

Charts and Tables

Agricultural Credit Experience at Commercial Banks

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Table 1. Farm non-real-estate loans outstanding at insured commercial banks

Federal Reserve District and state*	Estimated amount, millions of dollars 12/31/80	Percentage change during--									
		Fourth quarter					Year ending December 31				
		1976	1977	1978	1979	1980	1976	1977	1978	1979	1980
United States.....	31,539	1	-2	0	1	0	15	11	10	10	2
1--Boston.....	107	14	18	44	24	10	2	16	62	20	-19
2--New York.....	669	13	2	10	8	0	10	16	10	30	28
New York.....	665	14	2	11	8	0	9	16	11	31	29
3--Philadelphia....	314	5	5	5	9	3	1	13	15	8	-7
Pennsylvania*....	290	6	5	6	6	0	0	12	16	5	-7
4--Cleveland.....	696	-1	-4	-1	-4	-3	6	16	10	6	2
Kentucky*.....	207	-4	-2	-2	-5	2	5	13	10	6	12
Ohio.....	473	0	-4	0	-3	-5	10	18	11	6	-1
Pennsylvania*....	16	-8	-14	-7	-12	-7	-31	4	-9	-10	-2
5--Richmond.....	619	-11	-10	-13	-10	-11	11	15	-2	3	4
Maryland.....	60	2	-3	-3	2	-6	14	9	-2	-3	8
North Carolina...	253	-16	-12	-21	-11	-18	24	18	-6	6	0
South Carolina...	79	-6	-15	-6	-10	-10	19	16	-1	4	5
Virginia.....	194	-11	-9	-8	-12	-3	-5	14	5	2	7
West Virginia*...	33	-3	1	-7	-3	-1	-6	19	-6	2	1
6--Atlanta.....	1,258	-3	-7	-3	-9	-3	11	16	2	2	6
Alabama.....	278	-8	-10	-10	-16	-5	16	19	-9	2	9
Florida.....	172	6	8	17	1	10	4	9	3	-2	1
Georgia.....	337	-2	-13	0	-4	0	19	9	3	6	2
Louisiana*.....	133	-12	-10	-10	-18	-15	-5	30	21	-12	15
Mississippi*.....	133	-8	-11	-15	-16	-11	10	15	-5	10	9
Tennessee*.....	205	0	0	0	-5	0	7	20	8	1	5
7--Chicago.....	6,725	7	0	4	4	-1	18	15	11	11	-3
Illinois*.....	1,579	9	-1	6	2	-1	18	13	15	4	-4
Indiana*.....	767	9	-3	0	-1	-5	17	19	15	9	-2
Iowa.....	3,359	10	2	7	8	1	19	15	9	17	-5
Michigan*.....	385	-1	-5	-4	-4	-5	19	13	4	4	-4
Wisconsin*.....	636	3	0	-2	-1	-1	12	14	11	8	5

* Portion of state in specified Federal Reserve District.

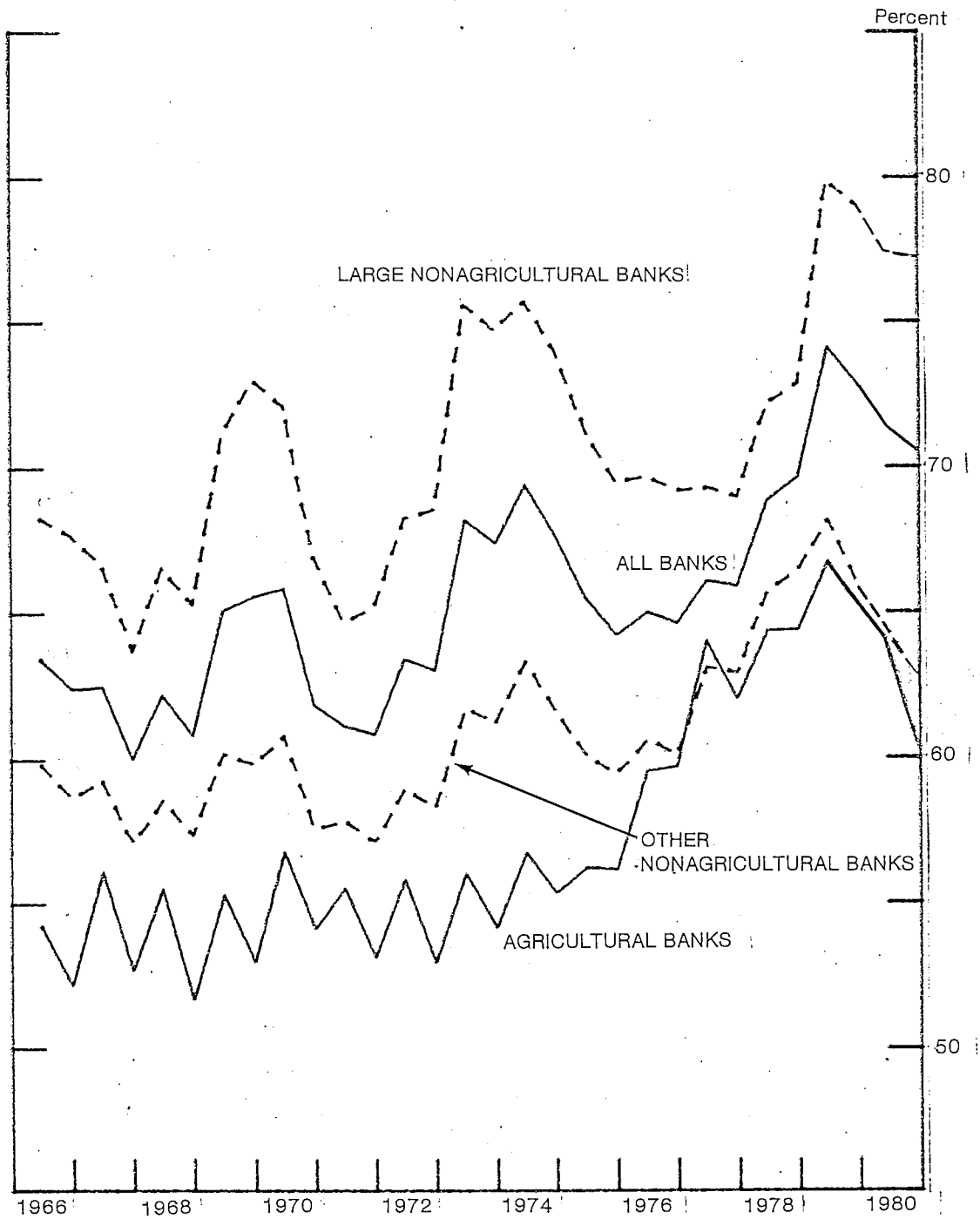
Table 1 (continued)

Federal Reserve District and state*	Estimated amount, millions of dollars 12/31/80	Percentage change during--									
		Fourth quarter					Year ending December 31				
		1976	1977	1978	1979	1980	1976	1977	1978	1979	1980
8--St. Louis.....	2,279	-4	-7	-7	-8	-5	15	15	8	4	5
Arkansas.....	398	-17	-16	-15	-20	-12	9	22	9	-10	10
Illinois*.....	544	5	-3	-1	-2	0	20	16	14	5	0
Indiana*.....	165	2	-3	-3	-4	-5	15	15	10	8	0
Kentucky*.....	278	-1	-3	-6	-6	-6	15	11	7	3	5
Mississippi*.....	190	-15	-14	-21	-21	-13	0	17	-5	5	13
Missouri*.....	574	5	-1	-1	-1	0	22	9	9	12	4
Tennessee*.....	130	-19	-15	-17	-18	-9	6	22	-1	4	8
9--Minneapolis.....	4,378	2	-1	1	2	0	12	8	12	20	-2
Michigan*.....	8	1	-3	5	-3	-3	13	-2	16	7	-20
Minnesota.....	1,837	3	-2	2	4	-2	12	11	18	21	-4
Montana.....	499	-3	-2	-6	-9	-7	14	3	2	8	-2
North Dakota.....	750	2	-3	0	-1	0	13	1	9	22	-2
South Dakota.....	1,087	4	2	5	6	6	9	11	13	22	0
Wisconsin*.....	197	4	1	-1	3	1	16	16	8	17	4
10--Kansas City....	7,197	3	0	2	4	3	19	8	7	11	2
Colorado.....	738	3	-3	-1	-3	-4	24	5	6	2	0
Kansas.....	2,017	5	3	6	8	7	19	7	8	11	1
Missouri*.....	716	2	1	1	6	2	19	13	12	17	0
Nebraska.....	2,390	5	-4	-1	5	3	25	7	6	17	2
New Mexico*.....	48	-5	-9	-9	-9	10	0	2	7	4	6
Oklahoma*.....	1,075	3	8	10	2	7	10	12	8	3	5
Wyoming.....	212	-4	-4	-6	-8	-5	17	-2	-6	3	0
11--Dallas.....	2,685	-2	-7	0	-2	1	15	7	14	-3	9
Louisiana*.....	141	-20	-23	-21	-24	-16	16	19	5	-7	17
New Mexico*.....	137	-4	-9	-3	-4	-3	13	-1	6	-3	3
Oklahoma*.....	56	-5	2	-1	-1	6	16	20	9	-16	11
Texas.....	2,350	-1	-5	2	-1	2	15	6	15	-2	9
12--San Francisco..	4,612	-2	-2	-2	-1	-1	14	9	10	12	4
Arizona.....	433	-15	1	8	2	6	-23	25	23	13	5
California.....	2,848	1	-1	0	3	2	15	9	14	16	7
Hawaii.....	19	49	24	20	-8	33	44	10	7	-28	65
Idaho.....	345	-9	-9	-12	-9	-10	17	-4	-7	2	-5
Nevada.....	18	-11	22	-16	-17	-12	8	55	-15	-3	-8
Oregon.....	303	-3	-2	-5	-3	-8	29	6	8	7	8
Utah.....	88	8	3	0	-11	-16	26	6	-1	-13	-4
Washington.....	558	-7	-5	-8	-7	-6	28	13	8	14	-4

* Portion of state in specified Federal Reserve District.

Chart 1

Average Loan/Deposit Ratios at Insured Commercial Banks Semiannual



"Agricultural banks" are banks at which farm loans comprise 25 percent or more of total loans.

"Large banks" are banks with total assets of \$500 million or more.

Chart 2

Average Loan/Deposit Ratio at Insured Commercial Banks Quarterly

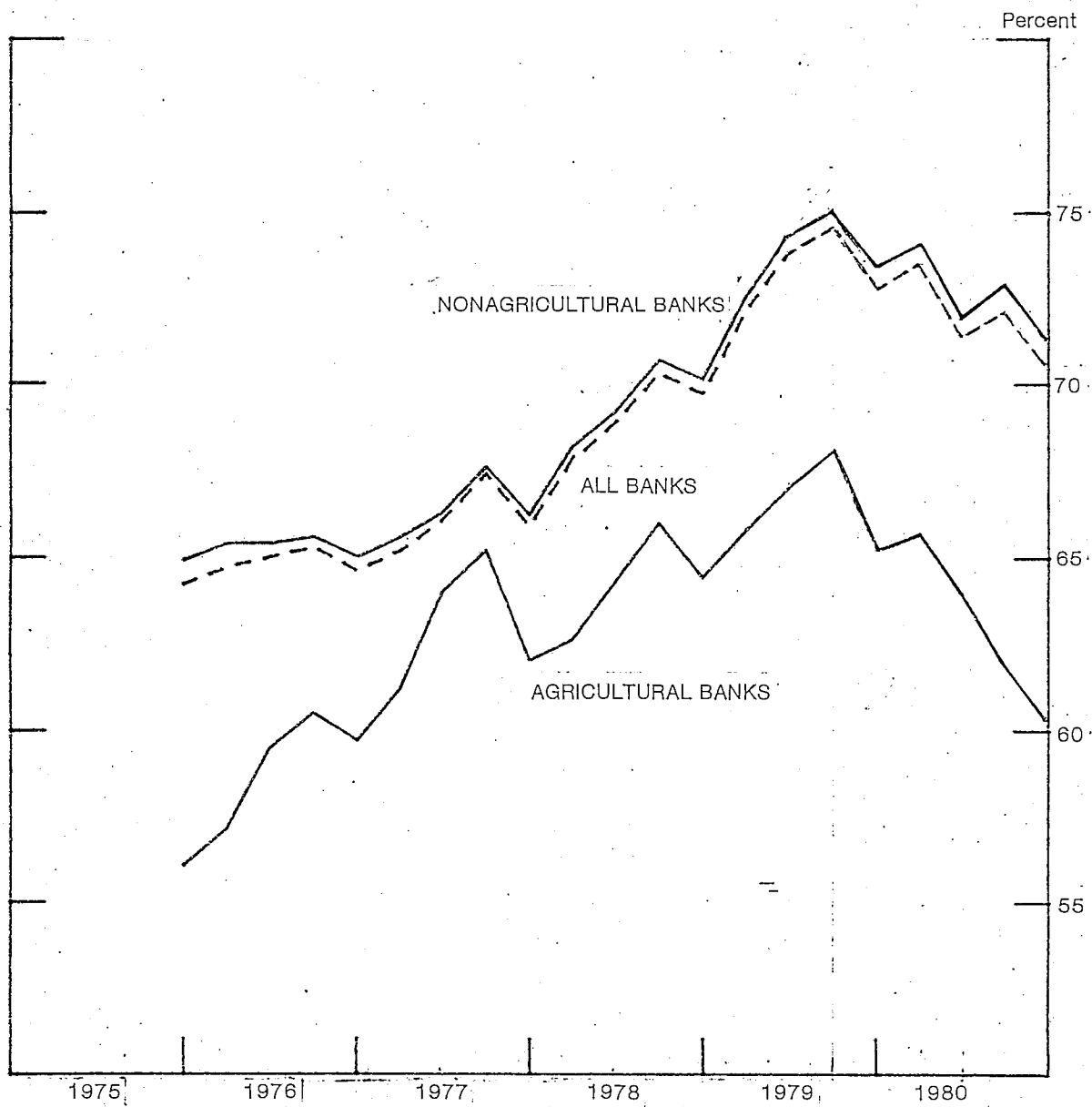


Table 2. Average loan/deposit ratios at agricultural banks, by state (percent)
(Banks at which farm loans are 25 percent or more of total loans)

End of month	U.S.	Corn Belt					Lake States				Plains				
		OH	IN	IL	IO	MO	MI	WI	MN	ND	SD	NB	KS	OK	TX
1969--Dec....	53	54	50	48	56	50	62	54	54	52	56	55	52	51	52
1970--June...	57	58	53	49	59	56	64	55	59	59	62	61	55	52	56
--Dec....	54	55	51	48	58	51	60	54	54	54	58	57	53	51	50
1971--June...	55	57	53	48	59	54	63	55	57	56	60	61	53	50	53
--Dec....	53	55	50	47	58	48	62	55	54	49	56	59	52	51	51
1972--June...	56	57	50	48	59	53	65	58	57	55	60	62	54	51	54
--Dec....	53	54	50	45	56	50	64	57	52	48	56	59	52	53	53
1973--June...	56	56	51	45	57	54	65	59	55	52	59	65	55	53	56
--Dec....	54	56	50	46	57	52	63	58	53	49	59	60	52	54	51
1974--June...	57	60	52	48	57	57	67	60	54	50	62	60	54	54	54
--Dec....	55	58	53	49	55	53	64	62	55	54	59	57	53	54	53
1975--June...	56	60	55	49	56	55	64	60	57	54	59	58	55	52	52
--Dec....	56	58	54	50	57	52	64	60	58	57	60	59	56	54	52
1976--Mar....	57	60	54	50	59	54	64	60	60	54	61	61	58	54	52
--June...	59	62	56	52	60	56	66	62	61	60	60	64	60	56	57
--Sept...	61	62	57	53	60	57	68	62	60	62	60	67	63	57	58
--Dec....	60	60	56	54	62	56	66	62	60	62	62	66	62	57	54
1977--Mar....	61	62	58	56	63	58	67	65	60	60	64	68	63	58	55
--June...	64	66	61	57	66	61	70	67	64	65	67	72	64	58	59
--Sept...	65	67	64	60	68	62	71	68	64	64	66	73	65	59	61
--Dec....	62	65	61	59	66	58	66	66	62	60	65	66	62	59	56
1978--Mar....	63	68	63	60	66	60	67	68	64	57	64	66	63	59	55
--June...	64	68	64	61	66	62	69	70	65	61	67	66	64	59	60
--Sept...	66	68	67	63	67	64	70	71	67	64	68	69	65	60	62
--Dec....	64	67	65	64	67	62	68	70	65	61	68	65	64	61	60
1979--Mar....	66	68	66	65	69	64	69	71	68	62	70	66	65	61	58
--June...	67	69	67	64	70	66	69	72	70	68	73	69	65	60	59
--Sept...	68	69	68	63	70	67	70	72	71	71	74	72	65	60	60
--Dec....	65	69	66	62	69	63	69	70	69	67	70	69	63	59	56
1980--Mar....	66	69	66	62	70	64	69	71	71	65	72	71	63	59	55
--June...	64	67	64	60	67	63	67	69	68	64	67	68	61	57	56
--Sept...	62	65	64	58	63	60	66	68	64	62	65	67	59	55	56
--Dec....	60	64	62	56	61	59	62	67	61	59	64	65	58	55	54

Data are for insured commercial banks. Data for December 1980 are preliminary. As of December 1980, these agricultural banks accounted for the following percentages of all banks and bank assets and farm loans, respectively:

Banks.....	30	17	26	33	84	43	6	30	54	79	89	87	70	38	18
Assets.....	6	3	10	7	31	17	1	13	21	56	68	63	40	14	6
Farm loans...	51	31	45	59	88	70	23	58	76	82	85	92	83	55	44

Table 2 (continued)

End of month	Mountain States				Southeast		Delta States			Appalachian	
	NM	CO	WY	MT	GA	AL	MS	LA	AR	TN	KY
1969--Dec....	57	62	53	53	55	48	51	49	52	53	50
1970--June...	62	66	61	60	62	50	55	52	56	57	56
--Dec....	56	62	58	53	57	48	51	50	51	52	50
1971--June...	61	63	63	60	63	48	54	51	54	55	55
--Dec....	58	60	57	51	56	47	49	48	51	51	50
1972--June...	64	65	62	58	62	49	55	54	55	54	56
--Dec....	62	60	56	50	57	47	48	49	52	52	50
1973--June...	66	64	64	56	63	52	52	53	56	56	56
--Dec....	65	59	59	55	60	51	48	50	53	55	55
1974--June...	69	65	66	60	67	54	59	56	54	60	59
--Dec....	65	60	60	59	61	53	55	55	54	57	55
1975--June...	65	62	63	61	66	55	57	56	54	59	58
--Dec....	61	63	59	58	62	54	58	56	52	59	57
1976--Mar....	64	64	63	59	66	55	55	57	54	60	57
--June...	64	68	66	62	70	60	57	62	55	63	61
--Sept....	64	71	63	65	74	64	63	70	63	67	68
--Dec....	62	68	61	61	65	60	58	63	62	64	63
1977--Mar....	66	70	66	62	70	60	53	60	59	62	61
--June...	64	71	66	65	75	64	59	65	60	66	66
--Sept....	64	71	63	65	74	64	63	70	63	67	68
--Dec....	62	68	61	61	65	60	58	63	62	64	63
1978--Mar....	64	68	64	62	63	60	55	66	62	66	65
--June...	63	72	63	65	68	63	58	67	63	68	69
--Sept....	64	74	63	68	68	61	63	73	66	69	70
--Dec....	64	71	62	62	68	60	58	65	63	67	65
1979--Mar....	64	73	68	66	70	59	56	65	63	68	67
--June...	63	76	71	70	74	62	62	67	62	70	70
--Sept....	66	76	69	72	73	61	68	72	64	70	70
--Dec....	63	72	62	64	70	60	59	61	59	66	65
1980--Mar....	61	75	66	65	68	60	58	62	58	65	66
--June...	59	74	64	64	68	56	61	63	58	63	65
--Sept....	58	73	62	63	65	58	65	67	59	63	65
--Dec....	54	68	59	57	64	62	62	61	58	62	59

Data are for insured commercial banks. Data for December 1980 are preliminary. As of December 1980, these agricultural banks accounted for the following percentages of all banks and bank assets and farm loans, respectively:

Banks.....	12	20	22	41	24	12	21	12	24	13	32
Assets.....	8	8	18	30	7	4	9	3	13	4	11
Farm loans...	49	50	52	59	51	27	36	32	43	23	46

Table 3. Average loan/deposit ratios at agricultural banks (percent)
(Banks at which farm loans are 15 percent or more of total loans,
excluding banks with assets of \$500 million or more)

End of month	U.S.	Corn Belt					Lake States				Plains				
		OH	IN	IL	IO	MO	MI	WI	MN	ND	SD	NB	KS	OK	TX
1969--Dec....	54	56	51	50	57	50	63	55	54	54	57	55	52	52	54
1970--June...	57	59	54	51	60	55	64	56	59	60	62	62	55	53	56
--Dec....	55	56	52	50	58	51	62	55	54	55	58	57	53	52	51
1971--June...	56	59	54	49	59	54	63	55	57	57	60	62	53	50	53
--Dec....	53	56	52	47	58	49	64	56	55	50	57	57	52	51	51
1972--June...	56	58	52	48	59	54	65	58	58	56	60	63	54	51	54
--Dec....	54	56	51	46	56	50	64	57	53	50	57	58	52	52	52
1973--June...	57	58	53	47	58	55	66	60	56	55	60	62	56	53	55
--Dec....	55	59	52	48	57	53	66	60	54	52	59	59	52	55	51
1974--June...	58	62	54	49	58	57	68	62	56	53	62	62	55	55	54
--Dec....	56	60	54	50	55	54	66	63	57	57	60	58	53	54	53
1975--June...	57	61	56	50	56	55	66	62	59	56	61	60	55	53	53
--Dec....	57	60	55	51	57	52	66	61	59	58	61	59	56	54	52
1976--Mar....	58	61	55	51	59	55	65	61	61	56	62	61	58	54	53
--June...	60	63	57	52	60	57	67	63	62	62	63	64	60	55	56
--Sept....	61	63	58	53	60	57	69	63	61	64	62	67	62	57	57
--Dec....	60	62	57	54	62	56	68	64	61	63	62	66	61	57	54
1977--Mar....	61	63	59	56	63	58	68	65	62	62	65	67	63	59	56
--June...	64	67	61	57	66	61	71	68	65	66	67	70	64	59	59
--Sept....	65	68	64	60	68	62	71	68	65	65	67	72	64	59	60
--Dec....	63	65	62	60	66	59	68	67	63	61	67	66	62	59	57
1978--Mar....	63	67	64	61	66	60	69	69	65	59	67	66	63	60	57
--June...	65	68	65	62	66	63	70	70	66	64	69	66	64	60	61
--Sept....	67	69	68	64	67	65	72	72	68	66	71	69	65	60	62
--Dec....	65	69	67	64	67	63	71	70	66	63	70	65	64	62	60
1979--Mar....	67	69	68	65	70	65	72	72	69	64	71	67	66	62	59
--June...	68	70	68	65	70	68	72	73	71	70	74	69	65	62	59
--Sept....	68	70	70	64	70	68	72	73	72	72	74	72	65	62	60
--Dec....	65	69	66	63	68	64	70	71	70	67	70	68	63	60	57
1980--Mar....	66	69	67	62	70	64	69	72	72	67	72	70	63	60	55
--June...	64	68	65	60	67	63	67	70	69	65	68	68	61	58	56
--Sept....	63	66	65	58	63	61	66	69	65	63	65	67	59	56	56
--Dec....	61	65	63	57	61	59	64	67	63	61	64	65	58	56	54

Data are for insured commercial banks. Data for December 1980 are preliminary. As of December 1980, these agricultural banks accounted for the following percentages of all banks and bank assets and farm loans, respectively:

Banks.....	41	55	48	45	89	57	15	46	64	88	95	92	78	54	30
Assets.....	9	6	22	11	67	24	3	22	28	72	79	68	52	26	10
Farm loans...	64	55	73	76	95	86	43	80	88	93	90	94	91	74	59

Table 3 (continued).

End of month	Mountain States					Southeast			Delta States			Appalachian			
	NM	CO	WY	MT	ID	FL	GA	AL	MS	LA	AR	TN	KY	VA	PA
1969--Dec....	57	63	54	55	64	48	57	48	51	54	51	54	52	55	67
1970--June...	62	67	60	61	68	49	62	51	55	55	55	56	56	60	67
--Dec....	56	62	56	54	63	48	58	48	52	52	51	53	51	57	67
1971--June...	59	63	60	61	66	47	63	50	54	53	54	55	55	60	66
--Dec....	58	60	55	54	63	48	58	48	51	50	49	52	51	57	68
1972--June...	64	64	61	60	68	48	62	50	55	55	54	56	56	61	67
--Dec....	60	61	56	53	61	49	58	49	51	54	51	53	50	59	67
1973--June...	64	66	64	59	65	51	63	52	54	56	55	58	56	63	67
--Dec....	62	61	58	58	64	54	61	51	53	53	52	55	56	60	69
1974--June...	67	67	64	64	67	57	68	56	59	57	54	61	58	64	70
--Dec....	63	61	60	60	68	58	62	56	58	54	53	58	55	64	71
1975--June...	63	64	62	62	69	55	66	56	58	56	54	59	59	63	68
--Dec....	59	63	60	60	66	54	63	56	58	56	53	58	57	63	68
1976--Mar....	61	65	64	61	69	55	66	57	57	57	56	58	58	64	69
--June...	63	69	66	64	71	57	70	59	58	60	57	61	63	64	68
--Sept....	64	70	67	67	74	57	67	60	61	62	60	63	65	63	68
--Dec....	63	69	63	64	69	57	66	59	57	56	57	61	61	62	70
1977--Mar....	64	71	65	64	72	57	69	58	56	58	59	61	62	65	70
--June...	66	72	67	68	73	59	74	62	60	63	62	66	66	66	71
--Sept....	64	72	66	68	74	60	73	64	63	68	65	68	70	66	71
--Dec....	62	69	61	64	72	58	66	62	59	63	61	64	64	64	73
1978--Mar....	63	69	64	66	74	56	64	62	57	65	61	65	67	64	73
--June...	63	72	67	69	76	57	68	63	60	68	64	68	69	66	73
--Sept....	64	72	69	71	75	61	68	64	63	72	67	69	72	67	75
--Dec....	63	71	64	67	71	61	68	64	60	67	63	68	66	66	77
1979--Mar....	62	73	68	71	71	59	70	65	59	66	62	69	68	69	77
--June...	62	75	70	73	74	60	73	66	63	68	62	70	70	71	77
--Sept....	64	75	70	74	74	61	72	66	67	72	64	71	71	71	76
--Dec....	61	71	62	66	70	59	69	66	61	63	59	66	66	69	77
1980--Mar....	59	73	65	69	69	57	68	64	60	62	58	65	66	73	76
--June...	60	73	63	67	71	55	67	62	60	64	58	65	66	72	72
--Sept....	57	70	63	67	69	55	66	61	62	66	58	63	66	70	69
--Dec....	54	68	58	61	65	56	65	61	60	62	58	62	60	71	71

Data are for insured commercial banks. Data for December 1980 are preliminary. As of December 1980, these agricultural banks accounted for the following percentages of all banks and bank assets and farm loans, respectively:

Banks.....	20	29	33	58	58	7	39	28	44	22	49	35	50	13	8
Assets.....	15	15	32	48	13	2	12	11	17	7	28	13	21	4	1
Farm loans...	65	68	71	80	39	40	70	52	54	51	68	58	68	34	17

Chart 3

Average Farm Loan Interest Rates at Rural Banks Compared With Prime Rate

Quarterly
First Day of Quarter

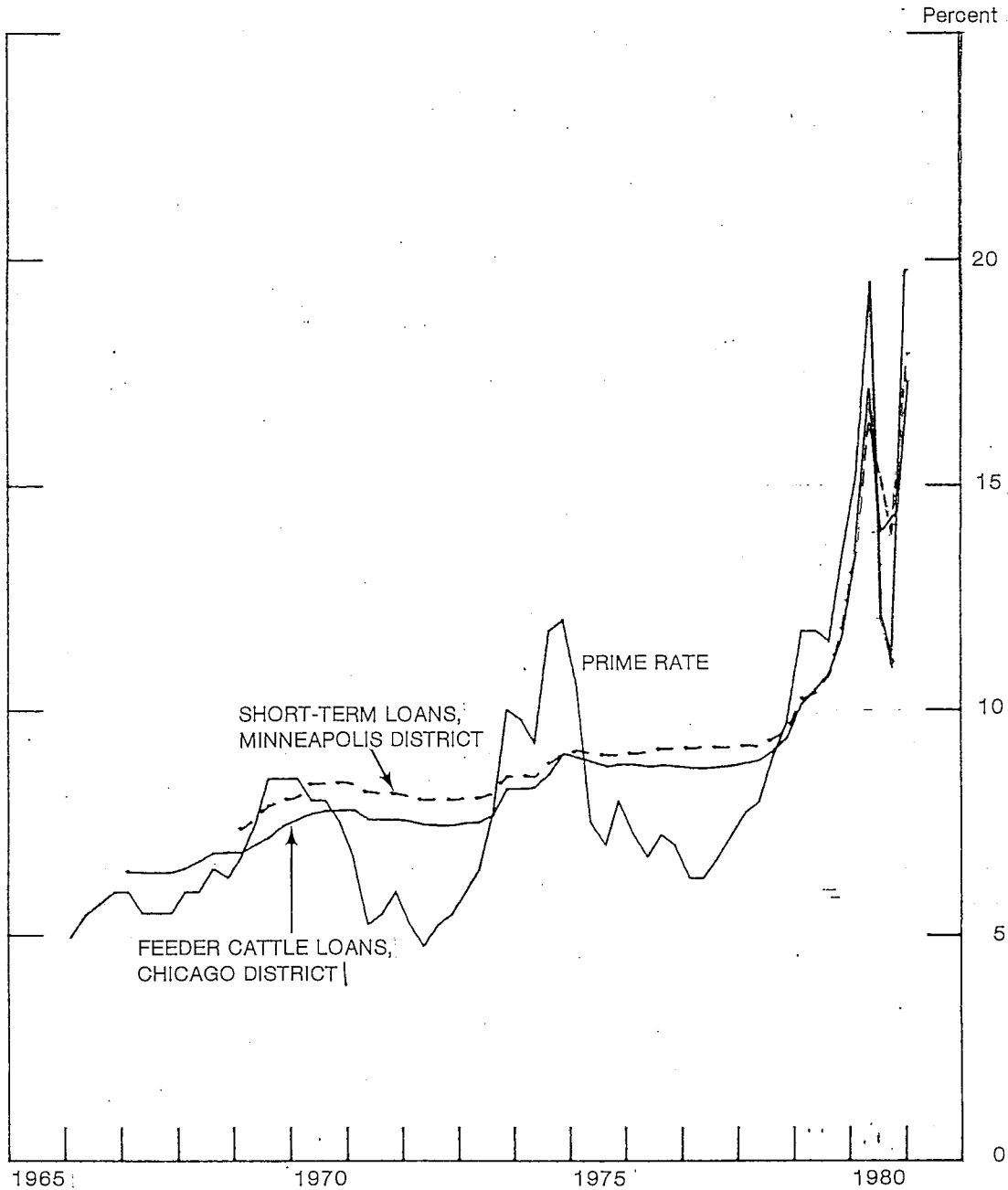
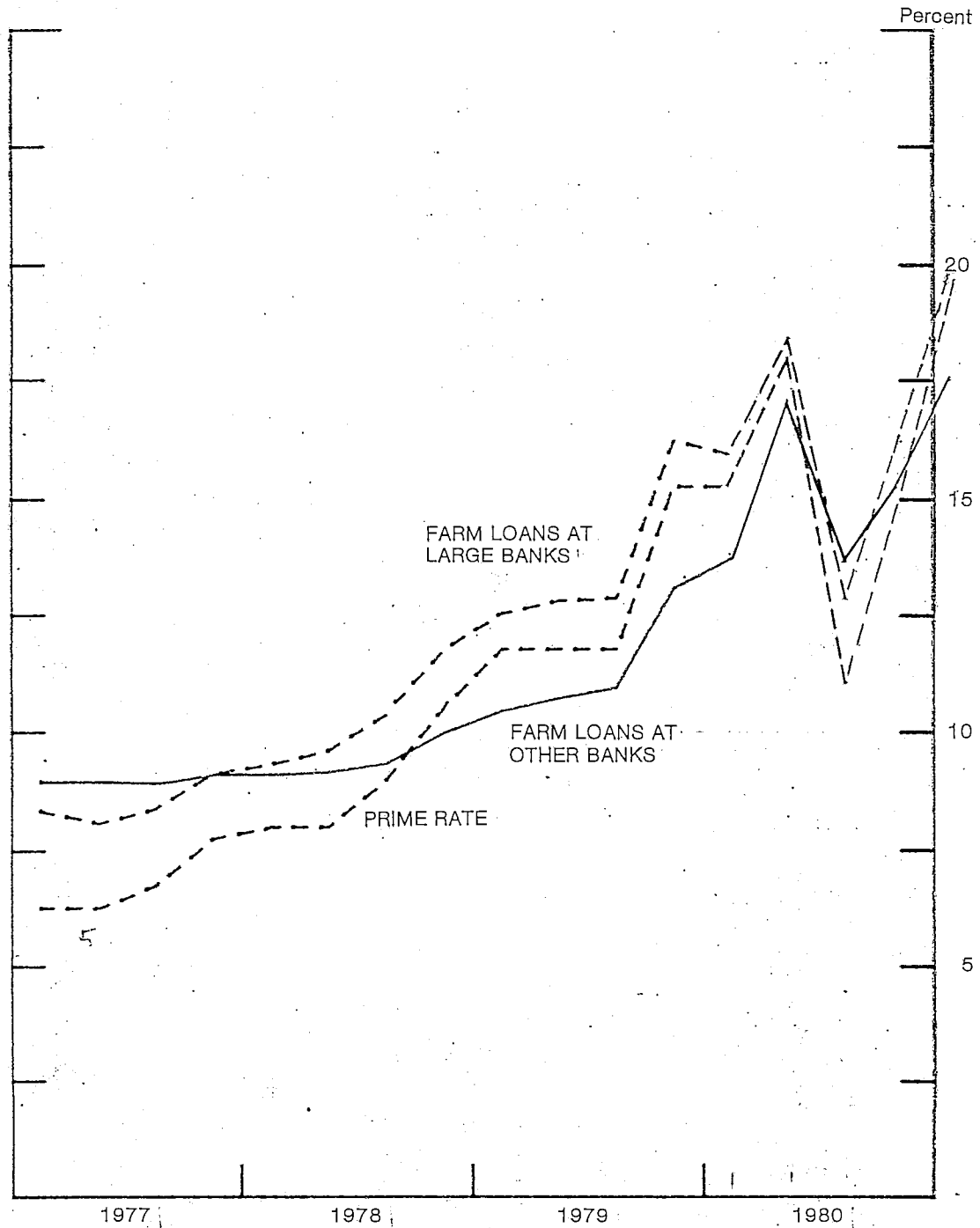


Chart 4

Interest Rates Charged By Commercial Banks: First Week of Second Month of Quarter



Source: Federal Reserve Quarterly Survey of Terms of Bank Lending to Farmers.

"Large banks" are banks in survey strata 1-3, corresponding approximately to banks which now have over \$400 million in total assets.

Table 4. Percentage distribution of non-real-estate farm loans made by banks, by effective interest rate^{1,2}

Effective interest rate (percent)	Feb. 1977	Feb. 1978	Feb. 1979	Feb. 1980	Feb. 1981	Feb. 1980	May - 1980	Aug. 1980	Nov. 1980	Feb. 1981
All loans.....	100	100	100	100	100	100	100	100	100	100
Under 7.0.....	1	-	-	-	-	-	-	-	-	-
7.0 to 7.9.....	8	1	-	-	-	-	-	-	-	-
8.0 to 8.9.....	46	38	4	1	-	1	-	-	-	-
9.0 to 9.9.....	41	50	17	1	-	1	-	-	-	-
10.0 to 10.9.....	3	9	35	2	-	2	-	1	-	-
11.0 to 11.9.....	-	1	19	2	-	2	-	10	-	-
12.0 to 12.9.....	-	-	12	7	1	7	1	17	3	1
13.0 to 13.9.....	-	-	6	29	3	29	4	43	10	3
14.0 to 14.9.....	-	-	6	31	4	31	9	19	21	4
15.0 to 15.9.....	-	-	-	10	9	10	7	9	28	9
16.0 to 16.9.....	-	-	-	10	21	10	11	1	27	21
17.0 to 17.9.....	-	-	-	4	18	4	35	1	7	18
18.0 to 18.9.....	-	-	-	2	16	2	18	-	3	16
19.0 to 19.9.....	-	-	-	-	7	-	9	-	-	7
20.0 to 20.9.....	-	-	-	-	8	-	3	-	-	8
21.0 to 21.9.....	-	-	-	-	7	-	1	-	-	7
22.0 to 22.9.....	-	-	-	-	3	-	1	-	-	3
23.0 to 23.9.....	-	-	-	-	2	-	-	-	-	2
24.0 to 24.9.....	-	-	-	-	-	-	-	-	-	-
25.0 and over....	-	-	-	-	-	-	-	-	-	-

Addendum: Average effective interest rate (percent)² at--

All banks.....	8.8	9.2	11.0	14.1	17.9	14.1	17.4	13.5	15.5	17.9
Large banks ³	8.3	9.3	12.5	16.0	19.9	16.0	18.5	12.8	16.3	19.9
Other banks.....	8.9	9.1	10.4	13.7	17.5	13.7	17.1	13.7	15.3	17.5

Source: Federal Reserve Quarterly Survey of Terms of Bank Lending to Farmers. Data for February 1981 are preliminary.

1/ Percentage distribution of the total dollar amount of non-real-estate farm loans of \$1,000 or more made by insured commercial banks during the week covered by the survey, which is the first full business week of the month specified.

2/ The approximate compounded annual interest rate on each loan is calculated from survey data on the stated rate and other terms of the loan. In computing the average of these estimated effective rates, each loan is weighted by its dollar amount.

3/ "Large banks" are banks in survey strata 1-3, corresponding approximately to banks with over \$400 million in total assets as of September 1978.

Table 5. Percentage distribution of non-real-estate farm loans made by large and other banks, by effective interest rate^{1,2}

Effective interest rate (percent)	Feb. 1977	Feb. 1978	Feb. 1979	Feb. 1980	Feb. 1981	Feb. 1980	May 1980	Aug. 1980	Nov. 1980	Feb. 1981
<u>Large banks³</u>										
All loans.....	100	100	100	100	100	100	100	100	100	100
Under 7.0.....	7	-	-	-	-	-	-	-	-	-
7.0 to 7.9.....	24	1	-	-	-	-	-	-	-	-
8.0 to 8.9.....	55	34	-	-	-	-	-	-	-	-
9.0 to 9.9.....	11	41	2	-	-	-	-	-	-	-
10.0 to 10.9.....	2	20	19	-	-	-	-	-	-	-
11.0 to 11.9.....	-	4	12	-	-	-	-	16	-	-
12.0 to 12.9.....	-	-	28	4	-	4	-	43	2	-
13.0 to 13.9.....	-	-	17	8	-	8	1	31	5	-
14.0 to 14.9.....	-	-	20	14	2	14	2	6	15	2
15.0 to 15.9.....	-	-	2	18	10	18	5	2	21	10
16.0 to 16.9.....	-	-	-	32	8	32	4	1	24	8
17.0 to 17.9.....	-	-	-	15	9	15	32	-	16	9
18.0 to 18.9.....	-	-	-	8	4	8	27	-	16	4
19.0 to 19.9.....	-	-	-	1	6	1	12	-	1	6
20.0 to 20.9.....	-	-	-	-	20	-	7	-	-	20
21.0 to 21.9.....	-	-	-	-	18	-	4	-	-	18
22.0 to 22.9.....	-	-	-	-	10	-	5	-	-	10
23.0 to 23.9.....	-	-	-	-	10	-	1	-	-	10
24.0 to 24.9.....	-	-	-	-	3	-	-	-	-	3
25.0 and over....	-	-	-	-	-	-	-	-	-	-
<u>Other banks³</u>										
All loans.....	100	100	100	100	100	100	100	100	100	100
Under 7.0.....	-	-	-	-	-	-	-	-	-	-
7.0 to 7.9.....	3	-	-	-	-	-	-	-	-	-
8.0 to 8.9.....	43	38	5	2	-	2	-	-	-	-
9.0 to 9.9.....	49	56	23	1	-	1	-	-	-	-
10.0 to 10.9.....	4	5	41	3	-	3	-	1	1	-
11.0 to 11.9.....	-	-	22	3	-	3	-	8	-	-
12.0 to 12.9.....	-	-	6	8	1	8	1	11	3	1
13.0 to 13.9.....	-	-	2	33	3	33	4	45	11	3
14.0 to 14.9.....	-	-	1	35	5	35	11	23	22	5
15.0 to 15.9.....	-	-	-	8	9	8	7	10	29	9
16.0 to 16.9.....	-	-	-	5	23	5	14	1	28	23
17.0 to 17.9.....	-	-	-	2	20	2	36	1	5	20
18.0 to 18.9.....	-	-	-	-	19	-	15	-	-	19
19.0 to 19.9.....	-	-	-	-	7	-	8	-	-	7
20.0 to 20.9.....	-	-	-	-	6	-	2	-	-	6
21.0 to 21.9.....	-	-	-	-	5	-	-	-	-	5
22.0 to 22.9.....	-	-	-	-	2	-	-	-	-	2
23.0 to 23.9.....	-	-	-	-	1	-	-	-	-	1
24.0 to 24.9.....	-	-	-	-	-	-	-	-	-	-
25.0 and over....	-	-	-	-	-	-	-	-	-	-

See notes to Table 4.

Reprint of Part I of "Selected Aspects of Farm Sector Financial Experience and Outlook," from 1981 Agricultural Outlook, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, Committee Print, 96th Congress, 2nd Session, January 1981, pp. 363-378. 1/

I. Farm sector profitability

One often hears that farm real estate is selling at prices not justified by its income, implying that farm asset values have shaky, speculative underpinnings; or, that the ratio of farm debt to net farm income has risen greatly, implying that the ability to service and repay debt may be increasingly in jeopardy. If true, these considerations would dominate the farm financial outlook; thus, it is relevant to assess their validity in this session.

In each of these statements, the same serious analytical error has been committed: the farm income stream being compared with assets, debt, or marketings is the USDA's net farm income series, which represents income to farm operators' labor and management as well as income to farm capital. When such income is used in these comparisons, the financial condition of the farm sector appears to have deteriorated severely over the past 25 years. This is a false result, for the following reason.

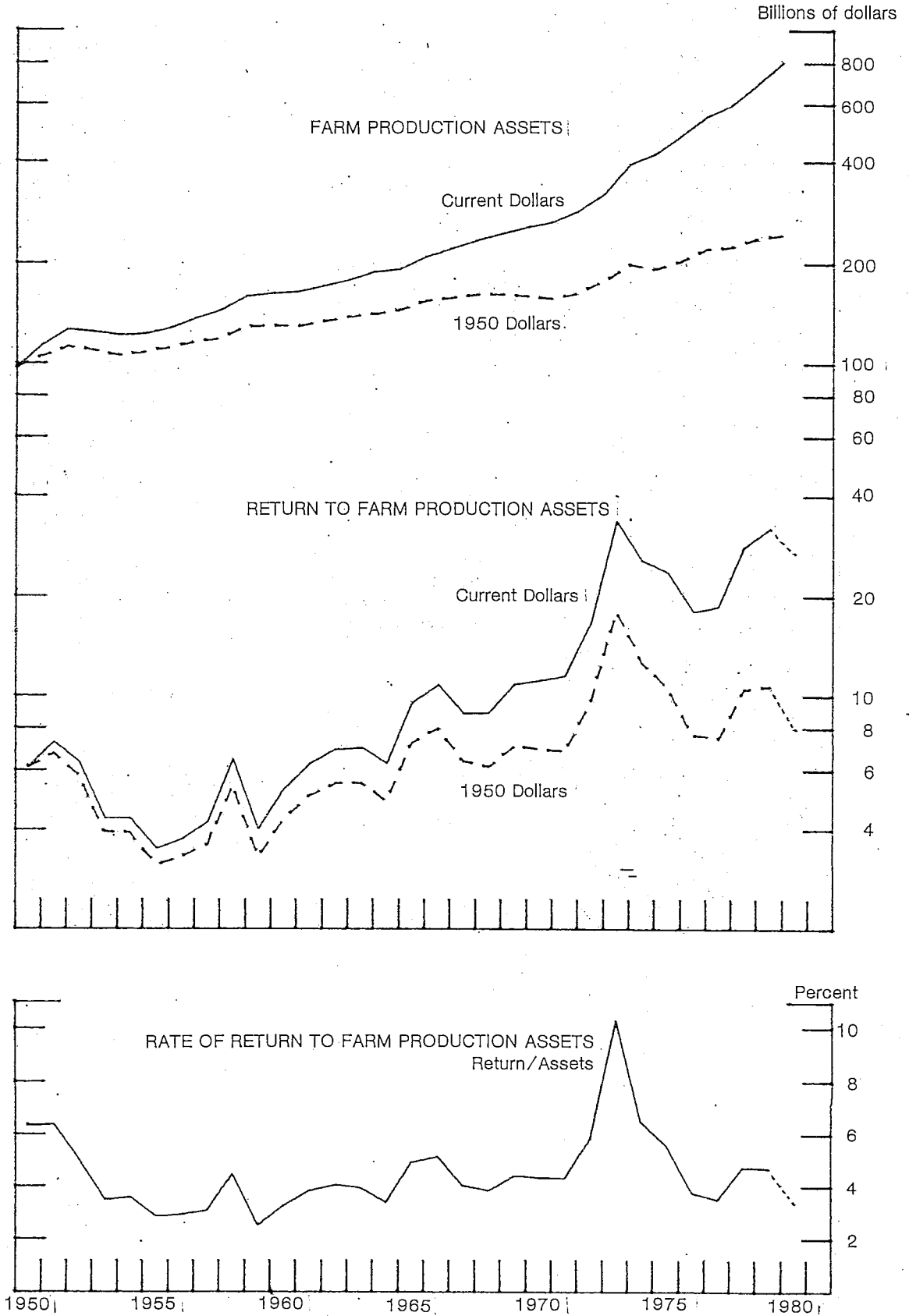
Over time, there has been substantial substitution of capital for labor in farm production. Thus, with each passing year more of the USDA's net farm income represented a return to capital and less of it represented a return to labor. The change has been striking: USDA estimates indicate that whereas only about 30 percent of total returns to farming could be considered a return to capital in the mid-1950's, by the late 1970's that proportion has risen to over 70 percent. Consequently, the return to farm production assets has risen rapidly--in constant dollars, by an annual average of 4.2 percent over 1954-79 (upper panel of Chart 1). This series--which is akin to corporate business profits in that it is what remains after labor and management are paid going wage rates and management fees--represents the relevant data for comparisons with asset and debt levels.

In Chart 1, this return-to-assets series is compared with asset values. Other things equal, asset values should rise at about the same pace as the

1/ The analyses and conclusions are those of the author and do not necessarily reflect the views of the Board of Governors or of other members of its staff.

Chart 1

Return to Farm Assets Compared with Value of Assets



Returns shown for 1980 are based on USDA forecasts of farm income and expenses published in March 1980.

growth in the return they are producing. This has been true of farm assets. For some years, farm assets have on average remained priced at about 25 times their growing return, with that annual return thus averaging about 4 percent of asset values (lower panel of Chart 1).

Financial theory indicates that this price/earnings multiple was appropriate for farm assets if the return to these assets was expected to keep growing at an annual rate of about 4 percent and if owners of these assets were seeking a total real annual yield of about 8 percent (this being the actual average total yield). If these are reasonable assumptions about the expectations and goals of owners and buyers of farm assets, then farm assets have not been overpriced. 2/

In similar fashion, Chart 2 shows that the return to assets has, over the past 25 years, kept pace with rising farm debt. Since 1954, the ratio of outstanding debt to the annual return to assets has fluctuated around a value of 4 (lower panel of Chart 2). 3/

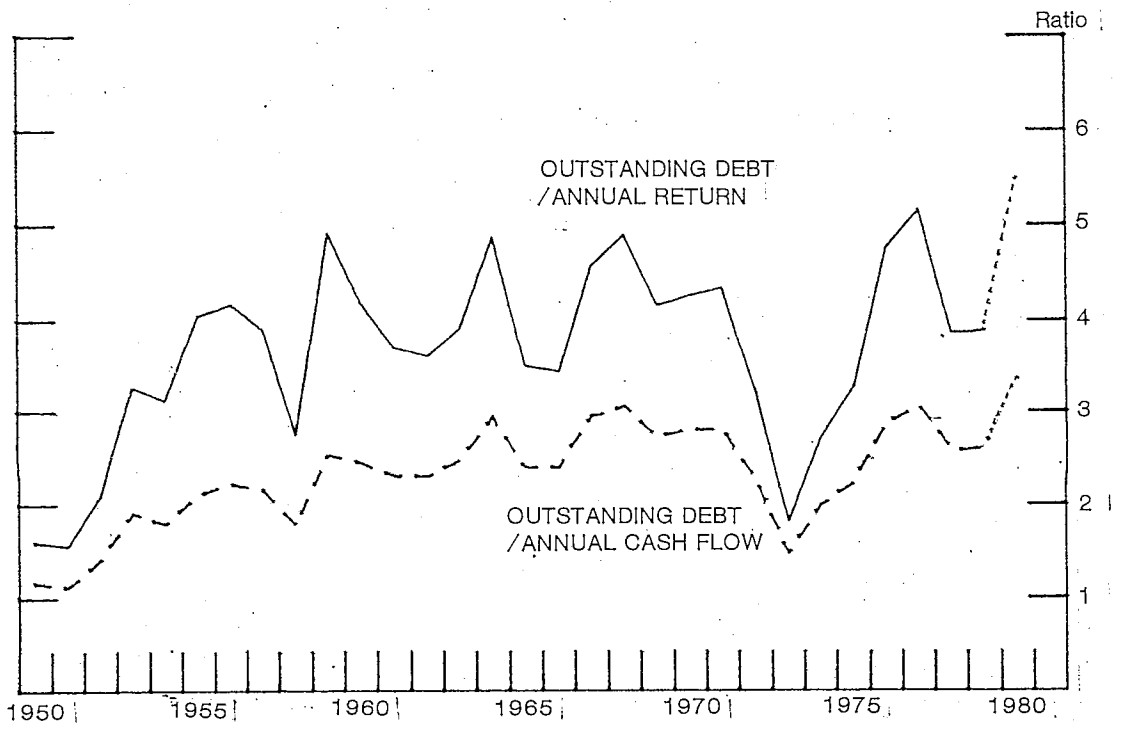
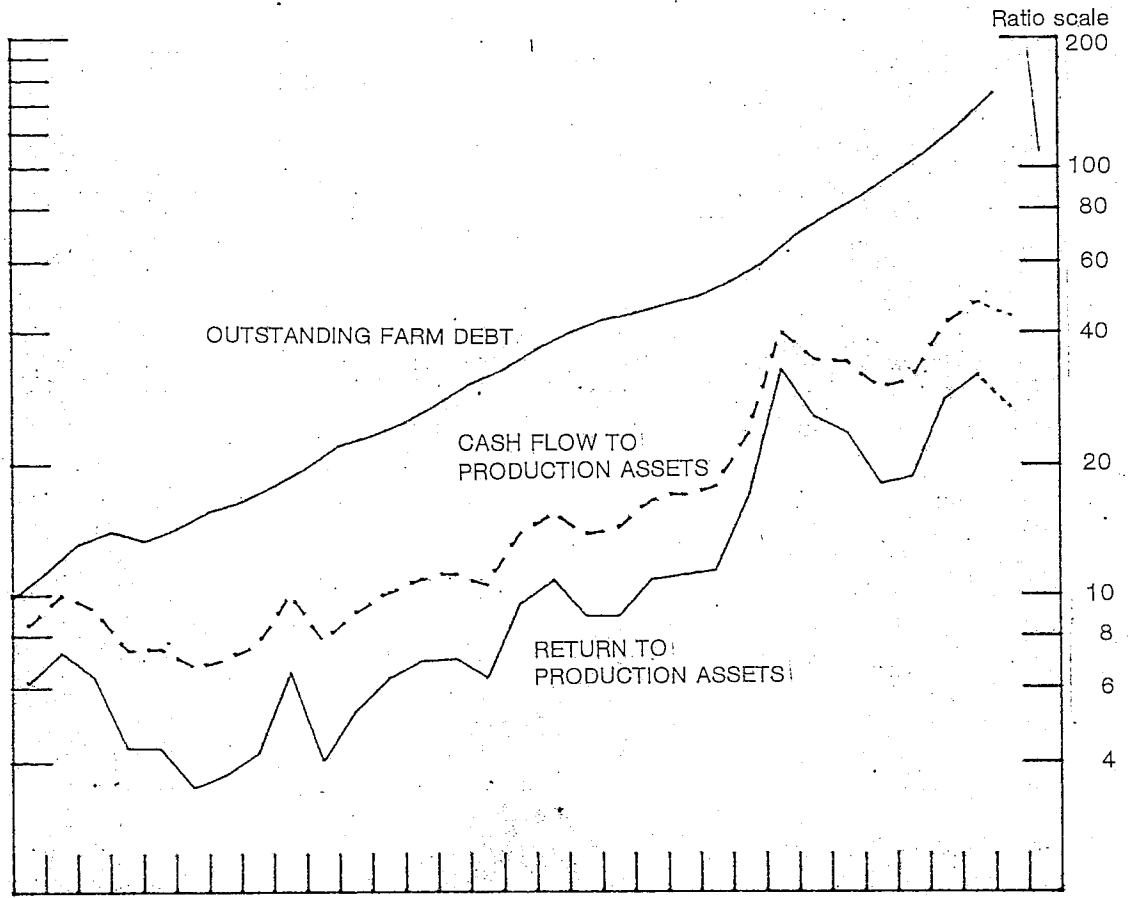
2/ Owners of farm assets have thus been receiving about half of their total real return in the form of current income and half in the form of real capital gains. This puts farmland buyers who need high current income, such as beginning farmers, at a disadvantage vis-a-vis buyers who prefer or are contented with accumulating capital gains. The many persons and groups who are currently seeking to increase the "profitability" of farm assets--meaning the rate of return in the form of current income--must first understand that this can only be accomplished by increasing the proportion of current income in the total return mix. That, in turn, can only be accomplished by reducing the growth rate of the current return!

This analysis thus has paradoxical policy implications, in that the policies that such persons and groups should advocate are often not the ones they now tend to put forth. But the essence of the analysis is very simple: the "profitability" of farming in terms of the rate of current income to assets can only increase if those assets are priced at a lower multiple of that income. The key to understanding and appropriate policy formulation lies in next realizing that the present high multiple is a logical consequence of the growth record of the current income; hence the importance of the common analytical error that has obscured that record.

3/ Analysts have also expressed concern that a marked decline in the ratio of net income to gross income--the "profit" margin--indicates that the financial vulnerability of the farm sector has increased. Again, however, that "profit" margin includes operators' labor and management earnings. The return to assets alone has not shown a secular decline relative to farm cash receipts or gross income. Thus for farm groups for which most labor inputs are fixed cash outlays (such as very large or corporate farms), profit margins and financial vulnerability may have not changed significantly. They have probably moved adversely on farms (such as tenant-operated farms) on which labor earnings comprise a large proportion of operators' net income.

Chart 2

Farm Debt Compared with Income Flows to Farm Production Assets



Farm debt excludes CCC loans and debt on operators' dwellings.

Income flows shown for 1980 are based on USDA forecasts of farm income and expenses published in March 1980.

References

A description of 1980 developments in bank farm lending, liquidity, and farm loan interest rates is provided in Parts II and III of "Selected Aspects of Farm Sector Financial Experience and Outlook," by Emanuel Melichar, in 1981 Agricultural Outlook, Committee on Agriculture, Nutrition, and Forestry, U. S. Senate, Committee Print, 96th Congress, 2nd Session, January 1981, pp. 363-378.

Comprehensive quarterly national data on outstanding farm debt is presented in the Agricultural Finance Databook--Quarterly Series, compiled by Emanuel Melichar and Paul Balides, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. The January 1981 issue, which shows data through December 1980, is available from the authors.

The above Databook also presents data from five quarterly Federal Reserve Bank surveys of agricultural credit conditions at rural banks, most recently made as of January 1, 1981. Quarterly discussions of survey results are published by each of the five Federal Reserve Banks, as follows:

"Farm Credit Conditions in the Fifth District," Federal Reserve Bank of Richmond, Richmond, VA 23261.

Agricultural Letter, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, IL 60690.

"Agricultural Credit Conditions Survey," Federal Reserve Bank of Minneapolis, Minneapolis, MN 55480.

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Economic Analysis Division, Farm Credit Administration, Washington D.C. 20578:

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