

# monthly review

june

Federal Reserve Bank of Atlanta • 1974

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# GNP and Economic Welfare

by Frederick R. Strobel

The Sixties were an unprecedented period of sustained economic growth, despite the minor recession early in the decade. Real output, adjusted for price increases, rose at an annual average of over 5 percent and unemployment fell steadily. However, this economic growth was accompanied by a renewed questioning of its net benefits. Rapid growth was attacked for its undesirable side effects such as pollution and wasteful land use. Criticism was eventually directed at the concept of Gross National Product, the chief measure of economic growth.

Initially Gross National Product was conceived as a means of measuring a nation's economic activity. However, since increased economic activity is usually associated with rising standards of living or economic well-being, GNP growth has often been linked with increased economic welfare. This article examines the general concept and definition of GNP as currently computed and assesses its effectiveness as an indicator of economic welfare. It also examines two other concepts which, while abstracting from the GNP calculations, try to measure economic welfare rather than economic activity.

## What is GNP?

GNP has become part of most vocabularies as the final market value of goods and services an economy produces annually. GNP for 1972 and 1973, using the spending approach, is shown in Table 1. Under this form of GNP accounting, the value of goods produced closely approximates spending on final goods and services.<sup>1</sup> Estimates of four major categories—personal consumption expenditures, gross private domestic investment, net exports, and government purchases of goods and services—are summed to equal total GNP. To remove price effects, GNP can be divided by the Implicit Price Deflator to yield GNP in 1958 or “constant” dollars. Constant dollar or “real” GNP in 1973 grew 5.9 percent; in other words, the real growth rate was 5.9 percent.

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<sup>1</sup>The exception to this equality will be the net change in inventories.

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*Monthly Review*, Vol. LIX, No. 6. Free subscription and additional copies available upon request to the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

Items included in GNP are generally measurable by market transactions since they yield a market price or a wage. Home-produced services, for example, are not counted in GNP. But if a homeowner pays a painter \$700 for labor and \$50 for paint, the full \$750 is included under personal consumption in the GNP accounts. If he paints the house himself, only the price of the paint—\$50—is included. Moreover, GNP accounting makes no distinction between “more desirable” or “less desirable” goods and services (provided they are legal). Pondering whether to spend \$8 on a bottle of Tennessee whiskey or on a book on child rearing, the consumer need not worry what effect his purchase has on GNP. Consumer sovereignty reigns; either purchase will raise GNP by \$8. Published quarterly at annual rates, GNP and the GNP accounts are probably the most widely used set of statistics in current economic analysis.

Because the production of goods and services creates income, GNP can also be estimated using the income approach. This involves summing payments to producers of goods and services (factors of production). Totaling wages, proprietors’ income, rent, corporate profits, interest, indirect business taxes, and depreciation will then approximate Gross National Product as presented in Table 1. Using this approach, the \$700 payment to the painter mentioned before is usually counted as proprietors’ income. The income approach to computing GNP not only provides a statistical check on the accuracy of the GNP total calculated through the spending method but also supplies additional information for economic analysis.

The use of GNP accounts in economic analysis was further expanded during the Sixties by the development of econometric models. Today, many of the well-known models produce a computerized forecast of the GNP accounts in detail.<sup>2</sup> These models, some incorporating as many as several hundred equations, often project GNP using both spending and income approaches. In addition, they relate GNP projections to those of other economic variables.

### GNP as a Welfare Indicator

Encompassing so many different areas of economic activity, GNP is often used as a measure of economic welfare. For example, one study shows that between 1953 and 1963, real GNP growth of about 3 1/2 percent was necessary to keep the unemployment rate from rising.<sup>3</sup> If the same relationships were to hold true today, a growth

<sup>2</sup>See “Econometric Models—What They Are and What They Say for 1971,” F. R. Strobel and W. D. Toal, *Monthly Review*, Federal Reserve Bank of Atlanta, March 1971.

<sup>3</sup>Arthur M. Okun, “The Gap Between Actual and Potential Output,” *The Battle Against Unemployment*, W. W. Norton and Company, New York, 1965, p. 17.

**TABLE 1**  
**U. S. GROSS NATIONAL PRODUCT**  
**(Spending Approach)**

	\$ Billions	
	1972	1973
Personal Consumption Expenditures	726.5	804.0
Durable goods	117.4	130.8
Nondurable goods	299.9	335.9
Services	309.2	337.3
Gross Private Domestic Investment	178.3	202.1
Fixed investment	172.3	194.2
Nonresidential	118.2	136.2
Structures	41.7	48.4
Producers’ durable equipment	76.5	87.8
Residential structures	54.0	58.0
Nonfarm	53.5	57.4
Farm	.6	.6
Change in business inventories	6.0	8.0
Nonfarm	5.6	7.3
Farm	.4	.6
Net Exports of Goods and Services	-4.6	5.8
Exports	73.5	102.0
Imports	78.1	96.2
Government Purchases of Goods and Services	255.0	277.1
Federal	104.4	106.6
National defense	74.4	73.9
Other	30.1	32.7
State and local	150.5	170.5
Gross National Product (GNP)	1,155.2	1,289.1
GNP Implicit Price Deflator, 1958=100	146.1	153.9
GNP in 1958 “Constant” Dollars	786.1	831.8
Real Growth (Percent Change in Constant Dollar GNP)	6.1	5.9

Source: U. S. Department of Commerce.

rate of less than 3 1/2 percent would not create enough jobs to absorb a labor force which expands with population. In other words, the unemployment rate would increase. Linking GNP growth rates to unemployment rates is one way GNP is used as a welfare indicator. By the same token, intolerable inflation frequently accompanies extremely rapid real economic growth, causing a loss in economic welfare.

Since output creates income, we can also draw welfare implications from the income side of the GNP accounts. A rise in per capita income is often considered desirable. But per capita income figures alone say nothing about how that income is distributed, which has implications for economic welfare.

### Shortcomings of GNP as a Welfare Indicator

Even the effectiveness of GNP’s prime function, which is designed to measure economic activity, has been questioned. The construction of GNP figures involves difficult estimating procedures and value judgments. These criticisms can also be applied to its service as a welfare indicator.

GNP is further criticized for not allowing for “externalities,” i.e., items that fall outside the price system. For example, the pollution given

off by an industrial plant is a cost to society. Yet, if the offending company were made to produce in a nonpolluting way, it might conceivably be forced out of business, the product discontinued, and GNP reduced. But general welfare may be increased. One can think of many similar examples. The benefits enjoyed by users of a city-operated park may far exceed the dollar cost of building and operating it. Yet only the money spent by the local government on it is included in GNP; benefits to users are not measured or included.

More indirect exclusions from GNP, loosely classified as externalities, are such tenuous concepts as leisure and happiness. A rising GNP does not necessarily mean increased leisure time for the average American. GNP does not measure the cost to economic welfare of such items as additional commuting time, hours worked, and the increasing necessity for two-job families. More people owning second homes, camping vehicles, boats, etc., may indicate more leisure for some Americans, but the GNP does not indicate who is buying these goods or who in society is producing these leisure-time products.

Another criticism of the GNP computation is the exclusion of home-produced services. For example, a housewife's services are not included in the GNP. But if she gets a job and hires a maid, both the maid's and her services are then counted. Defenders of the present computation method counter that most of these exclusions are difficult to calculate. However, critics reply that if the rental value of home-owner occupied houses can be estimated and included in GNP, a housewife's services should also be computed.<sup>4</sup>

Criticized for its exclusions, GNP is also taken to task for what it includes, for example, the so-called "defensive" expenditures: police and law enforcement, personal security expenses, pollution control, and national defense. Critics charge that GNP should not include government expenditures to fight rising crime since these reflect a deterioration in the quality of life. A similar argument might be made for burglar alarm systems in private homes—practically nonexistent years ago but increasingly common today. Spending for pollution control is similarly questioned, since in part this money is spent to correct previous unwise business or government practices, thus tending to overstate gains in output.

Arguments against including national defense spending in the GNP accounts, similar to those made against including police and law enforce-

<sup>4</sup>Much of the difficulty with this argument involves the use of the term "services of a housewife." Perhaps the argument should revolve around the cost of keeping a house clean, which is the primary function of a maid; the services of a housewife extend far beyond merely cleaning house. Nordhaus and Tobin use the term "housekeeping."

**TABLE 2**  
**INFANT MORTALITY AND FERTILITY RATES**  
(Nations with Per Capita Income  
Greater than \$1,000)  
1971

	Infant Mortality Rate	Birth Rate
	(Deaths per 1,000 Births)	(Per 1,000 Female Population Age 10-49)
Sweden	11.1	54.4
The Netherlands	11.1	67.6
Finland	11.8	47.5
Japan	12.4	59.9
Norway	12.7	65.0
Denmark	14.2	53.2
France	14.4	60.5
New Zealand	16.5	80.4
United Kingdom	17.9	62.0
Canada	18.8	58.7
United States	19.2	59.3
Ireland	19.6	87.2
Belgium	19.8	64.0
Luxembourg	22.5	47.9
Germany (Federal Republic of)	23.2	55.4
Austria	26.1	56.9
Italy	28.3	58.9
Kuwait	39.4	190.0

Source: **Statistical Yearbook 1972**, Statistical Office of the United Nations.

ment, purport that a growing GNP boosted by heavy military spending increases the danger of global war and reduces the quality of life. Proponents of including defense expenditures claim defense deters wars and averts the disruptions of a wartime economy.

Defense spending is a large item in the total Federal budget included in GNP accounts, totaling \$73.9 billion in 1973, or 69 percent of total Federal purchases of goods and services (see table 1).

### Other Measures of Well-Being

Although the United States has the highest per capita income in the world, its quality of health is allegedly poorer than that of some less wealthy nations. Spending more on health care services relative to GNP than any other country, one might expect the U. S. to have one of the lowest infant mortality rates; however, it ranks only eleventh among the countries listed in table 2. Similarly, while Sweden leads with an average life expectancy of 74.19 years, the United States ranks eighth, at 71.10 years, behind such nations as Japan, Canada, and France. In this way, GNP dollar amounts spent on medical care might be misleading as to the quality of health in the United States.

Many other such economic and social indicators are available, though none command the attention of the single aggregate GNP. The Department of Health, Education, and Welfare in 1969 published the results of an exploratory effort to develop a set of social indicators. Entitled "Toward a Social Re-

port,"<sup>5</sup> it begins: "The nation has no comprehensive set of statistics reflecting social progress or retrogression. There is no government procedure for periodic stock-taking of the social health of the nation. The Government makes no social report." Citing several deficient areas such as health, social mobility, physical environment, poverty, public order, and safety, the report recommends a set of social indicators be developed, not merely as a by-product of administrative accounting procedures, but for public policy use. It recognizes the value of GNP statistics because they provide an aggregate measure and meaningful detail. But as for social statistics, "the trouble is that the weights needed for aggregated indexes of other social statistics are not available except within particular limited areas."

More recently, the government released *Social Indicators, 1973*.<sup>6</sup> A 245-page statistical volume describing U. S. social conditions and trends, it is the first of its kind published by the Federal Government. Covering health, income, and education, the report represents a start toward a more extensive social indicator system.<sup>7</sup> Data are restricted to objective conditions, are not weighted toward any single index of economic and/or social welfare, and contain no international comparisons. Nonetheless, it is an important effort since it gathers many welfare-related statistics into one volume.

### The "Measure of Economic Welfare"

To help overcome the shortcomings of GNP as a welfare indicator, William Nordhaus and James Tobin of Yale University have constructed a welfare index based on national income accounts but aimed at measuring economic welfare.<sup>8</sup> One obvious defect of GNP, according to the two authors, is that it is an index of production and not consumption, which in their opinion is the goal of economic activity. With this in mind they have rearranged, reclassified, and imputed terms to design an index better reflecting consumption rather than production but utilizing the GNP framework.

In computing the Measure of Economic Welfare (MEW), they begin with personal consumption spending from the national income and product (GNP) accounts. They then reclassify several GNP

expenditures to fit their consumption (welfare) theory. Capital goods such as automobiles and housing are counted in GNP in the year in which they are purchased. Nordhaus and Tobin initially leave out these purchases, instead including them in a separate wealth formation estimate.<sup>9</sup> Into wealth formation they also add education and health expenditures as capital investments. Government durable goods purchases such as public buildings are treated similarly. They then add to personal consumption the services drawn from this net stock of wealth, based upon the time such assets will yield services.<sup>10</sup>

A second major adjustment is the exclusion of "instrumental expenses." These are defined as activities that are not directly sources of utility, such as police services, sanitation, road maintenance, and national defense. While Nordhaus and Tobin admit these expenditures are "among the necessary overhead costs of a complex industrial nation," they have no *direct* bearing on consumption. Without denying that "given the unfavorable circumstances that prompt these expenditures, consumers will ultimately be better off with them than without them. . . the only judgment we make is that these expenditures yield no direct satisfaction."

A third major category of adjustments is the imputation of values for items measuring the quality of life and nonmarket productive activities (such as housekeeping services) which are estimated and added into the MEW.

A final major adjustment subtracts what Nordhaus and Tobin term the "disamenities of urbanization." Although acknowledging that economic growth delivers much in the way of new products and higher living standards, they recognize such growth increases urbanization. This brings increased costs of traffic congestion; air, water, and noise pollution; higher crime rates; and similar externalities common to urban life. To compensate for these urban disamenities, they subtract from the MEW total estimates of income differentials necessary to hold people in areas of denser population, since urban incomes are significantly higher than nonurban ones.

These computations and an adjustment for capital formation discussed below produce what Nordhaus and Tobin label a sustainable measure of economic welfare. From 1929 to 1965, when Net National Product grew on average 3.1 percent annually, the Measure of Economic Welfare

<sup>5</sup>Toward a Social Report, p. 7.

<sup>6</sup>Executive Office of the President: Office of Management and Budget, *Social Indicators, 1973*, U. S. Government Printing Office, Washington, D. C., 1973.

<sup>7</sup>The areas covered are: health, public safety, education, employment, income, housing, leisure and recreation, and population.

<sup>8</sup>William Nordhaus and James Tobin. "Is Growth Obsolete," *Economic Growth*, National Bureau of Economic Research, New York, 1972, pp. 1-80.

<sup>9</sup>Estimates of wealth are those developed earlier by Goldsmith, Kendrick, T. Schultz, and Machlup. Estimates of services from wealth are based on the work of Juster. For full references, see "Is Growth Obsolete," pp. 30-31.

<sup>10</sup>Thus a refrigerator with an expected ten-year life would count 10 percent of the purchase price in annual consumption.

**TABLE 3**  
**Similar Approaches To Computing**  
**A Welfare Indicator**

Nordhaus-Tobin and the Japanese Economic Planning Agency

Add:  
 Personal consumption  
 Government consumption  
 Services of consumer capital goods  
 Services of government capital goods  
 Value of leisure time  
 Value of nonmarket productive activity  
 (1) Total plus items

Nordhaus-Tobin subtract from (1):  
 Private instrumental expenditures  
 Durable goods purchases  
 Other household investments  
 Costs of urban disamenities  
 To form a Measure of Economic Welfare (MEW)

The Economic Planning Agency subtracts from (1):  
 Durable goods purchases  
 Maintenance cost of environment  
 Environmental contamination  
 Losses caused by urbanization  
 To form a Net National Welfare (NNW) Index

Note: All computations are in constant dollars/yen.

grew at a somewhat slower pace, 2.3 percent. On a per capita basis, NNP rose by 1.7 percent annually and the MEW by 1.0 percent. Thus Nordhaus and Tobin conclude that while the U. S. standard of living has increased both in the aggregate and on a per capita basis over that period, it did not increase as much as the output of goods and services.

### The Net National Welfare Index

The Economic Planning Agency of the Japanese Government has recently produced an interim report on the conceptual framework of a Net National Welfare (NNW) Index similar to the Nordhaus-Tobin MEW.<sup>11</sup> Its expressed purpose is to provide a policy goal complementary to the GNP accounts.

As in the MEW, consumption is the key welfare indicator in the NNW Index with, however, some differences. For example, the NNW groups educational, health, and medical expenses under the current year's government consumption; the MEW includes these in capital formation. Similar to the MEW, though, judicial and police, general administrative, and defense expenditures are excluded from government spending. Durable goods purchases, commuting, and personal business expenses are excluded from personal consumption, and, like Nordhaus and Tobin, the Japanese add back services from personal durable goods on an accrual basis. Also, services from government durable goods purchases are prorated over time,

based on these assets' useful lives. Value of leisure time<sup>12</sup> is an additional item in the NNW; nonmarket activities such as housekeeping are also added in. This estimate is based on the average female worker's wage.

The major minus items are, first, environmental maintenance costs, which include normal government expenses such as water and sewage treatment. A second major adjustment is for environmental pollution damages, the estimated cost of damage not presently being corrected (automobile exhausts, industrial pollution, etc.). When the government does spend the funds necessary to correct such damages, this expense is also excluded from NNW but under environmental maintenance costs.

A third major adjustment is for losses related to urbanization. Here, where Nordhaus and Tobin calculate income differentials under the broader category of "disamenities of urbanization," the Japanese exclude two smaller categories. First, they adjust for losses attributable to the deterioration of commuting environment, based on the premise that commuting more than 60 minutes daily results in "physical fatigue and mental pain." Commuting hours exceeding 60 minutes per day are multiplied by the average wage, and the resulting value is subtracted from the NNW total. Also subtracted is an estimated dollar value loss caused by traffic accidents, based on compensation paid for personal injuries. (The basic approaches of the Japanese NNW Index and the Nordhaus-Tobin MEW Index are shown in table 3.)

<sup>11</sup>"An Interim Report of the N.N.W. Development Committee," Economic Planning Agency, Tokyo, January 19, 1973.

<sup>12</sup>This is computed by multiplying leisure hours by an average wage.

The results of the Japanese NNW Index are similar to the MEW: namely, the growth in national welfare as measured by each index has trailed the output of goods and services. While Japanese growth rates have been nothing short of spectacular, the ratio of NNW to NDP<sup>13</sup> has fallen in recent years. From a high of 1.15 in 1955, this ratio fell to 1.01 in 1965 and plummeted to .92 in 1970. A major reason for this has been environmental pollution, which reduced NNW by 0.2 percent in 1955, 11.6 in 1965, and 13.8 in 1970.

### **The Sustainable Growth Investment Requirement**

The Japanese Government follows an investment addition approach patterned on a concept developed by Nordhaus and Tobin. Basically, there is a computation for the amount of growth in gross investment which would permit per capita consumption to grow at the rate of technological progress. If the amount of investment growth required to achieve this end is less than actual investment, a factor called Net Investment is added to the NNW (or MEW). If, however, the investment growth requirement exceeds the actual amount of investment in the economy, the difference is subtracted, thus reducing NNW.

### **A Welfare Deflator**

A third approach to measuring economic and social welfare from the GNP accounts is that proposed by Robert Lekachman.<sup>14</sup> He suggests a welfare deflator similar to a price index. In contrast to the MEW and NNW methodology, this approach would deflate total GNP in the way GNP is adjusted for price changes. The deflator would be a composite measure of welfare improvement or deterioration. Rather than yielding a GNP in constant dollars, the results would yield an index in real welfare terms. The final results would show an index sensitive on the upside to favorable indicators such as reduced crime and, on the downside, to unfavorable indicators such as greater air pollution.

### **Evaluation of Welfare Measurements**

Many benefits stem from constructing a national welfare index. Perhaps the most obvious are those derived from a systematic approach to measuring economic welfare in an aggregative or total sense. Second, in the attempt to measure

economic welfare, statistics from subareas are produced. Measuring nonmarket activities should yield new techniques of economic and social analysis. While these may be in their elementary stages, further research should refine them, bringing more realistic measures and results.

However, one problem accompanying a welfare index is that its construction, as that of the GNP accounts, requires value judgments. While there may not be any more of them, the fact that many are new, as opposed to the GNP accounts, might hinder acceptance of such an index.

Still another, not unrelated problem, is a definitional one. In the Nordhaus-Tobin formulation, economic welfare is primarily a function of consumption. Defense and police expenditures, for example, are excluded, since they do not *directly* improve consumer well-being. Yet one may argue that such expenditures indirectly contribute to economic well-being and that such a measure should take this into account. However, an obvious problem would be one of assigning weights to these contributions.

The problem of value judgments and definitions in computing such an index raises another major question. If an index is to be computed for policy purposes, who should perform the computation? Should it be a government agency, a university, or a private business under contract with the Federal Government? Such an index might differ materially depending upon the viewpoint of the organization constructing it. The Japanese have chosen to follow a government design.

This leads to a further question. Would it be possible, using such an index, to set national goals for improving economic welfare through legislation? Setting such goals is not unprecedented, as witnessed by the Employment Act of 1946. This act made it the continuing policy and responsibility of the Federal Government to foster conditions which will promote maximum employment, production, and purchasing power.

The key to the question of legislated economic welfare goals lies in the simple fact of acceptance. Such an index would have to be developed with the general backing of Congress and the business and academic communities. Any disagreements could be handled by an appreciation of what the index means and what it includes or excludes. For example, if defense expenditures were excluded, then during a wartime or other period of national emergency, welfare growth targets might have to be modified. During a peacetime or "normal" period, growth targets could be set higher. In general, the many problems of developing and using an index of economic welfare do not seem insurmountable. Such an index should not replace the GNP accounts but could lend an important dimension to economic policymaking. ■

<sup>13</sup>Net National Product minus capital formation equals NDP.

<sup>14</sup>Robert Lekachman, "The Income Accounts of Tomorrow," *Survey of Current Business: Fiftieth Anniversary Issue*, U. S. Department of Commerce, July 1971, pp. 119-123. This fiftieth anniversary issue of the *Survey* contains a number of interesting articles commenting on the GNP accounts, their current construction, and suggestions for future improvements.

# Rice: Suddenly Glamourous Food Crop of the World

by Gene D. Sullivan

An opportunity to double your income in one year and triple it in two! That was the chance rice farmers had during the past two years when tight world grain supplies sent rice prices soaring above the levels at which they had dawdled since records were first kept. Though now retreating from earlier peaks, prices for the expanded 1974 crop also promise to remain well above historical levels.

## Beginning in the Southeast

Rice is one of the oldest known cultivated plants and one of the world's major starchy foods. A relative newcomer to the United States, it first reached prominence during the 1700's along the Southeastern coast.

In the early 1800's, Georgia was a major rice producer, but relatively little was grown in the western area of the Sixth Federal Reserve District.<sup>1</sup> Following the Civil War, labor and capital became scarce in the South Atlantic states and large-scale production became less profitable. Rice production moved west to Mississippi and Louisiana, where labor was more plentiful and soils and water supplies were more favorable to cultivation. Louisiana rapidly became the major production area, and the crop all but disappeared along the Atlantic Coast.

Louisiana held its position as the leading rice producer for over half a century. From 1895 through 1910, in fact, Louisiana alone accounted for over 50 percent of the nation's crop. Production continued to spread westward, however, and the crop became prominent in Arkansas, Texas, and California. Although Louisiana still seeds more acreage to rice than any state, greater relative improvements in other areas' yields have dropped Louisiana to fourth position in total U. S. rice production. With Mississippi's output included, the District states accounted for just over one-fourth of total U. S. rice output in 1973 (see table 1).

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<sup>1</sup>The Sixth Federal Reserve District includes all of Alabama, Florida, and Georgia and parts of Louisiana, Mississippi, and Tennessee.



**TABLE 1**  
**RICE PRODUCTION**

<u>Year</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>District States</u>	<u>U. S.</u>
<b>Acres Harvested</b>				
<b>1,000 Acres</b>				
1950	551	7	558	1,637
1955	526	52	578	1,826
1960	458	44	502	1,595
1965	515	50	565	1,793
1970	523	51	574	1,814
1971	522	51	573	1,817
1972	522	51	573	1,819
1973	620	62	682	2,170
<b>Production</b>				
<b>1,000 cwt.</b>				
1950	10,882	189	11,071	38,820
1955	14,728	1,482	16,210	55,902
1960	13,053	1,298	14,351	54,591
1965	18,282	1,850	20,132	76,281
1970	20,397	2,244	22,641	82,859
1971	19,836	2,346	22,182	85,768
1972	20,136	2,325	22,461	85,439
1973	21,394	2,670	24,064	92,823
<b>Yield</b>				
<b>lbs. per acre</b>				
1953	2,069	2,450	2,099	2,471
1955	2,800	2,850	2,804	3,060
1960	2,850	2,950	2,859	3,423
1965	3,550	3,700	3,563	4,255
1970	3,900	4,500	3,944	4,618
1971	3,800	4,600	3,871	4,718
1972	3,825	4,559	3,920	4,684
1973	3,451	4,306	3,528	4,277
<b>Farm Value</b>				
<b>\$1,000</b>				
1953	63,622	6,370	69,992	274,074
1955	68,632	7,454	76,086	268,547
1960	58,738	6,334	65,072	248,445
1965	87,571	9,361	96,932	376,227
1970	101,169	12,118	113,287	420,530
1971	100,172	13,208	113,380	457,697
1972	133,779	17,205	150,984	561,729
1973*	288,819	46,725	335,544	1,312,517

\*Preliminary

SOURCES: USDA, Agricultural Statistics; Crop Production; Crop Values; Rice Situation.

## Government Assistance

From the beginning, rice growers went through extended periods of depressed prices whenever production exceeded domestic needs. Eventually, this led to governmental intercession in markets on behalf of farmers. A number of approaches were tried without a great deal of success until the passage of the Agricultural Adjustment Act of 1938, which authorized both acreage allotments and marketing quotas for rice. Producers with acreage allotments based on historical production were eligible for price support loans on their total production from the Commodity Credit Corporation. However, because wartime market prices exceeded loan levels and planted rice acreage exceeded that allotted, the loan program was little used until the Fifties.

The situation then changed abruptly in 1951 when market prices dipped substantially below the support loan rate, and CCC began to receive large quantities of rice. After the 1955 acreage allotments and marketing quotas were proclaimed and approved by the growers, the Secretary of Agriculture was then authorized to set the national acreage allotment, specifying the maximum acreage that could be grown free of penalty.

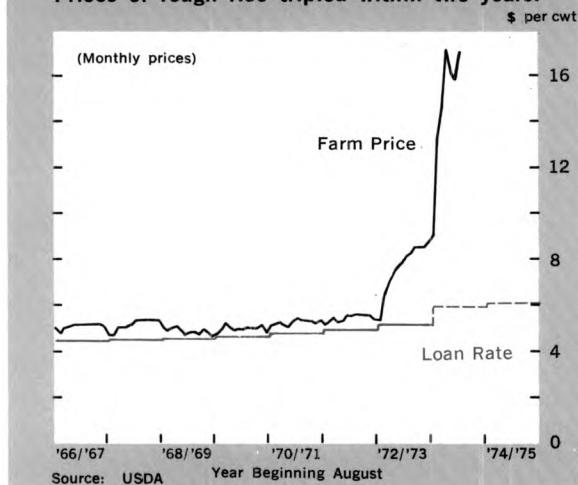
In setting the allotment, the Secretary determines the acreage required to produce a sufficient rice supply for domestic consumption, exports, and an adequate stock carry-over. Currently, that allotment is 2,100,000 acres, which is prorated among producing states according to 1956 allotments. States, in turn, assign individual allotments based on production history. For 1974, the District states' allotment has been set at 663,000 acres.

The Secretary must proclaim annual marketing quotas if the total rice supply exceeds the normal supply (the amount required for consumption, exports, and carry-over). If approved by two-thirds of the growers, these quotas go into effect; and growers who exceed their allotted acreage are penalized at rates sufficient to induce compliance.

The Secretary must also declare a CCC loan and purchase rate at a price between 65 and 90 percent of the rice parity price. Parity is that price level which would give a unit of rice the same purchasing power for goods and services used by farmers as in the 1910-14 base period. When market prices fall below the support price, producers are eligible to deliver any or all of their crop to the Commodity Credit Corporation at the loan or purchase rate.

Rice producers have generally been able to increase output per acre faster than input costs have increased. Thus, the support price set even at a minimum rate of parity has been profitable enough to stimulate increased output. Consequent-

CHART I  
Prices of rough rice tripled within two years.



ly, rice production has grown far beyond domestic needs, and price support loan levels have generally exceeded world market prices, resulting in the use of export subsidies to dispose of excess rice.

When world grain prices began to increase in mid-1972, the quantity of rice coming into the Commodity Credit Corporation declined. International rice prices moved to such unprecedented levels in 1973 that practically none of the U. S. crop moved into government ownership when price support loans matured in 1974.

But farmers' costs have also risen rapidly, particularly during 1974. Under the parity formula, support prices could again overtake world market prices, which have dropped considerably from their 1973 highs. This could result in renewed government losses from the continued operation of the current rice program.

In hopes of avoiding future government losses, the USDA has recently proposed changes in the rice program aimed at keeping U. S. rice competitive in the world market. The proposals have drawn support from consumer interests and a minority of growers. The proposed changes would in effect make the rice program similar to current wheat, feed grains, and cotton legislation whereby price support loan rates are tied to world market prices and direct payments are made to producers only when prices fall below certain target levels. Producers in large majority are resisting these changes for fear they could not survive without the present program's substantial economic benefits.

## Off-Farm Inputs

If rice production should decline as a result of program changes, the economy's nonfarm segments

would also be affected because of the crop's economic dominance in most areas where it is grown. Rice farms have long been mechanized in the United States, and rice farmers have been heavy users of nonfarm inputs. The machinery investment on rice farms has for many years been larger than in most other types of agricultural production.

Harvesting equipment is the most expensive type used by rice farmers. The combine alone accounted for about one-third of the \$62,000 machinery investment on a medium-sized rice farm in 1971. Large farms in the Louisiana rice area invested up to \$151,000 in machinery.<sup>2</sup>

Other significant equipment includes trucks, mammoth tractors, land levelers, and tillage implements. On farms without access to water provided by irrigation companies, the investment in wells, pumps, power plants, and irrigation canals or pipe requires sizable additional capital. All of these investments, in turn, generate expenditures for fuel and/or electric power, as well as for repairs and maintenance of facilities.

USDA studies show that in the early Seventies the District's variable rice production costs averaged nearly \$100 per acre (see table 2). Labor, fertilizer, seed, and chemical herbicides accounted for the major portion of this annual out-of-pocket expenditure. Fuel, lubrication, and equipment repairs accounted for significant additional expenditures. Based on the 682,000 acres harvested in 1973, the District rice crop generated a \$67-million expenditure. In Louisiana, rice production accounted for about one-sixth of total current farm operating expenses. For the U. S. as a whole, total expenditures probably exceeded \$200 million but are a much less significant component of total farm expenses.

As a result of rapid increases in costs of nearly all input items, seasonal costs for 1974 are estimated to be about two-thirds higher than 1973's levels. On that basis, District rice farmers are projected to spend about \$120 million in producing the expanded 1974 rice crop, and total U. S. expenditures are likely to increase proportionately.

### Processing and Marketing

The Louisiana rice harvest begins in mid to late summer and continues into early fall. Where two crops are obtained, a practice increasingly important along the southern edge of the rice belt, the harvest may continue into November.

<sup>2</sup>W. F. Woolf et al, *Farm Machinery and Equipment Costs In the Southwest Louisiana Rice Area*, Louisiana State University Agricultural Experiment Station, D.A.E. Research Report No. 449, Dec. 1972.

**TABLE 2**  
**Estimated Inputs and Variable Costs**  
**in Rice Production**

Louisiana, 1970<sup>1</sup>

	Quantity ( . . . per acre . . . )	Value	Estimated <sup>2</sup> Total Costs District States
<b>Preharvest inputs:</b>			
Labor	7.33 hrs.	\$30.83	\$21,026,060
Seed	1.33 cwt.	11.82	8,061,240
Fertilizer	4.00 cwt.	12.40	8,456,800
Power and Equipment	—	4.96	3,382,720
Herbicides	—	10.24	6,983,680
Irrigation	—	4.56	3,109,920
Interest	\$63.23	2.21	1,507,220
<b>Total Preharvest Cost</b>		<b>\$77.02</b>	<b>\$52,527,640</b>
<b>Harvest Inputs:</b>			
Labor	2.18 hrs.	\$ 4.02	\$ 2,741,640
Power and Equipment	—	2.11	1,439,020
Combining	—	2.01	1,370,820
Drying	—	13.80	9,411,600
<b>Total Harvest Cost</b>		<b>\$21.94</b>	<b>\$14,963,080</b>
<b>Total Variable Cost</b>		<b>\$98.96</b>	<b>\$67,490,720</b>
<b>Estimates for 1974<sup>3</sup></b>		<b>(\$175.72)</b>	<b>(\$119,841,040)</b>

<sup>1</sup>USDA, *Selected U.S. Crop Budgets, Yields, Inputs, and Variable Costs*, Volume V, South Central Region, ERS 461, April 1971.

<sup>2</sup>Cost per acre multiplied by total acreage for harvest in 1973.

<sup>3</sup>Estimated by economists at the American Rice Growers Association and Texas A & M University.

Harvested grain usually goes first to the rice dryer. These huge upright concrete structures, with a capacity for drying and storing 300,000 hundredweight or more of rice, dot the landscape throughout the rice belt. Increasingly in recent years, farmers have erected their own drying and storage facilities to allow greater flexibility in harvesting and marketing their crop. For the most part, however, off-farm dryers are still used.

A total of 81 commercial dryers are located within an eight-parish area in southwestern Louisiana and are mainly concentrated in Acadia, Calcasieu, Jefferson Davis, and Vermilion Parishes. At an average investment of \$1,425,000 per structure (calculated on a replacement cost basis), commercial rice dryers within the District states represent a total investment of over \$115 million.

The average rice dryer employs about 11 workers, most of them seasonal, with a total annual payroll of approximately \$47,000. For the area as a whole, then, rice dryers generate an estimated employment of about 900 people earning a total payroll of \$3.8 million.

Other major expenses involved in receiving, drying, storing, and loading out rough rice include building and equipment depreciation, interest on investment, property taxes and equipment repairs. The total cost of operating a medium-model rice dryer in 1971 was estimated by the USDA at

\$251,000, with \$109,000 for out-of-pocket expenses. At that rate, total expenses generated by the operation of all rice dryers in Louisiana in 1971 exceeded \$20 million, with approximately \$8.8 million total out-of-pocket expenditures.<sup>3</sup>

After drying, rough rice then moves to the mill, where the brown outer covering on the rice grain is removed. Seventeen mills are located in Louisiana, with the largest concentration at Crowley in Acadia Parish. At an estimated average investment of \$1.4 million per operation, the rice-milling industry represents a total investment of about \$24 million.

Employment at Louisiana rice mills, some of which operate on a full-time basis, totals about 1,150 people, with estimated annual wages and salaries of \$4.8 million. Other operating expenses total almost \$9.0 million on an annual basis.

After milling, the rice is packaged for marketing. Rice marketed domestically is usually packaged in one- to five-pound bags and held at the mill until needed to supply the retail market. Rice for export is packaged in 100-pound bags or held in bulk awaiting shipment to overseas destinations.

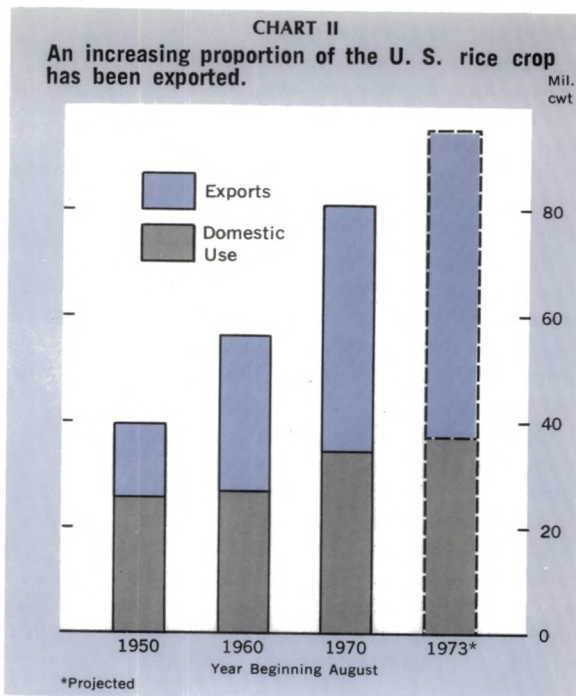
Rice millers usually take title to the rice they process; they do little processing on a custom basis. Although they may directly market grain to domestic users, millers usually rely upon brokers to handle rice for export.

### Consumption

Rice has always been utilized primarily as a human food product. It is a dietary staple in much of Asia, where annual consumption per capita averages as high as 365 pounds. In the U. S., however, annual consumption has remained rather low—7.0 pounds per person in 1972. Consumption reached 8.3 pounds per person as recently as 1968, but the annual average has hovered near 7.0 pounds despite industry campaigns promoting greater use of rice. One obstacle to its greater market penetration has been that rice, on a per pound basis, has been two to three times more expensive than potatoes, its chief competitor.

Domestic consumption has amounted to about one-third of recent annual rice crops (see figure II). The rice actually consumed from the 1973 crop is projected to reach a new high of 37.2 million cwt., after wavering between 30 and 35 million cwt. through most of the last decade. Total production has increasingly exceeded domestic use, and the excess has moved into the export trade.

<sup>3</sup>S. H. Holder et al, *Costs of Building and Operating Rice Drying and Storage Facilities in the South*, USDA Marketing Research Report, No. 1011, September 1973.



### Foreign Markets

Export markets have always been important to U. S. rice producers. In recent years, from 55 to 65 percent of the total annual rice crop has been exported. Even though U. S. rice production is a relatively small portion of the world total, U. S. exports account for about one-fourth of the rice moving in world trade. Prime customers for U. S. rice have been India, Indonesia, and South Vietnam, countries whose purchases accounted for 60 percent of U. S. milled rice exports in 1971.

Because domestic prices have substantially exceeded world prices, subsidies have been required to move U. S. rice into world markets. Various government export assistance programs as well as direct export subsidies have been used to market rice abroad. Without these programs, accumulations of government-owned rice stocks would have reached burdensome proportions.

Since 1955, rice exports under Public Law 480 and other government programs have typically ranged from one-third to one-half of the total U. S. export volume. The majority of government program exports have occurred under Titles I and II of Public Law 480, which authorize sales for foreign currencies and sales under long-term credit arrangements, respectively. Though the actual subsidy involved is difficult to determine, it is generally agreed that such sales reflect



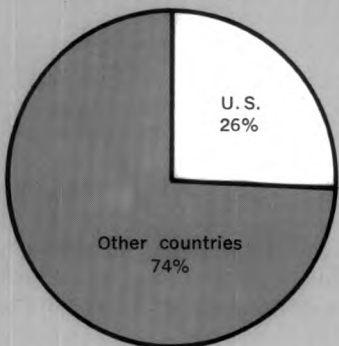
CHART III

In 1972 the U. S. accounted for less than 2% of total world rice production



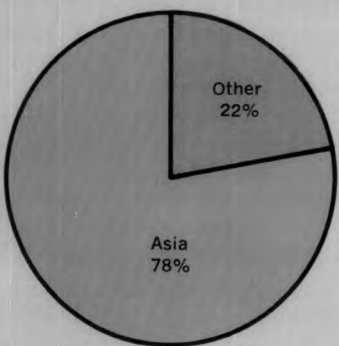
WORLD RICE PRODUCTION

and over one-fourth of world rice exports,



WORLD RICE EXPORTS

three-fourths of which moved to Asia.



U. S. RICE EXPORTS

**TABLE 3**  
**Export Payments On Rice**

Crop Year Beginning Aug. 1	Export Payment Per Cwt.*	Total Export Payments (\$ mil.)
1960	\$2.92	\$54.5
1961	2.78	56.4
1962	2.25	54.6
1963	2.28	71.7
1964	2.22	64.5
1965	1.80	54.7
1966	.87	34.2
1967	.56	2.2
1968	.42	5.3
1969	.72	28.2
1970	1.02	37.6
1971	1.81	57.2
1972	1.75	49.8

SOURCES: USDA, *Agricultural Statistics, Foreign Agricultural Trade of The U.S.*, April 1974.

\*Reflects the gap between the U.S. domestic price and the competitive world price.

substantial concessions to purchasing countries; and, in some cases, these transactions may be equivalent to outright donations. To the extent that long-term credit is eventually repaid in dollars or other hard currencies, however, subsidies would be minimized.

Export payments are forthright government costs that can be readily quantified. From 1960 through the end of 1972 when they were suspended, annual export payments averaged from 42 cents to \$2.92 per cwt. A subsidy of \$1.81 per cwt., paid on 1971 rice exports to make up the difference between world and domestic prices, amounted to a total direct government payment of \$57.2 million (see table 3). Assuming that the ultimate costs of government program exports were at least as much, the subsidy on total rice exports amounted to \$114 million, or one-fourth of the total farm value of the 1971 crop. In 1970, when export payments averaged nearer \$1.00 per cwt., government costs of rice exports were sharply lower.<sup>4</sup>

### Financing

Rice production, since the mid-1950's at least, has been one of the District states' more profitable agricultural enterprises. Even though other crops can be and are produced within the rice area, seldom has anyone elected to grow another crop on rice allotment acreage. Although in some cases a farmer might plant rice primarily to preserve his history of production, the fact that rice continues to be planted where permissible, even where land is also well adapted to cotton, sugarcane, or other

<sup>4</sup>Although direct export payments were nearly negligible in 1967 and 1968, the annual average from 1960 through 1972 was \$43.9 million, about one-fifth of the comparable average for wheat exports. U. S. wheat acreage is many times larger and more widespread than rice acreage, however.

high-valued crops, is indicative of rice's relative profitability.

Rice's profitability under government programs guaranteeing prices and the relative certainty of producing a harvestable crop whether the weather is excessively rainy or dry tend to make income from rice considerably more certain than that from most other enterprises. This enhances a rice producer's attractiveness for potential lenders.

Rice production has indeed attracted an abundance of financing from the full spectrum of agricultural lenders, who tend to compete rather briskly for both short and long term farm loans. The farmer's demand for real estate credit to finance land purchases, irrigation wells, and equipment accounts for large volumes of long-term credit. Intermediate credit for machinery purchases and short-term credit for seasonal production needs also generate substantial loan demand.

Land prices have recently been recorded at \$900 to \$1,000 per acre in the southwest Louisiana rice area. If loans are limited to only two-thirds of market price, real estate credit extended could average \$600 or more per acre. The potential real estate credit volume of only the acreage planted to rice in 1973 would, at that rate, exceed \$400 million. The 2.4 million acres in the southwest Louisiana rice area alone would represent a total real estate investment in excess of \$2.0 billion and a potential credit volume of at least \$1.4 billion.

Valued at replacement prices in 1971, the machinery investment on a medium-sized rice farm (586 total acres) averaged \$62,000. At that rate, the 5,000 District rice farms have a total machinery investment of more than \$300 million. On the average, this machinery is replaced once each six years. Even though salvage value may be equivalent to one-fourth the original cost, the annual expenditure for rice equipment would still amount to more than \$37 million. This represents a sizable sales volume to equipment dealers, as well as an intermediate term loan volume to area lenders. Machinery loans are typically extended for periods ranging from three to five years. Longer terms are becoming more common as farmers purchase larger, more expensive machinery (such as combines) with longer expected life spans.

Farmers have heavy demands for production credit as well. These short-term funds are typically borrowed in the spring and repaid in the fall after rice harvesting has been completed. Lenders base the credit extended on the expected rice production per acre. In fact, some lenders even base loans on a farmer's actual three-year average yield times the price of rice, adjusted for the reduction in crop receipts that occurs when a farmer leases land and/or water. The actual volume of credit extended per acre reflects the substantial yield variation from one farm to another.

Whereas, until recently the total variable cost of rice production has hovered near \$100 per acre, rapid cost increases for practically all inputs, but particularly for seed, fertilizers, and fuels, have resulted in variable production expenses estimated at \$176 per acre for the 1974 season. Thus, within the span of one year, the District rice farmers' financing requirements for production purposes have increased from \$68 million to \$120 million. Lending agencies have already experienced a commensurate increase in loan volume for the 1974 crop year.

In some cases, the farm loan volume of conventional lenders has increased from the additional effect of merchant credit withdrawal. In the past, merchants have often used liberal credit terms to induce farmers to buy their merchandise. Faced with limited supplies of farm inputs and especially of fuels, fertilizers, and machinery, some merchants are reported to have asked for advance payment to ensure delivery of supplies. Thus, credit agency loans have grown not only from increases in farm input prices but also from the added loan volume formerly handled by merchants.

Rice dryers utilize long-term credit in erecting physical facilities but need little credit for operational purposes. They normally do not take title to the rice they process but assess the farmer a flat charge of 60 to 70 cents per barrel for rice dried and stored. This revenue, which begins to flow in with the first rice sales, usually supplies sufficient funds to meet operating capital needs.

Millers typically purchase the rice they process, and they need substantial credit to finance inventory holdings. These needs are usually met by credit lines with some of the larger regional banks. In the case of export rice, inventories may be financed until the product reaches its ultimate destination and foreign buyers make payment. If the purchaser is not of known reliability, the sale is typically handled through draft arrangements with large international banks so that the miller receives payment when the rice is placed on board ship.

### In Perspective

Rice is an important world food crop, but it has never gained major importance in the U. S. as a whole. However, in some southern localities, particularly within South Carolina and Louisiana, rice is a more prominent component of the diet.

Rice production, in recent years, has been stimulated through government subsidies. Since the majority of the crop has been exported, these expenses are difficult to justify from the standpoint of rice's contribution to the domestic food supply. Food donations and concessionary sales have been an important form of U. S. Government aid to

underdeveloped nations. However beneficial, one might wonder how long the public may be willing to subsidize the production and exportation of rice, largely for the dietary benefit of other nations. The humanitarian aspect of food aid might well be more inexpensively accomplished through direct purchases in the world market where, until recently, rice prices have been substantially lower than domestic prices.

The benefits of government subsidies to rice producers have been substantial in some periods, and these benefits have influenced the total economies in the rice areas. Financial institutions, transportation industries, machinery manufacturers

and dealers, farm supply industries, and retailers of all sorts have benefited from a prosperous rice industry. In addition, rice exports have contributed to a favorable balance of payments in international trade.

Under present world market conditions that some see as a new era of unending growth in demand for food products, it could be that rice farmers might easily survive without assistance. Indeed, if events in 1973 are a portent, the removal of governmental assistance would hardly be noticed. The subsidies that served to preserve the U. S. rice industry until a time of unprecedented need might then be viewed with greater understanding. ■

## Bank Announcements

March 29, 1974

### **BARTOW COUNTY BANK**

*Cartersville, Georgia*

Opened for business as a par-remitting nonmember. Officers: Sam C. Smith, president; Lavoy Moss, vice president and cashier.

March 29, 1974

### **FIRST STATE BANK OF CULLMAN**

*Cullman, Alabama*

Opened for business as a par-remitting nonmember. Officers: James L. Gregory, president; James C. Bailey, vice president; Earlene Love, cashier. Capital, \$400,000; surplus and other funds, \$300,000.

April 1, 1974

### **FIRST CITIZENS BANK OF CLEVELAND**

*Cleveland, Tennessee*

Opened for business as a par-remitting nonmember. Officers: Ken Rayborn, president; Jack Everett, vice president and cashier. Capital, \$618,704; surplus and other funds, \$618,704.

April 3, 1974

### **PALM STATE BANK**

*Palm Harbor, Florida*

Opened for business as a par-remitting nonmember. Officers: Robert E. Prentice, president; Phyllis B. Jones, vice president and cashier. Capital, \$550,000; surplus and other funds, \$550,000.

April 3, 1974

### **PAN AMERICAN BANK OF ALTAMONTE SPRINGS**

*Altamonte Springs, Florida*

Opened for business as a par-remitting nonmember. Officers: Gilbert L. Lewis, president; James W. Schwartz, vice president and cashier. Capital, \$600,000; surplus and other funds, \$600,000.

April 5, 1974

### **FIRST BANK**

*Pineville, Louisiana*

Opened for business as a par-remitting nonmember.

April 10, 1974

### **ATLANTIC BANK OF CONWAY**

*Orlando, Florida*

Opened for business as a par-remitting nonmember. Officers: William B. Edmonds, chairman of the board; Kenneth L. Nield, president; D. Charles Anderson, vice president and cashier; Robert E. Mess, assistant cashier. Capital, \$500,000; surplus and other funds, \$532,991.45.

April 15, 1974

### **WEST CENTRAL GEORGIA BANK**

*Thomaston, Georgia*

Opened for business as a par-remitting nonmember.

April 16, 1974

### **THE EXCHANGE BANK OF WESTSHORE**

*Tampa, Florida*

Opened for business as a par-remitting nonmember. Officers: L. M. Anderson, Jr., chairman of the board; F. R. Leverage, president and CEO; A. G. Divers, vice president.

April 22, 1974

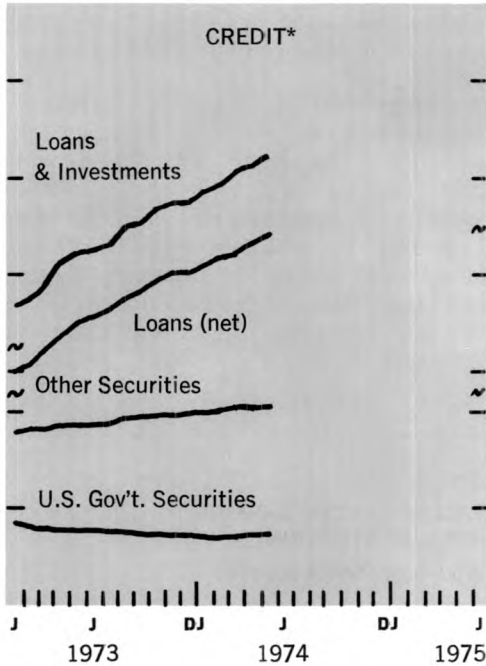
### **FIRST NATIONAL BANK OF LEBANON**

*Lebanon, Tennessee*

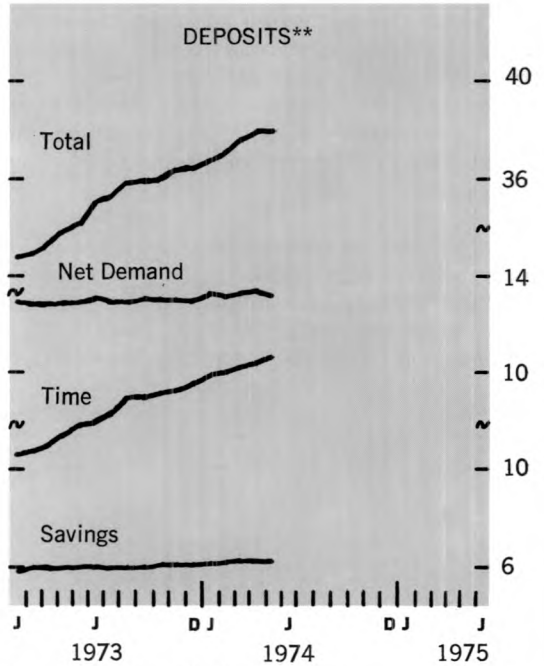
Opened for business as a member. Officers: R. Eugene Roberts, president; William C. Cothorn, vice president and cashier. Capital, \$300,000; surplus and other funds, \$450,000.

# BANKING STATISTICS

Billion \$



LATEST MONTH PLOTTED: MAY

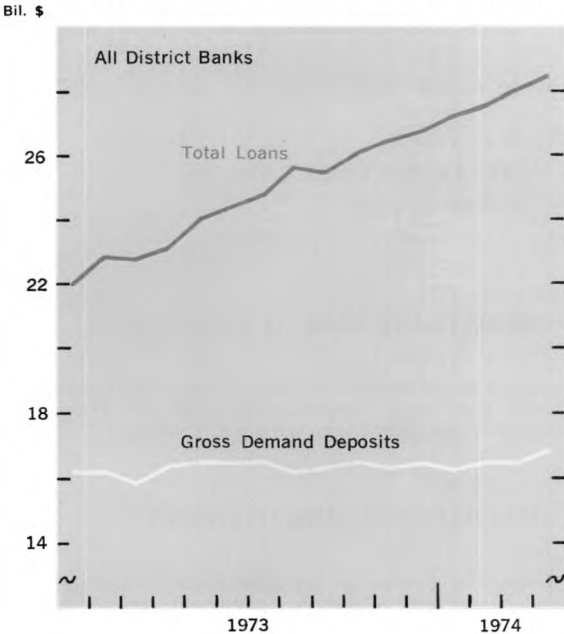


\*Figures are for the last Wednesday of each month  
\*\*Daily average figures

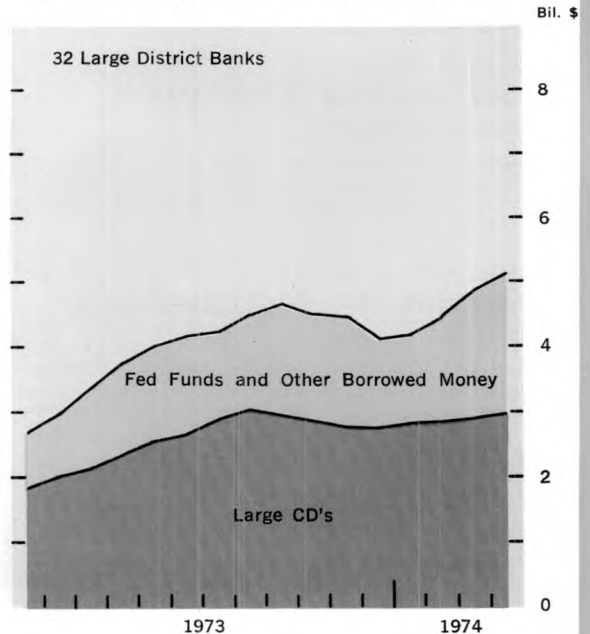
## SIXTH DISTRICT BANKING NOTES

# CD Maturities Fall to Record Low

### Loan Growth Outruns Demand Deposits



### CD's and Borrowed Funds Bridge Gap





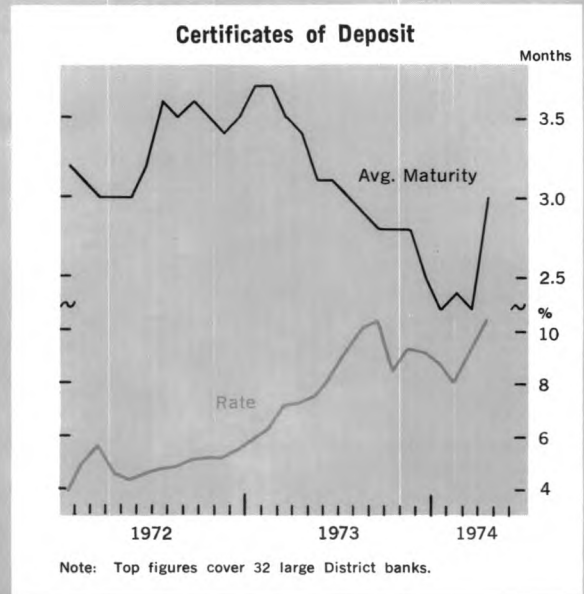
The average maturity of large-denomination CD's held by large Sixth District banks fell to an historically low 2.3 months during the first quarter of 1974. Such short CD maturity meant that unless renewed, 40 percent of these large CD's had to be paid off a month later.

Such rapid turnover was particularly significant because banks were holding very large volumes of these certificates as the year opened. Throughout most of 1973, demand deposit and consumer time deposit growth at banks in this District as well as elsewhere fell far behind the exceptional bank loan expansion. To accommodate their loan customers, banks therefore turned heavily to large-denomination CD's, which at the end of the year stood at an impressive \$2.8 billion. A year earlier the amount was \$1.7 billion.

The shorter the maturity of such a volume of outstanding CD's, the more often a bank's refinancing job comes up and, in general, the greater this problem is. Banks typically meet such a situation by selling (issuing) new certificates of deposit or relying on nondeposit sources. These might include borrowing from other banks in the Federal funds market, commercial paper, loan participations, or Eurodollars. Since rates on Federal funds are usually higher than those on CD's, banks rely more on CD's to minimize costs.

Furthermore, a desire to hold down the cost of funds obtained through CD issues likely contributed to the maturity structure's record-setting behavior. If banks anticipate a rise in interest rates, they often try to issue longer-term maturities—for example, six months—to avoid paying higher future rates as long as possible. Customers buying CD's will, of course, bargain in the opposite direction. Conversely, if banks anticipate that rates will come down, they tend to issue CD's with shorter maturities, say 30 to 90 days, expecting to replace them at lower rates.

The chart shows that CD maturities at District banks started to lengthen in early 1972 at the same time that CD interest rates began to rise. However, the subsequent year-long decline in CD maturities began in March 1973, six months before CD rates started to fall. Maturities finally reached their lowest point in March 1974 before increasing in April. Bank anticipations that rates would peak and then fall probably played a role in this remarkable maturity decline. It is also possible that purchasers of



CD's during this period may have desired the liquidity offered by short maturities more than a chance to lock in high rates for a longer time. Nonetheless, the sensitivity of CD maturities to expected future interest rates is indicated by their conspicuous lengthening when rates once again rose.

The first quarter's unusually short CD maturity average must have intensified liquidity problems already plaguing bankers with heavy demands for credit. As loans further increased during these months, loan-deposit ratios at large District banks averaged above even their high 1973 levels.

With added pressures to renew CD issues, it is not surprising that banks also made heavy use of short-term borrowed reserves. Borrowing from the Federal Reserve increased, and net purchases of Federal funds climbed upward to \$1,160 million in March after several months' decline. Such strong short-term borrowing by large banks generally results from many forces, one of which must have been the extraordinarily short maturity of outstanding certificates of deposit.

**CHARLES D. SALLEY**

# Sixth District Statistics

## Seasonally Adjusted

(All data are indexes, unless indicated otherwise.)

	Latest	Month	One Month Ago	Two Months Ago	One Year Ago		Latest	Month	One Month Ago	Two Months Ago	One Year Ago
<b>SIXTH DISTRICT</b>						<b>Unemployment Rate*</b>					
<b>INCOME AND SPENDING</b>						<b>(Percent of Work Force)</b>					
Manufacturing Payrolls	Apr.	169	171	171	164	Apr.	4.1	3.9	4.1	3.7	
Farm Cash Receipts	Mar.	203	202	228	173	Apr.	40.8	41.0	41.4	41.3	
Crops	Mar.	218	216	252	184	<b>FINANCE AND BANKING</b>					
Livestock	Mar.	203	206	218	179	Member Bank Loans	Apr.	249	243	245	208
Installment Credit at Banks** (Mil. \$)						Member Bank Deposits	Apr.	202	200	201	181
New Loans	Apr.	684	595r	704	684	Bank Debits**	Apr.	245	247	238	197
Repayments	Apr.	675	573r	658	562	<b>FLORIDA</b>					
<b>EMPLOYMENT AND PRODUCTION</b>						<b>INCOME</b>					
Nonfarm Employment	Apr.	132.6	132.8	132.8	129.0	Manufacturing Payrolls	Apr.	178	178	177	170
Manufacturing	Apr.	118.4	118.5	119.1	117.6	Farm Cash Receipts	Apr.	176	173	163	151
Nondurable Goods	Apr.	115.7	115.7	116.1	115.4	<b>EMPLOYMENT</b>					
Food	Apr.	106.4	107.3	106.6	105.4	Nonfarm Employment	Apr.	152.7	152.0	151.4	147.0
Textiles	Apr.	112.5	112.2	113.0	112.9	Manufacturing	Apr.	128.2	128.2	127.9	125.6
Apparel	Apr.	113.4	113.6	115.0	115.9	Nonmanufacturing	Apr.	157.4	156.6	155.9	151.1
Paper	Apr.	112.8	112.0	112.8	113.0	Construction	Apr.	215.6	212.5	214.2	204.1
Printing and Publishing	Apr.	129.0	129.4	129.7	126.3	Farm Employment	Apr.	96.2	101.0	91.9	99.2
Chemicals	Apr.	109.0	108.5	108.7	107.0	Unemployment Rate*					
Durable Goods	Apr.	121.8	122.0	122.7	120.4	(Percent of Work Force)	Apr.	3.4	3.4	3.3	2.8
Lbr., Wood Prods., Furn. & Fix.	Apr.	111.5	111.9	112.4	112.3	Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr.	39.6	40.4	40.7	41.6
Stone, Clay, and Glass	Apr.	129.6	132.6	132.6	127.5	<b>FINANCE AND BANKING</b>					
Primary Metals	Apr.	109.8	111.4	114.7	109.6	Member Bank Loans	Apr.	306	303	303	251
Fabricated Metals	Apr.	133.3	134.0	134.0	128.9	Member Bank Deposits	Apr.	240	240	240	216
Machinery	Apr.	156.7	156.1	156.4	149.2	Bank Debits**	Apr.	311	307r	302	259
Transportation Equipment	Apr.	112.1	109.3	111.1	113.8	<b>GEORGIA</b>					
Nonmanufacturing	Apr.	137.6	137.8	137.7	133.0	<b>INCOME</b>					
Construction	Apr.	153.1	154.7	156.0	146.5	Manufacturing Payrolls	Apr.	159	158	163	159
Transportation	Apr.	127.3	127.3	127.3	123.9	Farm Cash Receipts	Mar.	221	221	256	184
Trade	Apr.	137.3	137.3	137.6	134.2	<b>EMPLOYMENT</b>					
Fin., ins., and real est.	Apr.	147.0	147.5	147.6	141.8	Nonfarm Employment	Apr.	129.9	130.3	130.7	127.0
Services	Apr.	148.1	148.1	148.1	142.9	Manufacturing	Apr.	112.6	111.4	113.0	113.4
Federal Government	Apr.	103.8	104.6	103.9	100.7	Nonmanufacturing	Apr.	137.8	139.0	138.8	133.3
State and Local Government	Apr.	136.3	136.2	134.8	130.1	Construction	Apr.	145.4	151.3	152.7	141.6
Farm Employment	Apr.	83.7	85.2	88.1	80.5	Farm Employment	Apr.	85.9	87.9	101.9	84.0
Unemployment Rate*	Apr.	4.1	4.1	4.0	3.6	Unemployment Rate*					
(Percent of Work Force)						(Percent of Work Force)	Apr.	4.6	4.7	4.5	3.9
Insured Unemployment						Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr.	40.1	40.4	40.7	41.1
(Percent of Gov. Emp.)	Apr.	2.2	2.1	2.1	1.6	<b>FINANCE AND BANKING</b>					
Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr.	39.8	40.4	40.6	41.2	Member Bank Loans	Apr.	269	262	265	233
Construction Contracts*	Apr.	223	233	224	231	Member Bank Deposits	Apr.	186	181	182	179
Residential	Apr.	250	246	261	294	Bank Debits**	Apr.	364	309	302	283
All other	Apr.	196	220	187	169	<b>LOUISIANA</b>					
Cotton Consumption**						<b>INCOME</b>					
Petroleum Production**	Apr.	104	103	100	116	Manufacturing Payrolls	Apr.	152	156	155	149
Manufacturing Production	Dec.	300	306	307	283	Farm Cash Receipts	Mar.	178	199	203	143
Nondurable Goods	Dec.	248	247	245	237	<b>EMPLOYMENT</b>					
Food	Dec.	191	191	189	187	Nonfarm Employment	Apr.	118.1	118.5	118.7	115.5
Textiles	Dec.	302	301	298	290	Manufacturing	Apr.	107.2	107.9	107.6	106.0
Apparel	Dec.	292	290	289	274	Nonmanufacturing	Apr.	120.4	120.7	121.0	117.5
Paper	Dec.	227	227	225	221	Construction	Apr.	96.9	96.6	97.2	93.8
Printing and Publishing	Dec.	156	156	155	158	Farm Employment	Apr.	64.1	61.2	64.0	72.7
Chemicals	Dec.	321	324	320	303	Unemployment Rate*					
Durable Goods	Dec.	363	378	382	338	(Percent of Work Force)	Apr.	6.2	6.0	6.2	5.8
Lumber and Wood	Dec.	206	203	202	198	Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr.	39.5	40.5	40.8	41.9
Furniture and Fixtures	Dec.	189	188	191	187	<b>FINANCE AND BANKING</b>					
Stone, Clay, and Glass	Dec.	216	210	212	195	Member Bank Loans*	Apr.	249	244	244	197
Primary Metals	Dec.	272	273	271	221	Member Bank Deposits*	Apr.	189	186	186	166
Fabricated Metals	Dec.	308	302	298	288	Bank Debits**	Apr.	225	223	206	172
Nonelectrical Machinery	Dec.	479	485	502	414	<b>MISSISSIPPI</b>					
Electrical Machinery	Dec.	835	932	918	753	<b>INCOME</b>					
Transportation Equipment	Dec.	416	448	472	444	Manufacturing Payrolls	Apr.	186	190	188	180
<b>FINANCE AND BANKING</b>						Farm Cash Receipts	Mar.	290	243	350	245
Loans*						<b>EMPLOYMENT</b>					
All Member Banks	Apr.	272	269	269	226	Nonfarm Employment	Apr.	129.5	130.2	129.9	126.4
Large Banks	Apr.	254	248	254	214	Manufacturing	Apr.	130.0	131.4	131.5	130.0
Deposits*						Nonmanufacturing	Apr.	129.3	129.6	129.2	124.7
All Member Banks	Apr.	210	208	209	190	Construction	Apr.	134.3	144.3	144.7	137.5
Large Banks	Apr.	181	180	179	168	Farm Employment	Apr.	81.3	79.2	76.4	64.1
Bank Debits**	Apr.	293	276	267	232	<b>ALABAMA</b>					
<b>ALABAMA</b>						<b>INCOME</b>					
<b>INCOME</b>						Manufacturing Payrolls	Apr.	175	177	176	162
Manufacturing Payrolls	Apr.	175	177	176	162	Farm Cash Receipts	Mar.	217.3	247.3	284.2	199.5
Farm Cash Receipts	Mar.	217.3	247.3	284.2	199.5	<b>EMPLOYMENT</b>					
<b>EMPLOYMENT</b>						Nonfarm Employment	Apr.	120.2	120.8	121.2	117.8
Nonfarm Employment	Apr.	120.2	120.8	121.2	117.8	Manufacturing	Apr.	116.9	117.8	118.2	114.5
Manufacturing	Apr.	116.9	117.8	118.2	114.5	Nonmanufacturing	Apr.	121.7	122.2	122.5	119.3
Nonmanufacturing	Apr.	121.7	122.2	122.5	119.3	Construction	Apr.	130.2	130.0	130.2	123.3
Construction	Apr.	130.2	130.0	130.2	123.3	Farm Employment	Apr.	72.7	87.9	89.2	73.6
Farm Employment	Apr.	72.7	87.9	89.2	73.6						

	Latest Month	One Month Ago	Two Months Ago	One Year Ago		Latest Month	One Month Ago	Two Months Ago	One Year Ago
Unemployment Rate <sup>2</sup> (Percent of Work Force)	Apr. 3.7	3.5	3.6	3.5	EMPLOYMENT				
Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr. 39.3	39.9	39.6	40.7	Nonfarm Employment	Apr. 128.7	129.0	129.6	125.4
FINANCE AND BANKING					Manufacturing	Apr. 118.6	118.9	119.7	118.5
Member Bank Loans*	Apr. 257	269	266	220	Nonmanufacturing	Apr. 134.3	134.7	135.1	129.3
Member Bank Deposits*	Apr. 216	218	219	183	Construction	Apr. 140.6	146.6	149.8	131.1
Bank Debits/**	Apr. 260	251	226	221	Farm Employment	Apr. 90.5	85.8	92.3	83.2
					Unemployment Rate <sup>2</sup> (Percent of Work Force)	Apr. 3.4	3.3	3.4	3.1
					Avg. Weekly Hrs. in Mfg. (Hrs.)	Apr. 39.3	40.3	40.1	40.8
TENNESSEE					FINANCE AND BANKING				
INCOME					Member Bank Loans*	Apr. 258	259	257	214
Manufacturing Payrolls	Apr. 172	174	172	169	Member Bank Deposits*	Apr. 203	200	201	177
Farm Cash Receipts	Mar. 205	207	193	175	Bank Debits/**	Apr. 265	245	240	188

\*For Sixth District area only; other totals for entire six states

\*\*Daily average basis

†Preliminary data

r-Revised

N.A. Not available

Note: Indexes for bank debits, construction contracts, cotton consumption, employment, farm cash receipts, loans, petroleum production, and payrolls: 1967 = 100. All other indexes: 1957-58 = 100.

Sources: Manufacturing production estimated by this Bank; nonfarm, mfg. and nonmfg. emp., mfg. payrolls and hours, and unemp., U.S. Dept. of Labor and cooperating state agencies; cotton consumption, U.S. Bureau of Census; construction contracts, F. W. Dodge Div., McGraw-Hill Information Systems Co.; petrol. prod., U.S. Bureau of Mines; farm cash receipts and farm emp., U.S.D.A. Other indexes based on data collected by this Bank. All indexes calculated by this Bank.

<sup>1</sup>Data benchmarked to June 1971 Report of Condition.

<sup>2</sup>Unemployment rates for all District States except Florida have been estimated using new techniques developed by the U. S. Dept. of Labor. New seasonal factors have been developed for all six District States. These new seas. adj. rates are not comparable with previously published unemp. rates.

# Debits to Demand Deposit Accounts

## Insured Commercial Banks in the Sixth District (In Thousands of Dollars)

Percent Change						Percent Change							
		Year to date 4 mos. from 1974		Apr. 1974 from 1974	Apr. 1973 from 1974			Year to date 4 mos. from 1974		Apr. 1974 from 1974	Apr. 1973 from 1974		
April 1974	March 1974	April 1973	Mar. 1974			Apr. 1973	April 1974	March 1974	April 1973			Mar. 1974	Apr. 1973
STANDARD METROPOLITAN STATISTICAL AREAS*						Dothan Selma							
						216,955 80,275	190,595 85,498	161,029 76,376	+14 - 6	+35 + 5	+32 +18		
Birmingham	4,393,125	4,261,521	3,293,314	+ 3	+33	+25	Bradenton	220,293	206,329	189,892	+ 7	+16	+13
Gadsden	108,759	99,804	90,810	+ 9	+20	+ 9	Monroe County	119,789	113,775	75,534	+ 5	+59	+63r
Huntsville	359,123	322,709	286,235	+11	+25	+16	Ocala	219,551	197,415	198,944	+11	+10	+16
Mobile	1,228,559	1,130,490	910,275	+ 9	+35	+24	St. Augustine	64,938	53,518	35,467r	+21	+83	+65r
Montgomery	684,067	639,540	587,971	+ 7	+16	+13	St. Petersburg	1,133,289	994,618	1,007,073	+14	+13	+ 7
Tuscaloosa	252,197	247,078	194,450	+ 2	+30	+32	Tampa	2,196,051	2,028,920	1,720,121	+ 8	+28	+16
Bartow-Lakeland- Winter Haven							184,552	158,728	156,366	+16	+18	+ 7	
Daytona Beach							118,863	99,288	101,942	+20	+17	+15	
Ft. Lauderdale- Hollywood							196,240	184,403	184,007	+ 6	+ 7	+ 5	
Ft. Myers							30,043	22,908	23,355	+31	+29	+20	
Gainesville							165,431	148,447	138,641	+11	+19	+21	
Jacksonville							96,290	73,815	66,048	+29	+44	+25	
Melbourne							52,736	41,686	38,626	+27	+37	+22	
Titusville-Cocoa							59,617	53,893	71,890	+11	-17	- 8	
Miami							165,521	147,512	134,063	+12	+23	+12	
Orlando							114,728	99,569	92,313	+15	+24	+11	
Pensacola							18,507	16,124	15,649	+15	+18	+13	
Sarasota							12,327	13,601	9,490	- 9	+30	+16	
Tallahassee							96,669	84,692r	74,896	+14	+29	+21r	
Tampa-St. Pete							72,165	62,828	51,921	+15	+39	+21	
W. Palm Beach							24,355	21,869	21,996	+11	+11	+ 3	
							41,221	36,668	35,410	+12	+16	+10	
Albany	224,815	197,933	189,895	+14	+18	+11	Abbeville	143,964	121,309	117,795	+19	+22	+11
Atlanta	21,831,289	17,526,880	16,166,654	+25	+35	+35	Bunkie	88,056	79,177	69,972	+11	+26	+ 8
Augusta	664,350	532,229	503,059	+25	+32	+26	Hammond	141,043	123,073	111,030	+15	+27	+13
Columbus	492,807	441,947	420,036	+12	+17	+17	Meridian	60,559	56,538	49,996	+ 7	+21	+ 8
Macon	796,033	746,060	510,165	+ 7	+56	+47	Natchez	156,059	169,358	149,154	- 8	+ 5	+ 5
Savannah	597,159	554,012	508,790	+ 8	+17	+12	Moss Point	91,175	83,540	67,937	+ 9	+34	+24
Alexandria	289,221	288,713	232,277	+ 0	+25	+21	Vicksburg	15,473	45,246	40,804	+18	+31	+29
Baton Rouge	1,593,069	1,432,961	1,096,667	+11	+45	+35	Yazoo City						
Lafayette	309,814	292,870	269,932	+ 6	+15	+18	Bristol	147,035	108,095	114,173	+36	+29	-10
Lake Charles	281,607	251,639	215,871	+12	+30	+20	Johnson City	196,011	164,319	155,980	+19	+26	+12
New Orleans	5,147,463	5,054,259	3,804,267	+ 2	+35	+14	Kingsport	308,353	315,622	255,498	- 2	+21	+16
Biloxi-Gulfport	254,769	251,074	266,451	+ 1	- 4	+ 4	District Total	93,482,223	83,432,157r	72,076,528	+12	+30	+24
Jackson	1,787,249	1,605,143	1,420,563	+11	+26	+24	Alabama	9,825,146	9,398,299	7,724,765	+ 5	+27	+22
Chattanooga	1,386,500	1,471,136	1,222,049	- 6	+13	+24	Florida	30,649,595	28,196,069r	24,754,332	+ 9	+24	+19
Knoxville	2,001,952	1,769,974	925,378	+13	+116	+93	Georgia	28,973,013	23,780,048	21,946,982	+22	+32	+29
Nashville	4,240,712	3,711,918	3,063,630	+14	+38	+27	Louisiana <sup>1</sup>	9,133,325	8,654,947r	6,760,070	+ 6	+35	+18
OTHER CENTERS							3,601,171	3,392,198	2,973,140	+ 6	+21	+18	
Anniston	122,399	112,251	111,628	+ 9	+10	+ 6	Mississippi <sup>1</sup>	11,299,973	10,010,596	7,917,239	+13	+43	+33

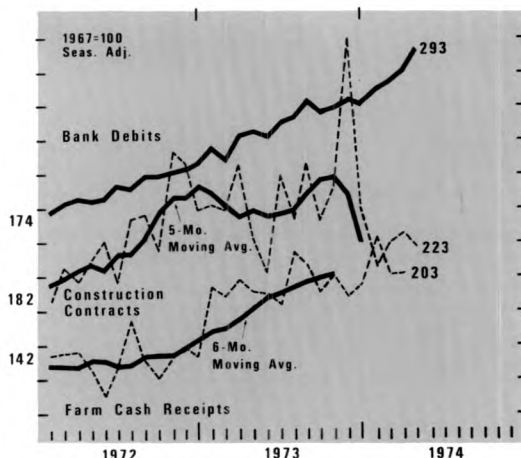
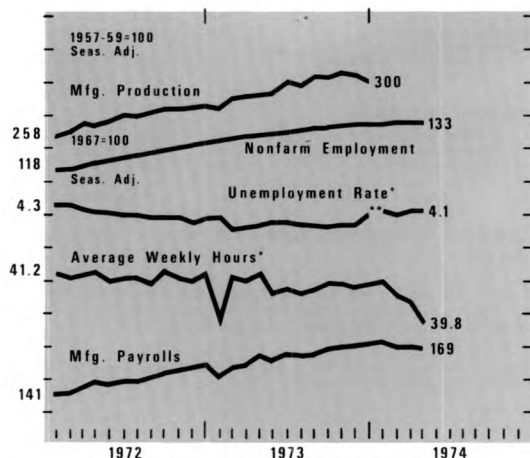
<sup>1</sup> District portion only

r-Revised

Figures for some areas differ slightly from preliminary figures published in "Bank Debits and Deposit Turnover" by Board of Governors of the Federal Reserve System.

\*\*Conforms to SMSA definitions as of December 31, 1972.

# District Business Conditions



\*Seas. adj. figure; not an index

\*\*Data have been partially revised to new benchmarks and are not comparable with earlier months.

\*\*\*Unemployment rates for January through March are based on new estimating techniques and concepts and are not comparable with earlier data.

Latest plotting: April, except mfg. production, Dec., and farm cash receipts, March.

The Southeastern economy weakened somewhat as labor markets and consumer spending continued to display sluggishness. Construction activity declined slightly and falling agricultural prices slowed the growth in farm cash receipts, but banks posted strong gains in deposits.

Unemployment increased slightly from March to April, but the unemployment rate remained essentially unchanged at 4.1 percent compared to 3.6 percent a year ago. Nonagricultural employment edged downward for the second consecutive month. Construction industry jobs fell substantially despite an increase in Florida. Manufacturing employment has continued to decline since the end of last year; however, April's drop was the smallest in the last four months. A rebound in transportation equipment jobs was more than offset by declines in stone, clay, glass, primary metals, and food-processing industries. Factory hours and payrolls continued to fall.

Consumer instalment credit outstanding at commercial banks grew more slowly than in any month since May of 1970. Weakness was centered in the auto sector, but the flow of new lending to purchase all consumer goods was below the average month of 1973. Department store sales in major cities of the Southeast declined after adjustment for inflation, and unit auto sales remained well below year-ago levels.

The value of construction contracts fell slightly in April. All of the decline took place in the non-residential sector, where contracts for commercial and manufacturing buildings, hotels, and motels are off considerably from last year's levels. The res-

idential sector, buoyed by apartment contracts in Florida, continued stable for the third straight month despite rising mortgage rates and increasingly limited mortgage funds.

Prices of agricultural commodities declined further in May, continuing a trend that began in late February. Prices have dropped in both the crop and livestock sectors; eggs continued to lead the decline at prices averaging one-third below the year-ago level. Farm cash receipts reflected lower prices with a slowing growth rate through the first quarter. Increased meat production, coupled with weakened consumer demand, has resulted in depressed meat animal prices. Crop plantings have increased despite inadequate fertilizer supplies. Farm loan volume has grown rapidly, even though interest rates have risen.

Loans and deposits at District banks posted strong gains in April. Business loans at large banks bulged through mid April but have since declined; and loans at country banks picked up after several months of slackening growth. Both demand deposits and large-denomination time deposits grew rapidly. Borrowing from the Federal Reserve and net purchases of Federal funds remained at high levels. Growth of investment holdings slowed, however, as smaller banks greatly reduced their purchases of state and local securities.

NOTE: Data on which statements are based have been adjusted whenever possible to eliminate seasonal influences.