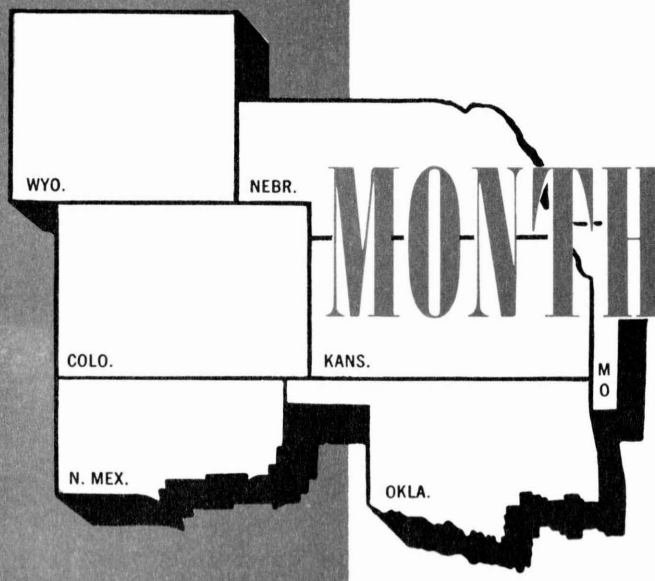

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SUGAR: A New Era Begins

FARMERS in the United States are raising more sugar beets and sugarcane than ever before, in response to a reversal in the world sugar situation that began about 1960. The extreme turnabout from a situation of excess world sugar stocks and low prices is traced to a sharp decline in sugar production in Cuba—for years the world's largest producer—and to poor sugar beet crops in Western Europe, due to unfavorable weather, in both 1961 and 1962. At the same time, world sugar consumption has continued to rise, so that world stocks have declined. Expansion of domestic sugar production is being encouraged to help alleviate the global deficit.

U. S. farms are increasing output of beets and cane, since direct acreage allotments are not in effect currently, but production is not entirely unrestrained. Many farmers would like to increase their acreages further and others would like to begin production because sugar is generally a profitable enterprise.

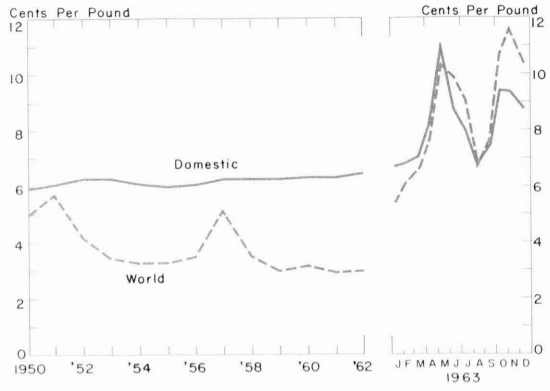
Acreage allotments for sugar beets were in effect until the spring of 1960, but have not been since and will not be through 1965. Neither are allotments in effect in 1964 in the U. S. mainland sugarcane area—Louisiana and Florida. However, expansion of domestic sugar output is limited, indirectly. Particularly for sugar beets, acreage is limited by capacity of the nearest processing plant. Beets are grown under contract with processors, who ordinarily let contracts for no larger acreages than can be handled adequately. Quotas allocated by the Government to "persons who market sugar" place a restraint, too, by limiting the quantity that processors can market for food use. Processors may increase inventory stocks or sell excess supplies as livestock feed, at substantially lower prices, but they hesitate to contract for larger acreages without some assurance that the resulting yield can be marketed profitably. In general, this latter restraint is less important than the limited plant capacity, because production has not kept pace with the increased quotas for domestic areas.

THE U. S. SUGAR SYSTEM

Authority for controlling domestic sugar supplies is vested in the Sugar Act, which provides a broad framework of regulations. By rigidly controlling supplies, the U. S. Government aims to protect domestic sugar producers and consumers from volatile fluctuations in world sugar prices. Following World War I, world output of both cane and beet sugar increased rapidly and wholesale prices of sugar in the world market declined sharply. During the worldwide depression which began in the fall of 1929, the pressure was for a further decline in sugar prices. The effect on sugar producers was devastating.

Following the limited success of previous agreements, 21 major sugar importing and exporting countries, including the United States, negotiated the International Sugar Agreement of 1937. The chief objectives were to limit further expansion of both sugar beet and sugarcane acreage, to establish import and export quotas, and to stabilize prices and in-

Chart 1
AVERAGE PRICES, RAW CANE SUGAR



SOURCE: U. S. Department of Agriculture.

ternational trade in sugar. The main features of the Agreement were implemented in the U. S. Sugar Act of 1937 and retained in subsequent revisions of the Act.

Despite the International Sugar Agreement, the period between World War II and 1960 was characterized by surplus world supplies and low prices of sugar, although U. S. consumers and producers were largely insulated from the price effects through administration of the Sugar Act. However, world production has fallen short of consumption for the past 2 to 3 years, and in 1963 the U. S. market was drawn out of its isolation as the world price of sugar skyrocketed past the high levels previously maintained in the United States. World prices rose from a disastrously low level of around 2 cents per pound for raw sugar in January 1962 to more than 10 cents in May 1963.

U. S. sugar legislation contains a formula that establishes about 6.6 cents per pound as the domestic price objective. Domestic sugar prices have been controlled by restricting U. S. sugar imports and domestic production to those quantities which will keep prices at the desired level. When the world price is below the domestic price, no difficulty is encountered. But with the unusual set of circumstances culminating in 1963, the market reacted "nervously." Despite repeated assurance by U. S. Department of Agriculture officials that domestic sugar needs would be met, the ratio of world supplies to consumption was at the lowest level since the mid-1920's. With such a tight balance, and with the longer transportation time needed to obtain foreign supplies, the market reacted sharply to every indication of severe shortage.

The Sugar Act apportions the U. S. sugar market between domestic and foreign suppliers—currently about 60 per cent to domestic and 40 per cent to foreign. The domestic share is, in turn, apportioned among the beet sugar areas, the mainland cane area (Louisiana and Florida), and the three offshore producing areas—the state of Hawaii, the Commonwealth of Puerto Rico, and the Virgin Islands. The foreign share is allocated partly by specific quotas assigned to about 25 countries and partly by a "global" quota. The global quota is an amount reserved for Cuba when, and if, normal diplomatic and economic relations with that country are resumed. Until such time, this global quota is made available to other foreign countries on a first-come-first-served basis, with a preference for Western Hemisphere countries and countries that purchase U. S. agricultural commodities.

In December of each year, the Secretary of Agriculture announces a national "consumption estimate" for the following year—setting the total amount to be apportioned under the quota system. The total consumption estimate is determined by multiplying projected increases in population times average per capita consumption, and then adjusting for anticipated changes in inventory stocks. Per capita sugar consumption in the United States has averaged about 103 pounds, raw value, each year since sugar rationing was terminated in 1947. However, *distribution* for consumption varies somewhat, depending on whether inventory stocks are increased or decreased during

Table 1
TOTAL CONSUMPTION ESTIMATES AND APPORTIONED MARKETING QUOTAS FOR SUGAR
Continental United States

Source of Supply	Quota for Calendar Year 1963 Initial estimate	1963 Revised estimate	1964 Initial estimate
	(Short tons, raw value)		
Domestic			
Beet sugar area	2,698,590	2,698,590	2,698,590
Mainland cane area	911,410	1,009,873	911,410
Hawaii	1,110,000	1,070,000	1,110,000
Puerto Rico	1,140,000	870,000	965,000
Virgin Islands	15,000	15,000	15,832
Subtotal, Domestic	5,875,000	5,663,463	5,700,832
Foreign			
25 quota countries	2,420,659	3,010,879	2,595,307
Global quota	1,504,341	1,725,658	1,503,861
Subtotal, Foreign	3,925,000	4,736,537	4,099,168
Grand Total	9,800,000	10,400,000	9,800,000

SOURCE: U. S. Department of Agriculture.

the year. Anticipating inventory changes is the most difficult part in determining the consumption estimates on which marketing quotas are based. Determining the estimates as closely as possible is important because a high estimate will result in depressed domestic sugar prices, which makes U. S. sugar producers unhappy. Conversely, if the estimate is low, sugar prices rise and consumers are displeased.

In December 1962, the Secretary of Agriculture announced a total consumption estimate for 1963 of 9.8 million tons (Table 1). This action recognized a probable consumption of 9.85 million tons and a probable refiners' loss of 50,000 tons. Against this total projected need of 9.9 million tons, 100,000 tons could have been met by working down inventories believed to have accumulated in 1962, leaving a total quota of 9.8 million tons to be apportioned.

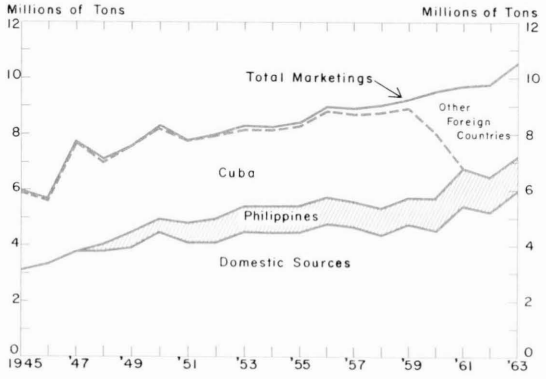
Early in 1963 it became apparent that invisible inventories were being increased further, rather than worked down, due to fear of a severe sugar shortage. On May 6, 1963, the total quota was revised to 10.4 million tons, to provide for additional stockpiling.

The Sugar Act contains a formula by which domestic and foreign suppliers are to share in increased quotas. However, for some areas it was determined that additional production would not be forthcoming in 1963 to meet an increased quota. The domestic beet sugar area's share of the increase—291,537 tons—was not expected in May to be forthcoming in 1963, and was reallocated to other areas. Quotas of Hawaii and Puerto Rico were actually reduced, because production possibilities seemed to warrant it. (The increased quotas remained available to these areas, in case production ultimately was such that delivery could be made.) The net result of the revised quotas—which were subscribed within a short time—is summarized in Table 1, which also gives the initial consumption estimate of 9.8 million tons for 1964.

AREAS OF U. S. SUGAR SUPPLY

Historically, the United States has not been self-sufficient in sugar. Relative to certain other countries, the United States has been a high-cost producer of sugar. The policy of maintaining a domestic price which has ordinarily been above the world price, together with a system of Government payments to domestic growers, has enabled the growth of an industry that this country would not otherwise have had. The maintenance of substantial domestic sugar production has been deemed important

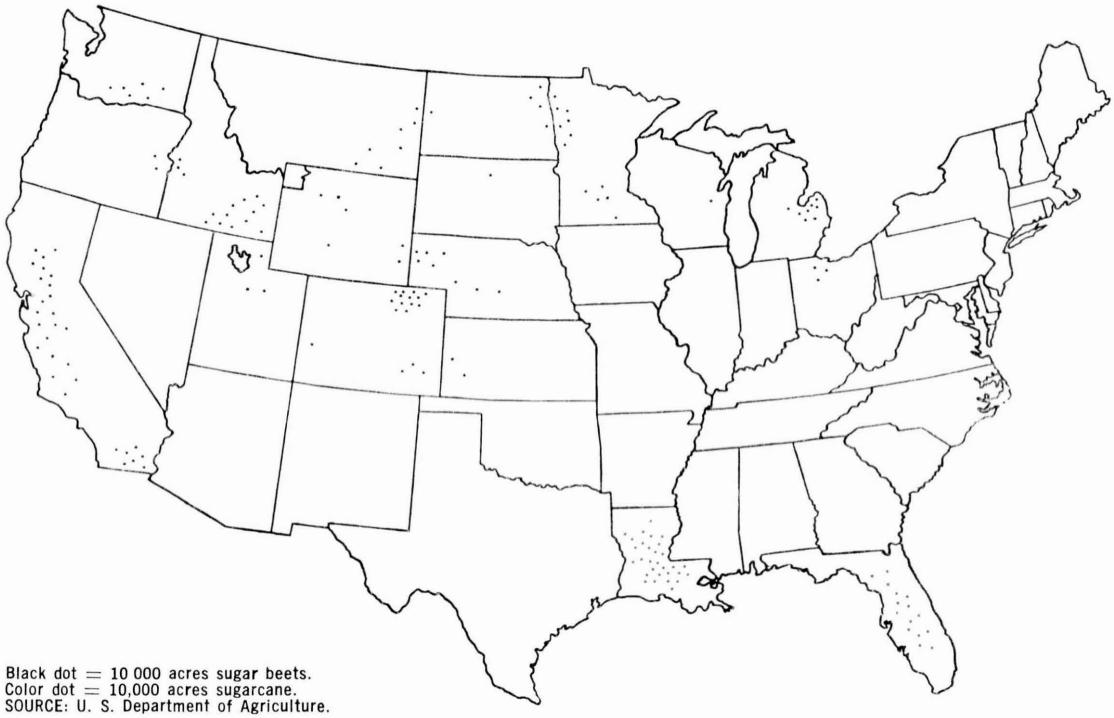
Chart 2
AREAS OF U. S. SUGAR SUPPLY



SOURCE: U. S. Department of Agriculture.

Chart 3

ACREAGE HARVESTED FOR SUGAR, 1963



Black dot = 10 000 acres sugar beets.
Color dot = 10,000 acres sugarcane.
SOURCE: U. S. Department of Agriculture.

to reduce the impact of war shortages or blockades.

With high enough prices and no restraints, U. S. farmers and processors probably would have produced enough sugar to meet domestic needs. However, it is to the consumer's interest to obtain sugar as cheaply as possible. Under normal circumstances, sugar could have been obtained more cheaply from foreign countries that have a comparative advantage in producing sugar. But complete dependence on foreign supplies would have subjected the Nation even more strongly to the hazards associated with fluctuating world supplies and prices.

The system that has evolved is a compromise. Since World War II, domestic sources and foreign countries each have supplied roughly half of requirements. Following the Cuban crisis, the domestic share was increased to 60 per cent. Amendments to the Sugar Act in 1962 revised the quota distribution formula to give domestic areas an even larger share of the U. S. market. They are assigned a base of 5.81 million tons, plus 65 per cent of requirements in excess of 9.7 million tons. Increases are shared by the domestic beet sugar area and the mainland cane sugar area in proportion to their basic quotas, or approximately on a three-to-one basis, respectively.

Prior to 1960, Cuba and the Philippines together supplied well over 90 per cent of U. S. imports, with some 10 to 12 other countries supplying the balance (Chart 2). Since suspension of Cuban trade, the United States has spread its foreign share of the market to a much larger number of suppliers—about 25—with the Philippines being by far the most important.

Table 2
COMMITMENTS OF NATIONAL SUGAR BEET ACREAGE RESERVE

Location of New Plant	Year to Begin Operation	Acreage Commitment	Estimated Tons of Sugar
	Commitments Following Public Hearing, September 1962		
Mendota, California	1963	19,000	45,700
Hereford, Texas	1964	24,730	50,000
Phoenix, Arizona*	1964*	20,000*	50,000*
Drayton, South Dakota	1965	31,000	50,000
Southeastern South Dakota*	1965*	19,000*	34,000*
	Commitment Following Public Hearing, December 1963**		
Auburn, New York	1965	29,500	50,000

*Commitment subsequently revoked.
**Two other locations are to be announced for 1966.

MAINLAND PRODUCTION INCREASING

Sugar beets are produced in about 20 states and sugarcane in two mainland states (Chart 3). Mainland sugarcane production has risen sharply, particularly in Florida where harvested acreage rose from 46,400 acres in 1959 to 149,200 acres in 1963. In Louisiana, the harvested acreage increased during the same period from 250,000 acres to 299,000 acres. Output of sugarcane in Florida increased from 1.8 million tons in 1959 to 5.0 million tons in 1963, while Louisiana's output increased from 5.1 million tons to 8.4.

Mainland sugarcane is turned into raw sugar by about 80 local processing factories and mills in Florida and Louisiana. The raw sugar is further processed in some 25 refineries in a dozen states. Many cane sugar refineries process raw sugar from offshore areas.

Output of the Nation's 25,000 sugar beet growers increased from 16.8 million tons of beets in 1959 to 23.2 million tons in 1963. Beets are processed by about 60 sugar factories. Because beets are bulky to transport, their production is localized around the processing factories.

Following the crisis that shut off the Cuban supply, Congress voted to authorize expansion of domestic beet sugar production in new areas. Prior to that, increased production was handled by increasing the capacity of existing factories in established sugar beet areas. No new factories had been built since 1954.

The new provisions of the Sugar Act direct the Secretary of Agriculture to reserve for new growers enough acreage annually to produce 65,000 tons of beet sugar. New production areas and processing plants are authorized initially to produce about 50,000 tons of sugar annually.

The Department of Agriculture held an informal hearing in September 1962 to receive requests for commitments of acreage for the crop years through 1965. Subsequent to the hearing, five commitments of acreage were made to new growers (Table 2). Two of the five commitments were revoked in October 1963—the proposed plants at Phoenix and in southeastern South Dakota—because construction of the facilities and the contracting for processing of sugar beets did not proceed "in substantial accordance with the representations made as a basis for the Secretary's determination of distribution of the sugarbeet acreage reserve." In at least one case the reason for not having proceeded with plant construction was a lack of capital financing.

The demand by farmers for production allotments in new areas seems greater than that by sugar companies to build plants. A second informal hearing was held in December 1963 to receive requests for production allotments, at which 24 would-be growers' associations vied for allotments to support only three new beet processing factories. Requests included applications from Maine, Washington, Texas, the Dakotas, Ohio, Indiana, Illinois, Kansas, and Missouri. One of the obstacles for the associations is to find a sugar company that is willing and able to commit capital for new facilities.

Plants under construction and proposed for construction range in cost from $16 million to well over $20 million, which must be amortized over many years.

One major sugar producing company made a study of the advisability of constructing a new factory in a new area. The conclusion reached, on the basis of the study, was ". . . current high construction costs of a new and efficient beet factory would result in a very high investment per bag of probable output. We are continuing our analysis but, up to the present, believe that a wiser course lies in the continued improvement of the capacity and efficiency of existing plants and facilities."

In addition to the long-term commitment of a relatively large capital outlay for a new plant, companies contemplating a new operation must consider: (1) the suitability of the new area for growing sugar beets, about which knowledge may be limited; (2) the continued feasibility of growing sugar beets, including evidence of interest of farmers in continuing production of sugar beets; and (3) the possibility of adjustments in domestic production requirements if normal relations with Cuba are resumed.

Although some companies have been hesitant, others have shown willingness to build in new areas. Authorization was recently given for a new plant near Auburn, New York, where sugar beets have been grown up to now only on an experimental basis, but with apparent success.

LOOKING AHEAD

It seems reasonable that consumption of sugar in the United States will continue to increase at about the same rate as population growth. Consumption in the rest of the world is likely to increase faster than population growth, as per capita incomes rise in developing countries. Barring extremely unfavorable weather, world production of sugar is likely to increase, too, in response to high sugar prices. But, at best, the voyage back to an era of plenty is apt to be slow. Sugarcane, from which the bulk of the world's sugar comes, matures slowly. Harvest comes 18 to 24 months after planting. Even if such a potentially important producer as Cuba should make strides soon toward its former position as the world's leading sugar producer, which does not seem likely at this juncture, considerable time would elapse before its race would be won.

The probability that world sugar supplies will not soon become bountiful, buttressed by recent substantial gains in technological efficiency in domestic sugar production, indicates that an increasing amount of the Nation's sugar is likely to be produced on U. S. farms.

Financial Institutions in Tenth District States, 1952-1962

INDUSTRIES producing financial services—commercial banking as well as nonbank financial intermediaries—have undergone rapid change since the end of World War II. New markets and institutions have been created, while others have been eclipsed. Some industries that were of secondary importance have experienced remarkable growth. For example, the rapid postwar growth of savings and loan associations, credit unions, and personal loan companies may be related to the release of pent-up demand for housing and other consumer durables. On the other hand, the dramatic decline of the Postal Savings System was a concomitant of the persistent and increasing disparity between its interest rates and those of other financial intermediaries. In addition, pension funds, life insurance companies, and mutual investment funds have grown in response to increased and/or altered patterns of demand for financial assets.

Commercial banking has been called upon to display a high degree of adaptability as a result of rapid changes in demography and per capita income. Rising population and income have increased the demand for banking services. Accordingly, bankers have placed unprecedented emphasis on servicing the accounts of individual customers. In addition, the mass suburbanization of prospective bank customers has required accommodating adjustments by commercial banks. In short, banks have been called upon to demonstrate a high degree of flexibility with respect to innovation, expansion, and relocation. As in other industries, these adjustments are generally difficult, expensive, and time consuming. The extensive public regulation of commercial banking can further complicate the problems of rapid adjustment. Since numerous regulatory prerogatives are exercised on a state level, regional differences in patterns of change are discernible.

This article describes selected aspects of changes in the size and number of commercial banks in the seven Tenth Federal Reserve District states during the 10 years ending in 1962. For purposes of comparison, observed changes are related to changes in corresponding nationwide aggregates. The experience of commercial banks is then compared with that of savings and loan associations and credit unions. Commercial banking is considered an industry by itself as well as an integral part of that group of industries producing financial services. Savings and loan associations and credit unions were selected as representatives of all nonbank financial intermediaries.

In principle, the production and consumption of commercial bank services is strictly analogous to the production and consumption of other goods, such as television repair services or autos. In explaining the number of firms and output of a particular industry, the economist generally refers to factors classified under demand—relative prices, income, and tastes—and costs of production. These factors are equally relevant to the explanation of bank output. However, the facility and speed of adjustment to altered demand conditions can be particularly important in affecting the size and structure of the banking industry, or any other industry.

When increases in demand for an industry's output are not quickly met with increased offers of output at or near existing prices, consumers are encouraged to seek substitutes. Hence, delay in reaction by an industry may serve to spawn and nurture the growth of industries producing similar services or goods. This type of industrial interdependence establishes the

Table 1
GROWTH OF POPULATION AND PERSONAL INCOME, 1952-1962

	Population			Personal Income		
	1952	1962	Change	1952	1962	Change
	(In thousands)		(per cent)	(In millions)		(per cent)
Colorado	1,378	1,907	38.4	$ 2,468	$ 4,520	83.1
Kansas	1,972	2,219	12.5	3,382	4,856	43.6
Nebraska	1,305	1,484	13.7	2,179	3,369	54.6
New Mexico	747	1,020	36.5	1,005	1,860	85.1
Oklahoma	2,183	2,448	12.1	3,060	4,664	52.4
Wyoming	297	365	22.9	543	790	45.5
Missouri	4,010	4,346	8.4	6,660	10,362	55.6
Seven states	11,892	13,789	16.0	$ 19,297	$ 30,421	57.6
United States	156,472	185,822	18.8	$270,399	$439,661	62.6

SOURCE: Personal Income: **Survey of Current Business,** August 1956 and August 1963. Population: **Statistical Abstract of the United States,** 1963.

importance of analyzing the growth of commercial banks as part of the development of all industries engaged in the production of financial services.

ECONOMIC GROWTH AND COMMERCIAL BANKS

During the 10-year period ending in 1962, U. S. population grew 18.8 per cent. During the same period, Tenth District states experienced a 16 per cent population growth. If Missouri is omitted, the rate of population growth in the remaining District states is 19.8 per cent. Although the range of experience among individual District states stretches from 8.4 per cent in Missouri to 38.4 per cent in Colorado, the aggregate is not strikingly different from the nationwide experience.

The same impression is obtained by comparing rates of growth in personal income. While New Mexico enjoyed an 85.1 per cent expansion, Kansas' growth was limited to 43.6 per cent. By aggregating the experience of the seven District states it is found that personal income rose 57.6 per cent. U. S. growth during the same period was 62.6 per cent.[1]

[1]Using 1952 as the base period for income comparisons between the region and the Nation may be somewhat misleading in that agricultural income was especially volatile in the early 1950's due to drought and conditions stemming from the Korean episode. If 1953-1962 comparisons are substituted, regional growth amounted to 55.1 per cent while the national growth rate was 54.5 per cent.

Still other economic measures document the overall similarity of patterns of change in District states and in the Nation. Hence, changes in the size and structure of the commercial banking industry in District states may be expected to parallel those of the Nation. However, the regional prevalence of unit banking may profoundly influence the pattern of change among commercial banks in District states as compared with the Nation. All District states except New Mexico forbid multi-office banking.[2] In contrast, the majority of states in the Nation permit some form of multi-office banking. Comparisons between regional and national developments are founded on an overall similarity in income and population growth and a difference in banking structure. It should be emphasized that interstate comparisons, between certain pairs of Tenth District states, are based on similar banking regulations but strikingly divergent patterns of growth in income and population. It is therefore necessary to interpret observed differences among states in a different light from those between regional and national aggregates. The one exception to this generalization is found in comparing New Mexico and Colorado. These two states displayed similar patterns of growth in income and population, but New Mexico permits multi-office banking and Colorado is a unit banking state.

In the 10 years, the number of commercial banks in the United States *fell* 4.5 per cent (from 14,617 to 13,953) while the number of commercial banks in District states *rose* 3.8 per cent. Kansas was the only state in the Tenth District with a reduction in the number of commercial banks. Colorado registered the largest gain with a net addition of 45 commercial

[2]Missouri, Kansas, Nebraska, and Oklahoma explicitly permit the establishment of one limited-function office per bank to provide drive-in facilities. Colorado prohibits branch banking without provision for ancillary facilities while Wyoming law makes no mention of branch banking and this silence has been interpreted as a prohibition.

Table 2
ASPECTS OF COMMERCIAL BANK GROWTH, 1952-1962
Year-End Data

	Number of Commercial Banks			Number of Commercial Bank Offices*			Commercial Bank Assets			Assets Per Commercial Bank		
	1952	1962	Change (per cent)	1952	1962	Change (per cent)	1952 (In billions)	1962 (In billions)	Change (per cent)	1952 (In millions)	1962 (In millions)	Change (per cent)
Colorado	160	205	28.1	165	212	28.5	$ 1.51	$ 2.63	74.1	$ 9.45	$ 12.84	35.9
Kansas	609	593	—2.6	611	631	3.3	2.09	3.07	47.1	3.43	5.18	51.0
Nebraska	417	426	2.2	419	445	6.2	1.63	2.13	30.5	3.92	5.01	27.8
New Mexico	51	60	17.6	74	129	74.3	0.47	0.88	87.1	9.21	14.65	59.1
Oklahoma	385	392	1.8	387	424	9.6	2.16	3.35	55.0	5.62	8.55	52.1
Wyoming	52	56	7.7	52	57	9.6	0.33	0.52	55.2	6.42	9.26	44.2
Missouri	598	627	4.8	599	671	12.0	5.42	7.63	40.9	9.06	12.17	34.3
Seven states	2,272	2,359	3.8	2,307	2,569	11.4	$ 13.62	$ 20.22	48.5	$ 5.99	$ 8.57	43.1
United States	14,617	13,953	—4.5	20,450	27,029	32.2	$214.83	$344.28	60.3	$ 14.70	$ 24.67	67.8

*Includes limited-function offices, such as drive-in facilities separated from the bank's premises.
NOTE: The above aggregates include industrial and Morris Plan banks which are of some importance in Colorado.
SOURCE: **Annual Report of the Federal Deposit Insurance Corporation,** 1953-1963.

banks. In the remaining states, net additions of commercial banks ranged from 4 in Wyoming to 29 in Missouri. Moreover, toward the end of the period and into 1963, there appeared to be an acceleration in the growth of number of commercial banks, especially in Colorado, New Mexico, and Oklahoma. In addition, the trend toward fewer banks in Kansas reversed itself in 1961.

The contrast between District and national experience, with respect to changes in number of banks, should be considered in light of differences in banking structure. In a unit banking environment, the demand for new banking facilities is satisfied exclusively through the establishment of new banking firms. Where multi-office banking is permitted, new facilities can be provided without an increase in the number of commercial banking firms. In addition, mergers may be more attractive where absorbed banks can be operated as branches. These considerations may affect changes in number of banks as well as changes in their average size. The structure of banking prevalent in an area may influence the ease with which the industry can adjust the number of banking facilities.

During the 10-year period, commercial banking offices in District states were increased 11.4 per cent while the number of offices throughout the United States rose 32.2 per cent. Differences in banking structure may also account for the contrast in the growth of banking facilities in New Mexico and Colorado. While both states experienced rapid economic growth in the same order of magnitude, the number of banking offices in New Mexico increased 74.3 per cent, while Colorado's rose 28.5 per cent. The growth of banking offices in the remaining District states ranged from 3.3 per cent in Kansas to 12 per cent in Missouri.

Although data on the growth of bank assets do not offer the striking contrasts manifest by the firms and facilities data, discernible differences do emerge. Total assets of commercial banks in the seven Tenth District states rose 48.5 per cent (from $13.6 billion to $20.2 billion) from 1952 to 1962. This compares with a 60.3 per cent growth of total assets in all U. S. commercial banks. In comparing New Mexico and Colorado, it is observed that the former had a higher rate of growth in commercial bank assets (87.1 per cent versus 74.1 per cent) despite a marked similarity in personal income growth (85.1 per cent in New Mexico versus 83.1 per cent in Colorado).

These facts also may be expressed in terms of the growth of assets per commercial bank. At the end of 1952, commercial banks in the Tenth District states had $5.99 million of assets per bank while the nationwide average stood at $14.70 million. This size disparity is

attributable to differences in population density and the absence of money market centers in the Tenth District, as well as differences in public policy with respect to multi-office banking. More significant, perhaps, is the finding that over the 10 years following 1952 the average size disparity was increased in both absolute and relative terms. Although assets per bank in District states grew 43.1 per cent to $8.6 million, the nationwide average rose 67.8 per cent to $24.7 million.

Individual states experienced considerable diversity in rates of growth of asset size per bank in the 10 years. Nebraska banks had a growth in average asset size of 27.8 per cent while New Mexico banks, which grew most rapidly, expanded 59.1 per cent. Growth rates of average bank size in Kansas and Oklahoma were both slightly in excess of 50 per cent but considerably greater than those experienced in Wyoming, Colorado, and Missouri.

The wide disparities among growth rates in average bank size may lead to the conjecture that these differences are explainable in terms of some factor such as average bank size at the outset of the period, or perhaps the increase in number of banks over the period. As it turns out, the information at hand will not support either hypothesis. It appears more likely that growth in average bank size is determined by a complex of interrelated factors including changes in demography, size and structure of the local economy, and institutional arrangements pertaining to the commercial banking industry.

THE GROWTH OF NONBANK FINANCIAL INTERMEDIARIES

Commercial banks have been aptly termed department stores of finance. Indeed, they stand alone in performing a wide variety of financial services. However, this uniqueness does not insulate commercial banks from the competition of more narrowly specialized financial intermediaries. For example, savings and loan shares are commonly likened to savings deposits at commercial banks, despite obvious differences. Likewise, the homeowner may be indifferent as to whether his mortgage is obtained from an insurance company, a savings and loan association, or a commercial bank. Personal loan companies and credit unions, as well as commercial banks, offer consumer instalment loans. The list of examples can be easily extended. Despite the unique role of commercial banks in maintaining the payments mechanism, close substitutes for most commercial bank services are produced by nonbank financial intermediaries.

The recognition of inter-industry competition leads to the hypothesis that the growth of commercial banks is affected by, and in turn affects, the growth of other financial institutions. Thus, it is illuminating to relate the growth performance of nonbank financial intermediaries to that of commercial banks. Because of data scarcity, conceptual difficulties, and space limitations, the following discussion is limited to the experience of the savings and loan industry and credit unions. However, these two types of institutions are rather widely developed, and there is no obvious reason to expect their growth experience to be strikingly different from most other nonbank financial intermediaries.

SAVINGS AND LOAN ASSOCIATIONS

The number of savings and loan associations in Tenth District states rose from 455 to 468, or 2.9 per cent, during the 10 years. In the same interval, the number of savings and loan associations in the Nation rose from 5,941 to 6,312, a 6.2 per cent increase. Underlying the District aggregate is the finding that Kansas, Nebraska, and Missouri experienced net decreases in number of savings and loan associations. Aside from New Mexico, where the number of savings and loan associations rose from 20 to 34, none of the Tenth District states added more than 2 associations during the 10-year interval being considered.

Table 3
ASPECTS OF SAVINGS AND LOAN ASSOCIATION GROWTH, 1952-1962
Year-End Data

	Number of Savings and Loan Assns.			Number of Savings and Loan Assn. Offices			Assets of Savings and Loan Assns.			Assets Per Savings and Loan Assn.		
	1952	1962	Change (per cent)	1953	1962	Change (per cent)	1952 (In billions)	1962 (In billions)	Change (per cent)	1952 (In millions)	1962 (In millions)	Change (per cent)
Colorado	53	55	3.8	61	113	85.2	$ 0.207	$ 1.171	465.7	$ 3.913	$21.285	444.0
Kansas	104	103	—1.0	106	133	25.5	0.273	1.107	305.5	2.628	10.746	308.9
Nebraska	56	53	—5.4	56	67	19.6	0.157	0.640	307.6	2.805	12.079	330.6
New Mexico	20	34	70.0	22	44	100.0	0.048	0.244	408.3	2.408	7.175	298.0
Oklahoma	60	60	0	64	71	10.9	0.267	0.920	244.6	4.455	15.328	244.1
Wyoming	10	12	20.0	10	12	20.0	0.028	0.110	292.9	2.816	9.203	226.8
Missouri	152	151	—0.7	157	207	31.8	0.437	2.254	415.8	2.875	14.926	419.2
Seven states	455	468	2.9	476	647	35.9	$ 1.419	$ 6.445	354.2	$ 3.118	$13.772	341.7
United States	5,941	6,312	6.2	6,362	8,491	33.5	$22.667	$93.756	313.6	$ 3.815	$14.854	289.4

SOURCE: **Annals of the United States Savings and Loan League,** 1953 and 1963.

However, the growth of savings and loan *offices* in District states more than kept abreast of growth throughout the Nation. Unlike commercial banks, savings and loan associations in District states commonly operate more than one office. As of 1962, all District states except Wyoming had savings and loan branches. From the end of 1953 through 1962 the number of savings and loan branches in the seven District states rose from 22 to 179.[3] Thus, despite a relatively slow growth in number of savings and loan associations, these *facilities* in Tenth District states rose 35.9 per cent as compared with 33.5 per cent in the Nation.

The importance of the branching privilege in affecting the expansion of savings and loan facilities is clearly reflected in the 1953-1962 experience of individual states. For example, the number of savings and loan associations in Missouri fell from 153 to 151, but the number of savings and loan branches rose from 4 to 56. In Colorado the number of associations rose from 52 to 55, while the number of savings and loan branches rose from 9 to 58. Nebraska had 14 savings and loan branches at the end of 1962 whereas it had none in 1953. During the same period, the number of savings and loan associations in Nebraska was reduced from 56 to 53. New Mexico was the only District state where the addition of new savings and loan associations was as important as the addition of branches in the general expansion of savings and loan facilities.

Asset growth at regional savings and loan associations surpassed the national growth rate. Savings and loan association assets in Tenth District states rose from $1.42 billion at the end of 1952 to $6.45 billion in 1962. The District states' growth rate of 354 per cent compares with a national growth rate of 314 per cent. Among individual states, Colorado, Missouri, and New Mexico led in savings and loan asset growth (466 per cent, 416 per cent, and 408 per cent, respectively), while Oklahoma displayed the slowest growth rate (245 per cent). It should be emphasized that a complete evaluation of interstate and interregional disparities in savings and loan asset growth requires a thorough analysis of local mortgage markets, interest rate differences among various assets, saving habits, location and number of various types of financial institutions, as well as basic growth characteristics. The observed disparities cannot be adequately explained in terms of any single generalization. Hence, these observations should be interpreted with extreme caution. At best, observed differences may be considered suggestive of certain types of underlying conditions.

[3]The number of savings and loan offices in operation in 1952 was not ascertainable at the time the article was written.

Table 4

ASPECTS OF CREDIT UNION GROWTH, 1952-1962

Year-End Data

	Number of Credit Unions			Credit Union Assets			Assets Per Credit Union		
	1952	1962	Change (per cent)	1952 (In millions)	1962 (In millions)	Change (per cent)	1952 (In thousands)	1962 (In thousands)	Change (per cent)
Colorado	151	315	108.6	$ 18.06	$ 122.67	579.2	$119.6	$389.4	225.6
Kansas	177	301	70.1	14.15	84.57	497.7	79.9	281.0	251.5
Nebraska	112	168	50.0	9.66	47.59	392.5	86.3	283.3	228.3
New Mexico	37	108	191.9	1.59	35.09	2,106.9	43.0	324.9	656.1
Oklahoma	91	161	76.9	11.94	73.49	515.7	131.2	456.4	248.0
Wyoming	22	61	177.3	0.95	10.48	998.3	43.4	171.8	296.1
Missouri	439	610	39.0	42.86	170.86	298.7	97.6	280.1	186.9
Seven states	1,029	1,724	67.5	$ 99.21	$ 544.76	449.1	$ 96.4	$316.0	227.7
United States	12,291	21,032	71.1	$1,516.12	$7,114.09	369.2	$123.4	$338.3	174.2

SOURCE: **Report of Operations Federal Credit Unions**, 1953; **Social Security Bulletin**, November 1954; and **International Credit Union Yearbook**, 1963.

The findings with regard to changes in the number and asset size of savings and loan associations are also readily expressible in terms of the average asset size of these institutions. From this viewpoint, the growth of savings and loan associations provides an interesting contrast with the growth of commercial banks. The average asset size of savings and loan associations in the Tenth District states rose from $3.12 million to $13.77 million or 342 per cent from 1952 to 1962. At the outset of the period, savings and loan associations were barely more than one half the asset size of commercial banks. By the close of 1962, the assets per savings and loan association in the region were half again the size of the average commercial bank in Tenth District states, while on a nationwide basis savings and loan associations remained markedly smaller than commercial banks. It should be remembered, however, that commercial banks in Tenth District states were five times as numerous as savings and loan associations as of the end of 1962. In the process of surpassing commercial banks in average size, savings and loan associations in Tenth District states achieved a rate of growth in average asset size exceeding that of all savings and loan associations in the United States (342 per cent versus 289 per cent).

CREDIT UNIONS

Credit unions are typically far smaller than commercial banks and savings and loan associations. However, during the 10-year period, they enjoyed a most remarkable rate of growth in the District as well as in the Nation. In District states their number was increased from 1,029 to 1,724, or 67.5 per cent. In the Nation, there was a net addition of 8,741 credit unions which represented a 71.1 per cent increase.

Except for Kansas, Missouri, and Nebraska, where credit unions were relatively numerous at the outset of the period, every state in the Tenth District exceeded the national growth rate in net additions to the number of credit unions. Colorado, Kansas, and Missouri each added more than 100 new credit unions in the 10-year period studied. On the other hand, New Mexico and Wyoming added far fewer new credit unions, but displayed the most dramatic rates of growth (192 per cent and 177 per cent, respectively).

Moreover, the growth rate of credit unions in District states, in terms of total assets, exceeded that of all credit unions in the Nation. The assets of credit unions in the 7-state area rose from $99 million in 1952 to $545 million in 1962. The 449 per cent regional growth rate compares with a national growth rate of 369 per cent. New Mexico, outstanding among indi-

vidual states, displayed a 2,107 per cent increase in credit union assets over the 10-year period. However, all states except Missouri displayed asset growth rates in excess of the national rate.

During the 10 years, the average asset size of credit unions in District states rose from $96,000 to $316,000. Although District credit unions remain somewhat smaller than those throughout the Nation, they grew 228 per cent in average asset size as compared with a nationwide growth of 174 per cent. Credit unions in every state in the Tenth District experienced a faster growth rate in average asset size than did those in the Nation as a whole. Missouri, where credit unions grew most slowly, registered a 187 per cent increase (from $98,000 to $280,000). At the other extreme, New Mexico experienced a 656 per cent increase in the average size of its credit unions.

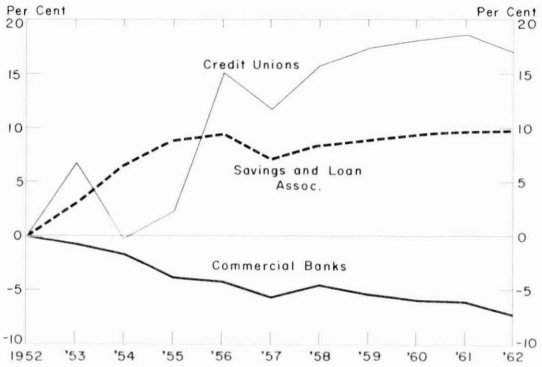
SUMMARY

Commercial banks are unique among financial institutions in size, scope of activities, and maintenance of the payments mechanism. However, for some purposes it is useful to think of commercial banks as one among many types of institutions producing financial services. Although nonbank financial institutions are generally more specialized, many of these institutions produce services similar to some of those of commercial banks. As a consequence, interinstitutional competition takes on substantial importance, and the development of any given type of financial institution can affect the growth of alternative types of institutions.

With this supposition as a starting point, Tenth District commercial bank growth, in the period of 1952-1962, was evaluated in terms of the experience of all banks in the Nation. It was found that the commercial banking industry in Tenth District states, measured in terms of total assets, assets per bank, and number of offices, grew more slowly than the industry throughout the Nation. Lest too much significance be attributed to this finding, two points should be emphasized: (1) the nationwide experience cannot be used as an infallible standard of comparison, and (2) the District aggregates represent generalizations of highly diverse experiences of individual states. Nevertheless, it may be significant that while commercial banks in Tenth District states grew more slowly than all banks in the United States, savings and loan associations and credit unions grew more rapidly in District states than throughout the Nation. This finding is summarized in the chart, which shows the asset growth rates of District states' commercial banks, savings and loan associations, and credit unions relative to their respective national growth rates.

ASSET GROWTH OF FINANCIAL INSTITUTIONS IN TENTH DISTRICT STATES

In Terms of National Asset Growth Rates



NOTE: The time series are obtained by dividing regional asset growth rates by corresponding national growth rates. For example, in 1962 assets of regional credit unions were 549 per cent of their 1952 value. By dividing 549 per cent by the national growth in credit union assets from 1952 to 1962 (469 per cent), and subtracting 100 per cent, the plotted 1962 value for credit unions (17 per cent) is obtained.

While the above evidence is by no means compelling, it is noteworthy that observed differences in industry growth tend to support the idea that the growth performance of various types of financial institutions may be interrelated. Under these circumstances the promptness with which a given type of financial institution adapts to new conditions will influence the growth and development of alternative institutions.