvest in the Upper Midwest last year sent regional milk supplies into a tailspin. Wisconsin weather related losses of more than a billion pounds of milk in 1993 set the stage for substantial milk production increases in 1994. Excellent Spring forage growth and favorably cool weather spurred milk production in the Upper Midwest and elsewhere. During the spring flush there were isolated reports of milk dumping in several regions of the country as manufacturing plants, milk hauling and storage capacities were exceeded.

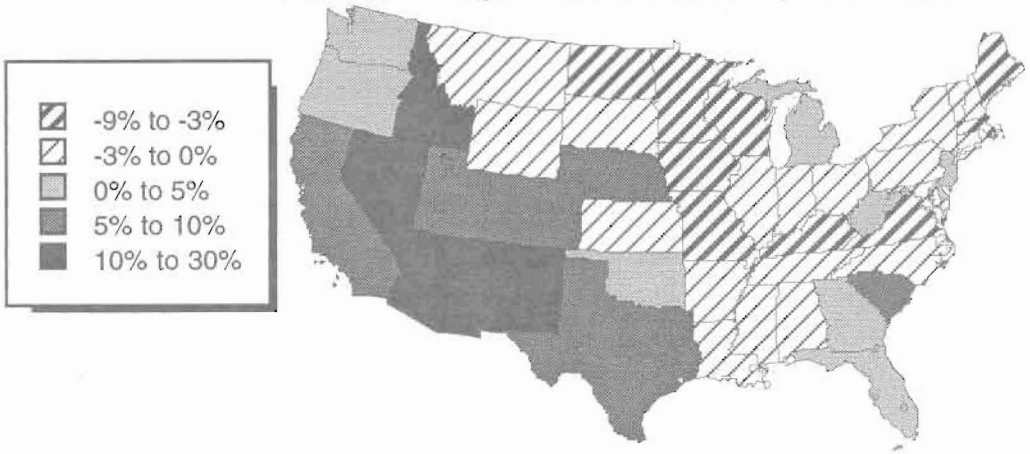
Milk production per cow is one factor in the larger milk supply. Increasing at a rate of 2.6%, or more than 400 pounds per cow, milk yields are well ahead of 1993's meager increase of 0.88% and better than the long–term trend of about 300 pounds per cow per year. Much of the increase is simply better feed but the use of rBST has certainly played a role. Approved for sale on February 2, dairy farmers have been quick to adopt this new technology. Early reports from sales of the product suggest that about 8% of the national herd (800,000 cows) were treated in the first six months of availability. It is likely that rBST use has added more than a billion pounds of milk to U.S. production this year.

Cow numbers are the other half of the equation for milk supplies. It has been unusual in recent years to see anything but losses in cow numbers. This summer, there were several months where cow numbers increased modestly and it looks as though the 1994 annual average number of cows will be a small loss over 1993. The ratio of heifers to cows has also been large in recent months. This is evidence of herd building on dairy farms and it is projected that 1995 will see an unusually small loss of cows from the national herd.

Annual Percent Change in Cow Numbers

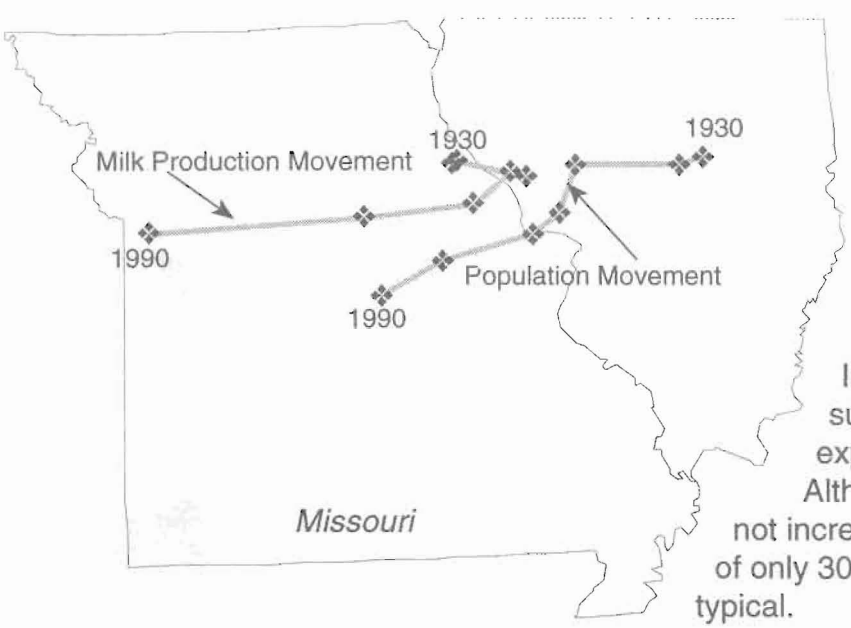


Percent Change in Milk Production, 1993–1994.



It is becoming widely appreciated that milk production increases in the west are not a short–term trend. California, the number one milk producing state, boasted gains of 8.5% over strong production increases a year earlier. Other significant dairy states with big gains in 1994 include Idaho with 14.6%, Texas with 6.4% and New Mexico with 27.9%. The map above shows projected changes in the milk supply at the state level. While many industry people question the magnitude of production increases in the west, the movement of milk has generally followed demographic trends. The graphic below shows the weighted average location of milk supplies over several decades and indicates that milk production has followed population changes with about a ten year lag.

As a group, the northeastern states did not deviate from trends of the past decade. Pennsylvania milk production is projected to be unchanged and Vermont is expected to loose about 2.8% of 1993's production with continued declines in most other New England states. Early reports indicated that New York was the state with the highest rBST use but NASS (National Ag Statistics Service) estimates show the number three dairy state with nearly offsetting increases in milk production per cow (+1.3%) and declining cow numbers (-1.5%) for a slight loss in milk production of about 0.1% for the year.



As we look ahead to 1995, milk supplies are likely to be the big story. Continued adoption of rBST will add more than 2 billion pounds of milk and plentiful supplies of high quality feed will provide the rest of the anticipated 3.8 billion pound increase. In response to large feed supplies, some farms are expected to milk more cows. Although total cow numbers will not increase, the projected decline of only 30,000 cows is smaller than typical.

Milk Utilization

Estimates of dairy product consumption are always difficult to come by. The most often used proxy from consumption is the commercial disappearance value. This residual calculation follows Table 1 and begins with milk production. Farm use is subtracted and beginning commercial stocks and imports are added to determine total supply. From total supply, ending commercial stocks, government removals from CCC sales and DEIP exports are subtracted to yield a number that we believe disappeared through commercial channels—a consumption estimate. The 1994 projection would be a 3.2% increase from 1993.

Some caution should be exercised in interpreting a commercial disappearance number of this size. First of all, it would represent a 2.8% increase in per capita consumption of dairy products over 1993 levels which is a nearly unprecedented annual growth. An increase of this magnitude would require a good explanation—a strong economy, low retail prices on dairy products, or effective advertising campaigns. All of those may be true, but an important and sometimes overlooked item is that the commercial disappearance calculation is reported on a milkfat basis. Consumers have responded to a lower butterfat prices with a 14% increase in butter purchases over year earlier levels, however butterfat is only one of milk's components and probably overstates a milk equivalent commercial disappearance. On a skim equivalent basis, commercial disappearance is up about 1.5%.

Butter has been the only significant commodity purchased by the CCC under the price support program in the past few years. This year, butter purchases have been light and in recent months sellbacks of butter into commercial channels are an indication that the 1993 change in "tilt" or ratio of butter to nonfat dry milk support price by the CCC has been effective. The outlook for consumption in 1995 is for a more modest increase in commercial disappearance. In part this is a reflection that butterfat consumption will stabilize at its current higher level.

Milk Prices

1994 milk prices were higher than most forecasters had anticipated a year ago. There may be several reasons for this such as a stronger demand than expected, but some of the explanation is found in the Class III–A price that was implemented in all Federal Orders in 1993. Much of the increased milk production that was forecast, and realized, in the West was presumed to be processed into cheese. Those additional cheese supplies would have been reflected in lower prices at the National Cheese Exchange and ultimately in the M–W price for milk. The III–A price is based on wholesale prices for nonfat dry milk and approximations of yield and manufacturing costs. For many powder makers there is a near guarantee of margin and this alone probably explains the 23% increase in nonfat manufacturing. Drawing this milk away from cheese manufacturers kept milk prices rising through spring to an April peak and provided a second peak in October. This is the second consecutive year for the "double peak" phenomenon.

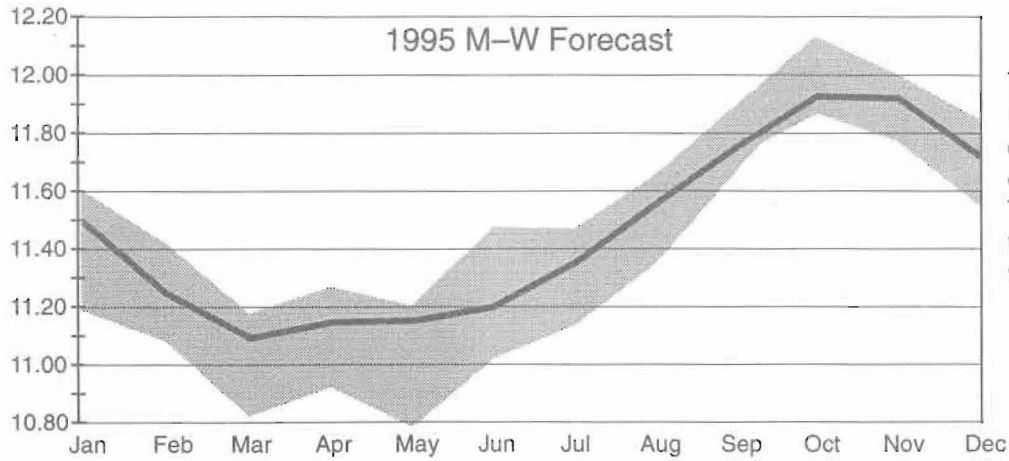
In a year when it was expected that prices would fall, 1994 posted a 23¢ increase in the M–W to $12.03. Table 2 shows that not all of the 23¢ gain was transmitted from the M–W to the all milk price (the all milk price rose 13¢). Again, part of this discrepancy can be explained by the Class III–A price which has averaged $1.82 less than the M–W. In some orders, such as the Pacific Northwest where a large portion of milk is used to manufacture butter and powder, federal order blend prices have been decreased by more than 40¢ per cwt. in some months.

Dairy Policy

USDA has issued a recommended decision on two Federal Order hearings—the long awaited M–W replacement and a replacement for the Class II price. The M–W replacement is a minor alteration using the same base month survey approach but updating the announced M–W with a product price formula. The USDA has demonstrated that there would only have been a 1¢ difference in price in 1993 if the recommended replacement had been used. A drawback to the new approach is that increased price volatility is a likely outcome. There is some evidence that dairy farmers react differently to prices on the way up than they do to downward price movements. This would mean that if the new M–W would have been in place during 1993, the difference would have been more than 1¢. In contrast, the recommended Class II price replacement should reduce the volatility in milk prices for soft product manufacturing. The new Class II price would be the second prior month's M–W plus 30¢. This would eliminate the "add–back" provision that has caused Class II price swings of as much as $1.94 from one month to the next (the M–W price swing was only $1.13).

Outlook

The bottom line for outlook is that increases in milk supplies will outstrip increases in commercial disappearance and that milk prices will fall an average of 50–60¢ per cwt in 1995. The chart below shows the average M–W price projections from about 30 forecasters from across the country. They represent people from a wide range of organizations including academia, government and industry.



The grey area represents a 95% confidence interval of the true average. The sample average forecast is shown by the black line.

Table 2. National Farm Prices for Milk; CCC Purchase, Wholesale, and Retail Prices for Cheddar Cheese, Butter, and Nonfat Dry Milk; and Selected Retail Price Indices, 1987–1994.

	1987	1988	1989	1990	1991	1992	1993[a]	1994[b]
Farm Milk ($/cwt.):								
All Milk (ave. fat)	12.54	12.26	13.56	13.74	12.27	13.15	12.86	12.99
M–W (3.5%)	11.23	11.03	12.37	12.21	11.05	11.88	11.80	12.03
Support (3.5%)	11.00	10.33	10.47	9.89	9.90	9.96	9.98	9.99
Milk Price: Concentrate Value	1.84	1.58	1.65	1.72	1.58	1.69	1.66	1.60
Assessment	0.19	0.03	0.00	0.01	0.05	0.13	0.15	0.17
Cheddar Cheese, Blocks ($/lb.):								
CCC Purchase	1.219	1.153	1.166	1.111	1.110	1.116	1.119	1.120
Wholesale, National Cheese Exchange	1.213	1.210	1.350	1.315	1.204	1.282	1.286	1.295
Butter ($/lb.):								
CCC Purchase, Grade A or higher, Chicago	1.373	1.320	1.263	1.017	0.983	0.807	0.708	0.650
Wholesale, Gr. A, Chicago Merc. Exchange	1.393	1.316	1.269	1.006	0.983	0.815	0.744	0.681
Retail, Grade AA, sticks (1 lb.)	2.170	2.158	2.133	1.992	1.935	1.830	1.659	1.651
Nonfat Dry Milk								
CCC Purchase, Unfortified ($/lb.)	0.783	0.728	0.774	0.831	0.850	0.948	1.002	1.034
Wholesale, Central States	0.793	0.802	1.055	1.066	0.942	1.092	1.120	1.081
Retail Price Indices (1992–84=100.0)								
Whole Milk	103.6	106.0	114.3	126.7	122.4	126.4	127.9	131.8
Cheese	105.9	109.2	117.6	131.2	132.8	135.5	135.3	136.3
All Dairy Products	105.9	108.3	115.6	126.5	125.1	128.5	129.4	131.9
All Food	113.5	118.2	125.1	132.4	136.3	137.9	140.9	143.4
All Consumer Prices	113.6	118.3	124.0	130.7	136.2	140.3	144.5	147.2

Source: Dairy Situation and Outlook, Dairy Market News, and Federal Milk Order Market Statistics, U.S. Department of Agriculture.
[a] Revised.
[b] Estimated by Mark Stephenson and Andrew Novakovic.

The Northeast Dairy Situation and Outlook

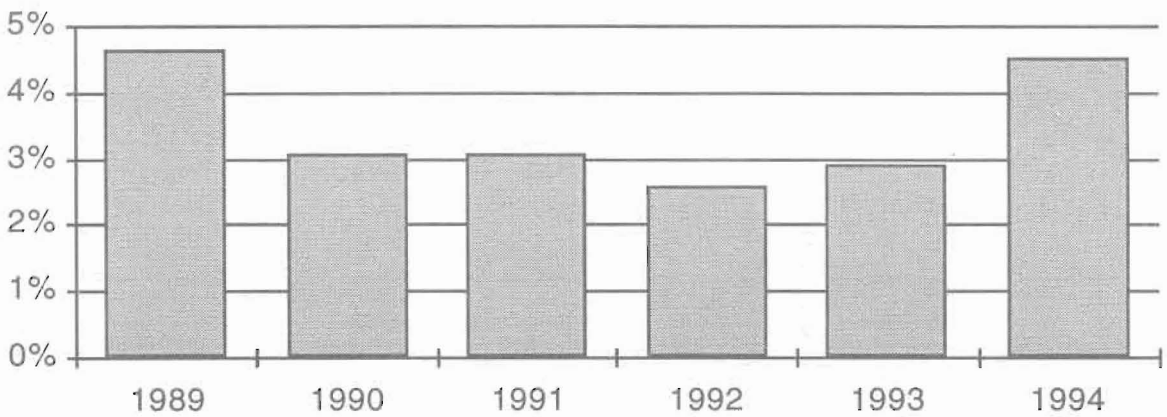
Number of Producers Delivering Milk
Northeast Federal and State Marketing Orders*
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
New York-New Jersey	13954	13570	13261	12730	12161	12046	11650
New England	5182	4934	4893	4795	4686	4456	4180
Middle Atlantic	6196	5741	5509	5458	5546	5396	5125
E. Ohio-W. Pennsylvania	5478	5175	4889	4685	4553	4357	4150
Western New York	997	919	853	838	822	705	642
Regional Total	31807	30339	29405	28506	27768	26960	25747

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
* Simple average for 12 months.
[a] Revised.
[b] Projected.

In the five federal and state orders shown above, farm loss has averaged 3.25% per year over the period from 1988–1993. In 1994, farm loss is projected to be somewhat higher than this average at 4.5%. The Western New York state order showed a higher percent loss of farms than other orders, but that may reflect more rapid restructuring in that region as indicated by a higher than average increase in milk marketed per farm.

Annual Percent Loss of Dairy Farms in Region



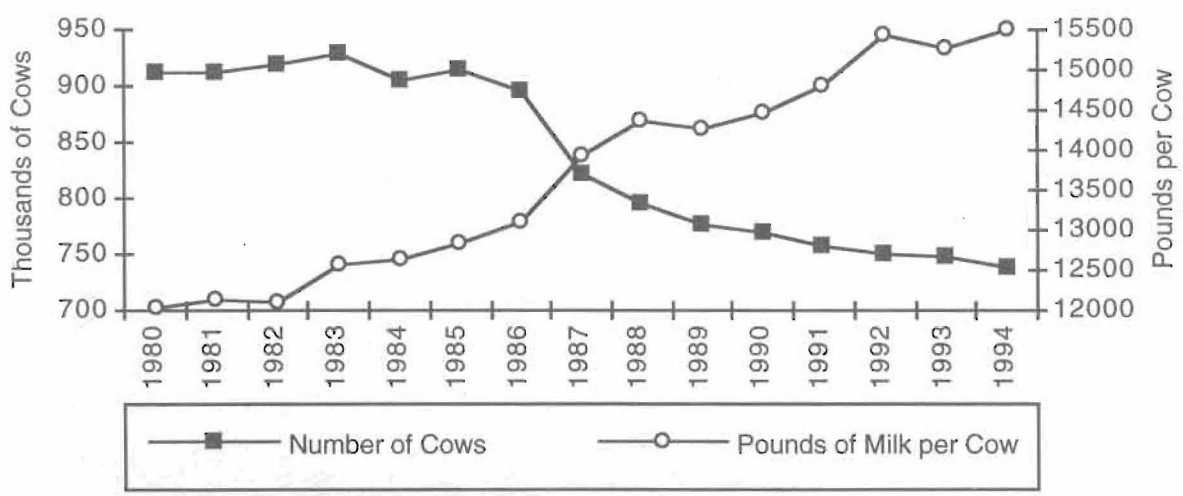
Receipts of Milk from Producers by Regulated Handlers, Million Pounds
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
				[million pounds]			
New York-New Jersey	11222	11096	11125	11075	11254	11452	11512
New England	5118	4975	5114	5309	5478	5345	5105
Middle Atlantic	6199	5908	5899	6222	6543	6381	6294
E. Ohio-W. Pennsylvania	3920	3687	3547	3517	3622	3546	3567
Western New York	1283	1207	1199	1228	1273	1117	1062
Regional Total	27742	26873	26884	27351	28170	27841	27540

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.

Milk production in the federal and state orders is projected to be little different in 1994 than it was six years ago in 1988. Comparing 1994 with 1993 finds the five order area with a 1% loss in milk marketed through the orders. These data corroborate fairly well with NASS data that anticipates a 0.6% decline in production in the northeastern states over the same time period. There is a small discrepancy between the order data and NASS numbers with regard to milk production in New York. The National Ag Statistics Service is projecting a modest loss in production while order data shows a modest increase. The NASS data shown below would indicate a fairly modest increase in production per cow in the state with the highest rBST use.

New York State



Producer Milk Used in Class I by Regulated Handlers, Million Pounds
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
			[million pounds]				
New York-New Jersey	4607	4587	4487	4477	4434	4604	4762
New England	2815	2811	2810	2746	2686	2626	2521
Middle Atlantic	3084	3109	3131	3155	3143	2877	2855
E. Ohio-W. Pennsylvania	2052	2033	1927	1872	1866	1820	1791
Western New York	495	513	501	492	472	452	435
Regional Total	13053	13053	12856	12742	12601	12379	12364

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.

Per capita sales of fluid milk have been declining for several years but until recently, population growth has been adequate to maintain total sales. A decline in total volume of fluid milk sales spurred processors to fund a promotion program to increase consumption. In 1994, sales were up even though the campaign was not yet started. The increase in the Northeast is partly explained by brisk sales of milk prior to the many winter storms last season. This can be seen in the Class I utilization numbers below.

Percent Class I Utilization by Regulated Handlers
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
New York-New Jersey	41	41	40	40	39	40	41
New England	55	57	55	52	49	49	49
Middle Atlantic	50	53	53	51	48	45	45
E. Ohio-W. Pennsylvania	52	55	54	53	52	51	50
Western New York	39	43	42	40	37	40	41
Regional Average	47.1	48.6	47.8	46.6	44.7	44.5	44.9

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.

Minimum Class I Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
				[$/cwt.]			
New York-New Jersey[1]	13.41	14.49	15.52	13.16	14.41	14.04	14.59
New England[2]	13.38	14.46	15.49	13.23	14.51	14.14	14.69
Middle Atlantic[3]	13.89	14.97	16.00	13.74	15.02	14.65	15.20
E. Ohio-W. Pennsylvania[3]	12.86	13.94	14.97	12.71	14.00	13.62	14.17
Western New York[3]	13.45	14.24	15.27	13.00	14.29	13.92	14.47

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.
[1] 201–210 mile zone.
[2] 21st zone.
[3] Priced at major city in the marketing area.

In 1993, Class III–A was introduced for milk used in manufacturing nonfat dry milk. For this reason, the 1994 values shown in the table below differ from one another according to the amount of Class III–A product pooled on an order. In the Northeast, III–A has pulled the weighted average manufacturing price down by as much as 67¢ in 1994 in some orders.

Minimum Manufacturing Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a, c]	1994[b, c]
				[$/cwt.]			
New York-New Jersey[1]	11.03	12.37	12.21	11.06[4]	11.88	11.80	11.95
New England[2]	11.03	12.37	12.21	11.06[4]	11.88	11.80	11.49
Middle Atlantic[3]	11.05	12.39	12.23	11.08[4]	11.90	11.51	11.36
E. Ohio-W. Pennsylvania[3]	11.03	12.37	12.21	11.06	11.88	11.80	12.03
Western New York[3]	10.98	12.32	12.16	11.01	11.83	11.75	11.60

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.
[c] Weighted average blend of Class III and Class III–A prices.
[1] 201–210 mile zone.
[2] 21st zone.
[3] Priced at major city in the marketing area.
[4] Class II price prior to April 1, 1991, Class III price effective April 1, 1991.

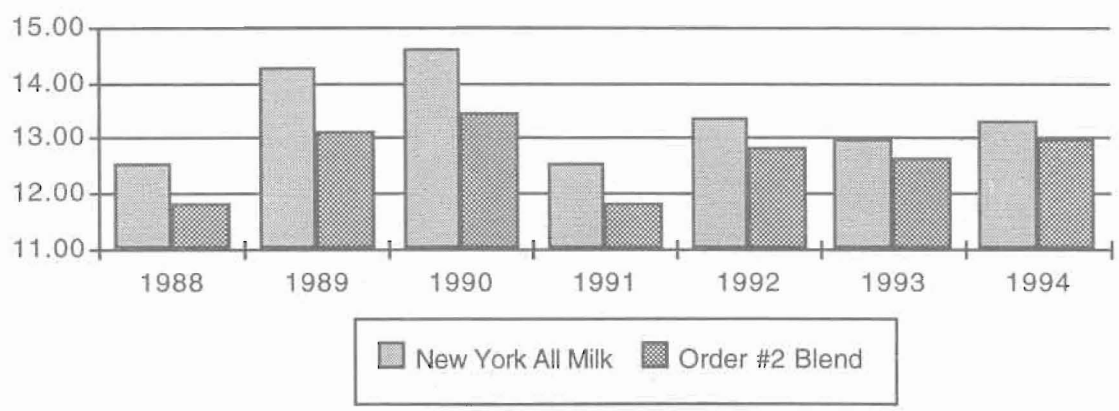
Minimum Blend Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1988–1994

Markets	1988	1989	1990	1991	1992	1993[a]	1994[b]
				[$/cwt.]			
New York-New Jersey[1]	11.83	13.10	13.44	11.79	12.81	12.61	12.99
New England[2]	12.20	13.45	13.95	12.07	13.08	12.79	13.12
Middle Atlantic[3]	12.44	13.75	14.27	12.45	13.49	13.11	13.38
E. Ohio-W. Pennsylvania[3]	11.97	13.24	13.84	11.95	13.01	12.78	13.14
Western New York[3]	11.94	13.04	13.46	11.77	12.69	12.58	12.91
Regional Average	12.08	13.32	13.79	12.01	13.02	12.77	13.11

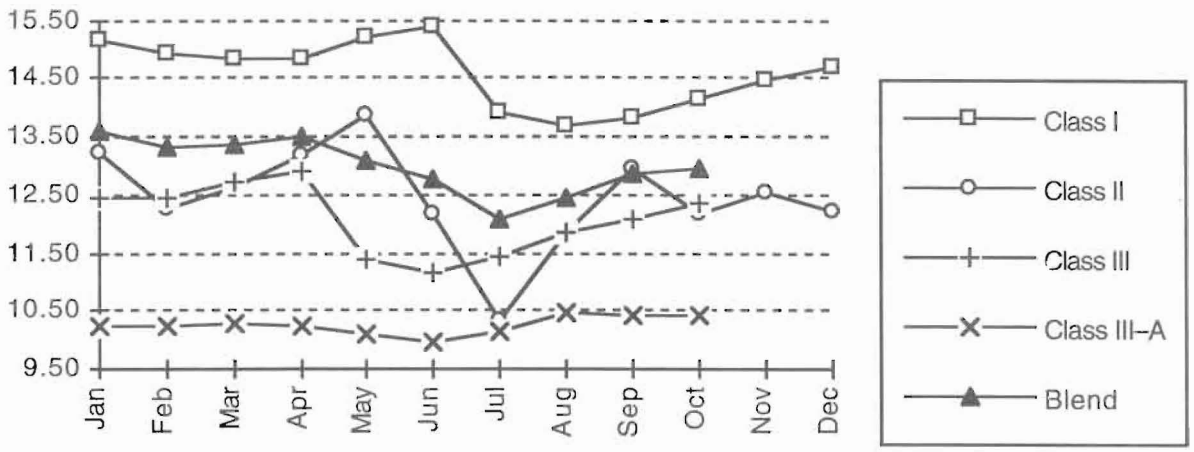
Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.
[a] Revised.
[b] Projected.
[1] 201–210 mile zone.
[2] 21st zone.
[3] Priced at major city in the marketing area.

As seen in the chart below, the all–milk price has moved closer to the blend price in the New York–New Jersey order over the past few years. This is largely because of the erosion of premiums being paid to producers. For any individual farm, the difference between their 1993 or 1994 pay price and the Order 2 blend price is a good increment to use to project 1995 farm prices. I am estimating milk prices to be about 55–60¢ per cwt lower in 1995 from 1994 levels.

Milk Prices

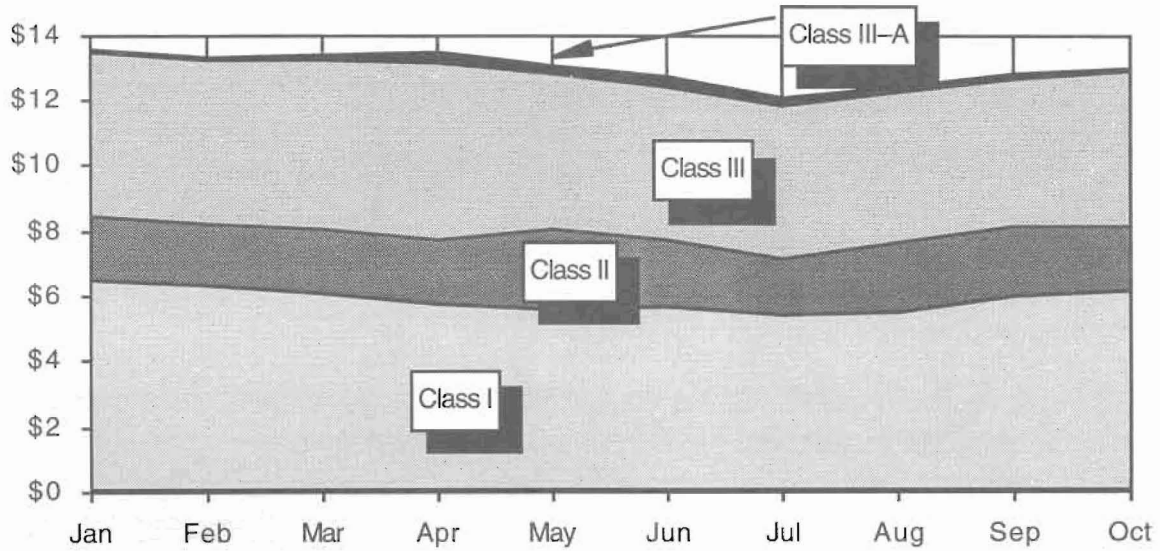


1994 New York–New Jersey Class Prices
3.5% milk fat, 201–210 mile zone



As shown in the chart above, prices such as Class II can be very volatile, or rather low as in the III–A price. However, the impact on farm prices depends on the level of usage in the order. The chart below shows that Class I, or fluid milk, and Class III, predominantly milk used for cheese, have the largest impacts on blend prices in the New York–New Jersey order.

1994 New York–New Jersey Milk Price
Class Contribution to Blend
3.5% milk fat, 201–210 mile zone



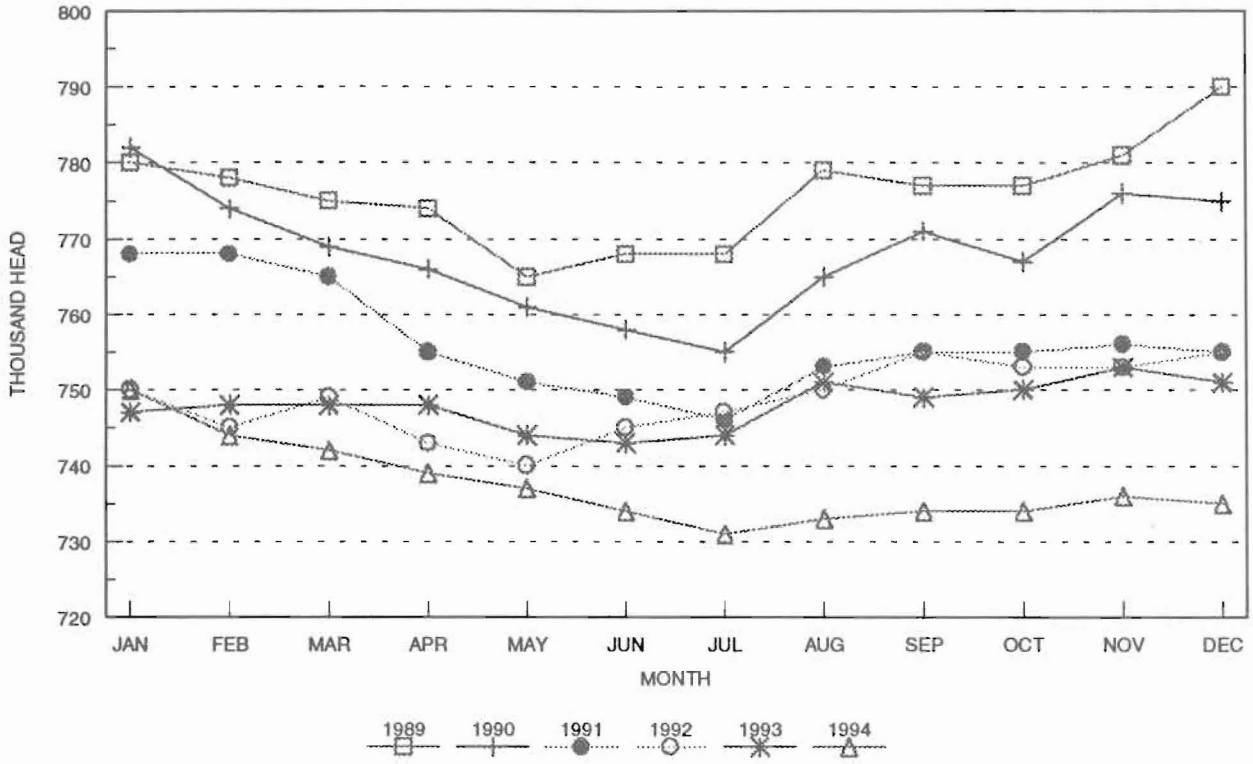
MILK PRICE PROJECTIONS*
New York-New Jersey Blend Price, 3.5 Percent, 201-210 Mile Zone
Last Quarter 1993 – 1994

Month	1993	1994	Difference
	(dollars per hundredweight)		
October	12.83	12.97[a]	0.14
November	13.44	13.20[a]	-0.24
December	13.48	12.87[a]	-0.61
Fourth Quarter Average	13.25	13.01	-0.24
Annual Average	***12.61***	***13.00***	***0.39***

Month	1994	1995[a]	Difference
	(dollars per hundredweight)		
January	13.58	12.95	-0.63
February	13.33	12.54	-0.79
March	13.39	12.14	-1.25
First Quarter Average	13.43	12.54	-0.89
April	13.50	12.09	-1.41
May	13.08	12.04	-1.04
June	12.76	12.01	-0.75
Second Quarter Average	13.11	12.05	-1.07
July	12.07	12.11	0.04
August	12.44	12.29	-0.15
September	12.85	12.57	-0.28
Third Quarter Average	12.45	12.32	-0.13
October	12.97	12.84	-0.13
November	13.20[a]	12.91	-0.29
December	12.87[a]	12.74	-0.13
Fourth Quarter Average	13.01	12.83	-0.18
Annual Average	***13.00***[a]	***12.44***[a]	***-0.57***

* Totals May not add due to rounding.
[a] Projected.

MILK COWS ON NEW YORK FARMS, MONTHLY, 1989-1994



November-December 1994 estimated

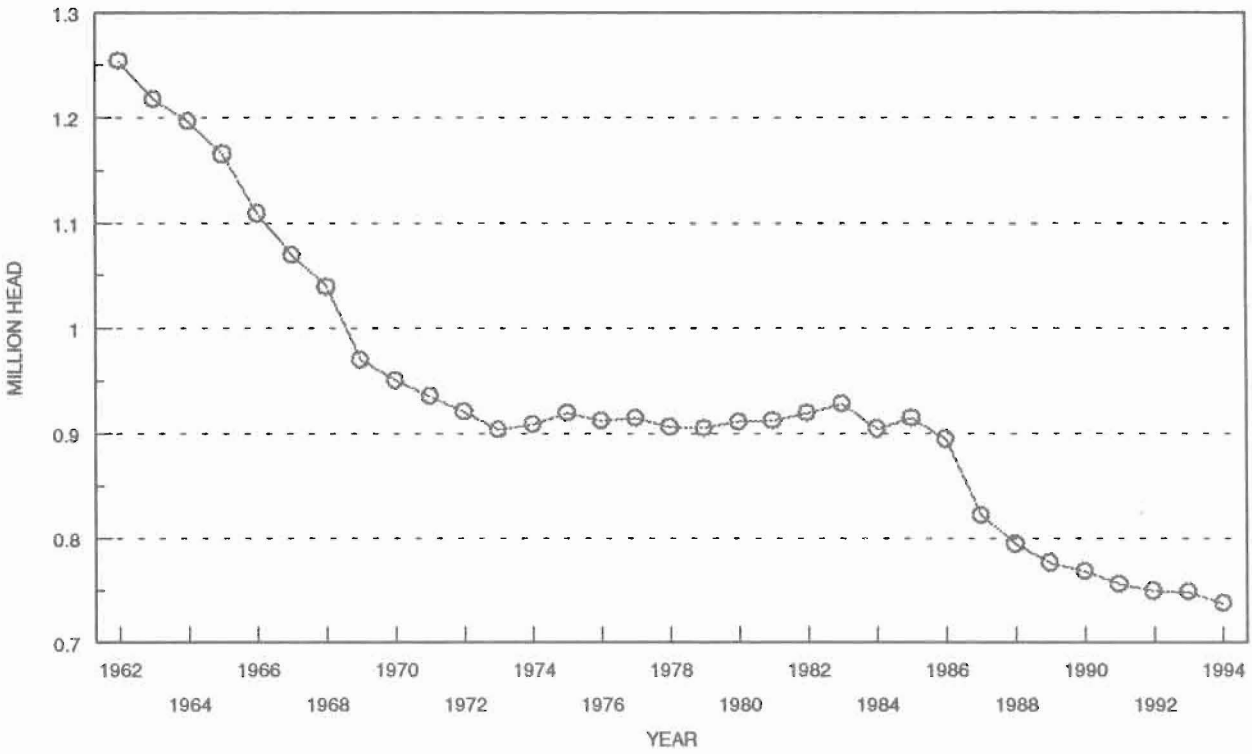
SOURCE: New York Agricultural Statistics.

During 1994, monthly cow numbers have been below the entire period from 1985 through 1993 except for January. Monthly cow numbers in New York increased during 1985, followed by a steady decline that began in January 1986 and continued uninterrupted through June 1987. Cow numbers stabilized the second half of 1987, declined through 1988 and stabilized again in 1989. In July 1994, the number of cows totaled 731,000, which was the lowest number for any month in New York since monthly records began in 1930. The number of cows in the State is projected to be stable through the remainder of the year.

The U.S. quarterly milk cow numbers have increased in the first three quarters of 1994 compared to 1993. In the third quarter of 1994, the number of cows in the U.S. averaged 9,656,000. That is 19,000 head less than a year earlier. The Northeast[1] comprised 18.6 percent of total U.S. milk cows or 1,794,200 head in the third quarter of 1994. This is 23,000 head less than a year earlier. The Northeast contributed to the 1993 to 1994 third quarter U.S. decrease in cow numbers of 0.2 percent.

[1]Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

NUMBER OF MILK COWS, NEW YORK, 1962-1994



SOURCE: New York Agricultural Statistics.

The average number of milk cows on New York farms for 1994 is estimated at 737,000 head, which is down 11,000 head from 1993. The projected average number of cows for 1995 is 730,000, or down 0.9 percent from 1994.

Heifers on New York farms as a percent of cow numbers on January 1, 1994 decreased 0.9 percentage points from 1993, to 42.0 percent. Even though they decreased to 315,000 head, milk cow replacement heifers were a larger percent of the total New York herd than they were since 1985.

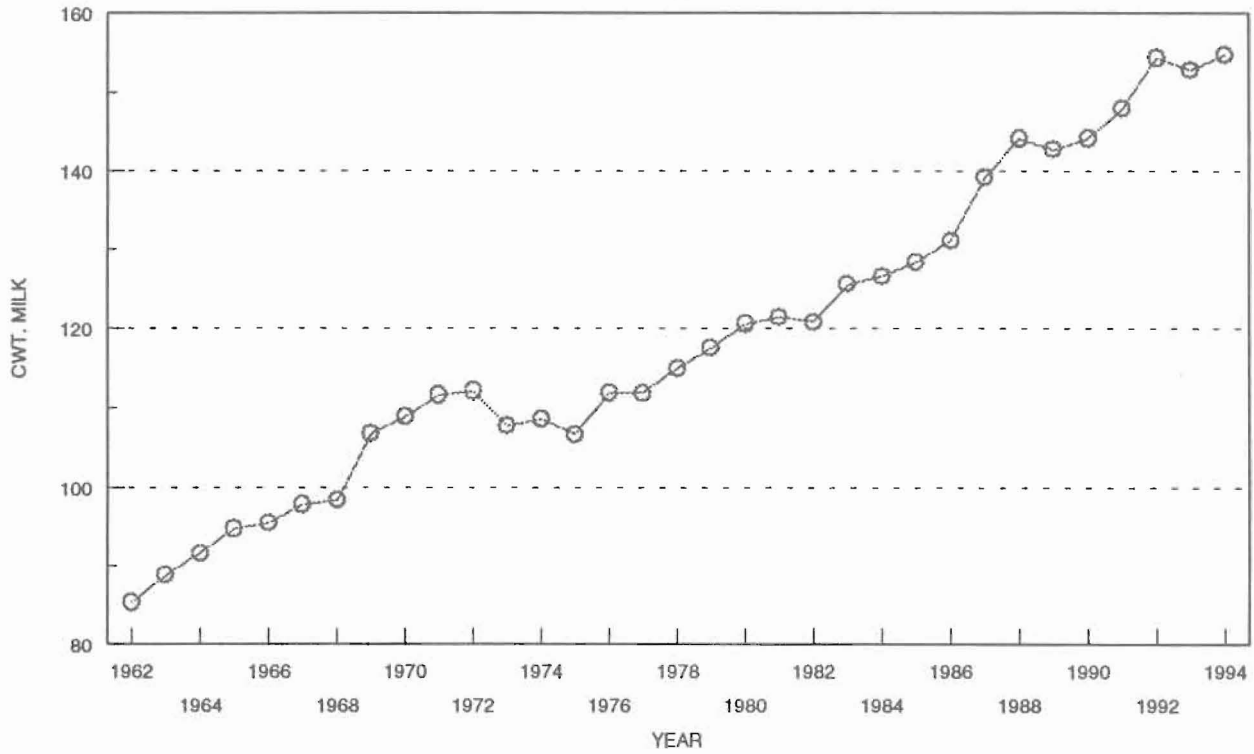
Heifers on U.S. farms as a percent of cow numbers was 43.6 percent in January 1994, a 0.7 percentage point increase from 1993. July 1994 U.S. heifers as a percent of cow numbers was 42.7 percent, 0.9 percentage points above July 1993.

Year	New York Milk Cows, Annual Average	New York Milk Cows, January	New York Heifers, January	Heifers as Percent of Cow Numbers
	thousand head			percent
1984	904	925	420	45.4
1985	914	910	425	46.7
1986	894	925	388	41.9
1987	822	855	355	41.5
1988	794	816	290	35.5
1989	776	780	302	38.7
1990	768	790	319	40.4
1991	756	775	322	41.5
1992	749	755	312	41.3
1993	748	755	324	42.9
1994[1]	737	750	315	42.0
1995[2]	730	735		

[1]Preliminary [2]Projected

SOURCE: New York Agricultural Statistics

MILK PRODUCTION PER COW, NEW YORK, 1962-1994



SOURCE: New York Agricultural Statistics.

Pounds of milk produced per cow in 1993 was down 1.0 percent from 1992. Milk per cow is expected to average 15,475 pounds in 1994, an increase of 1.3 percent, from 1993. This can be attributed to such factors as higher quality forage and BST usage. Milk production per cow has increased steadily since 1960 with the exception of 1973 and 1974, and small declines in 1982, 1989, and 1993.

Milk production per cow is projected to increase by 2.4 percent in 1995 to 15,850 pounds. Ample supply of good quality feed and continued improvement in management are major factors.

Year	N.Y. Milk Production Per Cow	Mixed Dairy Feed 16% Protein[1]	New York Milk-Feed Price Ratio[1]	New York All Hay, Baled[2]	U.S. Milk Production Per Cow
	pounds	$/ton		$/ton	pounds
1984	12,658	194	1.37	81.50	12,503
1985	12,836	164	1.59	75.50	12,994
1986	13,107	163	1.56	70.50	13,260
1987	13,916	153	1.68	72.00	13,819
1988	14,413	181	1.39	75.50	14,145
1989	14,267	189	1.50	75.50	14,244
1990	14,410	177	1.68	77.00	14,642
1991	14,787	172	1.47	77.50	14,860
1992[3]	15,430	174	1.56	88.00	15,419
1993[3]	15,274	171	1.51	87.00	15,554
1994[4]	15,475	--	1.45	90.00	15,940
1995[5]	15,850	--	--	--	--

[1]1983-1985 is New York, 1986-1994 is Northeast. [2]Season average, June through May. [3]Revised [4]Preliminary [5]Projected

TOTAL MILK PRODUCTION, NEW YORK, 1962-1994

SOURCE: New York Agricultural Statistics.

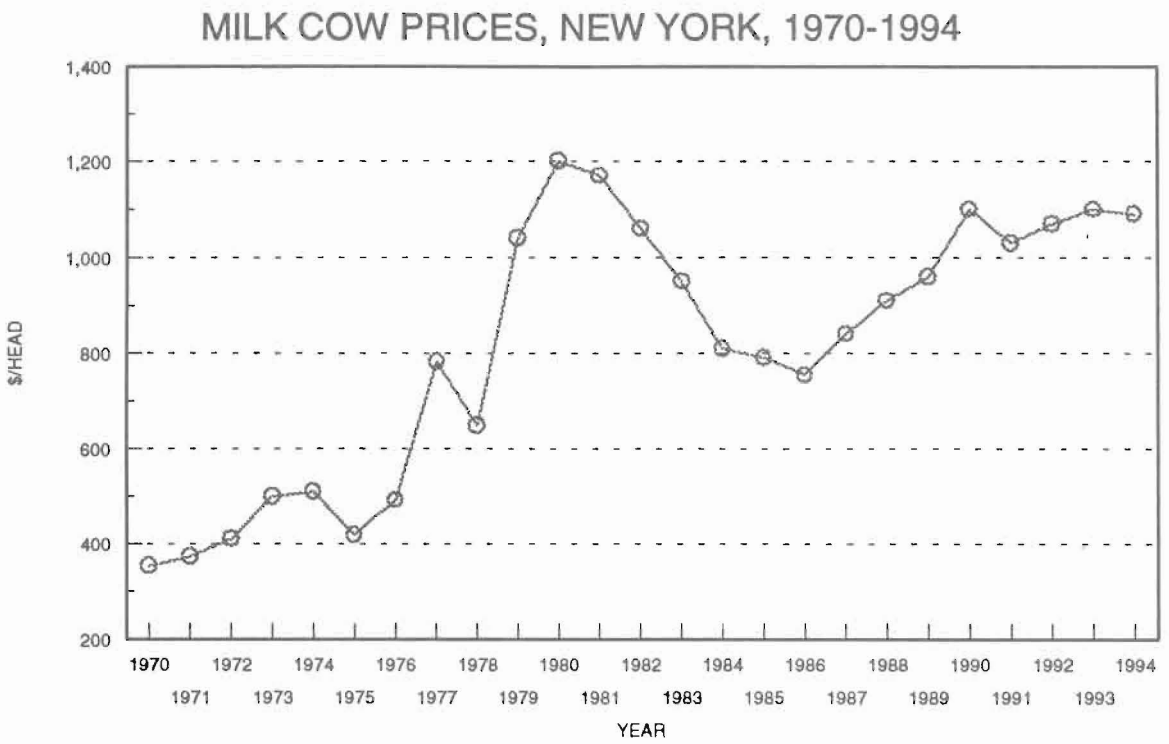
Total New York milk production in 1994 is estimated at 11,405 million pounds, down 0.2 percent from 1993. This decrease is due to the 1.5 percent decrease in cow numbers and 1.3 percent increase in production per cow.

Total milk production is projected to increase 1.5 percent in 1995 to 11,571 million pounds. This is a result of the factors discussed on the previous two pages in regard to cow numbers and production per cow.

United States total milk production was 150,954 million pounds in 1993. It is estimated that 1994 production will be about 154,000 million pounds.

Year	Total Milk Prod. New York	Total Milk Prod. U.S.	NY as % of U.S.	Year	Total Milk Prod. New York	Total Milk Prod. U.S.	NY as % of U.S.
	million pounds				million pounds		
1984	11,443	135,351	8.5	1990	11,067	148,313	7.5
1985	11,732	143,012	8.2	1991	11,179	148,477	7.5
1986	11,718	143,124	8.2	1992[1]	11,557	151,647	7.6
1987	11,439	142,709	8.0	1993[1]	11,425	150,954	7.6
1988	11,444	145,152	7.9	1994[2]	11,405	154,000	7.4
1989	11,071	144,239	7.7	1995[3]	11,571		

[1]Revised [2]Preliminary [3]Projected

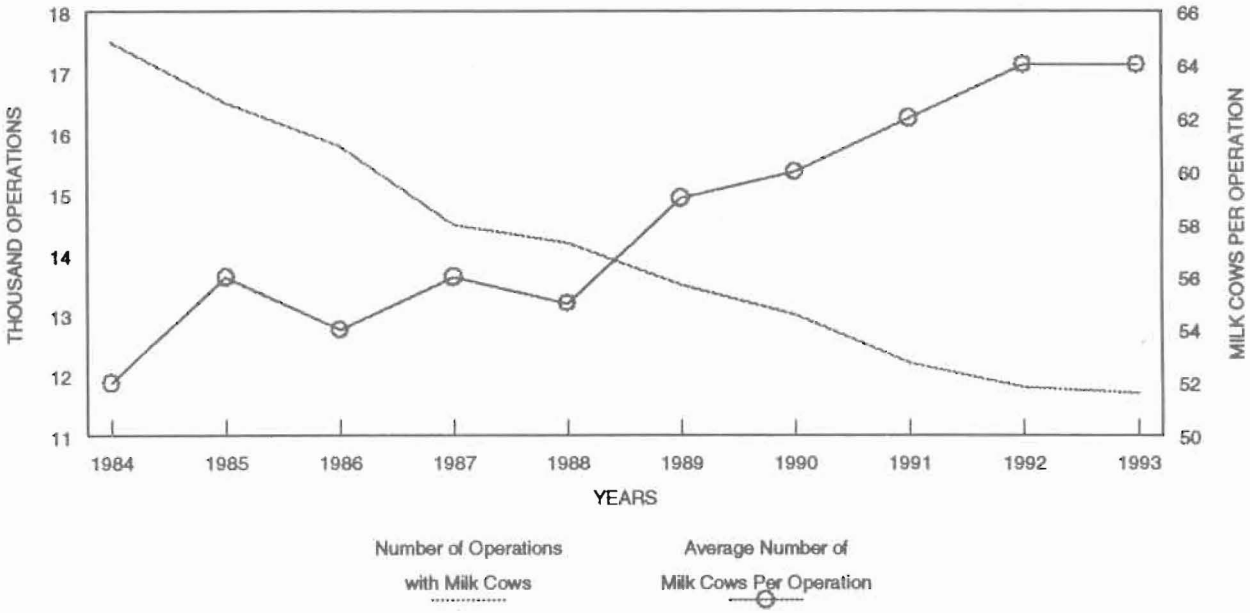


SOURCE: New York Agricultural Statistics.

Milk cow prices increased the first three quarters of 1993 to $1,110 in September. In 1994, milk cow prices fluctuated the first two quarters and fell to $1,080 per head in September. Monthly prices for milk cows averaged $1 a head lower than a year earlier. Slaughter cow prices averaged $3.61 per hundredweight lower than a year earlier. Calf prices averaged about $13.53 per hundredweight lower in 1994 compared to 1993.

	Milk Cows, $/Head		Slaughter Cows, $/Cwt		Calves, $/Cwt	
Month	1993	1994	1993	1994	1993	1994
January	$1,080	$1,100	$45.20	$44.40	$106.00	$105.00
February	1,080	1,100	47.40	45.20	112.00	106.00
March	1,090	1,090	44.90	44.20	97.30	96.00
April	1,090	1,090	43.70	43.30	100.00	99.00
May	1,090	1,110	48.10	42.70	121.00	112.00
June	1,090	1,110	47.50	40.90	133.00	112.00
July	1,100	1,090	46.70	40.40	114.00	85.00
August	1,100	1,090	45.00	40.10	113.00	87.00
September	1,110	1,080	43.70	39.70	114.00	88.00
October	1,110	1,080	43.20	38.40	105.00	90.00
November	1,090		42.00		99.00	
December	1,100		42.70		108.00	

NUMBER OF OPERATIONS WITH MILK COWS AND AVERAGE NUMBER OF MILK COWS PER OPERATION, NEW YORK, 1984-1993



SOURCE: NYASS, New York Agricultural Statistics, 1993-1994

As the number of milk cow operations decreases, the average number of milk cows per operation increases as shown by the above chart. There were 5,800 less milk cow operations in 1993 than there were in 1984. The average number of milk cows per operation has increased by 12 cows, or 23 percent over the same period. On January 1, 1994, 39 percent of the total milk cows were in herds with 50-99 head, 44 percent were in herds with over 100 milk cows, and 17 percent were in herds with less than 50 head.

MILK COW OPERATIONS: BY HERD SIZE, 1984-1993
Number of Milk Cows in Herd

Year	1-29	30-49	50-99	100-199 1/	200 plus	Total
	number of operations					
1984	5,400	4,900	5,350	1,850		17,500
1985	5,000	4,550	5,100	1,850		16,500
1986	4,300	4,300	5,300	1,900		15,800
1987	3,300	4,300	5,000	1,900		14,500
1988	3,200	3,850	5,300	1,850		14,200
1989	2,700	3,400	5,400	2,000		13,500
1990	2,650	3,150	5,300	1,900		13,000
1991	2,500	2,900	5,000	1,800		12,200
1992	2,600	2,600	4,700	1,900		11,800
1993	2,600	2,600	4,600	1,500	400	11,700

MILK COWS JANUARY 1: INVENTORY BY HERD SIZE, 1985-1994
Number of Milk Cows in Herd

Year	1-29	30-49	50-99	100-199 1/	200 plus	Total
	thousand head					
1985	56	203	369	282		910
1986	57	196	371	301		925
1987	42	168	355	290		855
1988	32	171	332	281		816
1989	30	144	335	271		780
1990	30	126	334	300		790
1991	28	120	330	297		775
1992	25	113	320	297		755
1993	28	100	310	317		755
1994	26	101	293	195	135	750

1/100 plus category prior to 1993.

INDEX OF PRICES PAID BY NEW YORK DAIRY FARMERS
(1977=100)

Item	Weight	1989	1990	1991	1992	1993	1994[1]	1995[2]
Feed	.31	139	128	126	127	127	134	126
Purchased animals	.03	198	227	214	222	227	226	226
Fuel & energy	.05	193	220	222	221	227	224	230
Fertilizer	.05	144	140	145	139	135	140	148
Seed	.02	181	184	187	186	191	193	195
Machinery	.18	208	217	227	237	247	260	265
Building & fencing supplies	.08	141	144	146	150	157	165	173
Farm services & rent	.08	158	166	172	172	172	175	177
Agricultural chemicals	.01	132	139	150	159	165	168	172
Interest rates	.07	141	135	125	101	94	96	110
Farm wage rates	.09	221	235	250	247	264	284	300
Property taxes	.03	186	190	190	194	199	199	200
Prices Paid, Not Including Assessment		168	170	172	173	177	184	187

[1]Preliminary [2]Projected

SOURCE: New York Agricultural Statistics Service

The preliminary 1994 index of prices paid by New York dairy farmers is 184, a 4.0 percent increase from the 1993 index of 177. The increase in the index is the largest in the past five years. All component items in the index increased in 1994, except purchased animals, and fuel and engery. Farm wage rates showed the largest increase at 7.6 percent, followed by feed with a 5.5 percent increase, and machinery with a 5.3 percent increase. The property tax component stayed the same.

The 1995 index of prices paid is projected to average 187, up only 3 index points due to the decrease in feed prices. All other categories are expected to increase. Feed prices are expected to decrease as a result of this year's large crop of corn and soybeans. Purchased animals will change in price very little as feed prices will decrease a greater percentage than milk prices and cull cow prices will be stable to only slightly lower. Fertilizer prices, especially nitrogen, will be higher in 1995. Seed prices should not change in 1995 as a result of reduced demand from a 7.5 percent set aside program. Interest rates are projected to show the greatest increase, especially for short term loans.

KEY ISSUES IN THE DECISION TO EXPAND

The decision to expand is an important step in the life cycle of a farm business. It is a decision that warrants careful physical facility, production, personnel and financial evaluation and planning.

All farms are not capable of growth. For growth to be successfull, the following must exist:

1. The farm must have a record of profitability or the potential to be profitable in the short run.

2. A minimum starting size or base upon which to grow.

3. Underutilized resources, especially:
   A. Operator Management
   B. Operator Labor
   C. Land
   D. Machinery
   E. Buildings

4. Additional resources must be available, Capital, Land, Labor and Management.

Note: If all resources required must be purchased, it is much more difficult (if not impossible) to attain growth.

Key Issues

In most successful expansions, the following issues were resolved prior to the expansion:

1. Know what is to be accomplished, why it is important, and the resources and sacrifices required to attain farm and family goals. In other words, a vision and a plan.

2. Have family support and encouragement.

3. Human resources are key to any business success, but especially during the stress of an expansion and operation of a larger business. From general manager to milker and machinery maintenance worker, all must be trained, motivated and team players.

4. Have a manager of the ongoing operation as well as the construction of the new facility.

5. Are you an excellent manager of time and resources? Expansion will not be successful with low quantity or quality of management input.

6. Become a business manager, not a laborer. For example, keep production and financial records to monitor and control the business.

7. Have a willingness to spend more time managing employees and less time doing independent work.

8. Will you take on a "compatible" partner?

9. Can you be a competitive producer?

10. Do you have a site for the new facility?

11. Will necessary support services exist in your area in the future?

12. Have contingency plans. If this happens, this will be my management response.

13. Acknowledge the increased risk and have a management plan for production and financial risk.

14. Identify key costs to control.

15. Keep the initial investment low.

16. Have an environmental impact plan, or how will you control odor and runoff.

17. Have a supply of high quality forage.

18. Have a replacement plan for resources.

19. Technical change is occurring rapidly, don't ride a dead horse too long!

20. Know how to enjoy success!

Conclusion

Managers of successful expansions know why they are expanding, know critical costs to control, obtain good rates of production and have contingency plans or develop plans quickly when problems arise.

The information on the following pages documents the progress of New York dairy farm businesses that participated in the Cornell Dairy Farm Business Summary Program. The information is also reported by size of business. This information is useful for those who are evaluating their existing business and for those who are considering expansion. For those who are considering expansion, the herd size category most closely associated with the size they wish to attain should provide useful information on expected costs and refunds. A large herd business summary is being compiled and will be printed in the near future[1/]. This will contain information on herds with more than 300 cows.

1/ Karszes, Jason, Stuart F. Smith, and Linda D. Putnam, Dairy Farm Business Summary, New York Large Herd Farms, 300 Cows or Larger, 1993, Department of Agricultural, Resource, and Managerial Economics, E.B. 94-24, November 1994.

COMPARISON OF FARM BUSINESS SUMMARY DATA
Same 70 New York Dairy Farms, 1984 - 1993

Selected Factors	1984*	1985	1986	1987
Milk receipts per cwt. milk	$13.34	$12.80	$12.60	$12.76
Size of Business				
Average number of cows	110	117	124	132
Average number of heifers	96	98	100	102
Milk sold, cwt.	18,008	19,499	20,892	22,537
Worker equivalent	3.40	3.51	3.58	3.64
Total tillable acres	322	343	350	352
Rates of Production				
Milk sold per cow, lbs.	16,422	16,733	16,800	17,126
Hay DM per acre, tons	3.0	2.9	2.9	2.9
Corn silage per acre, tons	14.7	15.2	14.9	16.6
Labor Efficiency				
Cows per worker	32	33	35	36
Milk sold per worker, lbs.	529,102	555,199	584,326	619,019
Cost Control				
Grain & concentrate purchased as % of milk sales	23%	20%	23%	23%
Dairy feed & crop expense per cwt. milk	$ 4.05	$ 3.84	$ 3.88	$ 4.01
Oper. cost of producing cwt. milk	$ 9.55	$ 8.98	$ 9.12	$ 8.63
Total cost of producing cwt. milk	$13.89	$13.14	$13.16	$12.50
Hired labor cost per cwt.	$ 1.53	$ 1.45	$ 1.47	$ 1.62
Interest paid per cwt.	$ 1.30	$ 1.24	$ 1.07	$ 0.95
Labor & machinery costs per cow	$ 828	$ 805	$ 777	$ 812
Capital Efficiency				
Farm capital per cow	$6,051	$5,825	$5,669	$5,749
Machinery & equipment per cow	$1,173	$1,116	$1,065	$1,062
Real estate per cow	$2,759	$2,681	$2,616	$2,634
Livestock investment per cow	$1,291	$1,222	$1,157	$1,184
Asset turnover ratio	0.41	0.43	0.45	0.49
Profitability				
Net farm income w/o apprec.	$37,014	$41,556	$38,782	$59,359
Net farm income w/apprec.	$34,131	$39,155	$54,430	$90,715
Labor & management income per operator/manager	$10,439	$13,499	$10,783	$24,776
Rate return on:				
Equity capital w/apprec.	2.0%	2.9%	5.9%	12.6%
All capital w/apprec.	4.7%	5.4%	6.9%	11.0%
All capital w/o apprec.	5.1%	5.8%	4.7%	6.8%
Financial Summary, End Year				
Farm net worth	$428,020	$437,660	$461,231	$517,955
Change in net worth w/apprec.	N/A	$ 8,678	$ 23,793	$ 58,715
Debt to asset ratio	0.37	0.36	0.36	0.34
Farm debt per cow	$ 2,230	$ 2,019	$ 2,042	$ 1,990

*Cash accounting, with adjustments for inventory changes, was used.

(continued)

COMPARISON OF FARM BUSINESS SUMMARY DATA
Same 70 New York Dairy Farms, 1984 - 1993

1988	1989	1990	1991	1992	1993
$13.17	$14.57	$14.94	$13.03	$13.57	$13.15
137	145	150	157	174	191
109	112	120	130	133	141
24,322	26,573	27,705	29,376	33,581	36,837
3.79	4.02	4.20	4.41	4.64	4.92
362	371	416	423	431	445
17,698	18,280	18,428	18,673	19,271	19,266
2.8	2.7	2.9	2.8	3.1	3.0
13.9	12.9	14.1	14.2	15.2	15.6
36	36	36	36	37	39
641,207	661,614	660,207	665,789	723,583	748,195
27%	26%	26%	28%	27%	28%
$ 4.48	$ 4.70	$ 5.02	$ 4.55	$ 4.47	$ 4.37
$ 9.11	$ 9.99	$10.82	$10.20	$10.31	$10.11
$12.79	$13.73	$14.68	$13.99	$13.73	$13.46
$ 1.68	$ 1.95	$ 2.18	$ 2.23	$ 2.25	$ 2.29
$ 0.95	$ 0.94	$ 0.96	$ 1.05	$ 0.84	$ 0.82
$ 826	$ 908	$1,034	$1,004	$1,000	$ 997
$5,964	$6,097	$6,444	$6,671	$6,420	$6,267
$1,089	$1,149	$1,227	$1,269	$1,189	$1,152
$2,696	$2,689	$2,866	$3,042	$2,941	$2,856
$1,246	$1,290	$1,352	$1,387	$1,373	$1,370
0.49	0.53	0.51	0.46	0.50	0.49
$66,081	$ 85,185	$76,517	$42,019	$68,552	$65,432
$85,626	$116,050	$91,744	$63,344	$93,659	$83,239
$27,917	$39,006	$29,344	$4,019	$21,764	$17,581
10.3%	13.8%	8.5%	4.0%	7.8%	5.8%
9.6%	12.2%	8.4%	5.5%	7.4%	6.2%
7.2%	8.7%	6.9%	3.5%	5.2%	4.7%
$561,195	$637,313	$664,406	$679,115	$729,900	$767,008
$ 45,784	$ 70,140	$ 26,425	$ 7,773	$ 45,016	$ 30,913
0.34	0.31	0.35	0.37	0.37	0.38
$ 2,041	$ 1,879	$ 2,305	$ 2,324	$ 2,324	$ 2,309

TEN YEAR COMPARISON: SELECTED BUSINESS FACTORS
New York Dairy Farms, 1984 to 1993

Item	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Number of farms	458	404	414	426	406	409	395	407	357	343
Cropping Program										
Total tillable acres	280	280	288	305	302	316	325	330	346	351
Tillable acres rented	94	93	100	105	104	117	121	124	135	135
Hay crop acres	143	142	147	153	156	164	166	169	171	182
Corn silage acres	76	69	67	67	74	81	82	88	98	96
Hay crop, tons DM/acre	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.4	2.8	2.7
Corn silage, tons/acre	14.0	14.3	14.3	16.2	14.1	13.4	14.4	13.7	14.5	14.9
Fert. & lime exp. /tillable acre	$32	$32	$26	$27	$29	$29	$29	$25	$25	$25
Machinery cost/cow	$433	$426	$400	$413	$398	$425	$483	$438	$444	$430
Dairy Analysis										
Number of cows	89	89	95	101	102	104	107	111	123	130
Number of heifers	76	73	77	79	82	83	87	92	96	100
Milk sold, cwt.	13,735	14,001	15,374	16,498	17,200	17,975	19,005	20,060	23,130	24,448
Milk sold/cow, lbs.	15,433	15,679	16,237	16,351	16,882	17,259	17,720	18,027	18,789	18,858
Purchased dairy feed/cwt. milk	$3.28	$3.04	$3.10	$3.21	$3.71	$3.99	$4.27	$3.87	$3.91	$3.85
Purc. grain & conc. as % milk receipts	24%	23%	24%	24%	28%	27%	28%	29%	28%	29%
Purc. feed & crop exp./cwt. milk	$4.53	$4.13	$4.00	$4.11	$4.62	$4.92	$5.21	$4.67	$4.70	$4.61
Capital Efficiency										
Farm capital/cow	$5,520	$5,801	$5,792	$5,894	$6,133	$6,407	$6,556	$6,688	$6,587	$6,462
Real estate/cow	$2,731	$2,726	$2,758	$2,805	$2,902	$2,977	$2,977	$3,063	$3,015	2,932
Mach. invest./cow	$1,057	$1,083	$1,062	$1,057	$1,083	$1,154	$1,233	$1,267	$1,203	1,165
Asset turnover ratio	.43	.40	.43	.45	.45	.48	.48	.43	.47	.46
Labor Efficiency										
Worker equivalent	3.08	3.17	3.17	3.19	3.17	3.30	3.37	3.38	3.60	3.68
Operator/manager eq.	1.31	1.34	1.33	1.32	1.35	1.39	1.39	1.37	1.41	1.45
Milk sold/worker, lbs.	445,942	442,125	497,555	516,728	542,708	544,598	563,349	593,297	641,893	664,868
Cows/worker	29	28	31	32	32	32	32	33	34	35
Labor cost/cow	$366	$387	$385	$400	$426	$469	$541	$538	$552	$568
Profitability & Financial Analysis										
Labor & mgmt. income/oper.	$2,262	$2,850	$3,837	$11,042	$11,911	$18,004	$14,328	$-955	$11,254	$ 9,000
Farm net worth	$336,210	$325,664	$348,909	$398,209	$426,123	$468,848	$471,322	$480,131	$515,215	$542,126
Percent equity	64%	63%	62%	65%	66%	68%	66%	64%	64%	65%

TEN YEAR COMPARISON: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT
New York Dairy Farms, 1984 to 1993

Item	1984*	1985	1986	1987	1988	1989	1990	1991	1992	1993
Operating Expenses										
Hired labor	$ 1.39	$ 1.38	$ 1.38	$ 1.49	$ 1.46	$ 1.62	$ 1.77	$ 1.74	$ 1.80	$ 1.86
Purchased feed	3.46	3.09	3.15	3.26	3.73	4.02	4.28	3.88	3.92	3.85
Machinery repairs & rent	.80	.78	.75	.88	.83	.92	1.06	.89	.93	.89
Auto expenses (farm share)	.03	.03	.04	.04	.04	.04	.05	.04	.04	.04
Fuel, oil & grease	.50	.48	.34	.35	.34	.33	.41	.37	.35	.34
Replacement livestock	.10	.10	.13	.13	.11	.17	.20	.15	.21	.17
Breeding fees	.20	.20	.19	.19	.18	.18	.19	.18	.18	.19
Veterinary & medicine	.29	.27	.28	.28	.28	.30	.32	.33	.35	.37
Milk marketing	1.03	.80	.84	.74	.52	.49	.53	.58	.63	.64
Other dairy expenses	.55	.53	.52	.53	.56	.60	.68	.65	.70	.72
Lime & fertilizer	.66	.63	.49	.50	.51	.50	.50	.40	.37	.36
Seeds & plants	.22	.23	.21	.21	.21	.22	.22	.20	.21	.20
Spray & other crop expense	.20	.22	.20	.19	.19	.21	.22	.20	.21	.20
Land, building, fence repair	.18	.17	.16	.20	.22	.27	.32	.19	.24	.21
Taxes	.33	.34	.33	.35	.35	.36	.37	.38	.35	.34
Insurance	.20	.22	.22	.22	.23	.23	.24	.23	.22	.20
Telephone & elec. (farm share)	.36	.37	.39	.38	.38	.39	.39	.39	.38	.39
Interest paid	1.40	1.25	1.18	1.04	1.02	1.06	1.05	1.07	.88	.80
Misc. (including rent)	.44	.40	.41	.45	.41	.43	.47	.43	.44	.41
Total Operating Expenses	$12.34	$11.50	$11.22	$11.43	$11.57	$12.34	$13.27	$12.30	$12.41	$12.18
Less: Nonmilk cash receipts	1.74	1.58	1.52	1.84	1.86	1.75	1.75	1.73	1.67	1.65
Increase in feed & supplies**	.18	.05	.01	.16	.16	.02	.26	.04	.23	.13
Increase in livestock	.16	.18	.12	.10	.08	.12	.15	.18	.08	.22
OPERATING COST OF MILK PRODUCTION	$10.26	$ 9.69	$ 9.57	$ 9.33	$ 9.47	$10.45	$11.11	$10.35	$10.43	$10.18
Overhead Expenses										
Depreciation: mach. & bldgs.	$ 1.65	$ 1.64	$ 1.54	$ 1.43	$ 1.31	$ 1.31	$ 1.35	$ 1.28	$ 1.19	$ 1.17
Unpaid labor	.12	.12	.13	.10	.11	.12	.19	.18	.16	.15
Operator(s) labor***	.87	.97	.86	.87	.95	.98	1.10	1.06	.99	1.00
Operator(s) mgmt. (5% of cash rec.)	.76	.72	.71	.74	.74	.81	.85	.73	.76	.74
Interest on farm eq. cap. (5%)	1.22	1.16	1.10	1.15	1.19	1.24	1.24	1.20	1.11	1.11
Total Overhead Expenses	$ 4.62	$ 4.61	$ 4.34	$ 4.28	$ 4.30	$ 4.46	$ 4.73	$ 4.45	$ 4.21	$ 4.17
TOTAL COST OF MILK PRODUCTION	$14.88	$14.30	$13.91	$13.61	$13.77	$14.91	$15.84	$14.80	$14.64	$14.35
AVERAGE FARM PRICE OF MILK	$13.49	$12.90	$12.65	$12.89	$13.03	$14.53	$14.93	$12.95	$13.58	$13.14
Return per cwt. to operator labor, capital, & management	$1.46	$1.45	$1.41	$2.04	$2.14	$2.65	$2.28	$1.14	$1.80	$1.64
Rate of return on farm eq. cap.	-0.7%	-1.0%	-0.7%	1.9%	1.8%	3.3%	1.3%	-2.7%	0.2%	-0.4%

*Cash receipts and expenses. **Increase in grown feeds, 1985-1992. ***1984 = $750/month, 1985 = $800/month, 1986 = $850/month, 1987 = $900/month, 1988 = $1,000/month, 1989 = $1,050/month, 1990 = $1,250/month, 1991 = $1,300/month, 1992 = $1,350/month and 1993 = $1,400/month of operator labor.

HERD SIZE COMPARISONS

The 343 New York dairy farms have been sorted into nine herd size categories and averages for the farms in each category are presented in the following 2 tables. Note that after the less than 40 cow category, the herd size categories increase by 15 cows up to 100 cows, then by 50 cows up to 200 cows and by 100 cows up to 300 cows. The 300 or more cow category contains the greatest herd size range with one herd exceeding 2000 cows.

As herd size increases, the average profitability increases (see the table below). Net farm income without appreciation averaged $6,328 per farm for the less than 40 cow farms and $195,640 per farm for those with 300 cows and over. This relationship generally holds for all measures of profitability including rate of return on capital. However the 85 to 99 herd size group showed a lower rate of return on capital in 1993 than the farms with 70 to 84 cows.

It is more than size alone that determines profitability on dairy farms. Average net farm income per cow was the lowest at $186 for the smallest farms and highest at $387 for the farms with 150 to 199 cows, and there was much variety among herd size groups. The 70 to 84 cow group averaged $364 net farm income per cow while the 300 and over cow group averaged only $332 per cow. Other factors that affect profitability and their relationship to the size classifications are shown in the table on page 73.

COWS PER FARM AND FARM FAMILY INCOME MEASURES
343 New York Dairy Farms, 1993

Number of Cows	Number of Farms	Ave. no. of Cows	Net Farm Income Without Apprec.	Net Farm Income Per Cow	Labor & Management Inc./Oper.	Return on all capital without Apprec.
Under 40	17	34	$ 6,328	$186	$-6,190	-3.2%
40 to 54	46	47	10,411	222	-6,258	-2.5%
55 to 69	58	61	19,046	312	-798	-0.3%
70 to 84	42	76	27,671	364	2,632	1.2%
85 to 99	33	92	32,045	348	3,000	1.0%
100 to 149	70	121	41,643	344	7,266	2.4%
150 to 199	36	170	65,803	387	13,882	4.4%
200 to 299	19	232	82,679	356	20,652	4.6%
300 & over	22	590	195,640	332	56,698	6.8%

Further study and comparison of the 150 to 199 cow size group to the 100 to 149 cow size group reveals some of the reasons for the substantial difference in average farm profitability between these two size groups. Milk sold per cow averaged 19,090 pounds on the 150 to 199 cow farms more than 800 pounds per cow or four percent higher than the 100 to 149 cow farm average. Milk sold per worker increased an average of 661 hundredweight per farm or 11 percent between these two cow size groups.

Farm capital invested per cow was $290 lower on the 150 to 199 cow size group. Although average operating costs of producing milk were somewhat higher on the 150 to 199 cow farms, total costs of producing milk were $0.60 per hundredweight lower compared to the 100 to 149 cow size group.

COWS PER FARM AND RELATED FARM FACTORS
343 New York Dairy Farms, 1993

Number of Cows	Avg. No. of Cows	Milk Sold Per Cow (lbs.)	Milk Sold Per Worker (cwt.)	Tillable Acres Per Cow	Forage DM Per Cow (tons)	Farm Capital Per Cow	Cost of Producing Milk/Cwt. Oper.	Total
Under 40	34	16,881	3,668	3.9	6.8	$8,011	$10.21	$16.92
40 to 54	47	16,582	4,454	3.2	7.2	7,757	10.38	16.92
55 to 69	61	18,147	4,982	3.1	7.6	7,292	10.08	15.32
70 to 84	76	17,924	5,218	3.4	8.5	7,535	9.59	14.71
85 to 99	92	18,375	5,760	3.4	8.2	7,057	9.92	14.74
100 to 149	121	18,283	6,233	3.2	8.1	6,793	10.07	14.26
150 to 199	170	19,090	6,894	2.8	7.6	6,503	10.16	13.66
200 to 299	232	19,408	7,536	2.4	6.8	5,801	10.33	13.64
300 & over	590	19,936	8,988	1.9	7.1	5,530	10.38	12.86

The farms with 300 and more cows per farm averaged 18 percent more milk sold per cow than the smallest farms. All of the groups with 85 or more cows average well above 18,000 pounds of milk sold per cow while the farms smaller than 85 cows averaged 17,380 pounds of milk sold per cow.

The ability to reach high levels of milk output per cow with large herds is a major key to high profitability. Three times a day milking (3x) is a herd management practice commonly used to increase milk output per cow in large herds. Many dairy farmers who have been willing and able to employ and manage the labor required to milk 3x have been successful. Only eight percent of the 196 DFBS farms with less than 100 cows used a milking frequency greater than 2x. As herd size increased, the percent of herds using a higher milking freqency increased. Farms with 100 to 149 cows reported 14 percent of the herds milking more often than 2x, the 150-199 cow herds reported 42 percent, 200-299 cow herds reported 79 percent and the 300 cow and larger herds reported 86 percent exceeding the 2x milking frequency.

Milk output per worker has always shown a strong correlation with farm profitability. The farms with 100 cows or more averaged over 740,000 lbs. of milk sold per worker while the farms with less than 85 cows averaged only 458,000 pounds per worker.

In addition to achieving the highest productivity per cow and per worker, the largest farms practiced the most efficient use of cropland with 1.9 tillable acres per cow, and farm capital with an average investment of $5,530 per cow.

The last column in the above table may be the most important in explaining why profits were significantly higher on the 300 plus cow farms. The 22 farms with 300 and more cows held their average total costs of producing milk to $12.86 per hundredweight, $2.16 below the $15.02 average for the remaining 321 dairy farms. The lower average costs of production plus a $0.07 per hundredweight higher average milk price gave the managers of the 300 plus cow dairy farms profit margins that averaged $2.23 per hundredweight above the average of the other 321 DFBS farms.

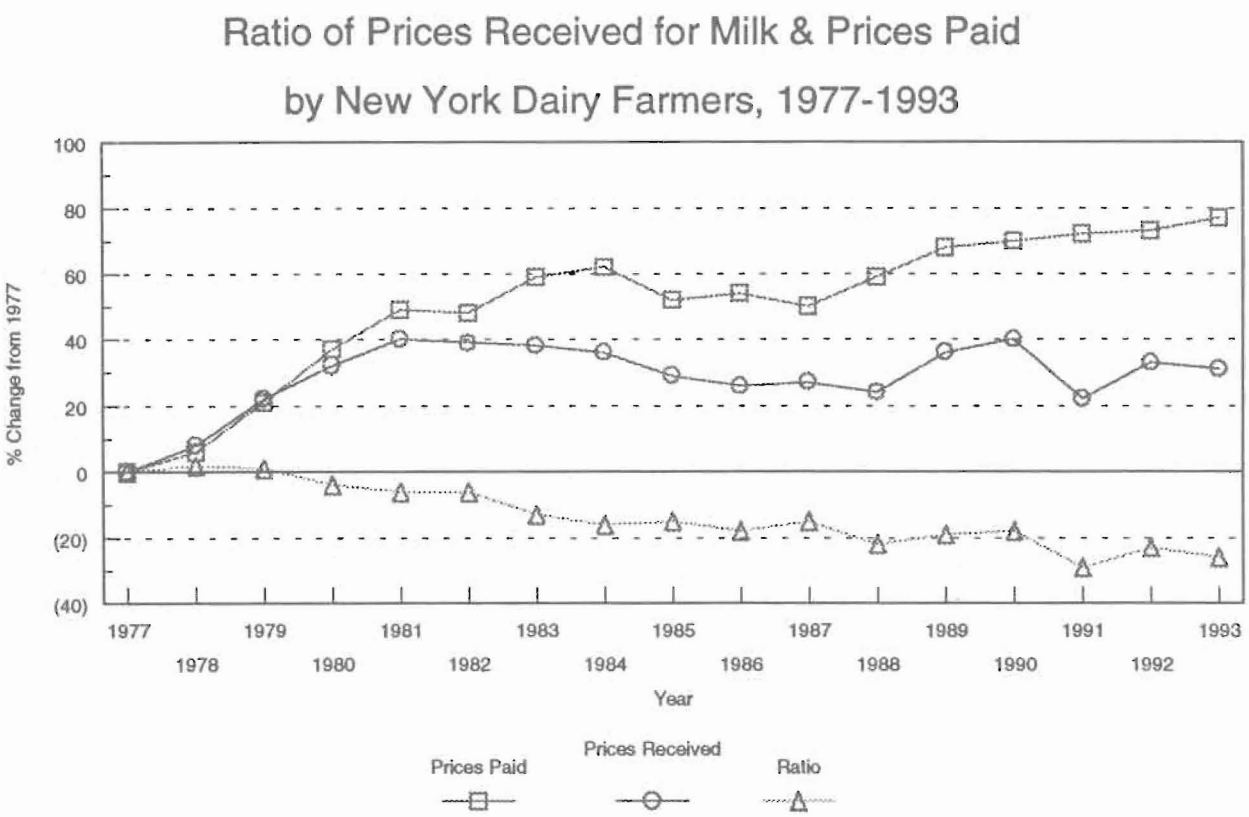
The prices dairy farmers pay for a given quantity of goods and services has a major influence on farm production costs. The astute manager will keep close watch on unit costs and utilize the most economical goods and services.

PRICES PAID BY NEW YORK FARMERS FOR SELECTED ITEMS, 1983-1993

Year	Mixed Dairy Feed 16% Protein ($/ton)	Fertilizer, Urea, 45-46%N ($/ton)	Seed Corn, Hybrid* ($/80,000 kernels)	Diesel Fuel ($/gal)	Tractor 50-59 PTO* ($)	Wage Rate All Hired Farm Workers ($/hr)
1983	192.6	249	64.60	1.140	17,200	3.52
1984	194.3	250	70.20	1.140	17,400	3.60
1985	164.2	238	67.30	1.080	16,800	4.01***
1986	162.9	200**	65.60	0.840**	16,550	4.41***
1987	152.8**	190**	64.90	0.765**	16,650	4.60***
1988	180.8**	208**	64.20	0.810**	17,150	5.02***
1989	188.5**	227**	71.40	0.828**	17,350	5.25***
1990	176.8**	215**	69.90	1.080**	17,950	5.51***
1991	171.8**	243**	70.20	0.995**	18,650	6.06***
1992	173.8**	221**	71.80	0.910**	18,850	5.76
1993	171.3**	226**	72.70	0.895**	19,200	6.20

SOURCE: NYASS, New York Agricultural Statistics. USDA, ASB, Agricultural Prices. *United States average. **Northeast region average. ***New York and New England combined, 1985-1991.

The table above shows average prices of selected goods and services used on New York dairy farms. The chart below shows the ratio of prices received for milk and prices paid by New York dairy farmers as a percent change from 1977. The ratio has been on a downward trend since 1978 except for slight increases in 1985, 1987, 1989, 1990 and 1992.



SOURCE: NYASS, New York Agricultural Statistics.

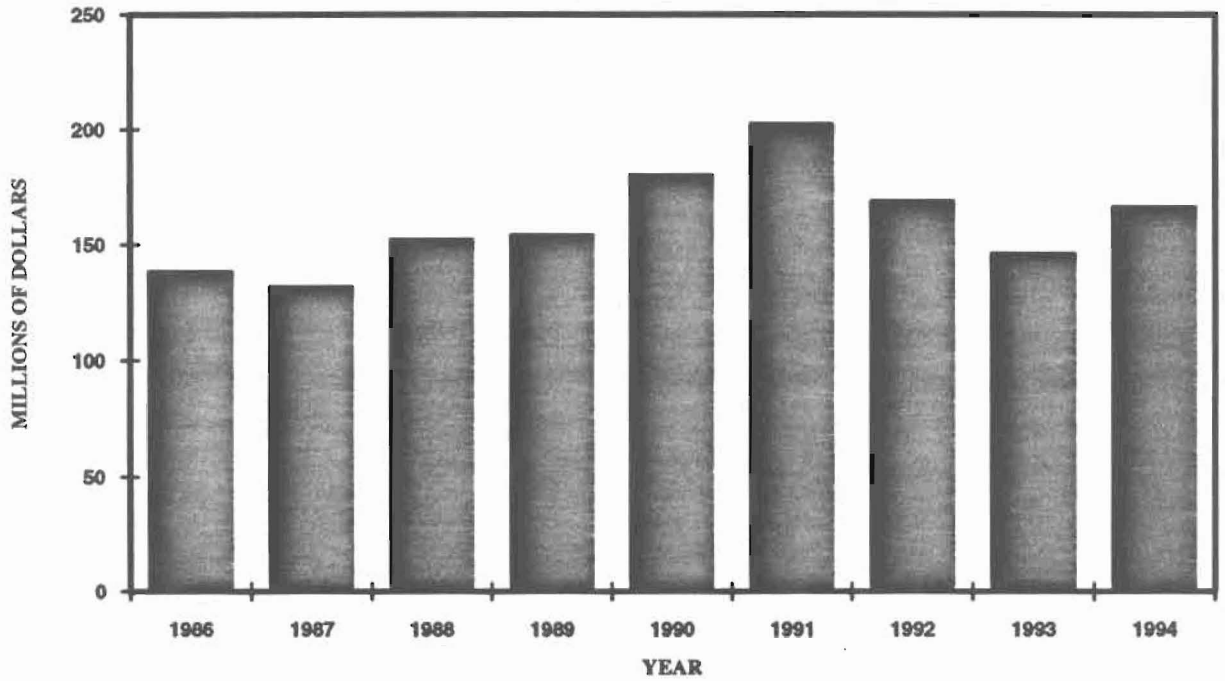
HIGHLIGHTS OF THE 1994 FRUIT OUTLOOK

The total production of the six tree and vine crops which are important to New York's agricultural economy was projected to increase by one percent nationally. The national production of apples, grapes, and pears were forecast to increase compared with last year's production, while decreased production was forecast for tart cherries, sweet cherries, and peaches. The national production of apples was forecast at 258.6 million bushels, up one percent from 1993. Grape production was expected to total 6,125 thousand tons, an increase of 1.7 percent from last year.

In New York, apple production is indicated to be 25 million bushels, 21 percent above the 1993 output, and four percent above the average production of the last five years. Grape production of 185 thousand tons was estimated, 57 percent above last year's extremely short crop. Total production of the six major fruit and vine crops of 745 thousand tons is projected for the State, 28 percent above the previous year. Total production is at a near normal level, following the short crop in 1993 which was the lowest production since 1981.

The utilized value of the major fruit crops in New York for the past seven years is shown below. The value of production was $146 million last year, the lowest since 1987. With plentiful supplies of noncitrus fruit, prices in general are likely to remain relatively low; however, New York growers have substantially more fruit to sell from the 1994 crop. The value of production is likely to rise to $166 million for the 1994 crop.

VALUE OF PRODUCTION OF MAJOR FRUIT CROPS, NEW YORK, 1986-1993 AND 1994 (projected)



COMMERCIAL NONCITRUS FRUIT PRODUCTION, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1991	1992	1993	1994*	1991	1992	1993	1994*
	thousand tons							
Apples	525	585	435	525	4,864	5,289	5,361	5,431
Grapes	192	180	118	185	5,556	6,052	6,024	6,125
Tart Cherries	13	16	8	12	95	168	162	129
Pears	15	19	16	18	904	926	949	980
Peaches	8	7	5	4	1,343	1,330	1,328	1,237
Sweet Cherries	1	1	1	1	149	205	169	168
Total New York's Major Fruit Crops	754	808	583	745	12,911	13,970	13,993	14,070

*indicated

AVERAGE FARM PRICES OF NONCITRUS FRUITS, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1990	1991	1992	1993	1990	1991	1992	1993
	dollars per ton							
Apples								
Fresh	356	402	284	348	418	502	390	364
Processed	150	153	129	133	144	171	130	107
All sales	258	254	198	232	302	358	274	256
Grapes	286	254	225	225	295	312	306	334
Tart Cherries	416	900	364	206	362	928	352	216
Pears	253	275	308	259	280	303	296	245
Peaches	552	548	524	592	348	314	306	320
Sweet Cherries	743	901	976	850	894	968	915	1,190

VALUE OF UTILIZED PRODUCTION, NONCITRUS FRUITS, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1990	1991	1992	1993	1990	1991	1992	1993
	million dollars							
Apples								
Fresh	92.6	84.4	73.8	69.6	1,162	1,375	1,125	1,123
Processed	35.3	48.5	42.3	31.5	295	358	306	238
All Sales*	127.9	132.9	116.1	101.1	1,457	1,733	1,431	1,361
Grapes	41.2	48.8	38.3	26.5	1,670	1,735	1,849	2,007
Tart Cherries	2.8	11.4	4.0	1.5	37	86	52	26
Pears	3.7	4.0	5.4	4.0	269	274	273	232
Peaches	3.8	3.7	3.6	2.7	372	394	379	398
Sweet Cherries	0.5	1.1	0.5	0.6	118	135	176	191
Total New York's Major Fruit Crops	179.9	201.9	167.9	136.4	3,923	4,357	4,160	4,215

*May not add from total of fresh and processed due to rounding errors.

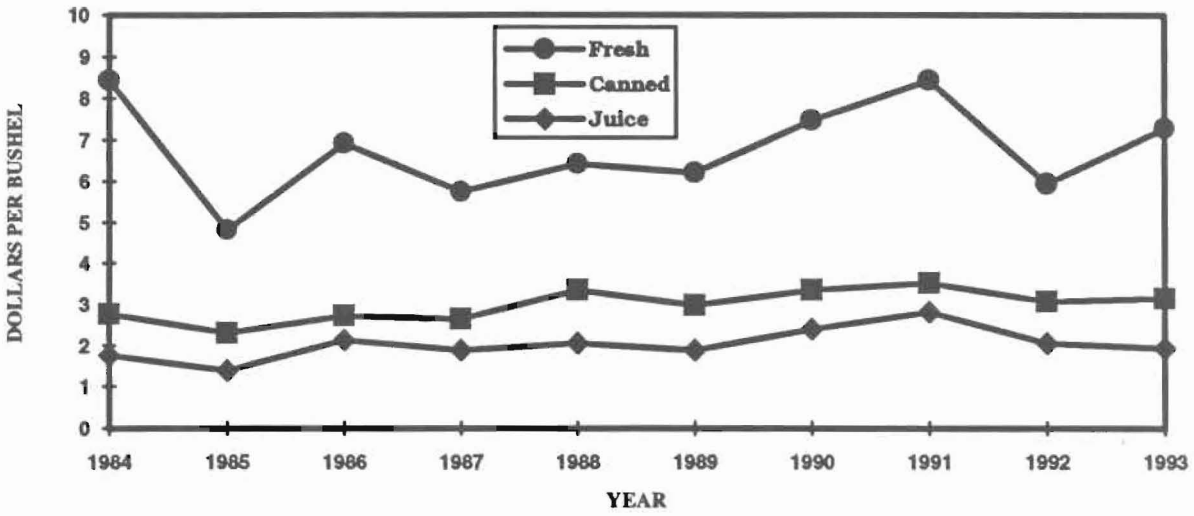
Source: NASS, USDA, Noncitrus Fruits and Nuts 1993 Summary, July 1994.

APPLE PRODUCTION, UNITED STATES, 1989-1993, FIVE-YEAR AVERAGE PRODUCTION, AND 1994 FORECAST, 1,000 42-POUND BUSHELS

States/Regions	5-Year Average	1993*	1994 USDA Estimate**	1994 Compared to USDA 5-Year Average (% Change)	1994 Compared to 1993 (% Change)
Maine	1,729	1,310	1,476	-14.6	12.7
New Hampshire	1,045	869	833	-20.3	-4.1
Vermont	1,090	905	905	-17.0	0.0
Massachusetts	1,757	1405	1,405	-20.0	0.0
Rhode Island	137	126	119	-13.4	-5.5
Connecticut	717	583	595	-17.0	2.1
New York	24,000	20,714	25,000	4.2	20.7
New Jersey	1,572	1,786	1,762	12.1	-1.3
Pennsylvania	10,809	12,619	10,000	-7.5	-20.8
Delaware	505	667	524	3.8	-21.4
Maryland	971	1,000	667	-31.3	-33.3
Virginia	8,072	8,810	7,143	-11.5	-18.9
West Virginia	4,190	4,524	3,571	-14.8	-21.1
North Carolina	6,047	7,619	5,476	-9.4	-28.1
South Carolina	1,129	1,429	1,429	26.6	0.0
Georgia	657	810	667	1.5	-17.7
Total East	**64,428**	**65,176**	**61,572**	**-4.4**	**-5.5**
Ohio	2,928	3,214	2,143	-26.8	-33.3
Indiana	1,576	1,905	1,191	-24.4	-37.5
Illinois	1,895	2,143	1,191	-37.2	-44.4
Michigan	22,524	24,286	22,143	-1.7	-8.8
Wisconsin	1,419	1,476	1,476	4.0	0.0
Minnesota	611	548	571	-6.6	4.2
Iowa	250	226	238	-4.7	5.3
Missouri	1,090	1,333	762	-30.1	-42.8
Kansas	198	167	131	-33.7	-21.6
Kentucky	395	524	238	-39.8	-54.6
Tennessee	319	500	310	-2.9	-38.0
Arkansas	243	286	167	-31.2	-41.6
Total Central	**33,449**	**36,608**	**30,561**	**-8.6**	**-16.5**
Total East & Central	**97,877**	**101,784**	**92,133**	**-5.9**	**-9.5**
Colorado	1,724	2,191	2,214	28.4	1.0
New Mexico	173	167	286	64.9	71.3
Utah	1,181	1,262	1,119	-5.3	-11.3
Idaho	3,395	4,643	4,048	19.2	-12.8
Washington	113,089	119,048	130,952	15.8	10.0
Oregon	3,786	3,810	4,524	19.5	18.7
California	18,928	20,952	21,905	15.7	4.5
Arizona	1,457	1,452	1,452	N.A.	0.0
Total West	**143,734**	**153,525**	**166,500**	**15.8**	**8.5**
TOTAL U.S.	**241,612**	**255,309**	**258,633**	**7.0**	**1.3**

*1993 and 5-year averages from NASS, USDA, Non-Citrus Fruits and Nuts Summary revised as of July 1, 1994.
**NASS, USDA, Crop Production, October 1, 1994.

AVERAGE ANNUAL PRICES RECEIVED BY NEW YORK GROWERS FOR APPLES, 1984-1993



SOURCE: New York Agricultural Statistics, 1992-1993, and Fruit series 975-4-94.

Over the past 10 years, prices for processed apples have been fairly constant, while fresh apple prices have more pronounced fluctuations due to particular supply and demand conditions in a given year. In 1993, prices were mixed due to a large national crop, but a small New York crop. Fresh apples were up in New York, canned apples were up slightly, but the price of juice apples declined due to the large national crop and ample world supplies of concentrate. (Note: Beginning in 1985, the price of fresh apples was reported based on a packinghouse door equivalent rather than "as sold". Therefore, the 1984-93 prices are not directly comparable to the fresh prices prior to 1984.)

In October 1994, fresh apple prices were similar to 1993. Prices for Red Delicious apples were again under pressure from a large Washington State crop, but McIntosh and Empire prices were strong. Prospects for fresh apple exports from New York to Europe, which have been in an upward trend, appear favorable with higher prices than one year ago. Exports in Europe have been enhanced by promotion programs designed to promote U.S. apple varieties.

Processed apple prices were unchanged to marginally higher in 1994 compared to prices for the short 1993 crop. Juice apples were low again at 3.75 - 4.00 cents, again held down by the ample world supplies of concentrate.

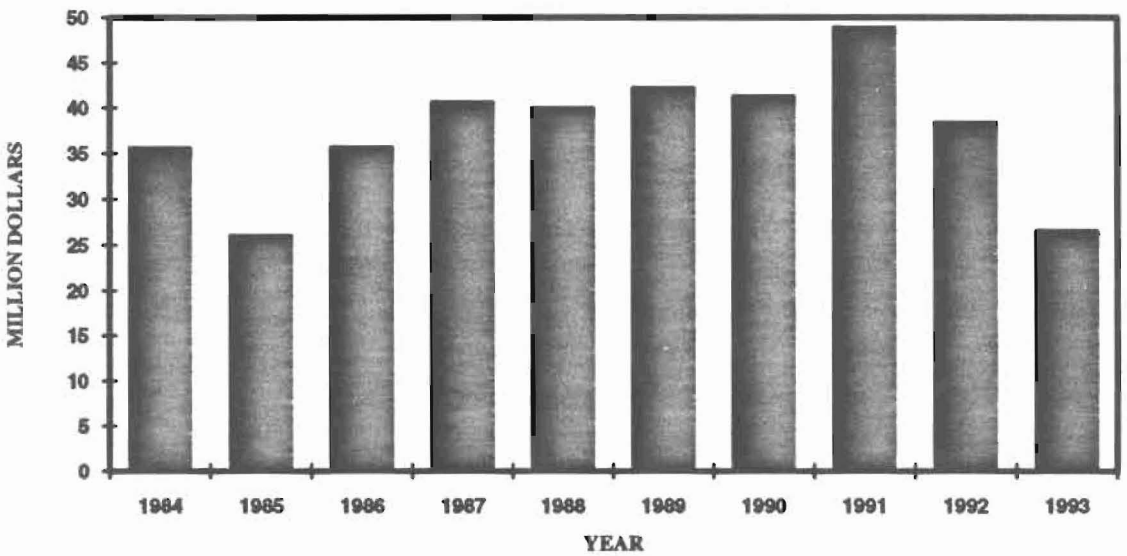
Thus prices for growers changed little in 1994, but grower revenues will be increased by a 21 percent larger crop than last year. The value of the state's apple crop should be greater than the value of the '92 and '93 crop, but will fall considerable short of the banner year experienced with the '91 crop.

Grapes

The value of utilized production for grapes in New York increased rapidly during the 1960's and early 1970's, reaching a peak of $45.9 million in 1978. For several years after 1978, the value was generally declining and reached a low of $25.9 million in 1985. Between 1986 and 1991, the State's industry recovered, fueled by a lower-valued dollar which increased the prices of competing imports of wine and juice; and new product development, promotion, and development of export markets in the grape juice sector. These positive factors have been somewhat offset by the continued erosion of the nonpremium wine sector. Wine cooler volume dropped 78 percent from 1987 to 1993. The additional federal excise tax levy of 90¢ per gallon at the producer level affected sales in 1991, particularly for less expensive wines. Nevertheless, the value of utilized production in New York in 1991 reached a record level of $48.8 million, fueled by a large, high quality grape crop. In 1992, utilized value decreased to $38.3 million as both production and prices declined from the banner year of 1991, and the extremely short crop as well, as low prices, led to a utilized value of only $26.5 in 1993.

Prospects for the utilized value of the State's 1994 crop are for a rebound to the $35-40 million dollar range. Indicated production was 185 thousand tons, the second largest crop in recent years (behind the 1991 crop). Prices received for the '94 crop will likely average slightly less than for the '93 crop, and some grapes may not be harvested due to canceled contracts or lack of a market.

VALUE OF UTILIZED PRODUCTION OF GRAPES, 1984-1993



SOURCE: New York Agricultural Statistics, 1993-1994.

GRAPES: NEW YORK GROWN, RECEIVED BY WINERIES AND PROCESSING PLANTS, 1989-93

Variety	1989	1990	1991	1992	1993	5-Year Avg.
			tons			
Concord	100,150	97,551	134,357	123,919	82,914	107,778
Catawba	7,887	9,855	13,252	10,124	6,636	9,551
Niagara	11,962	9,188	9,934	9,676	9,623	10,077
Elvira	4,227	3,662	4,501	3,606	3,533	3,906
Delaware	3,237	2,741	4,051	1937	2,407	2,875
Dutchess	571	461	550	364	223	434
Aurore	8,538	6,754	7,963	7,204	3,121	6,716
de Chaunac	2,484	2,010	2,611	1,385	1,363	1,971
Baco Noir	1,202	1,141	1,695	1,449	824	1,262
Seyval Blanc	1,185	1,311	1,361	1,215	575	1,129
Cayuga White	1,311	895	1,107	1,143	313	954
Rougeon	586	783	1,046	587	414	683
Vitis Vin.(all)	1,946	2,064	2,919	2,422	1,115	2,093
Other varieties	2,714	2,584	3,653	2,969	1,939	2,772
Total, all varieties	148,000	141,000	189,000	168,000	152,200	152,200

SOURCE: New York Agricultural Statistics, 1993-1994.

GRAPES: PRICES PAID FOR NEW YORK GROWN GRAPES PROCESSED, 1989-93

Variety	1989	1990	1991	1992	1993	5-Year Avg.
American Varieties						
Catawba	234	225	203	200	203	213
Concord	268	287	246	210*	211*	244
Delaware	255	222	199	189	200	213
Dutchess	265	214	180	181	195	207
Elvira	210	208	199	196	201	203
Niagara	258	262	223	215*	208*	233
French American Hybrid						
Aurore	237	220	192	183	205	207
Baco Noir	256	251	293	246	252	260
Cayuga White	347	272	262	242	295	284
de Chaunac	203	203	229	227	245	221
Rougeon	215	201	223	238	252	226
Seyval Blanc	325	259	273	287	250	279
Vitis Vinifera						
All varieties	1,131	1,050	1,108	1,055	1,002	1,069
Average of all varieties	272	282	251	222*	218*	249

*Preliminary estimates of future payments by cooperatives have been included based upon historical data.

SOURCE: Fruit, New York Crop Reporting Service, 975-2-91, 975-2-92, 975-2-93, and 975-2-94.

Concords are the predominant variety grown and processed in New York. There were 83,000 tons of Concords from New York processed from the short 1993 crop. Over the past five years, Concords have comprised 70 percent of total tonnage utilized. The second leading variety is Niagara with 6.6 percent of tonnage followed by Catawba with 6.3 percent.

Prices for most American and French-American hybrid varieties rebounded in the late 1980's from the disastrous 1985 season of low prices and low production. Prices for grapes used for juice (mainly Concord and Niagara, as well as some Catawba) improved until the very large 1991 crop. Varieties used mainly in nonpremium table wine, such as Delaware and Dutchess, while higher than in 1985, have declined in recent years. Most French-American Varieties, with the exception of Aurore, have held their own. Red varieties, such as Baco Noir and de Chaunac, benefited in 1991 from depleted inventories and a general increase in interest in red wine among consumers due to the "French Paradox" telecast. The average price of Vinifera grapes has declined since

1991, the net effect of decreased price for white varieties, especially Chardonnay, which offset higher prices for red Vinifera varieties.

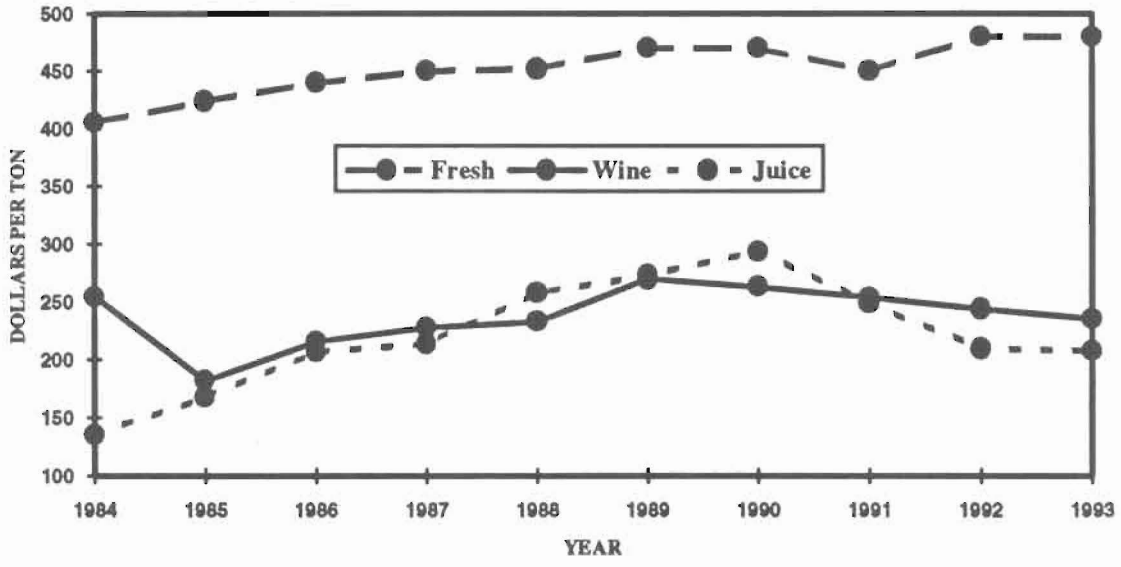
The prices of grapes utilized for fresh use, wine, and juice are shown below. In the early 1980's, the price of grapes utilized for wine generally exceeded the price of grapes utilized for juice by $100 or more per ton. Since 1985, the price for grapes utilized in juice has been about equal to the price of grapes utilized for wine until 1992 and 1993, when large national crops of Concords pushed down juice grape prices.

In 1994, announced prices for wine grape varieties did not change greatly, despite the much larger crop; however, Canandaigua Wine Company, the major buyer for wine grapes in New York, canceled contracts with many growers. Canandaigua later purchased grapes of specific varieties. The number of smaller buyers has now increased, and out-of-state buyers also helped take some of the excess grapes. All in all, it was a very unsettling marketing season for New York growers, one that did not give confidence for the long term viability of the industry for growers of American varieties used in wine and French-American hybrid varieties.

Demand for Vinifera grapes was strong, especially for red varieties such as Cabernet Franc. Prices for Riesling and Chardonnay have moved closer together with the plentiful supply of Chardonnay tending to reduce prices for that variety.

National Grape Cooperative, Inc., which processes one-third of New York's total grape crop, paid a harvest cash advance of $90 this year, the same as last year. Cash flow should increase for New York juice grape growers in 1994-95 due to the larger tonnage from the 1994 crop.

AVERAGE PRICE FOR GRAPES IN NEW YORK UTILIZED FOR FRESH GRAPES, WINE, AND JUICE, 1984-1993



Source: New York Agricultural Statistics, 1992-1993.

NOTES

--SITUATION

For vegetable producers in New York, 1993 was a good year in terms of farm gate value. Potato producers did not fare as well, but nonetheless did better than the five-year average for potato farm gate value. The value of vegetable production--both fresh and processed--reached $254.1 million dollars in 1993, representing a 23% increase over 1992 and 13.4% greater than the five-year average. The farm gate value of potato production reached $57.4 million--10.4% higher than 1992 and just slightly above the five-year average. In nominal dollar terms, both fresh and processed vegetable producers had their best year in 1993, particularly processed vegetable producers. The farm gate value of processed vegetables reached $41.1 million in 1993, representing a 35.6% increase over 1992 and 18.7% higher than the five-year average. The value of fresh market vegetables reached $213 million dollars, 20.7% higher than 1992 and 12.5% above the five-year average. The value of potatoes produced in Long Island was $13.2 million, 3.9% above 1992, but 7.3% below the five-year average. Conversely, Upstate production of potatoes reached $44.2 million--12.5% above the 1992 value and 2.8% above the five-year average. In short, 1993 vegetable and potato yields were generally average or slightly below average, but prices were significantly higher than in years past. Prices for processed vegetables were particularly good because of the decreased yields caused by the floods in the Midwest.

TABLE I: POTATOES AND VEGETABLES: NEW YORK STATE FARM VALUE OF PRODUCTION, 1988-1993.

	1988	1989	1990	1991	1992	1993[1]	Five-Year Average (1989-1993)
	millions of dollars						
Potatoes:							
Long Island	16.1	16.8	13.7	14.8	12.7	13.2	14.24
Upstate	44.9	40.9	44.8	45.7	39.3	44.2	42.98
Subtotal	61.0	57.7	58.5	60.5	52.0	57.4	57.22
Vegetables:							
Fresh Market	165.7	176.3	172.8	208.4	176.5	213.0	189.40
Processing	24.1	32.3	36.4	33.0	30.3	41.1	34.62
Subtotal	189.8	208.6	209.2	241.4	206.8	254.1	224.02
TOTAL	250.8	266.3	267.7	301.9	258.8	311.5	281.24

[1] Preliminary.

Source: New York Agricultural Statistics 1993-1994, New York State Agriculture and Markets, Division of Statistics, July 1994.

In 1994, production increased for cauliflower, onions, potatoes, and processed snap beans. However, production is down relative to 1993 for most other vegetables in the state. Prices have been good for potatoes and onions, while other vegetables show mixed results. The purchase of Curtice-Burns by Pro-Fac was generally well received by processed vegetable growers, for it removed the uncertainty regarding the future of Curtice-Burns. Moreover, the fact that Pro-Fac gains control of Curtice-Burns is good news for Pro-Fac members.

TABLE II: U.S. FALL POTATOES: PRODUCTION AND CROP VALUE

	Production				Crop Value			
	1990	1991	1992	1993	1990	1991	1992	1993
	----------1,000 cwt.----------				----------million dollars----------			
New York:								
L.I.	1,950	1,650	1,984	1,643	13.65	14.77	12.69	13.97
Upstate	5,950	5,267	5,824	6,050	44.85	45.56	39.31	49.01
California	6,630	5,390	5,600	4,800	37.79	22.37	43.96	44.88
Colorado	22,750	23,800	22,110	25,270	101.24	47.60	89.55	155.41
Idaho	119,070	122,175	127,050	126,192	595.35	488.70	654.31	586.79
Maine	20,520	18,170	24,300	19,890	124.15	105.39	123.93	142.21
Michigan	9,240	8,840	10,800	17,780	61.45	53.48	69.12	84.82
Minnesota	14,280	17,160	16,080	12,650	79.97	68.64	69.95	71.47
North Dakota	16,675	30,030	27,690	21,090	95.05	118.62	125.99	131.81
Oregon	23,450	22,170	21,075	23,103	129.56	87.81	115.45	132.04
Pennsylvania	5,400	3,500	4,940	4,600	40.77	26.25	33.35	37.49
Washington	67,980	75,435	69,300	88,500	353.50	286.65	346.50	469.05
Wisconsin	23,075	23,275	25,160	22,588	126.91	97.76	123.28	149.08
Other	15,547	14,868	17,612	11,779	104.80	79.60	112.04	117.13
Total-Fall	352,507	371,730	379,525	385,935	1,909.4	1,543.2	1,959.4	2,185.2

Source: Potatoes, Agricultural Statistics Board, National Agricultural Statistical Service, United States Department of Agriculture. September 24, 1994.

Table II presents production and crop value figures for national fall potato production. New York produced 1.99% of the 1993 national crop but captured 2.88% of the crop's value. Upstate production was up 3.9% while Long Island production was down 17.2%. In crop value terms, Long Island increased by 10.1% and Upstate increased by 24.7% over 1992. National fall potato production increased for the sixth consecutive year and the 1993 crop value was 1.7% higher than in 1992. During 1993, the average national price for a cwt. of potatoes was $5.66

while the average for Long Island potatoes was $8.50 and for Upstate it was $8.10. Idaho continues to lead--32.7% of national production--the nation in potato production, but Washington production increased by 27.7% to represent 22.9% of national production in 1993.

TABLE III: NEW YORK ONION PRODUCTION BY AREA, 1989-1994.

	1989	1990	1991	1992	1993	1994[1]	Five-Yr. Average (1990-94)
	1,000 hundredweight						
Orange*	1,500	2,340	1,674	2,090	1560	1624	1,885.6
Orleans-Genesee*	315	930	608	975	810	806	825.8
Oswego*	504	760	722	660	684	703	705.8
Madison*	182	126	110	184	150	196	153.2
Steuben-Yates-Ontario	288	360	298	396	420	416	378.0
Wayne & Other	123	120	128	87	96	99	106.0
TOTAL	2,912	4,636	3,540	4,392	3,720	3,844	4,026.4

* - Includes seed and set onions.
1- October 18, 1994 estimate.
Source: New York Agriculture and Markets, "Vegetables," New York Agricultural Statistics, Division of Statistics, October 18, 1994.

Table III provides figures for New York storage onion production from 1989 to 1994. The 1994 crop is 3.3% above 1993, but 4.5% below the five-year average. With the exception of Orange county, production was near the five-year average. In 1993, prices were relatively good for New York onions, averaging $18.74 per cwt. while the average national price was $12.17. Fall market prices for the 1994 crop have also been strong. Higher prices can be attributed to a below average production, good quality, and higher transportation costs from the West.

National storage onion figures are presented on Table IV. For 1994, New York's share of national production is 8.0%, down from 8.5% in 1993. In value terms, New York's share in 1992 was 14.2% while in 1993 it was 13.1%--both figures indicating stronger prices for New York onions. Idaho and Malheur Co., OR continue to lead the nation in storage onion production--26.6%--, but Washington has increased production by nearly 50% since 1991 and reached 5,350,000 cwt. in 1994.

TABLE IV: U.S. STORAGE ONIONS: PRODUCTION AND CROP VALUE

	Production				Crop Value			
	1991	1992	1993	1994[1]	1991	1992	1993[1]	1994
	----------1,000 cwt.----------				----------million dollars----------			
New York	3,540	4,392	3,720	3,844	57.3	62.0	69.7	50.0[2]
Colorado	4,953	5,460	5,735	6,120	52.2	57.8	88.4	
Idaho & Malheur Co.	10,590	11,712	10,638	12,810	113.0	130.8	139.8	
Michigan	2,044	2,448	2,201	2,160	19.5	23.9	25.2	
Oregon	1,216	1,722	2,436	2,940	12.6	22.8	38.3	
Washington	3,619	3,901	4,655	5,350	33.9	37.8	60.7	
Other	1,897	2,224	1,413	2,209	14.8	19.4	14.3	
Subtotal	28,859	31,859	30,798	35,433	303.3	354.5	436.4	
California	10,582	10,313	13,035	12,710	73.5	82.9	96.9	
TOTAL	39,441	42,172	43,833	48,143	376.8	437.4	533.3	

[1] Preliminary.
[2] Based on fall prices.
Source: Vegetables, 1993 Summary. Agricultural Statistics Board. National Agricultural Statistics Service. United States Department of Agriculture. January 1994.

Table V presents the major vegetables produced in New York and they are listed by their share of state vegetable production value. The production value of onions was the highest in the last twenty-years and represents 23.7% of the entire state's vegetable production value. Also, 1993 was the peak production value year for: strawberries, processed sweet corn, cauliflower, kraut cabbage, and beets. With the exception of processed green bean, tomatoes, lettuce, and celery, the production value of all vegetables listed on table V was higher in 1993 than the 18-year average. Only processed green beans show a statistically significant negative trend over the past 18-years, while the strongest trend is for onions at $1,629,000 per year. Strawberries and fresh market sweet corn also have relatively strong positive trends. The value of all the vegetables listed on table V was $315,327,000 in 1993--30.8% higher than the 18-year average--and the annual trend is $6,101,000.

TABLE V: COMMODITY RANKING OF VALUE OF NEW YORK STATE VEGETABLE PRODUCTION IN 1993

Commodity	Value of 1993 Production	1976-1993 Avg. Value	Highest Value In Past 18 Yrs.	18 Yr. Value Trend Per Yr.	Value Share in 1993
	millions of dollars				%
Onions	74.834	45.927	(1993) 74.834	1.629	23.7
Potatoes	62.971	58.523	(1980) 97.628	zero	20.8
Cabbage	32.600	27.838	(1983) 48.828	zero	10.3
Strawberries	30.780	9.430	(1993) 30.780	0.877	9.76
Sweet Corn (fresh)	23.265	19.604	(1989) 29.958	0.978	7.38
Sweet Corn (processed)	16.279	7.764	(1993) 16.279	0.456	5.16
Cauliflower	14.501	8.693	(1993) 14.501	0.349	4.60
Green Beans (processed)	10.762	13.798	(1980) 19.134	-(0.331)	3.41
Tomatoes	9.936	10.720	(1988) 17.434	0.351	3.15
Green Beans (fresh)	8.840	8.686	(1989) 18.603	0.403	2.80
Cucumbers	7.550	5.389	(1992) 9.948	0.330	2.39
Green Peas (processed)	5.555	4.151	(1985) 8.564	0.222	1.76
Carrots	4.360	4.195	(1992) 7.807	0.219	1.38
Lettuce	3.972	8.613	(1981) 13.412	zero	1.26
Cabbage (Kraut)	3.577	2.416	(1993) 3.577	zero	1.13
Beets	3.110	2.035	(1993) 3.110	zero	0.99
Celery	2.435	3.215	(1992) 5.441	zero	0.77
TOTALS	315.327	240.999	(1993) 315.327	6.101	100.00

Source: NY Agricultural Statistics 1993-1994 NY Agricultural Markets, Division of Statistics, July 1994.

Table VI presents national per capita utilization figures for the major New York vegetables and this year it includes a forecast for 1994 consumption.

TABLE VI: PER CAPITA UTILIZATION, IN POUNDS - 1970 - 1994

Year	Onions (Fresh)	Potatoes[1] (Fresh)	Snap Beans		Sweet Corn[2]			
			Canned	Frozen	Canned	Frozen	Fresh	Total
1970	10.1	61.8	4.7	1.4	14.3	5.8	7.8	27.9
1971	10.7	56.1	4.6	1.4	14.8	5.5	7.5	27.8
1972	10.7	57.9	4.6	1.4	15.0	5.4	7.8	28.2
1973	10.2	52.4	4.9	1.7	14.5	6.0	7.9	28.4
1974	11.2	49.4	4.9	1.5	13.5	5.9	7.7	27.1
1975	10.5	52.6	4.4	1.2	12.0	6.3	7.8	26.1
1976	11.0	49.4	4.9	1.5	13.1	5.9	8.0	27.0
1977	11.1	50.1	4.8	1.4	14.1	7.4	7.6	29.1
1978	11.1	46.0	4.8	1.4	13.4	6.3	6.6	26.3
1979	11.6	49.3	4.7	1.4	12.7	6.8	6.5	26.0
1980	11.4	51.1	4.6	1.4	13.0	6.4	6.5	25.9
1981	10.7	45.8	4.6	1.7	12.1	6.3	6.2	24.6
1982	12.2	47.1	4.2	1.5	11.6	5.8	6.0	23.4
1983	12.2	49.8	4.1	1.5	11.6	6.6	6.1	24.3
1984	13.1	48.3	3.7	1.8	10.2	8.0	6.4	24.6
1985	13.6	46.3	3.8	1.9	11.9	7.9	6.4	26.2
1986	13.7	48.8	3.9	1.5	12.1	7.6	6.1	25.8
1987	13.4	47.9	3.8	1.7	10.6	7.8	6.3	24.7
1988	14.5	49.6	3.8	1.7	10.4	8.7	5.7	24.8
1989	14.8	50.0	3.9	2.0	9.5	8.4	6.4	24.3
1990	15.1	45.8	3.7	2.0	11.0	8.6	6.5	26.1
1991	15.7	46.4	4.1	1.8	11.1	9.4	5.7	26.2
1992	16.1	48.9	4.0	1.7	11.9	9.0	6.7	27.6
1993[3]	15.7	51.9	4.0	1.8	11.2	9.8	6.3	27.3
1994[4]	16.2	49.1	3.7	1.7	10.7	9.2	6.2	26.1

[1] Crop year not calendar year.
[2] On cob basis.
[3] Preliminary.
[4] *ERS Forecast.*
Source: Vegetables and Specialties: Situation and Outlook Report, USDA, Economic Research Service,TVS-257, July 1994.

--OUTLOOK

The outlook for the New York State potato and vegetable industry is mostly positive, though as always weather dependent. Potato production in Long Island will likely continue to decline even though prices have been relatively good. Upstate production is more uncertain because of potato late blight--a virulent fungus found this year in Oneida and Steuben counties. If the virus is unchecked it will devastate the state's Upstate potato crop.

The production value of onions, sweet corn (both processed and fresh), strawberries, cauliflower, tomatoes, fresh market green beans, and cucumbers will likely increase. Additionally, the purchase of Curtice-Burns by Pro-Fac will likely increase the production value of the processed vegetables even though pro-Fac is also supporting a Cornell study for developing a fresh market vegetable marketing cooperative. Also, one (and perhaps others will follow) supermarket operating in New York State has embarked on a campaign to purchase locally grown produce. This development will likely translate into increased value of production.

--SITUATION

Table I presents the value of production for the five categories of floriculture crops. Bedding plants continued their steady growth--6.4% over 1992--and now represent 42.1% of the value of the entire floriculture category. In 1989, the bedding plant category only represented 29% of the total, but if the pattern of the last five years continues, then bedding plants will represent 50% of total production value by the turn of the century. Alternatively, foliage plants continued their decline--2.0% lower than 1992--and now only represent 14.9% of total floriculture value. Both cut flowers and potted flowering plants declined in 1993, roughly by 9%. The entire floriculture category decreased 1.6% from 1992. As usual, the 1992 figures in Table I have been adjusted and therefore are different from those reported in last year's *New York Economic Handbook.*

TABLE I: SUMMARY OF U.S. FLORICULTURE CROPS WHOLESALE VALUE OF SALES, 1992 AND 1993 - MILLIONS OF DOLLARS

Category	1992		1993		
	Value $	Percent of Total	Value $	Percent of Total	De/Increase Over 1992 (%)
Cut Flowers	458.5	15.9	418.7	14.8	-8.5
Potted Flowering Plants	759.6	26.4	686.3	24.3	-9.6
Foliage Plants	427.0	14.9	418.4	14.9	-2.0
Bedding Plants	1,118.2	38.9	1,189.8	42.1	+6.4
Cut Greens	111.5	3.9	115.8	3.9	+3.9
Total Value	2,874.8	100.0%	2,829.0	100.0%	-1.6

Source: Floriculture Crops - 1993 Summary, U.S. Department of Agriculture, National Agricultural Statistics Service, Agricultural Statistics Board, April 1994.

TABLE II: COMMERCIAL PRODUCERS, QUANTITIES SOLD, AND WHOLESALE VALUE OF SELECTED FLORICULTURE CROPS, NEW YORK, 1993

	Reporting Producers[1]	Quantity Sold		Wholesale Value
	Number			$1,000
Cut Flowers				
Carnations - Standard	DATA	NOT	AVAILABLE	
Chrysanthemums				
Standard	14	353,000	blooms	269
Pompon	16	75,000	bunches	210
Roses				
Hybrid Tea	13	13,655,000	blooms	8,138
Sweetheart	12	4,731,000	blooms	2,645
Other Cut Flowers	34	- - - -		2,866
Sub-Total				14,128 (-1.73%)[2]
Potted Flowering Plants				
African Violets	24	1,937,000	pots	1,503
Chrysanthemums	72	1,228,000	pots	2,625
Finished Florist Azaleas	49	1,705,000	pots	3,880
Easter Lilies	79	519,000	pots	1,900
Other Lilies	36	91,000	pots	347
Poinsettias	136	2,896,000	pots	9,501
Other Potted Flowering	90	7,284,000	flats	26,051
Sub-Total				45,807 (-69.1%)
Foliage For Indoor/Patio Use				
Potted Foliage	43		--------	1,859
Foliage Hanging Baskets	89	276,000	baskets	1,399
Sub-Total				3,258 (-13.6%)
Bedding Garden Plants				
Geraniums (flats)	53	157,000	flats	1,612
Other Flowering and Foliar Plants	184	3,545,000	flats	25,666
Vegetable Type Plants	160	596,000	flats	4,303
Hardy Garden Chrysanthemums	133	1,951,000	pots	3,422
Geraniums (cuttings)	164	5,119,000	pots	7,214
Geraniums (seed)	59	3,255,000	pots	3,200
Other Potted and Foliar Plants	131	5,286,000	pots	7,317
Vegetable Plants	58	757,000	pots	919
Foliage Hanging Baskets	207	1,447,000	baskets	10,896
Sub-Total				64,549 (+0.83%)
Total of Reported Floriculture Crops				**127,742 (-44.5%)**

[1] More than $10,000 in gross sales of all floriculture crops.
[2] Percentage change from 1992 sales.
Source: New York Agricultural Statistics, 1993-1994, NYS Dept. of Agriculture & Markets, Division of Statistics, in cooperation with USDA, National Agriculture Statistics Service, July 1994.

Table II lists the value of floriculture crops in New York. First, under the "Potted Flowering Plants" category, production value declined by nearly $100,000 million from 1992. As might be suspected, this created quite a controversy with respect to the accuracy of the figures and/or the reporting mechanism used to generate the figures. Some argued that the current figures are accurate and that the prior figures were overestimating production, while others argue that the current figures cannot possibly be correct. The Division of Statistics of the NYS Department of Agriculture and Markets indicates that the decline is the result of a particular firm's (cannot be identified because of confidentiality) exit from the New York market. The author will reserve judgment until the 1994 figures are reported, but at a minimum, accuracy of past and/or current figures is seriously in question. Also, the "Carnations-standard" category was not reported because the number of growers was too small and therefore reporting crop value would violate confidentiality.

If one accepts the current figures, then total floriculture crop value declined by 44.5% to $127,742,000 in 1993. The only category to show an increase was bedding plants, but the increase was less than 1%. A significant decline occurred in "finished florists azalea" , 54%, while a significant increase occurred in "foliage hanging baskets", 46%. The value of "cut flower" production represented 11% of total state value while the other categories were: "potted flowering plants = 35.9%; "foliage, etc." = 2.6%; and "bedding garden plants" = 50.5%. The cut flower category continued to decline across all items with the possible exception of standard carnations

--OUTLOOK

The outlook for cut flowers is better today than last year, primarily because of the U.S. International Trade Commissions finding regarding the dumping of Colombian cut roses into the U.S. market. The judgment was particularly severe compared to past judgments and therefore the impact may be more long term. Potted flowering plants and bedding plants will likely continue to increase in both volume and value because some vegetable growers may begin producing them to augment total farm production. Also, a large grower of potted flowering plants has announced plans for expansion.

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