

THE SCHOOL OF BANKING OF THE SOUTH

Course Agricultural Economics

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Subject: Farm Capital Invest-
ment Needs, Uses
and Returns

I. A Brief Review

A. Agriculture - 1900 to 1950

1. From subsistence to commercial farming
2. Decline in home-produced inputs;
rise in purchased inputs

Examples: horse power to machinery
open-pollinated to hybrid seed
home-produced to commercial fertilizers

B. The Stepped-up Revolution in Agriculture - 1950 to Date

1. The tremendous battle to stay even
2. Flood of farm products puts pressure on prices and income

(Chart) Farm, Consumer, and Wholesale Price
Trends, 1950-1965

(Chart) Farm Income Versus National Income,
1950-1965

3. Number of farms declines

(Table) Farms in the United States

(Chart) Number of Farms, and Average Size of
Farms in the United States, 1925-1966

4. Farm output versus industrial production
(Chart) Farm Output and Industrial Production
5. The great rise in productivity in agriculture
(Chart) Real Product Per Man-Hour in the
Private Economy - United States
6. Readjustments in resources contribute to increases in
realized net income per worker
(Chart) Number of Farm Workers and Income
Per Worker
7. New types of farming developed
Examples: integrated or contract farming
vegetables, broilers
commercial beef feedlots
commercial milk parlors

II. Farm Technology Dictates Changes in Capital

A. Total Production Assets Increase

1. Total production assets in agriculture have gained significantly in recent years.
2. A large portion of the gain reflects rising land prices which have more than doubled since 1950, and more than quadrupled since 1940.
3. Non-real estate assets have also made sizable gains, with greatest increases in value of farm machinery.

(Chart) Farm Production Assets

B. Gain in Assets Per Farm

1. Production assets per farm have increased very sharply (rising threefold since 1950) in the competitive struggle to attain greater efficiency through farm enlargement.
2. Approximately 50 per cent of the gain in assets per farm reflects rising land prices.
3. The other gains are from new investments in both real estate and other assets.

(Chart) Total Capital Per Farm United States, and
Total Capital Less Real Estate Appreciation

C. Ownership

1. Owner-operator equities in farms decline, proprietors' equities also down somewhat.
2. Large owner-operator equities increasingly difficult to build as capital requirements rise.

(Chart) Proprietor and Operator Equities as a
Per Cent of Farm Assets

D. Organization

1. Likely increase in corporate form of organization

E. Management

1. Fewer owner-operators, rising proportion of part owner-operators and others.

F. Rate of Return on Farm Capital Points to Future
Investment Trends

1. Capital in agriculture is increasingly competitive with capital in non-farm uses.
2. The industry is thus not in isolation from other sectors of the economy (capital, labor, land and product markets).
3. Returns to scale of operations have been great during the postwar period, and the margin of efficiency on larger farms is still great.

(Chart) Average Return on Farm Capital
Specified Types of Commercial
Farms by Size (1947-1964)

4. The smaller farms barely provide an opportunity for the operator and family to earn wages at the national average farm wage rate.
5. Returns to size have been more pronounced in recent years than in early postwar years.

(Chart) Average Return on Farm Capital
Specified Types of Commercial
Farms by Size (Selected periods)

G. Marginal Capital Invested in Real Estate Apparently Yields Greatest
Returns

1. Real estate assets are a greater per cent of total assets on the larger farms which have higher returns to capital.

(Chart) Farm Real Estate as Per Cent of Total
Farm Capital - Commercial Farms by
Size (1960-1964)

2. A smaller proportion of total capital is required for machinery on the large, more efficient farms.

(Chart) Machinery Value as Per Cent of Total Farm Capital - Commercial Farms by Size, 1960-1964

H. Greater Operating Efficiency of Larger Farms

1. The greater operating efficiency of larger farms lies primarily in the opportunity for economies in labor requirements per unit of output.

(Chart) Net Income and Net Income Less Operators' Wages as Per Cent of Total Cash Receipts - Commercial Farms by Size

2. Operating efficiency as indicated by labor and machinery costs is substantially greater on the larger farms than on the smaller ones.

(Chart) Labor and Machinery Costs as Per Cent of Gross Farm Receipts - Specified Types of Commercial Farms by Size

3. High-cost labor is a greater proportion of major cost items on small farms than on larger units.
4. The larger size farms thus provide a better opportunity than smaller farms for reducing marginal costs by replacing labor with machinery.

(Chart) Total Labor Costs as Per Cent of Gross Farm Receipts, Commercial Farm by Size, 1960-1964.

I. Mississippi Delta cotton farms illustrate greater efficiency of larger units

1. The greater efficiency of large crop farms is indicated by the striking differences in rate of return on capital between large and small Mississippi Delta cotton farms.

(Chart) Small and Large Mississippi Delta Cotton Farms, Average Return on Capital, 1960-1964

2. The greater efficiencies of the larger-sized units lie in:
 - (a) Reduced machinery capital requirements per acre
 - (b) A major reduction in labor and machinery expense relative to gross receipts
 - (c) A decline in labor costs relative to the total of labor and machinery expense

This proportionate decline in labor costs occurred despite the smaller per-acre investment in machinery.

(Chart) Small and Large Mississippi Delta Cotton Farms, 1960-1964

III. The Modern Farmer - Small Businessman

A. The Farm Business Versus the Commercial Enterprise

I. Similarities

- a. Capital requirements (ownership)

- b. Importance of financial backlog increases as higher costs magnify exposure in agriculture
- c. Management perfection
- d. Operating statement, expenses as per cent of gross sales
- e. Specialization in one or a limited number of commodities
- f. Bargaining for supplies and raw materials

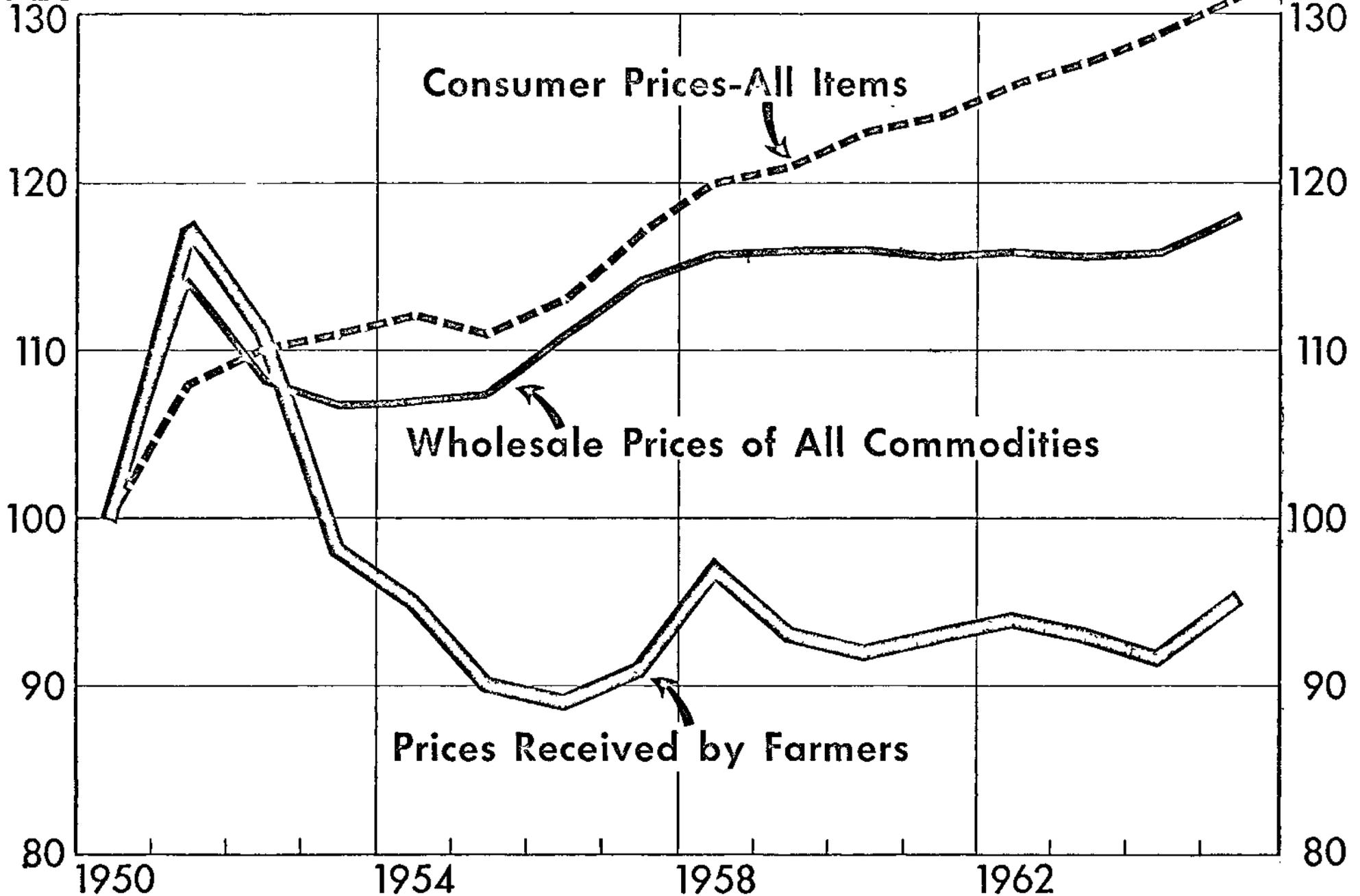
2. Differences that stand out

- a. Natural factors
 - (1) More likely to impair farm operating results
- b. Continuity of management
- c. The balance sheet ratios
 - (1) Example: Land and buildings to total assets and sales are higher in agriculture
- d. Debt as a per cent of total assets
 - (1) Generally higher in non-farm business

Farm, Consumer & Wholesale Price Trends

Index 1950=100

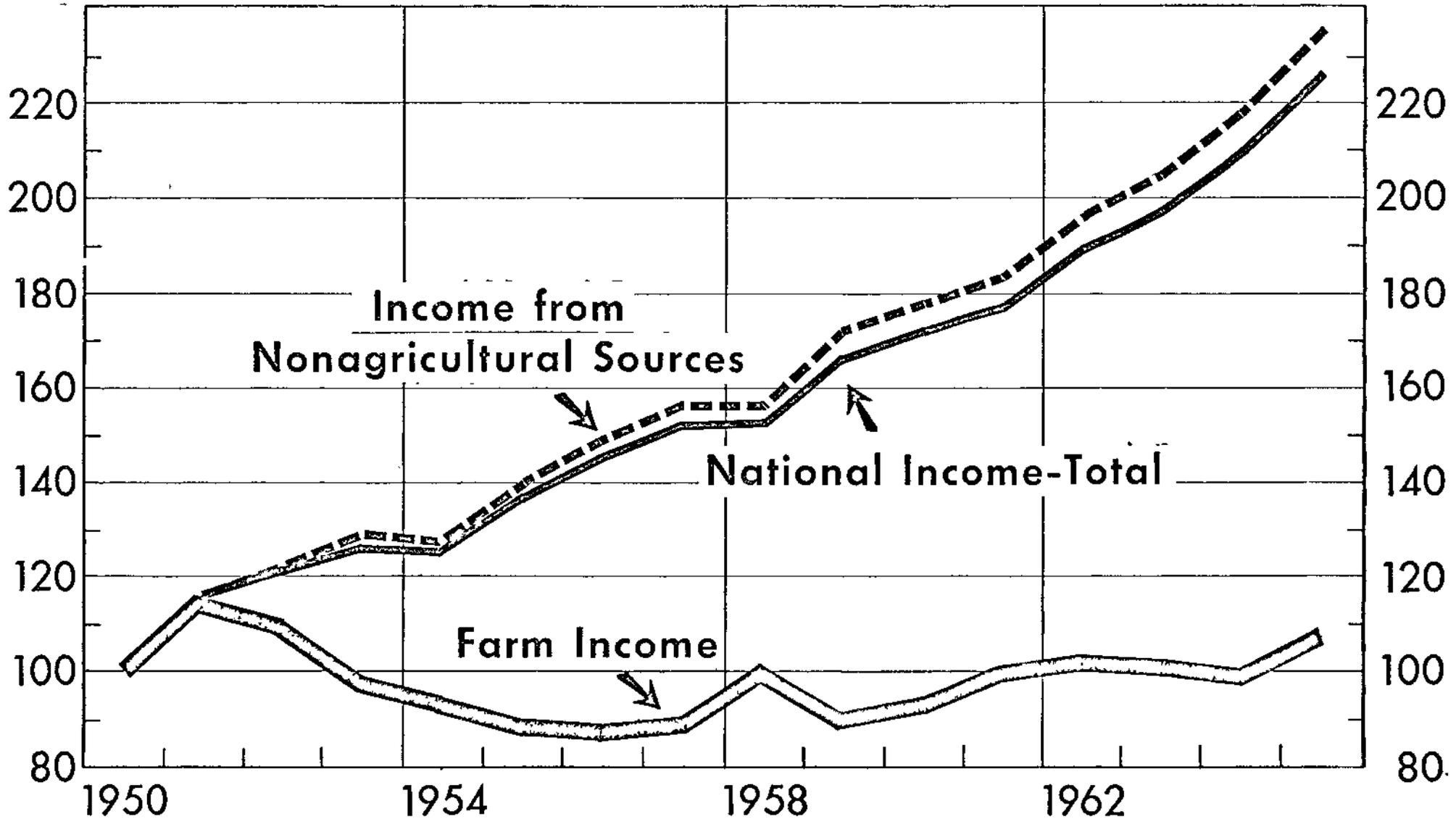
Index 1950=100



Farm Income versus National Income

Index 1950=100

Index 1950=100



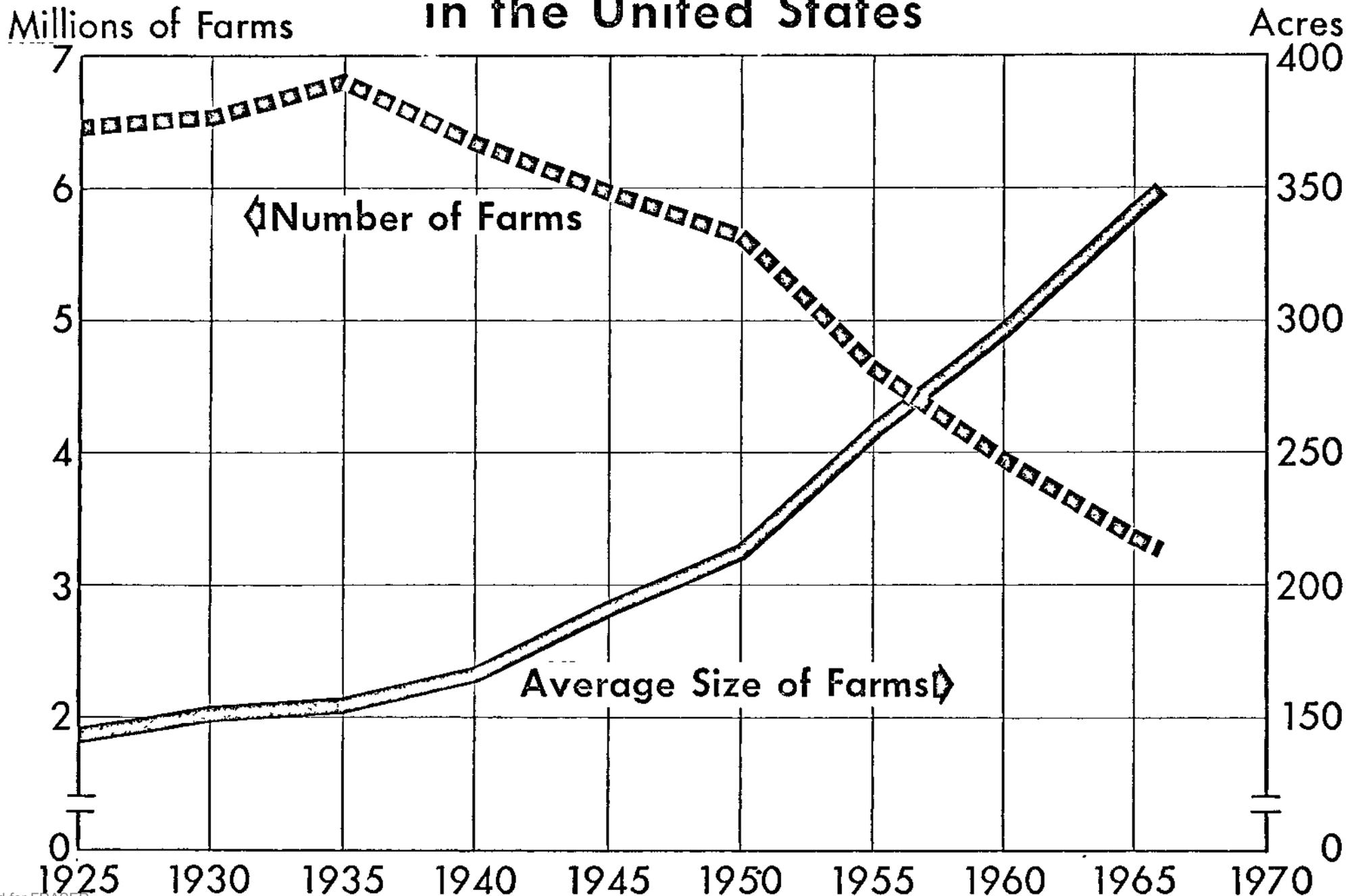
FARMS IN THE UNITED STATES

	<u>Average 1947-49</u>	<u>1966^p</u>
Number of Farms	5,800,000	3,286,000
Land in Farms (Million Acres)	1,159 ^{<u>1/</u>}	1,151
Acres per Farm	200	350

1/ - Data for 1949

p - preliminary

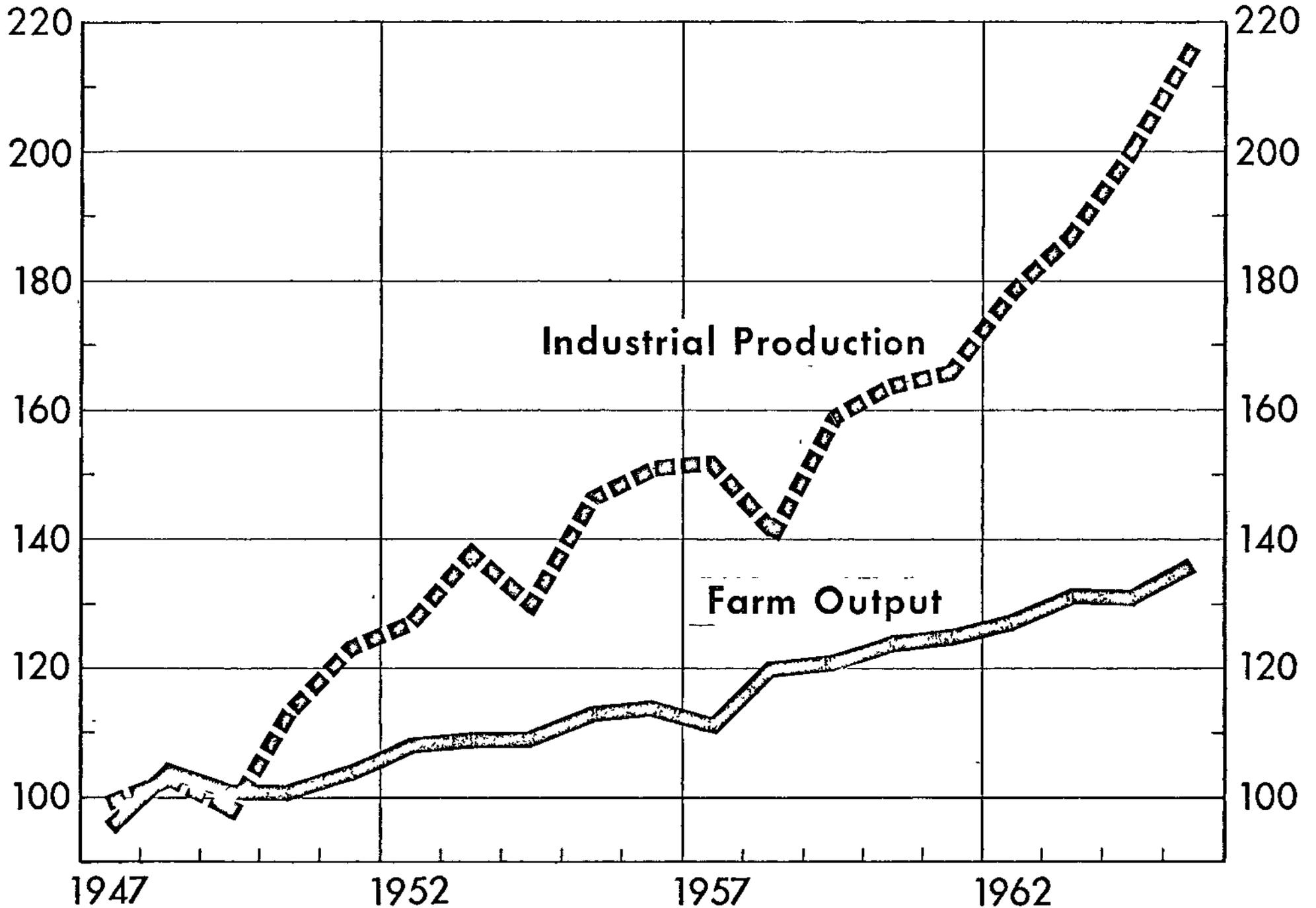
Number of Farms and Average Size of Farms in the United States



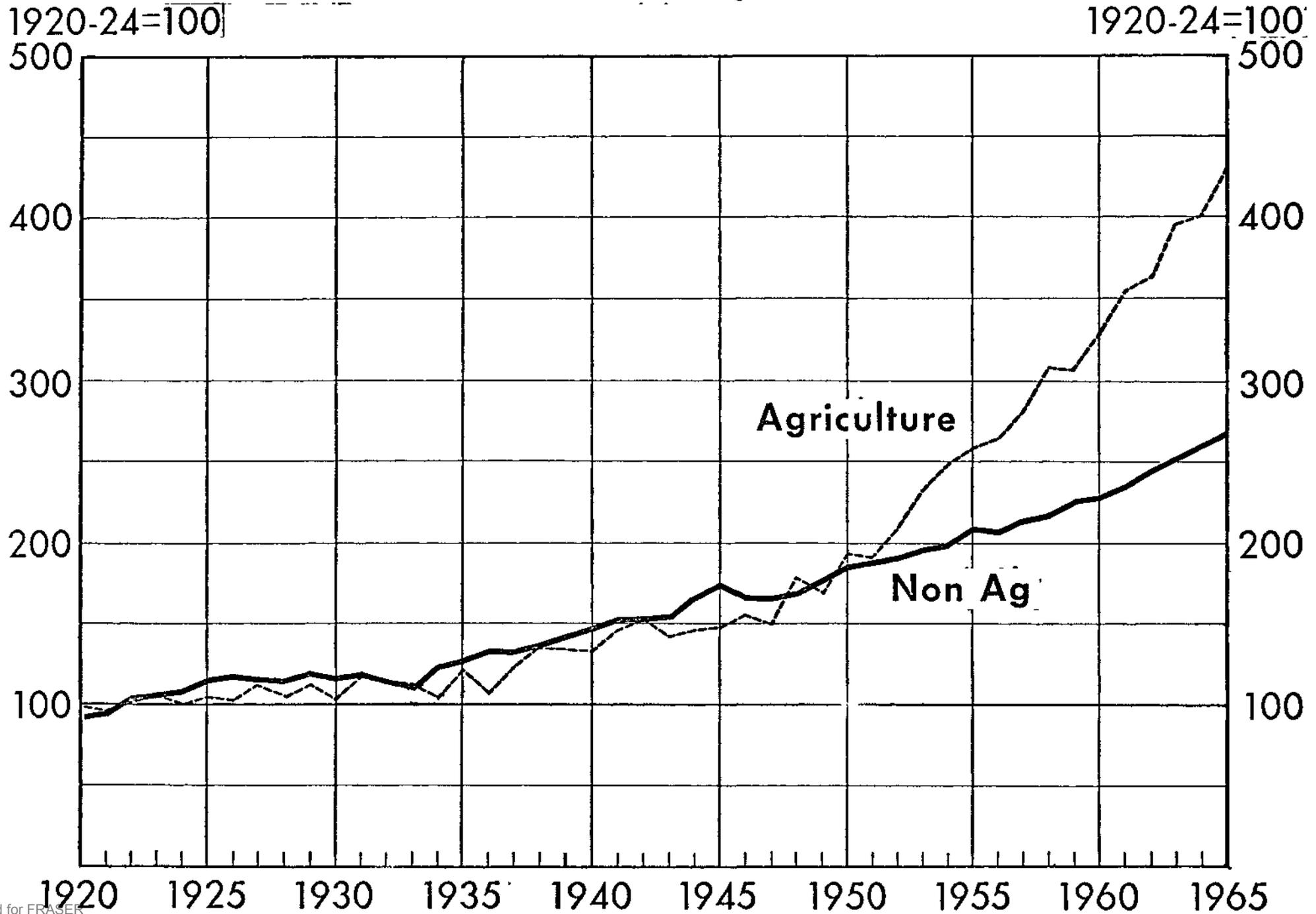
Farm Output and Industrial Production

Index 1947-49=100

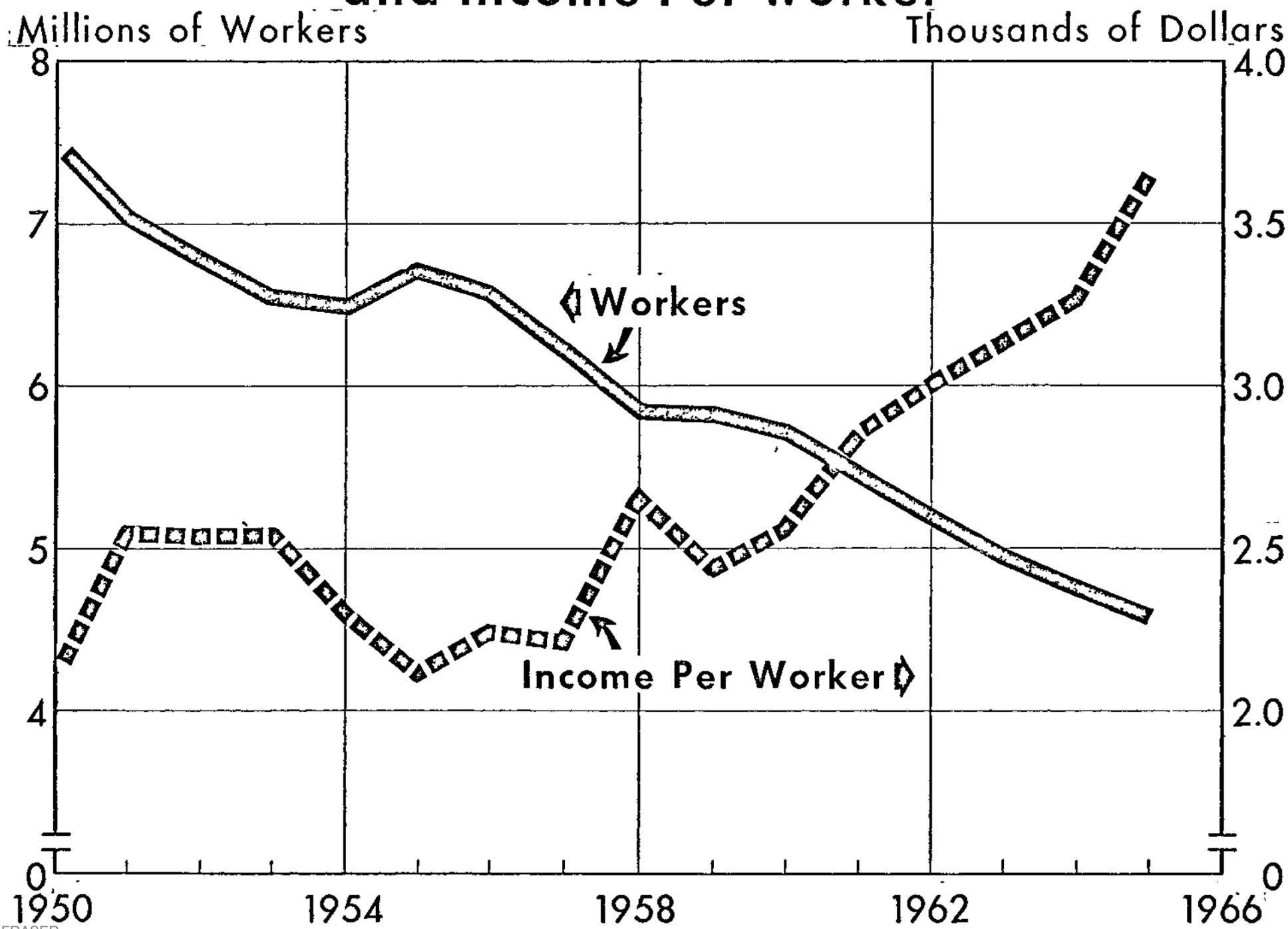
Index 1947-49=100



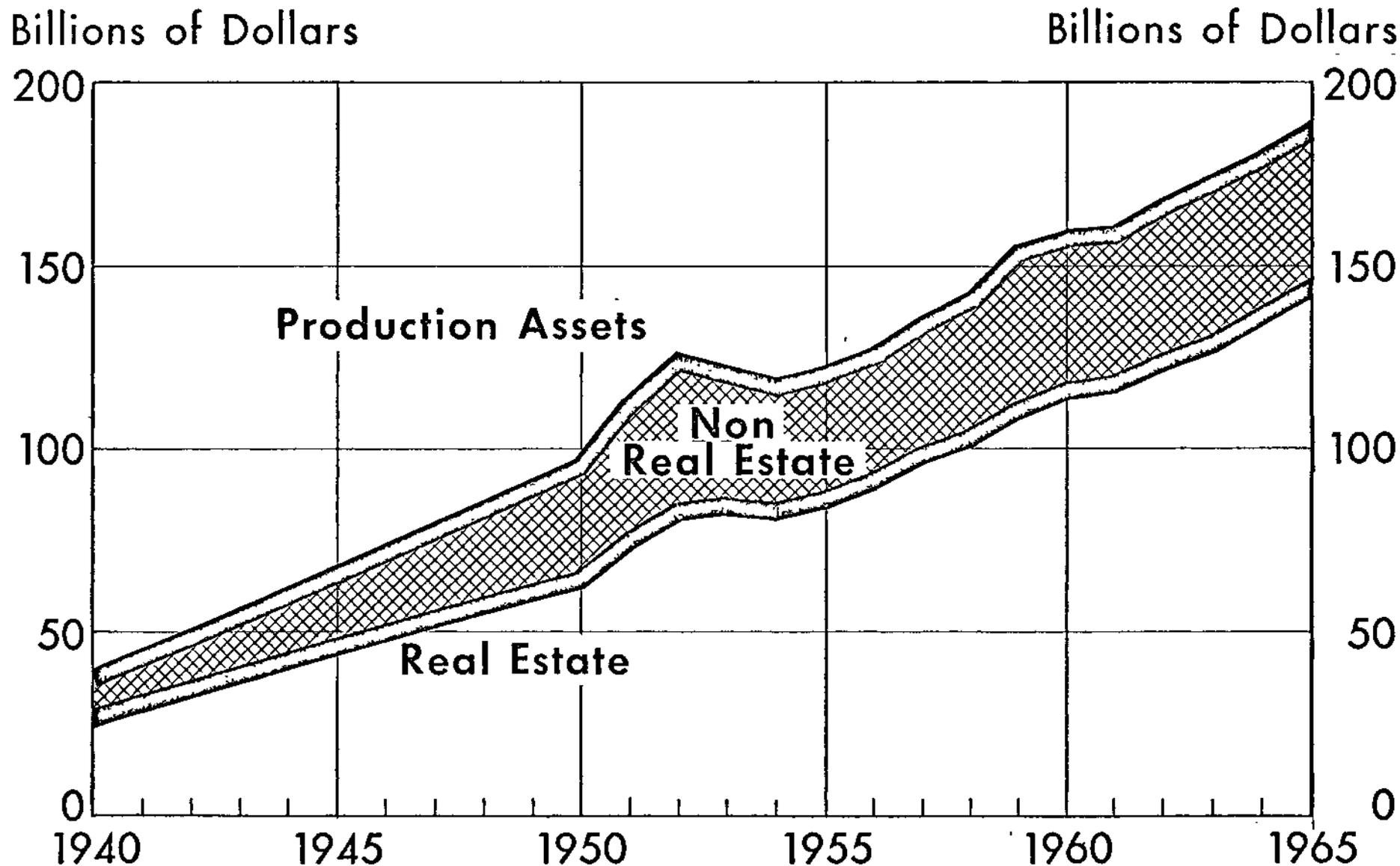
Real Product Per Man Hour in the Private Economy-United States



Number of Farm Workers and Income Per Worker



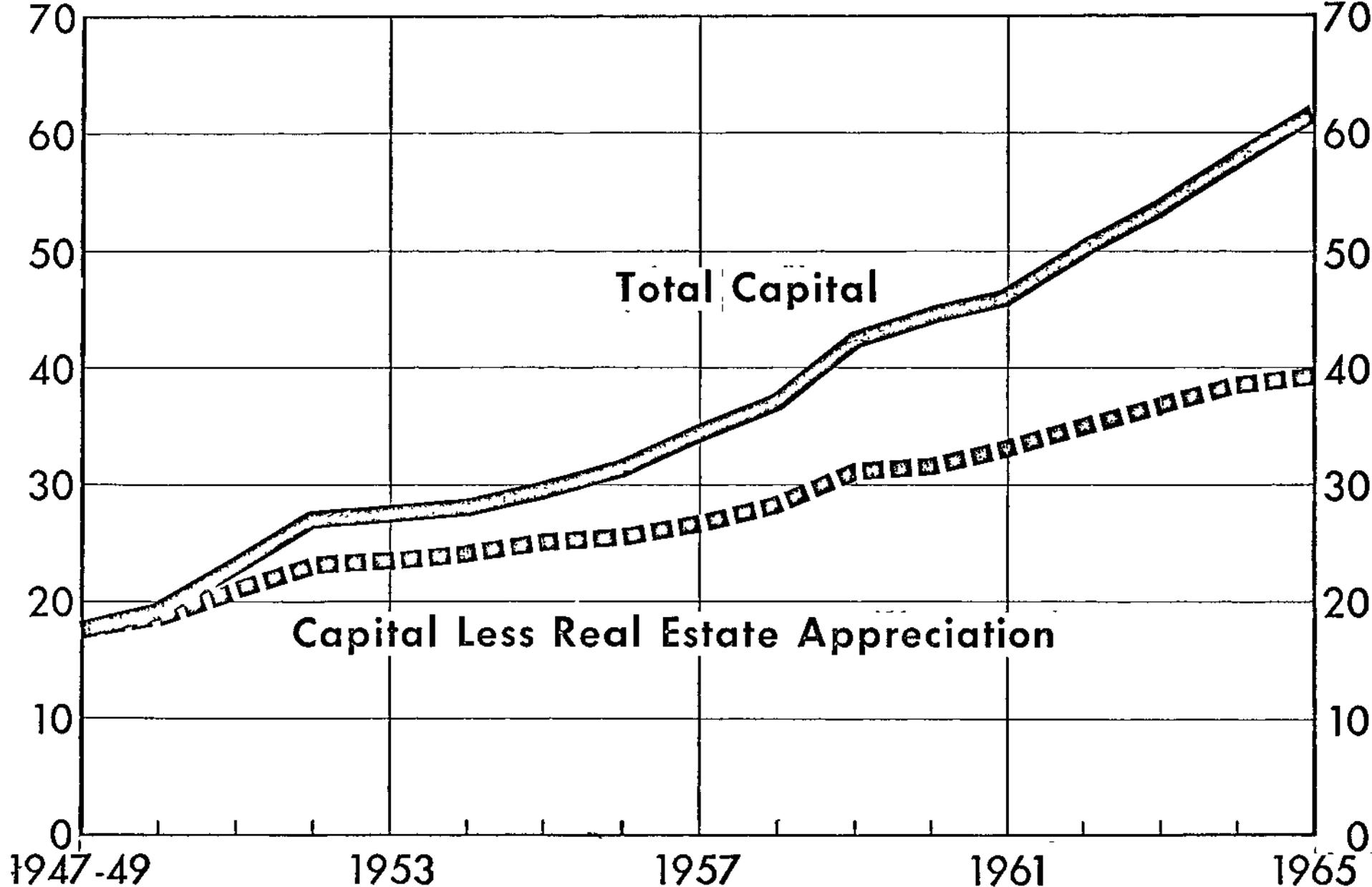
Farm Production Assets



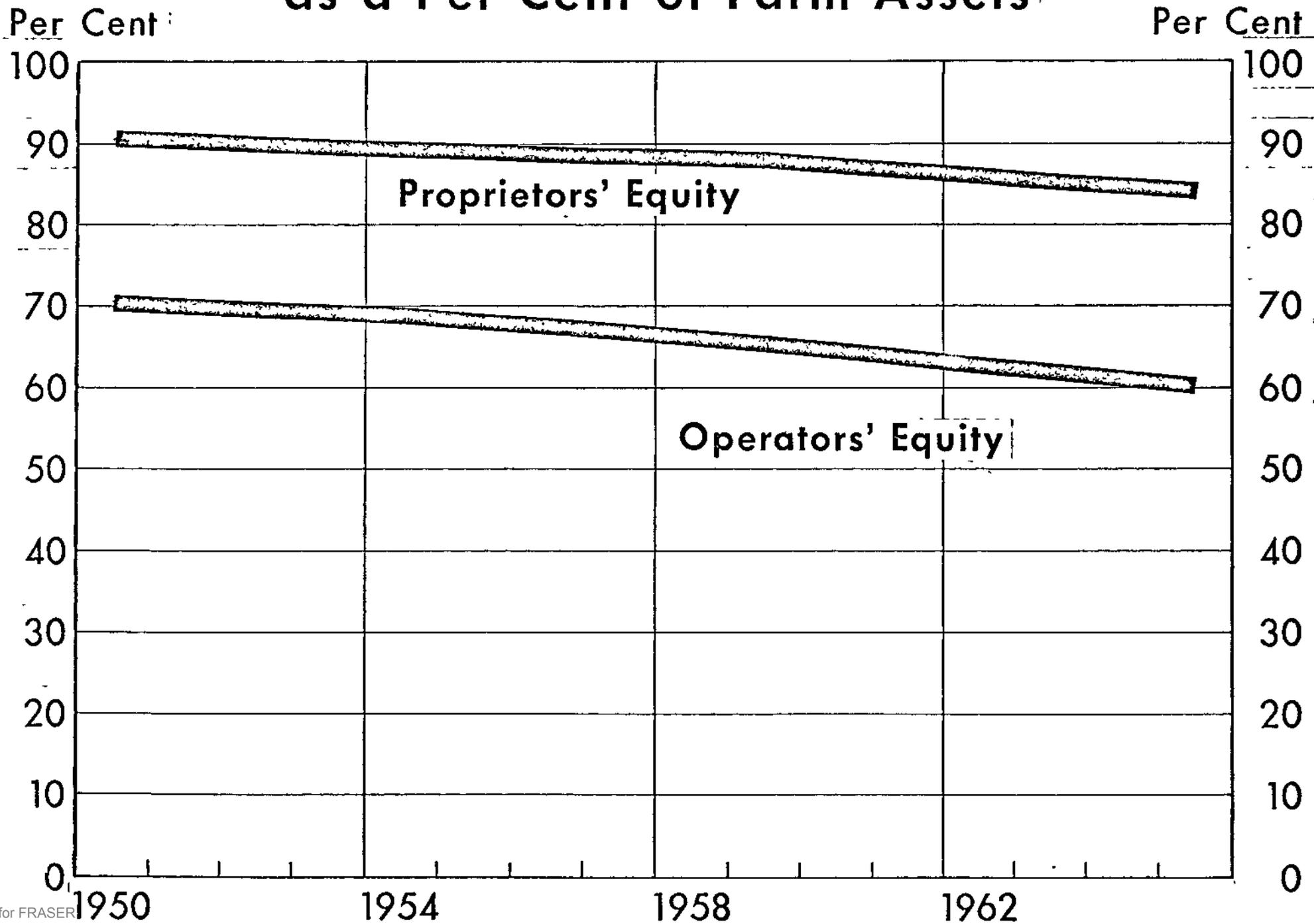
Total Capital Per Farm United States and Total Capital Less Real Estate Appreciation

Thousands of Dollars

Thousands of Dollars



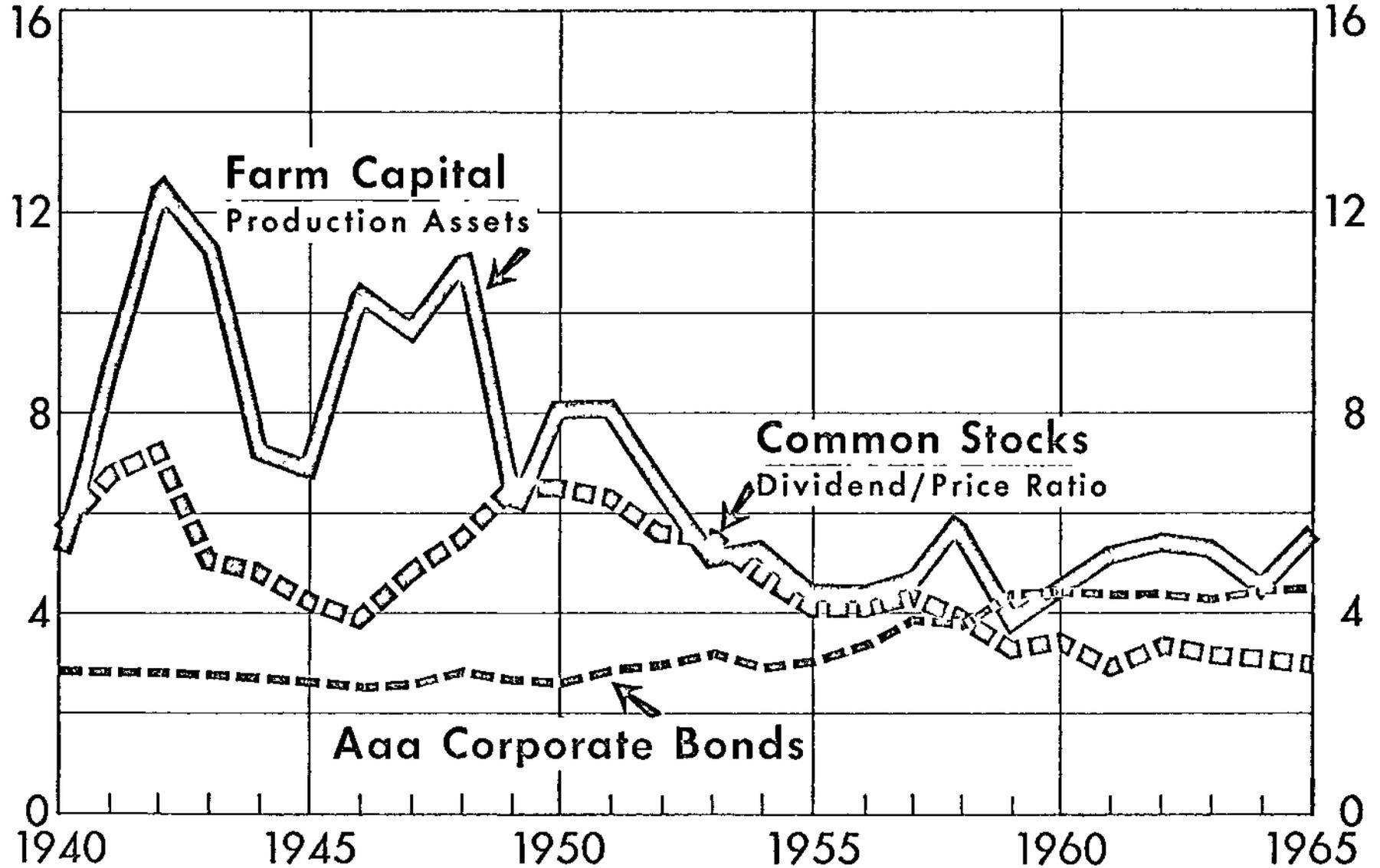
Proprietors' and Operators' Equities as a Per Cent of Farm Assets



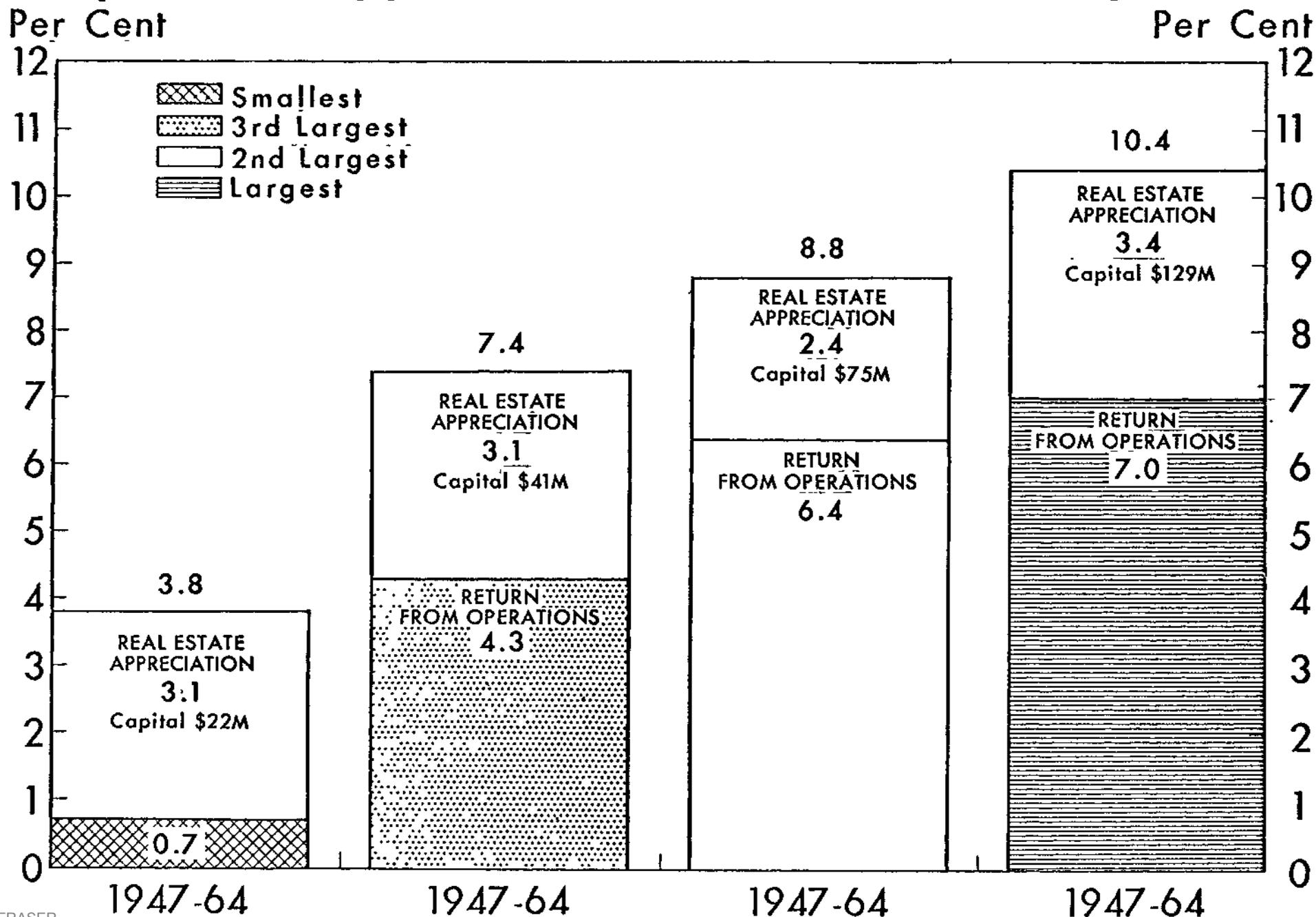
Return on Capital

Per Cent

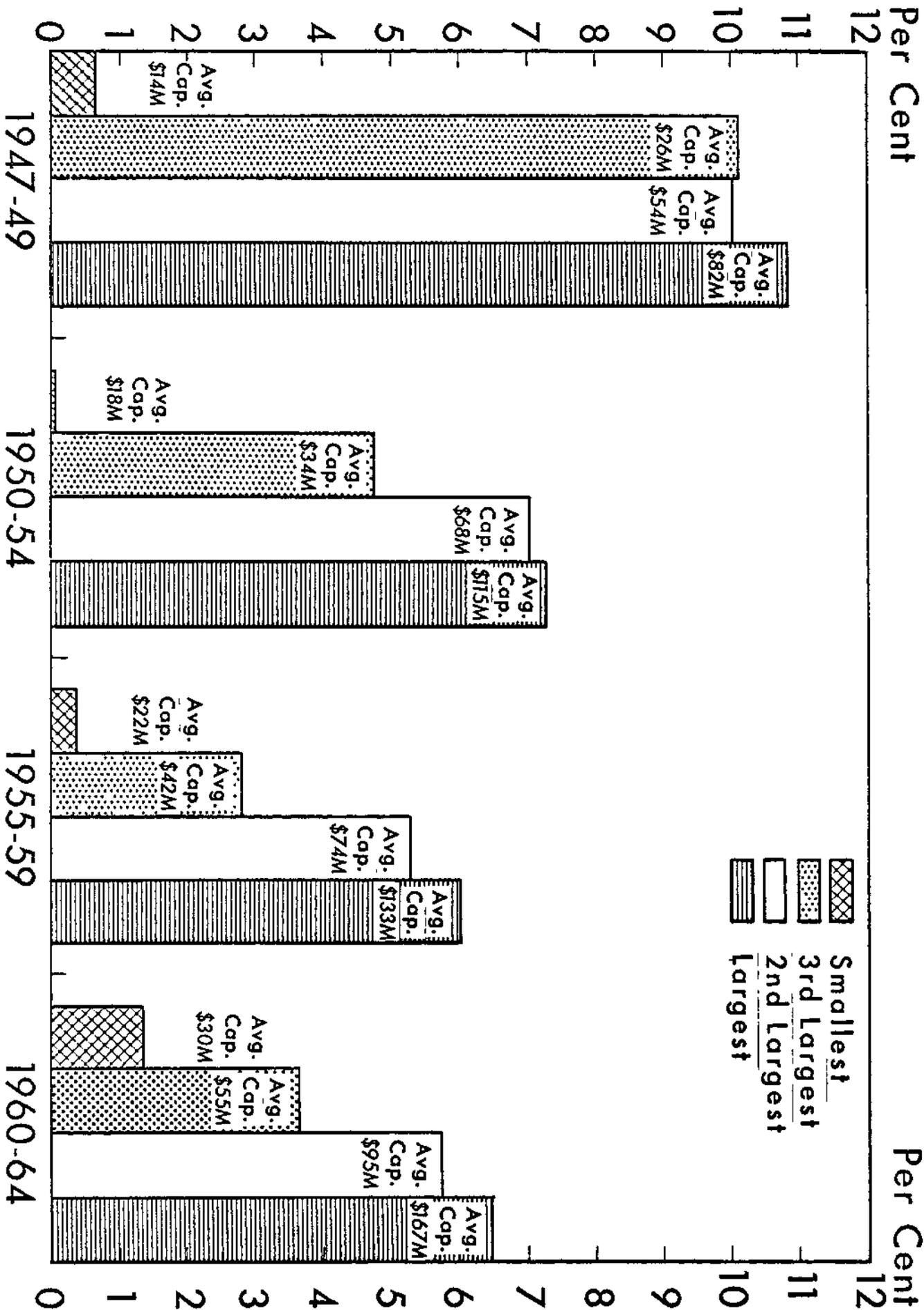
Per Cent



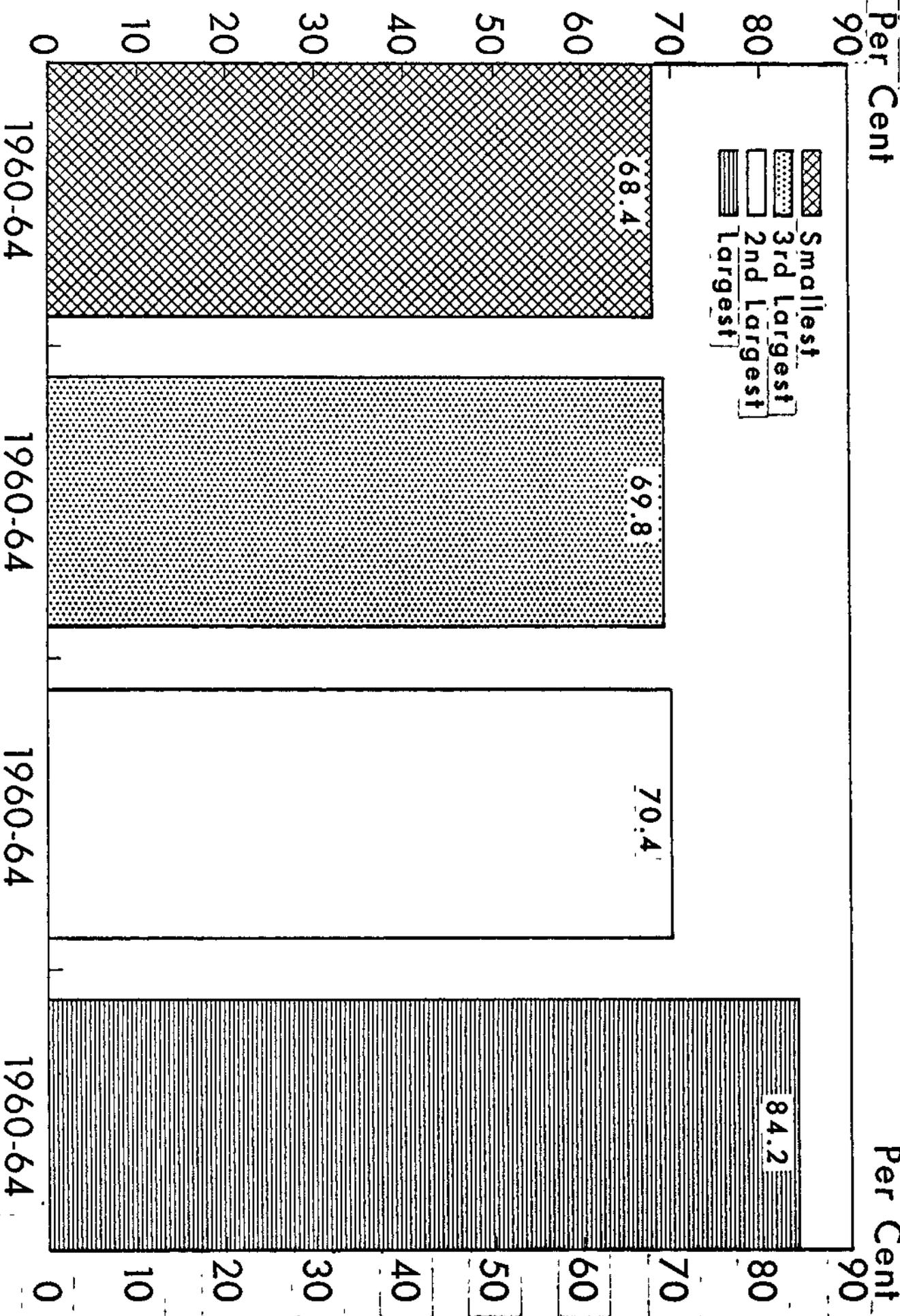
Average Return on Farm Capital Specified Types of Commercial Farms by Size



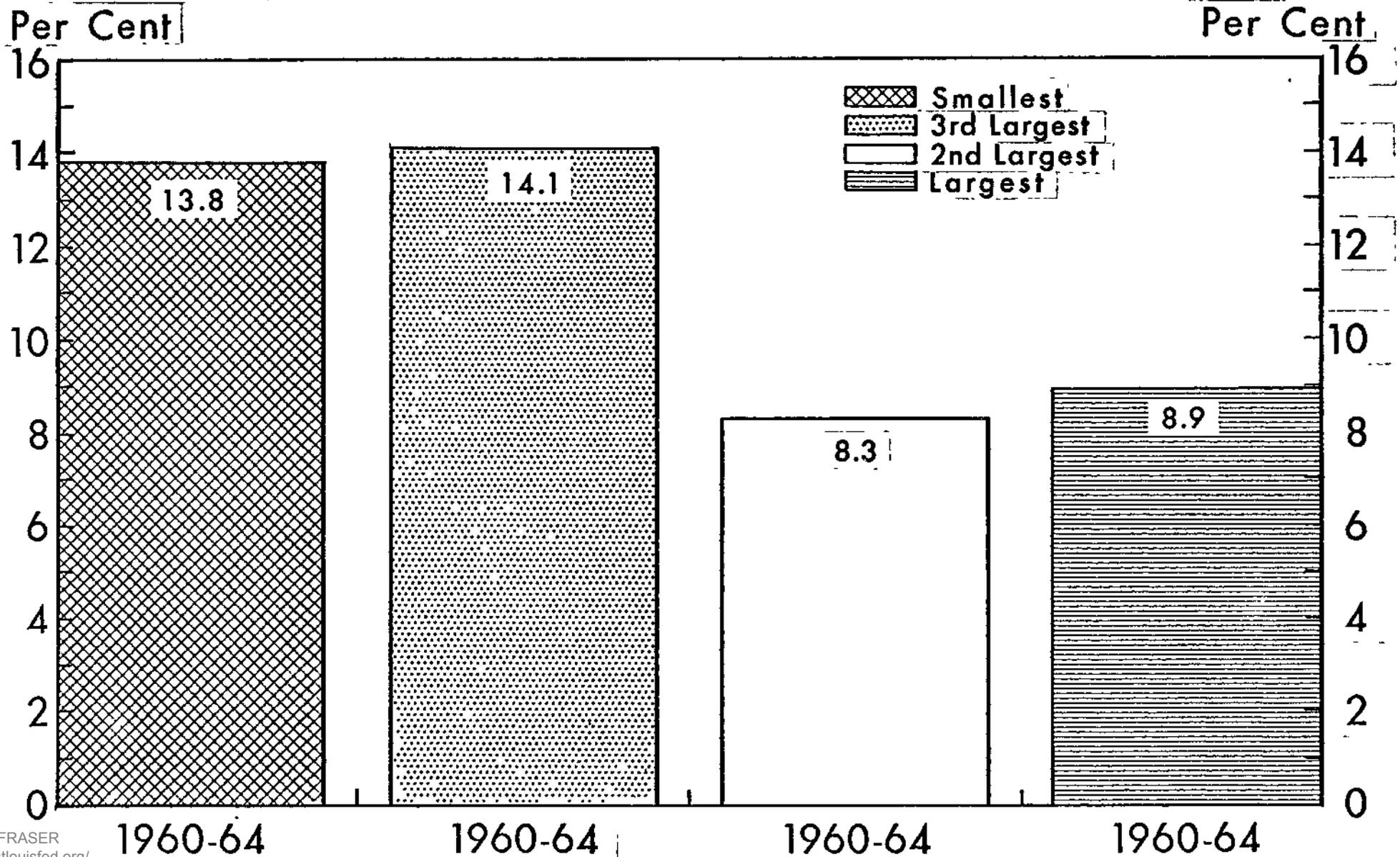
Average Return on Farm Capital Specified Types of Commercial Farms by Size



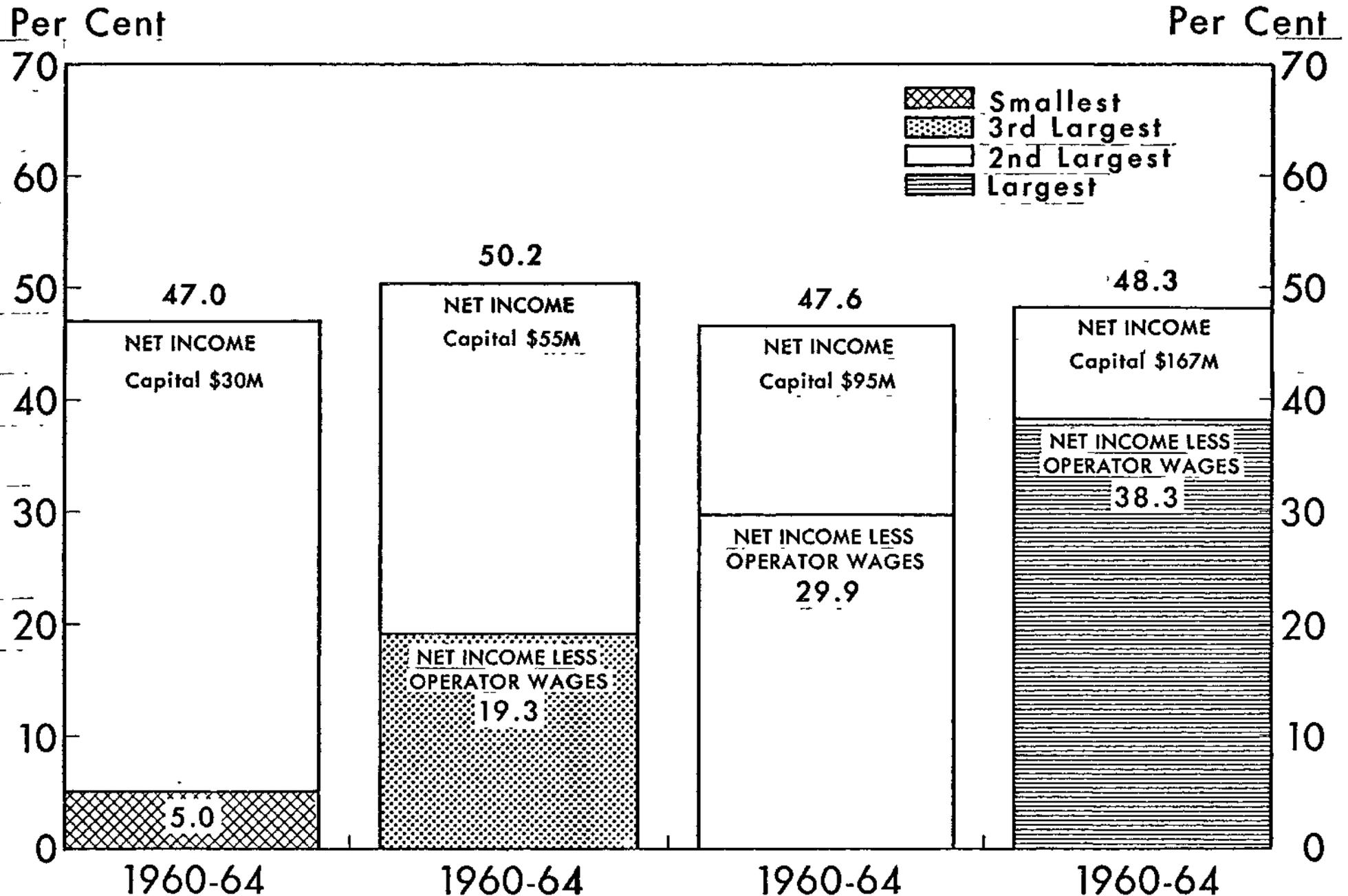
Farm Real Estate as a Per Cent of Total Farm Capital - Commercial Farms by Size



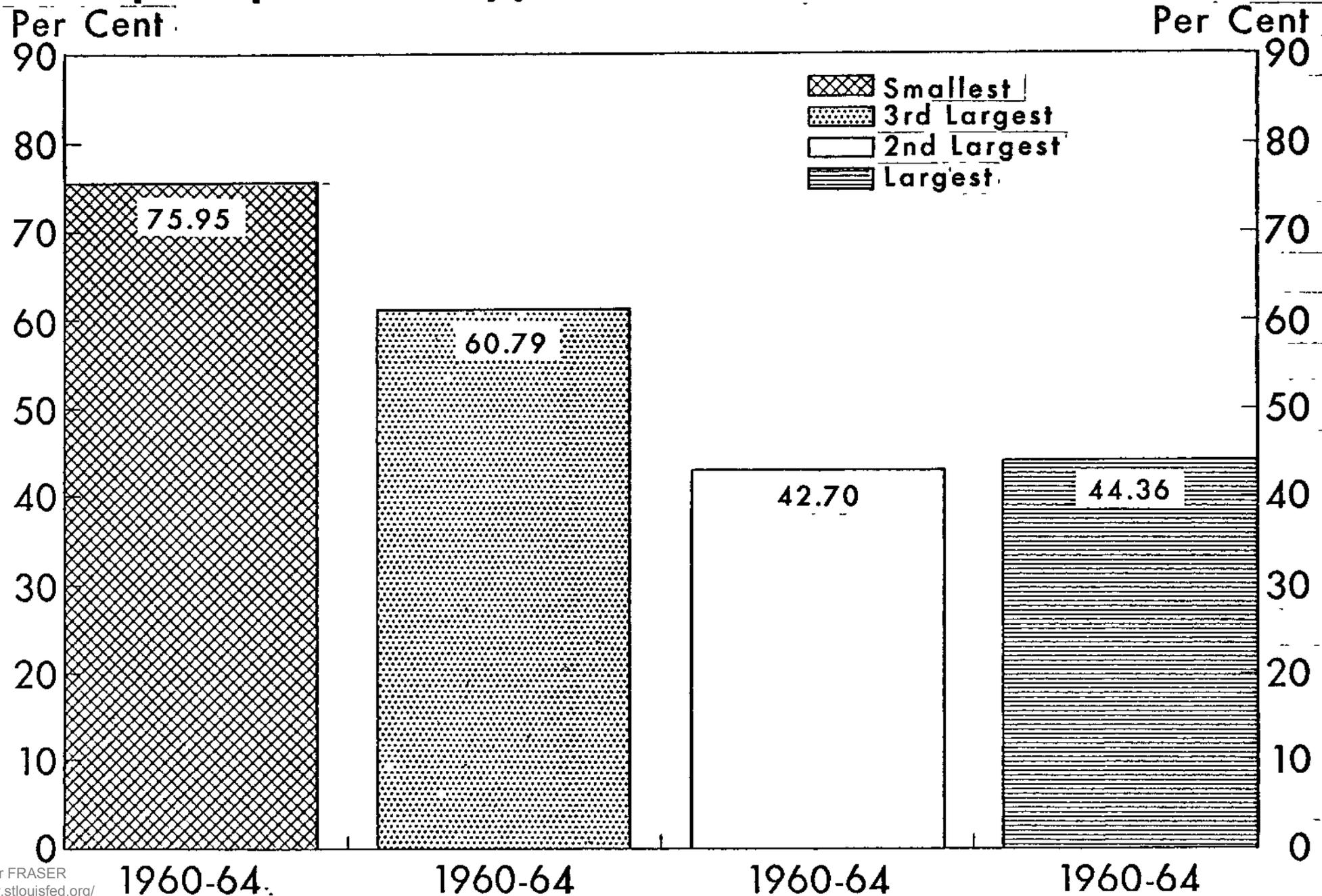
Machinery Value as a Per Cent of Total Farm Capital - Commercial Farms by Size 1960-64



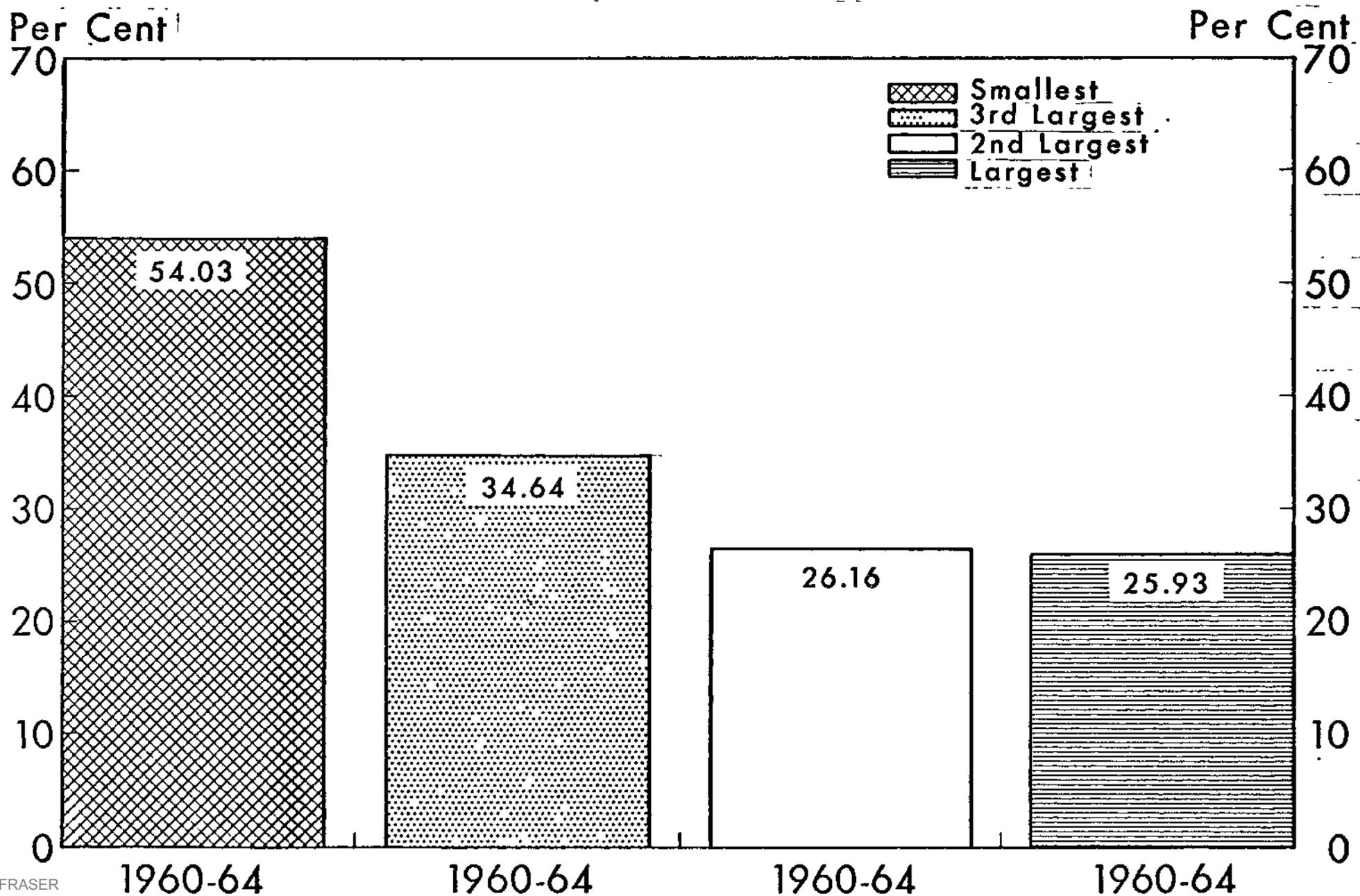
Net Income as a Per Cent of Cash Receipts Commercial Farms by Size



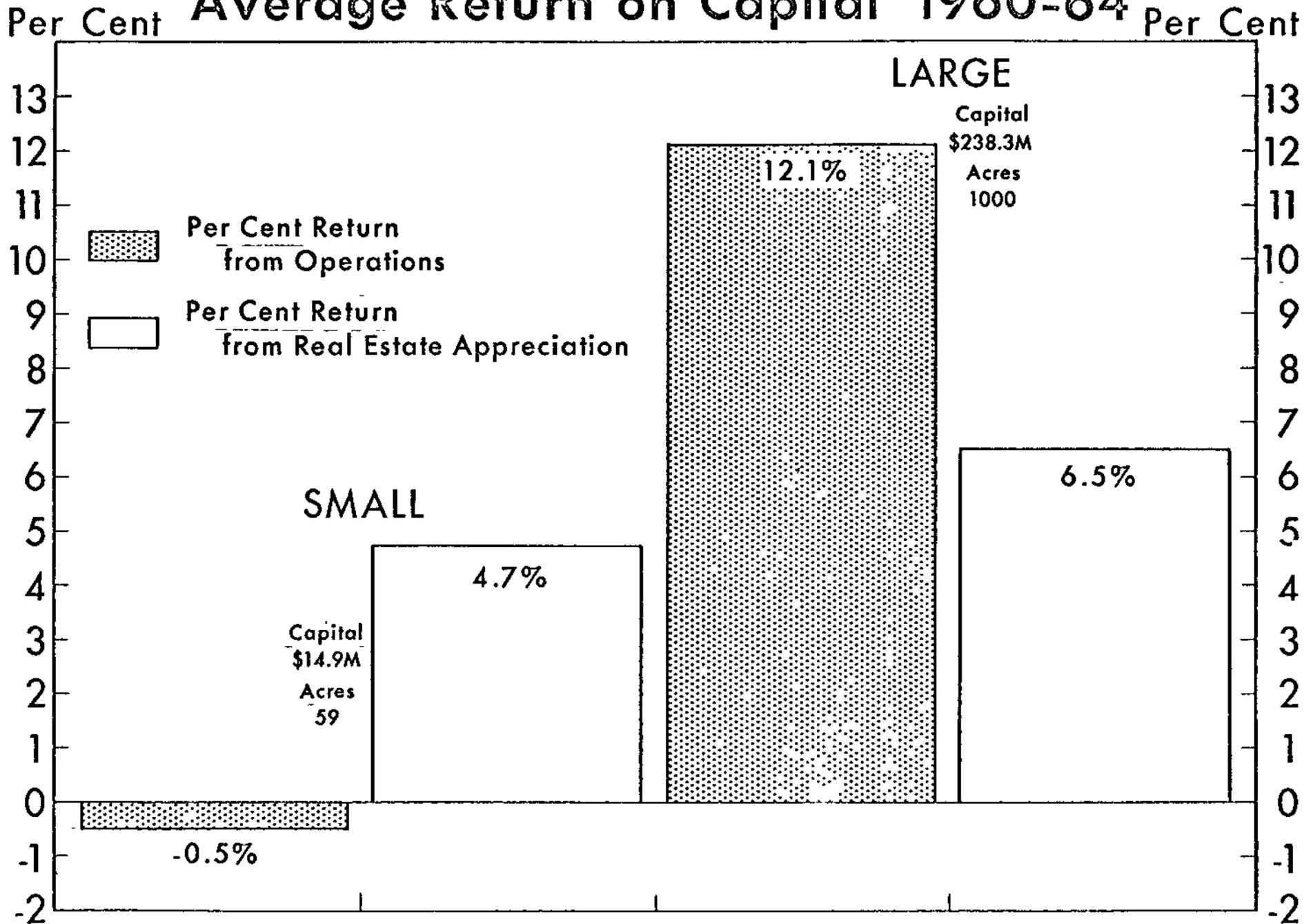
Labor & Machinery Costs as a Per Cent of Gross Farm Receipts-Specified Types of Commercial Farms by Size



Total Labor Costs as a Per Cent of Gross Farm Receipts Commercial Farms by Size



Small and Large Mississippi Delta Cotton Farms Average Return on Capital 1960-64



Small and Large Mississippi Delta Cotton Farms 1960-64

