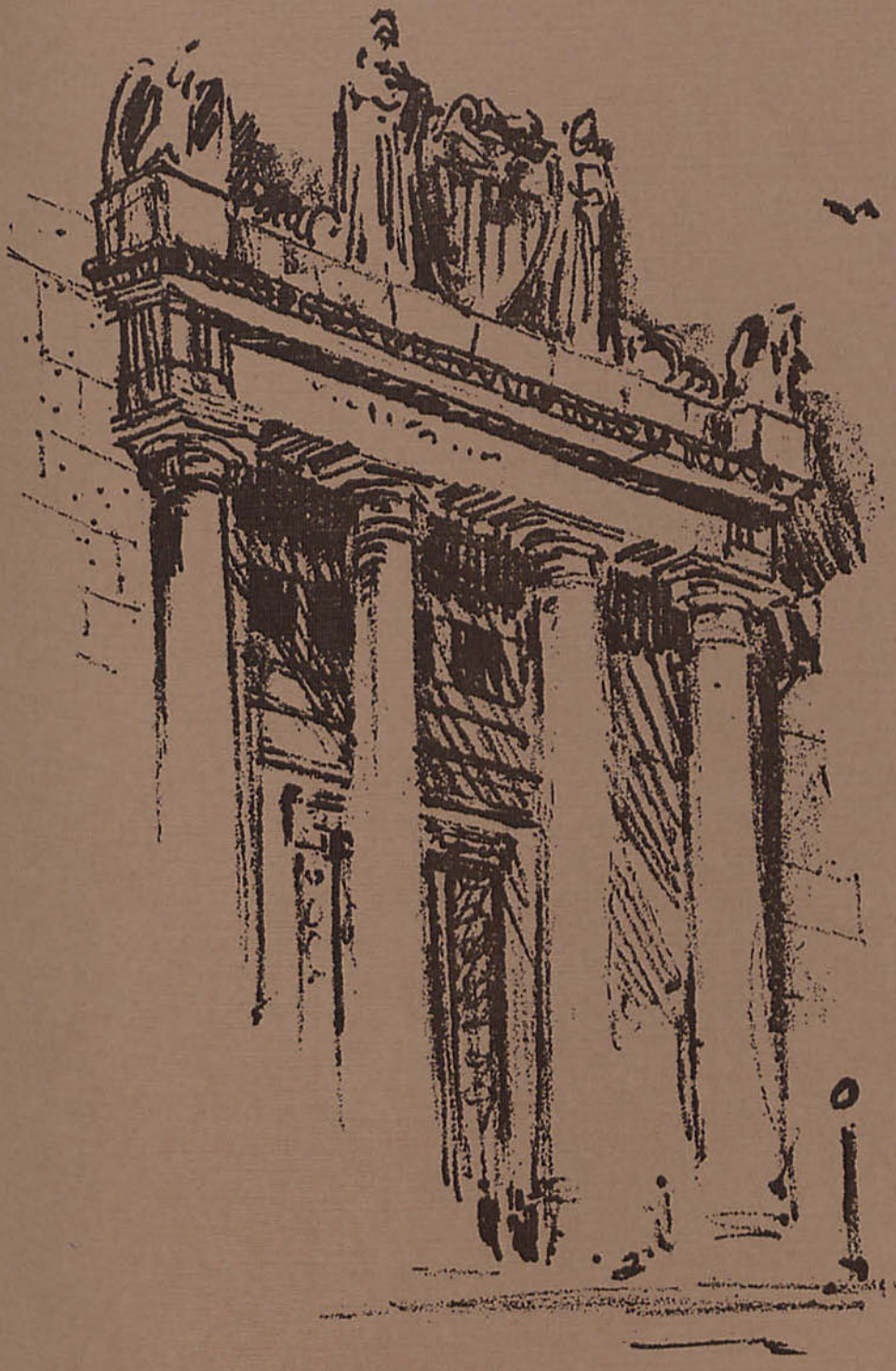
Federal Reserve Bank of Dallas

Business Review



Bank Liquidity–
A Straightforward Concept
But Hard to Measure

Personal Income in Texas–
Accelerates to Rate
Faster Than the Nation's

May 1971

Bank Liquidity–

A Straightforward Concept But Hard to Measure

The liquidity of commercial banks is a matter of continuing interest both within the banking industry and without. The reason for interest within banking is clear. Bank management is involved essentially in the administration of funds flowing into and out of the bank in a way that will maintain a desired balance of profitability, solvency, and liquidity. But the nature of banking is such that banks often need quick access to funds. Banks can be called on to honor some of their liabilities on very short notice. The most obvious examples, of course, are checking accounts, which are payable on demand. Also, banks sometimes face unexpected surges in the demand for loans they want to accommodate.

An extreme solution to such liquidity needs would be for banks to keep all their funds in vault cash. But this would be highly unprofitable, since cash reserves earn no interest. The concern of bankers over their liquidity positions, then, results from the need to arrange their portfolios to earn a profit and still leave access to funds on fairly short notice.

For those outside banking, interest in bank liquidity stems from an entirely different reason. It is generally accepted that the cost and availability of bank credit play an important role in the transmission mechanism of monetary policy. In turn, it is thought that bank liquidity positions influence these lending terms and conditions of banks. Consequently, changes in bank liquidity are followed by analysts assessing developments in the financial world. Unfortunately, an analysis of bank liquidity positions is not as straightforward as it might appear at first.

The concept

Bank liquidity refers to the ability of a bank or banks to raise a certain amount of funds at a certain cost within a certain amount of time. Any assessment of the liquidity position of a bank or banking system, then, involves consideration of all three elements–amount, cost, and time.

The greater the amount of funds a bank can raise in a certain time at a specified cost, the more liquid it is. Similarly, the sooner a bank can raise a given amount of funds at a certain cost, the greater is its liquidity. And the less it costs a bank to raise a given amount of funds in a certain period of time, the more liquid it is.

Moreover, it is also clear that the amount of funds a bank can raise must be evaluated relative to the amount it needs or is likely to need. Take, for example, a situation where two banks can raise the same amount of funds at the same cost in the same length of time. If one bank's actual or expected needs are half that amount while the other's are twice that amount, the first bank is clearly in a better liquidity position than the second.

Banks have essentially two ways of obtaining funds. They can either sell assets or borrow and, thereby, increase their liabilities. Banks typically have a cushion of liquid assets–which generally are loosely defined as assets that can be turned into cash fairly readily at relatively little cost.[1] Bank holdings of Treasury bills, for example, are usually thought of as being fairly liquid, mainly because of the large and active secondary market for these securities. Of course, depending on the amount of funds needed and the conditions in financial markets, banks may sell a variety of assets to obtain funds, including not only Treasury bills but also other securities, as well as loans or participations in loans.

Examples of funds raised through borrowing include those obtained in the Eurodollar market through foreign branches and in the commercial paper market through bank holding companies, affiliates, and subsidiaries. And, of course, more conventional sources–such as the CD and Federal funds markets and, to a lesser extent, even the issuance of new capital stock or debentures–provide banks with avenues for borrowing.

The measurement

While bank liquidity is fairly simple as a concept, its measurement certainly is not. Usually equipped only with balance sheet data on a sample of banks, an analyst traditionally designates some assets as either liquid or illiquid and then compares them with selected bank liabilities.

Probably the best-known measure of bank liquidity is the loan-to-deposit ratio. With this measure, all bank loans are lumped together on the assumption that they are less liquid than bank holdings of securities. These loans are then compared with total bank deposits, which are taken as a proxy for the liabilities that banks could be called on to honor. When the loan-deposit ratio rises, banks are

1. For a rigorous treatment of the concept of asset liquidity, see James L. Pierce, "Commercial Bank Liquidity," *Federal Reserve Bulletin*, August 1966.

thought to be less liquid. When the ratio falls, banks are thought to be more liquid.

While the simplest of the liquidity measures, the loan-deposit ratio is probably also the least adequate. To begin with, there is a problem of composition. On the asset side, it is risky to characterize broad classes of balance sheet items as more or less liquid than others. Not all assets in any particular grouping have the same degree of liquidity. Nor does the liquidity of individual assets or groups of assets remain the same over time. At times, some loans may be more liquid than some securities. The loan of a large, well-known corporation nearing maturity could cost the bank less to market in the same length of time than, say, a Treasury bill that had been purchased at a price substantially higher than that currently prevailing in the market.

On the liability side, all bank deposits are treated as being homogeneous in the sense that they are assumed to represent liabilities that a bank is equally likely to be called on to honor. But such is clearly not the case. A CD maturing in a year, for example, does not present the same threat of withdrawal to a bank that a large, active checking account does.

Use of the loan-deposit ratio also ignores liabilities other than deposits. The importance of this omission has increased in recent years with the growing bank use of nondeposit sources of funds, such as the Eurodollar market. Moreover, this ratio represents an effort to measure only asset liquidity. It excludes any measure of the ability of banks to raise funds other than through the sale of assets.

A slightly better measure of bank liquidity is the loan-to-liability ratio. The advantage of this measure over the loan-deposit ratio is the recognition that liabilities other than deposits can also represent a potential drain on funds at banks. Other than this, however, it still suffers from the same shortcomings as the loan-deposit ratio.

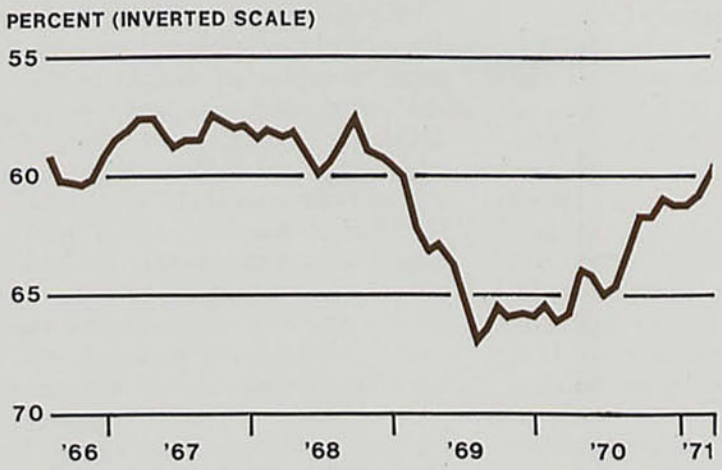
A third measure is the liquid asset-to-liability ratio, which incorporates still a further refinement. Use of this measure allows assets to be selected on the basis of their liquidity, whether they are loans or investments.

There are substantial problems, however, even with this more sophisticated measure. Probably the most serious shortcoming is that this ratio measures only asset liquidity, ignoring the liquidity available through a bank's ability to borrow. Moreover, it does not take account of the composition problem.

In spite of their drawbacks, these three measures represent the most widely used indicators of bank liquidity. Their continued use and acceptance partly reflect their ease of computation. Moreover, with only published balance sheet data to work from, it is difficult for an analyst to improve on these indicators.[2] Even with their drawbacks, these ratios are useful in tracing broad changes in bank liquidity, provided they are properly interpreted with an awareness of the problems involved.

These ratios cannot show whether banks are liquid or illiquid. They can be properly used only in an effort to measure

Loan-to-deposit ratio shows asset liquidity of reporting banks much lower in 1969 than in 1966 . . .



NOTE: Based on monthly averages of weekly figures for Eleventh District banks

2. Other measures of bank liquidity are, of course, used by analysts with access to unpublished data. An individual bank, for example, calculating its own liquidity position would have an intimate and detailed knowledge of its portfolio of assets and liabilities, as well as its sources of borrowings. This knowledge naturally allows a much more sophisticated assessment of liquidity than is possible with only published data. Similarly, bank examiners, who have access to unpublished data, are able to construct more refined measures of bank liquidity than those presented here.

changes in bank liquidity positions. Also, changes in these ratios must be interpreted in the light of changes in sources of borrowings. If, for example, the liquid asset-liability ratio has been rising and an increasing number of banks have gained access to, say, the commercial paper or Eurodollar markets, it might be reasonable to conclude that bank liquidity has been increasing. Such a conclusion might not be warranted, however, had these sources of borrowing been declining.

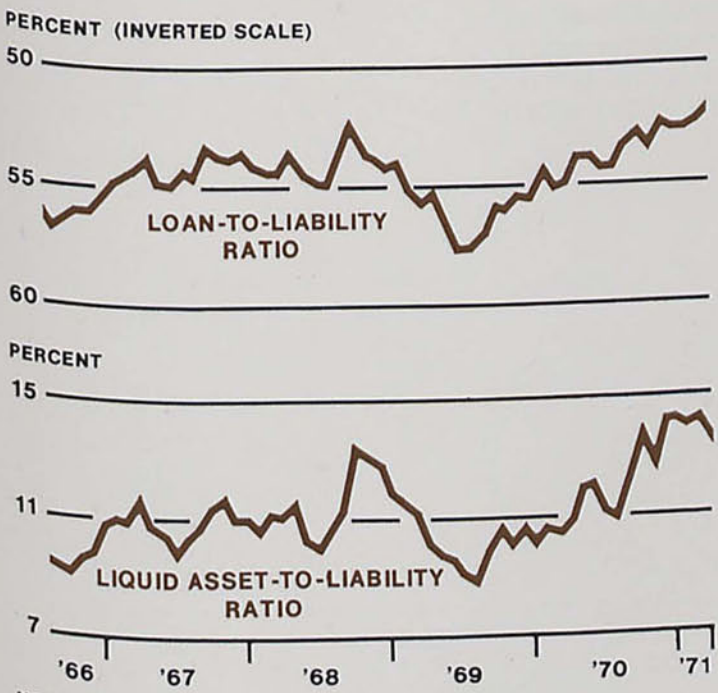
In addition, the composition problem still remains. Given currently available data, the analyst can only hope that the liquidity of the various classes of assets does not change enough over time to offset the trends suggested by changes in the various ratios. Because of this problem, little importance can be attached to minor changes in these ratios.

An illustration

To illustrate some of the problems in measuring bank liquidity, the three ratios were computed for weekly reporting banks in the Eleventh Federal Reserve District from mid-1966 through March 1971. Mid-1966 was taken as a starting point because of a substantial change in sample size and data availability at that time.

Calculations of the loan-deposit and loan-liability ratios are quite simple. Computation of the liquid asset-liability ratio requires some decisions, however, regarding the assets to be considered liquid. There is room for disagreement on this point. A variety of liquid

. . . but other measures suggest far less difference between periods



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asset-liability ratios are in use, all involving some differences in the assets included.

The only assets designated as liquid in the ratio presented here are the balance sheet items generally used in ratios of this kind. These include Federal funds sold and securities purchased under agreement to resell, loans to brokers and dealers for purchasing or carrying securities, loans to domestic commercial banks, Treasury bills, Treasury certificates, Treasury notes and bonds maturing within a year, tax warrants and short-term notes and bills, bankers' acceptances, and balances with domestic banks. Certainly, there may be rationale for not including some of these or for including others. But the ratio presented here is intended only to illustrate liquid asset ratios. It is not intended to be the "last word" in such ratios.

The loan-deposit ratio seems to suggest that banks in the District were much less liquid in the second half of 1969 than in the second half of 1966. However, when allowance is made for all liabilities that the banks might be called on to honor, the picture changes dramatically.

The loan-liability ratio shows these banks only marginally less liquid in late 1969 than in late 1966. The sizable difference between the change in liquidity indicated by this ratio and that indicated by the loan-deposit ratio largely reflects the sharp increase in bank liabilities to their foreign branches in 1969. Some District banks borrowed heavily in the Eurodollar market that year.

The liquid asset-liability ratio shows much the same change in liquidity as the loan-liability ratio–that the liquidity of District banks was only slightly less in 1969 than in 1966. But two situations limit any conclusion about what even these two ratios indicate regarding bank liquidity in late 1969 relative to late 1966. First, several of these banks gained access to new sources of funds in 1969, particularly the Eurodollar market. This increase in the availability of funds would tend to improve the liquidity positions of the banks in 1969. Second, with this reduced margin of difference in bank liquidity between 1966 and 1969, the composition problem becomes important.

When allowances are made for these two situations, it is not clear that the liquidity of District banks in the second half of 1969 was less than in late 1966. If the influence of these two factors were correctly weighted, it might be found that the liquidity of these banks in 1969 was about equal to, or even more than, that in 1966.

This, then, is illustrative of the problems involved in the analysis and interpretation of changes in bank liquidity positions. While the concept of bank liquidity is straightforward, the measurement of liquidity is definitely not. Nevertheless, used with awareness of the problems involved and in conjunction with other information, popular liquidity ratios generally can be useful in detecting broad changes in bank liquidity positions.

–Joseph E. Burns

Accelerates to Rate Faster Than the Nation's

The current-dollar value of personal income in Texas increased nearly fourfold between 1950 and 1970. Advancing an average of 6.9 percent a year (at a compound rate), personal income in the state rose 0.4 percentage point faster than in the United States as a whole.

The state's advantage derived primarily from growth in income from sources other than farming and ranching. Six nonfarm sources accounted for nearly four-fifths of the increase. Four were wage and salary sources of income–manufacturing, trade, services, and government. The other two were property income and transfer payments. The largest single source of personal income in Texas in 1970 was government wages and salaries, followed closely by manufacturing wages and salaries and property income.

Roughly half the increase was taken up by rising population and prices, rather than gains in real per capita purchasing power. About 15 percent of the total increase was needed for per capita income to maintain its 1950 position in the face of growing population, and about 35 percent was needed to compensate for higher prices.

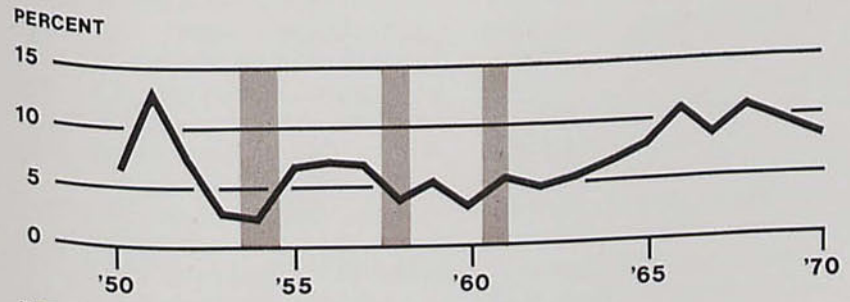
Cycles of growth . . .

Personal income growth in Texas varied over the two decades, revealing five fairly distinct periods –three of fast growth, one of slow growth, and one of only moderate growth. The periods corresponded generally with cyclical movements of the national economy.

- 1950-52–Personal income expanded rapidly, increasing at a compound average annual rate of 10.6 percent.
- 1952-54–A severe business recession slowed income growth to a rate averaging only 2.6 percent a year.
- 1954-57–Growth picked up again, averaging 7.0 percent a year for the period.
- 1957-63–Growth moderated to a rate of 4.5 percent. This period, which encompassed two recessions (1957-58 and 1960-61), was a time of slow progress in both income and output, marked by considerable national concern about lagging growth and the build-up of idle resources.
- 1963-70–With the nation benefiting from the longest period of sustained economic expansion in its history, personal income in Texas grew at the exceptionally high annual rate of 9.0 percent.[1] By contrast, income growth for the nation averaged 8.1 percent.

The uneven growth of personal income in Texas from 1950 to 1963 stood in marked contrast to the sustained rise from 1963 to 1970. Taken as a whole, the period from

Personal income in Texas rises at uneven rates



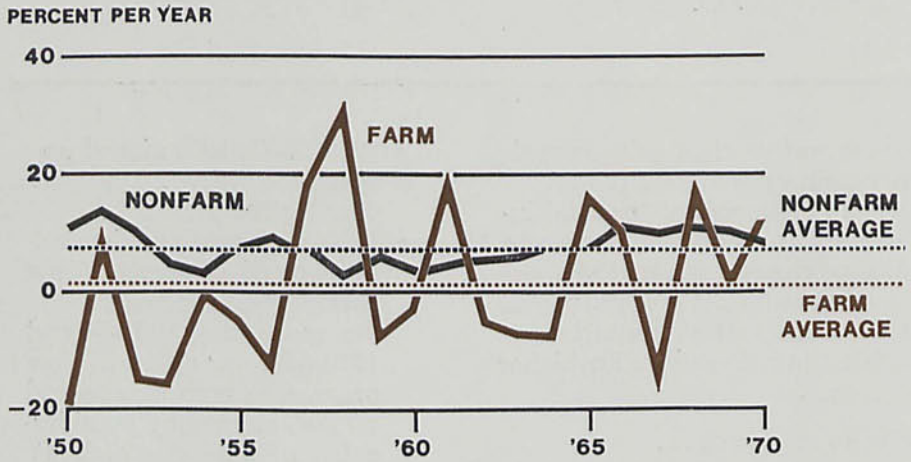
NOTE: Shaded areas show recessions as dated by the National Bureau of Economic Research

	Compound annual growth rates	
	Texas	United States
1950-52	10.6%	9.2%
1952-54	2.6	3.3
1954-57	7.0	6.6
1957-63	4.5	4.9
1963-70	9.0	8.1

SOURCES: U.S. Department of Commerce
Federal Reserve Bank of Dallas

1. Nationally, this period of expansion probably ended in late 1969 or early 1970. In Texas, personal income advanced 8.4 percent in 1970, however, making the inclusion of this year with the previous six years appropriate.

Farm income in Texas rises only slightly over 20-year period



Type of personal income	Compound annual growth rates					
	Texas			United States		
	1950-63	1963-70	1950-70	1950-63	1963-70	1950-70
Farm	−0.5%	4.0%	1.0%	−0.2%	2.9%	0.9%
Nonfarm	6.3	9.3	7.3	6.0	8.2	6.8
TOTAL	5.7%	9.0%	6.9%	5.7%	8.1%	6.5%

SOURCES: U.S. Department of Commerce
Federal Reserve Bank of Dallas

1950 to 1963 gave the state an average annual gain of 5.7 percent, which was equal to the national average. But with the increase from 1963 to 1970 running nearly a percentage point more than the rate for the nation, the state's average for the 20 years was brought to a rate slightly faster than growth in the nation as a whole.

. . . and a basic divergence

Growth in income in Texas from nonfarm sources was consistently higher than the national average throughout these two decades. But farm income, which grew slowly throughout the nation during most of this period, was similarly sluggish in Texas. Although farm income in Texas (farm wages and profits) was highly volatile, on balance, it rose slightly, advancing from $1.2 billion in 1950 to $1.5 billion in 1970.

Farm income accounted for about 12 percent of the state total in 1950. But from then through 1963, it declined about 0.5 percent a year. Meanwhile, Texas was slightly ahead of the nation in growth of nonfarm income. Income from sources other than farming increased an average of 6.3 percent a year in Texas during this 13-year period, compared with 6.0 percent in the nation.

The result was that by 1963 farm income had become markedly less important to the total in Texas, accounting directly for only about 5 percent of the state's personal income. Also, from then through 1970, farm income in the state regained some of its lost ground, growing at an average annual rate of 4 percent. The state's nonfarm income grew an average of 9.3 percent a year during this latter period–about one percentage point faster than growth in the nation as a whole. The net effect of greater gains in nonfarm income and some recovery in farm income was the state's faster growth in total personal income.

Per capita growth . . .

On a per capita basis, personal income advanced slightly slower in Texas than in the nation, rising at a compound annual rate of 4.9 percent for the 20-year period, compared with a national average rate of 5.0 percent. Most of the difference was due to a slight deterioration in the state's relative position in the 1950's and early 1960's.

Again, the turning point was in 1963, when per capita income began to rise sharply in Texas. The compound annual rate of increase in per capita income from 1963 to 1970 averaged 7.5 percent in Texas, compared with 6.9 percent

for the nation. This rapid advance –attributable to both faster growth in personal income and slower growth of population–was more than twice the average rate of 3.6 percent for the 1950-63 period.

The increase brought some recovery to the state's relative position. Where per capita income in Texas had been 14 percent less than in the nation in 1963, it was about 10 percent less in 1970.

. . . adjusted for prices

In terms of real buying power, per capita income in Texas increased at a compound annual rate of 2.5 percent over the 20-year period, and considerably faster since 1963. Adjusted for price changes, the increase in real per capita income from 1950 to 1963 averaged only 1.4 percent. In constant dollars (1958 prices), this represented a gain of $336. But from 1963 to 1970, the increase averaged 4.4 percent. This represented a rise of $711. Thus, of a total increase of $1,047 over the 20-year period, about 68 percent was achieved in seven years.

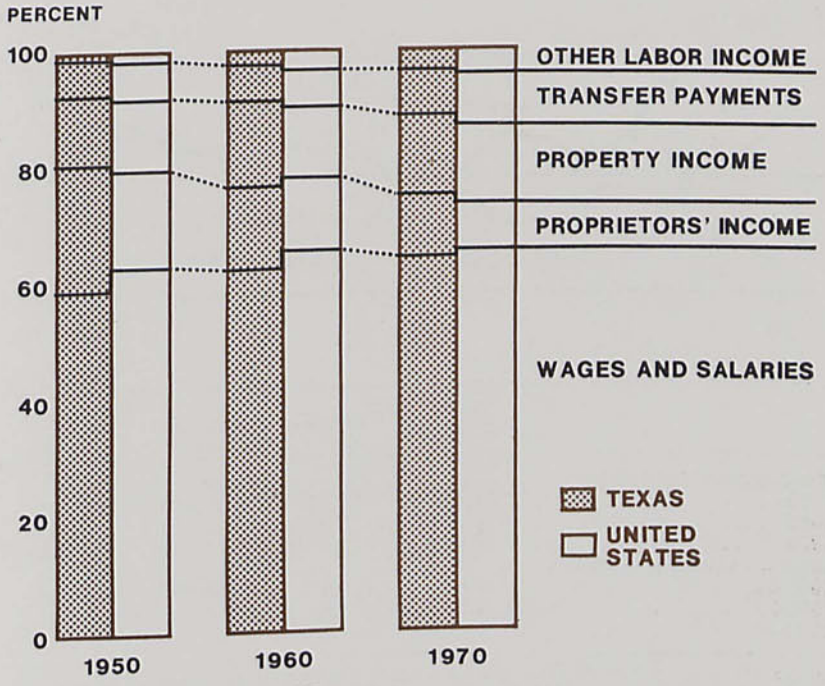
But here, too, growth in Texas lagged behind the national average until the situation was reversed in the early 1960's. For the nation as a whole, real per capita income increased $1,202 over the 20 years–$155 more than in Texas. In the last seven years of this period, however, the national growth rate was 0.6 percentage point less than the rate in Texas.

Compositional changes

With the components of personal income growing at different rates, the composition of the state total was markedly different in 1970 from what it had been in 1950. The net effect was an income structure far more resembling the structure for the nation.

The wage and salary component grew faster than total personal income in the state, causing the

Composition of personal income in Texas comes to mirror national economy



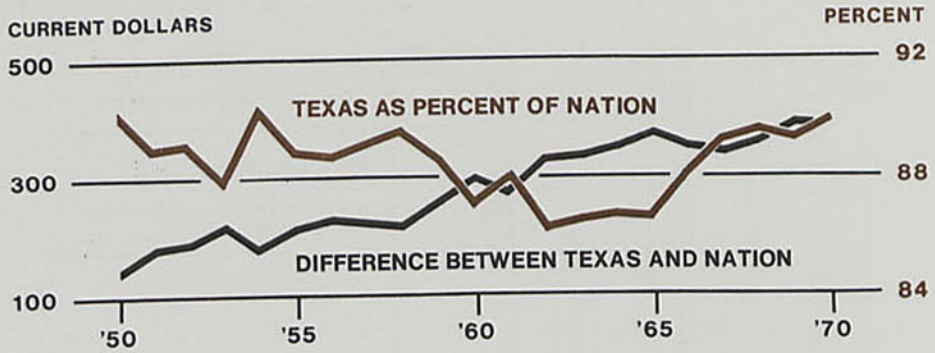
SOURCE: U.S. Department of Commerce

COMPOUND ANNUAL GROWTH RATES FOR SELECTED COMPONENTS OF PERSONAL INCOME IN TEXAS

Component	1950-63	1963-70	1950-70
Transfer payments	6.0%	12.4%	8.2%
Property income	7.8	8.1	7.9
Proprietors' income	2.0	5.0	3.0
Wage and salary disbursements	6.3	9.6	7.4
Farms	–2.9	.1	–1.9
Mining	4.4	3.5	4.1
Contract construction	5.1	11.9	7.5
Manufacturing	7.6	10.3	8.5
Wholesale and retail trade	5.9	9.7	7.2
Finance, insurance, and real estate	8.5	9.9	9.0
Transportation, communications, and public utilities	4.5	7.7	5.6
Services	7.1	12.0	8.8
Government	7.8	9.6	8.4
Other industries	5.5	8.9	6.7
Other labor income	10.9	12.2	11.3
TOTAL PERSONAL INCOME	5.7%	9.0%	6.9%

SOURCES: U.S. Department of Commerce
Federal Reserve Bank of Dallas

Per capita income lags in Texas, but state gains in late 1960's



	Texas		United States	
	Current dollars	Constant dollars[1]	Current dollars	Constant dollars[1]
Per capita personal income				
1950	$1,349	$1,667	$1,496	$1,810
1963	2,125	2,003	2,458	2,317
1970	3,515	2,714	3,910	3,019
Compound annual growth rates				
1950-63	3.6%	1.4%	3.9%	1.9%
1963-70	7.5	4.4	6.9	3.8
1950-70	4.9	2.5	5.0	2.6

1. Adjusted to 1958 prices by deflating the estimates of current-dollar per capita personal income by the GNP deflator for personal consumption

SOURCES: U.S. Department of Commerce
Federal Reserve Bank of Dallas

share of income from this source to rise from about 59 percent in 1950 to almost 65 percent in 1970. Wages and salaries accounted for about four percentage points more of personal income in the nation than in Texas in 1950, but by 1970 the difference had dropped to less than one percentage point.

Here is where some of the most important components of wage and salary income in Texas stood in 1970:

- Manufacturing payrolls accounted for about five percentage points less of personal income in Texas than in the nation, but the difference had narrowed considerably since 1950.
- Farm wages, which were more important in Texas than in the nation in 1950, had slipped to about equal importance.
- Mining still weighed heavier in Texas than in the nation as a source of wages and salaries, but it had declined in relative importance since 1950.
- Government and trade (both wholesale and retail) were still more important as sources of wages and salaries in Texas than in the nation, but the differences were small.

"Other labor income" also grew rapidly, increasing the share of personal income it accounted for. This growth reflected both general improvements in fringe benefits and diffusion of benefit coverage to more occupational groups.

The share of personal income accounted for by proprietors (particularly farm proprietors) was much larger in Texas than in the nation in 1950. But this type of income grew slowly, and its share of the total dropped from more than a fifth in 1950 to about a tenth in 1970, leaving proprietors only slightly more important as contributors to personal income in Texas than in the nation.

Property income (dividends, rents, and interest) was another fast growing component. Its share of personal income in Texas rose.

These changing patterns in the components of personal income probably reveal a structural shift that was going on not only in Texas but also in many other parts of the nation. Relative to the total, small businesses and farms operated by proprietors and self-employed workers were becoming less important as sources of income. Meanwhile, large corporations that pooled capital resources by selling equity shares and borrowing in financial markets were becoming more important.

Investors in these companies earned property income in the form of interest and dividends. Managers operating these businesses were often only salaried employees themselves and received no proprietors' income. The result was little or no growth in proprietary income and a rise in wage and salary income and property income. Because of the relative importance of farm proprietors' income in Texas in 1950, the shift was greater in Texas than in the nation.

Transfer payments grew rapidly, particularly after 1958. Two large categories of transfer payments increased sharply–social insurance payments and unemployment compensation. But while transfer payments to individuals were rising, so were the personal contributions required for social insurance. The increase in these contributions, which have to be paid out of current earnings, averaged almost 13 percent a year.

The big component

Over these two decades, income from wages and salaries–the largest component of personal income –grew an average of 7.4 percent a year in Texas. Twice, the growth rate reached about 11 percent for extended periods–in 1950-53 and 1965-70.

Gains–which resulted from a general rise in pay scales and expansion in total employment–came slightly faster in the 1960's than in the 1950's. Acceleration in the growth of income in the state's service industries, manufacturing, wholesale and retail trade, and contract construction paced the advance in the 1960's.

The fastest increase in wage and salary income over the 20-year period was in finance, insurance, and real estate. The increase in this component, which tends to complement other sectors of the economy, averaged 9.0 percent a year.

Annual growth in income from services averaged 8.8 percent. This growth was especially rapid in the 1960's, when demand surged. From 1963 to 1970, wages and salaries in services expanded 12.0 percent a year. Some service components–notably business and

Personal income and economic growth

Economic growth–which implies rising levels of production–relates always to geographic areas. Nationally, economic growth is measured in gross national product–the goods and services the country produces over a specific period. But there are no comparable measures of growth for a state or region.

It is possible, however, to use *personal income*–the current payments people receive from all sources–as a rough measure of the increase in an area's output. This is because an area's income generally reflects its output. Not only are individuals (including owners of nonincorporated enterprises) considered "persons" in the computation of personal income but so are nonprofit institutions, private trust funds, and private health and welfare funds. By and large, personal income payments derive from the following sources:

Wages and salaries–the monetary remuneration of employees. This includes executives' compensation, commissions, tips and bonuses, and payments in kind that represent income to the recipient.

Other labor income–employer contributions to private pension, health, unemployment, and welfare funds; compensation for injuries; directors' fees; military reserve pay; and a few other minor income items.

Proprietors' income–monetary earnings and income in kind of sole proprietors, partnerships, and producers' cooperatives from their current business operations.

Property income–dividends, personal interest, and rental income. Rental income includes monetary earnings from real property, as well as imputed net rental returns to owner-occupants of nonfarm dwellings. Property income also includes royalties paid for patents, copyrights, and rights to natural resources.

Personal income does not provide an altogether exact gauge of economic activity, however. This is because of *transfer payments*, a fifth form of personal income for which no services are currently rendered. These payments, most often by government but occasionally by business, are based on an individual's previous or projected participation in the economy or the public's intentions to prevent individual hardships. They include Social Security payments, unemployment insurance, veterans' benefits, and direct relief.

repair services and professional, social, and related services–increased even faster.

Personal income from manufacturing also grew rapidly, averaging 8.5 percent a year. Because of rapid growth of durable goods manufacturing, the rate accelerated in the 1960's.

Growth in payroll income from some sources (particularly those based on natural resources) grew slowly during the 20 years. In some instances, income even declined. Wage and salary income from mining grew an average of 4.1 percent a year over the entire period, but the rate slipped to 2.8 percent in the second decade.

Farm wages declined, dropping an average of 1.9 percent a year. All this drop was in the 1950's, when farm wages fell an average of 5.5 percent a year. Taken as a whole, the 1960's were a period of moderate recovery, with farm wages rising slightly.

Looking ahead

Urbanization and industrialization over these 20 years created a state economy in Texas that far more resembles the national economy than in 1950. In fact, the economic expansion beginning in 1963 was clearly stronger in Texas than in the nation. The state's rate of increase in both total income and per capita personal income was above the national average.

This was an improvement over the growth pattern from 1950 to 1963. During those years, the sluggish growth of farm income in Texas held back growth in total income even though nonfarm income was advancing faster in Texas than in the nation.

In light of these basic changes in the structure of the state's economy and the composition of its income, it is probably reasonable to expect income to grow faster in Texas than in the nation for some time. The growing strength in nonfarm income should be more than enough to compensate for any possible future lag in growth of farm income.

–Leonard G. Bower

New par banks

The Seaport Bank, Seadrift, Texas, an insured nonmember bank located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, was added to the Par List on its opening date, April 19, 1971. The officers are: W. H. Bauer, Sr., Chairman of the Board; W. H. Bauer, Jr., President; Seth W. Yarbrough, Jr., Vice President; and Mrs. Veronica Henderson, Cashier.

The Valley View State Bank, Dallas, Texas, an insured nonmember bank located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, was added to the Par List on its opening date, April 26, 1971. The officers are: Robert S. Strauss, Chairman of the Board; Richard S. Blackmore, President; William F. Fisher, Vice President; and Max Shaw, Cashier.

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Statistical Supplement to the Business Review

The seasonally adjusted Texas industrial production index was essentially unchanged in March from its February level. At 181.1 percent of its 1957-59 base, the index was only 0.5 percent higher than in March 1970.

Manufacturing was off slightly from a month before. The decline–a total of 0.3 percent–mainly reflected a 5.0-percent drop in the production of primary metals. Manufacturing of durable goods fell 0.8 percent. Continuing far behind a year before, production of electrical machinery and transportation equipment showed only slight month-to-month changes.

Manufacturing of nondurable goods was unchanged from February. A rise of 3.9 percent in petroleum refining was largely offset by a 4.9-percent decline in the production of leather and leather goods. Mining and utilities were also virtually unchanged from February, although both industry groups showed advances over a year before.

Total nonagricultural wage and salary employment in the five southwestern states rose again in March. The increase was only slight, however, and less than seasonally expected. Nonfarm employment was still about 0.5 percent higher than a year before. Manufacturing employment continued its downtrend, slipping 0.3 percent from February. But nonmanufacturing employment, bolstered by a 1.0-percent rise in the number of construction workers, easily offset the decline in manufacturing workers.

Other advances were in services, which rose 0.5 percent, and trade and government, both of which rose 0.3 percent. Employment in other nonmanufacturing industries was essentially unchanged. A decline of 0.3 percent in mining employment was the most significant change in these other industries.

The Texas oil allowable was reduced in May to 77.2 percent of maximum efficient production. The cut, from 82.1 percent in April, came after major buyers indicated plans to purchase less Texas crude this month. Production is expected to fall only about 1.4 percent, however, and allowables in other producing states of the Eleventh District are still at the generally high levels that have prevailed for several months.

The easing in demand reflects both seasonal changes in the market and improvements in the world supply of oil. Demand for heating oil is slackening as demand for gasoline is just beginning to build up. Meanwhile, price and tax agreements between international producers and producing countries in North Africa and the Middle East are helping restore world supplies, easing some of the pressure that has kept allowables high in producing states of the Southwest since late last summer.

April rains brought some relief from the drought in Arizona, New Mexico, Oklahoma, and Texas. But much more rain will be needed before soil moisture returns to normal. Conditions of irrigated farming are generally good in these states. Even after the rains, however, cattlemen were hauling water in some western areas of the Eleventh District and had begun culling their herds. Dryland wheat was still in generally poor condition. Aided by warmer weather, irrigated wheat continued to improve. In Louisiana, cooler than normal temperatures in late March and early April had slowed early growth of crops and native grass.

Cattle feeding in Texas continues to expand. There were more than 1.5 million head on feed in the state on April 1–26 percent more than a year before. Oklahoma also posted a sharp gain in cattle feeding. Arizona had a moderate increase and New Mexico a considerable decrease.

Average prices received by Texas farmers and ranchers at mid-March were 1 percent less than both a month before and a year before. A gain in crop prices over a year before was more than offset by a decline in prices for livestock and poultry.

Registrations of new passenger automobiles in Dallas, Fort Worth, Houston, and San Antonio were 15 percent higher in March than in February. All four metropolitan centers posted gains, pushing registrations 23 percent higher than in March 1970. Cumulative registrations through March were 11 percent higher than in the first three months of 1970.

Department store sales in the Eleventh District were 10 percent higher in the four weeks ended April 17 than in the corresponding period a year earlier. Cumulative sales through that date were 8 percent higher than a year before.

Credit at weekly reporting commercial banks in the Eleventh District rose considerably in the four weeks ended April 21. The

(Continued on back page)

CONDITION STATISTICS OF WEEKLY REPORTING COMMERCIAL BANKS

Eleventh Federal Reserve District

(Thousand dollars)

ASSETS	Apr. 21, 1971	Mar. 24 1971	Apr. 22, 1970
Federal funds sold and securities purchased under agreements to resell	528,808	517,700	392,435
Other loans and discounts, gross	6,740,806	6,666,500	5,939,699
Commercial and industrial loans	3,201,893	3,189,980	2,921,769
Agricultural loans, excluding CCC certificates of interest	119,310	117,426	107,523
Loans to brokers and dealers for purchasing or carrying:			
U.S. Government securities	500	500	500
Other securities	57,740	50,370	39,014
Other loans for purchasing or carrying:			
U.S. Government securities	3,819	1,565	1,189
Other securities	430,930	435,711	397,316
Loans to nonbank financial institutions:			
Sales finance, personal finance, factors, and other business credit companies	225,219	212,516	135,857
Other	478,471	481,079	360,032
Real estate loans	685,641	664,941	601,059
Loans to domestic commercial banks	15,992	18,761	9,719
Loans to foreign banks	13,019	11,937	10,686
Consumer instalment loans	727,546	733,907	729,006
Loans to foreign governments, official institutions, central banks, and international institutions	0	0	325
Other loans	780,726	747,807	625,704
Total investments	3,160,668	3,016,930	2,600,441
Total U.S. Government securities	997,780	998,515	899,129
Treasury bills	133,750	148,896	44,393
Treasury certificates of indebtedness	0	0	0
Treasury notes and U.S. Government bonds maturing:			
Within 1 year	157,322	149,954	173,734
1 year to 5 years	530,231	531,260	604,778
After 5 years	176,477	168,405	76,224
Obligations of states and political subdivisions:			
Tax warrants and short-term notes and bills	91,983	67,782	57,318
All other	1,814,256	1,718,815	1,505,450
Other bonds, corporate stocks, and securities:			
Certificates representing participations in Federal agency loans	113,918	103,555	69,692
All other (including corporate stocks)	142,731	128,263	68,852
Cash items in process of collection	1,331,542	1,157,074	1,460,868
Reserves with Federal Reserve Bank	985,862	954,991	794,726
Currency and coin	89,824	88,575	85,832
Balances with banks in the United States	619,306	559,357	445,893
Balances with banks in foreign countries	7,971	7,237	7,566
Other assets (including investments in subsidiaries not consolidated)	458,038	457,731	513,199
TOTAL ASSETS	13,922,825	13,426,095	12,240,659

LIABILITIES	Apr. 21, 1971	Mar. 24, 1971	Apr. 22, 1970
Total deposits	11,103,840	10,752,463	9,423,025
Total demand deposits	6,481,712	6,044,603	6,025,291
Individuals, partnerships, and corporations	4,276,024	4,150,890	4,194,706
States and political subdivisions	396,952	339,355	297,887
U.S. Government	238,720	87,833	215,902
Banks in the United States	1,420,256	1,347,025	1,201,776
Foreign:			
Governments, official institutions, central banks, and international institutions	2,768	2,158	2,539
Commercial banks	32,049	26,700	30,851
Certified and officers' checks, etc.	114,943	90,642	81,630
Total time and savings deposits	4,622,128	4,707,860	3,397,734
Individuals, partnerships, and corporations:			
Savings deposits	1,040,323	1,005,513	913,902
Other time deposits	2,387,416	2,474,084	1,667,648
States and political subdivisions	1,077,574	1,087,085	772,598
U.S. Government (including postal savings)	28,561	41,479	7,254
Banks in the United States	69,569	85,914	21,762
Foreign:			
Governments, official institutions, central banks, and international institutions	17,585	12,685	13,220
Commercial banks	1,100	1,100	1,350
Federal funds purchased and securities sold under agreements to repurchase	1,175,130	1,020,752	1,029,667
Other liabilities for borrowed money	70,318	75,880	254,573
Other liabilities	368,204	377,003	393,471
Reserves on loans	135,647	136,638	135,096
Reserves on securities	20,722	19,934	13,275
Total capital accounts	1,048,964	1,043,425	991,552
TOTAL LIABILITIES, RESERVES, AND CAPITAL ACCOUNTS	13,922,825	13,426,095	12,240,659

RESERVE POSITIONS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Thousand dollars)

Item	5 weeks ended Apr. 7, 1971	4 weeks ended Mar. 3, 1971	4 weeks ended Apr. 1, 1970
RESERVE CITY BANKS			
Total reserves held	819,451	819,979	732,912
With Federal Reserve Bank	766,422	767,634	681,714
Currency and coin	53,029	52,345	51,198
Required reserves	828,022	823,875	748,574
Excess reserves	—8,571	—3,896	—15,662
Borrowings	0	0	39,943
Free reserves	—8,571	—3,896	—55,605
COUNTRY BANKS			
Total reserves held	849,396	859,985	771,344
With Federal Reserve Bank	664,736	671,916	592,429
Currency and coin	184,660	188,069	178,915
Required reserves	835,063	828,836	751,860
Excess reserves	14,333	31,149	19,484
Borrowings	6	161	6,567
Free reserves	14,327	30,988	12,917
ALL MEMBER BANKS			
Total reserves held	1,668,847	1,679,964	1,504,256
With Federal Reserve Bank	1,431,158	1,439,550	1,274,143
Currency and coin	237,689	240,414	230,113
Required reserves	1,663,085	1,652,711	1,500,434
Excess reserves	5,762	27,253	3,822
Borrowings	6	161	46,510
Free reserves	5,756	27,092	—42,688

CONDITION STATISTICS OF ALL MEMBER BANKS

Eleventh Federal Reserve District

(Million dollars)

Item	Mar. 31, 1971	Feb. 24, 1971	Mar. 25, 1970
ASSETS			
Loans and discounts, gross	13,119	12,931	11,456
U.S. Government obligations	2,359	2,302	2,029
Other securities	4,001	3,836	3,230
Reserves with Federal Reserve Bank	1,478	1,558	1,329
Cash in vault	256	277	255
Balances with banks in the United States	1,513	1,409	1,174
Balances with banks in foreign countries[e]	9	11	11
Cash items in process of collection	1,407	1,358	1,161
Other assets[e]	984	829	854
TOTAL ASSETS[e]	25,126	24,511	21,499
LIABILITIES AND CAPITAL ACCOUNTS			
Demand deposits of banks	1,907	1,738	1,463
Other demand deposits	9,612	9,299	8,655
Time deposits	9,625	9,428	7,258
Total deposits	21,144	20,465	17,376
Borrowings	1,077	1,098	1,294
Other liabilities[e]	1,049	1,104	1,077
Total capital accounts[e]	1,856	1,844	1,752
TOTAL LIABILITIES AND CAPITAL ACCOUNTS[e]	25,126	24,511	21,499

e — Estimated

CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(Thousand dollars)

Item	Apr. 21, 1971	Mar. 24, 1971	Apr. 22, 1970
Total gold certificate reserves	517,698	451,474	599,959
Discounts for member banks	200	0	45,425
Other discounts and advances	0	0	5,040
U.S. Government securities	2,954,592	2,888,598	2,371,822
Total earning assets	2,954,792	2,888,598	2,422,287
Member bank reserve deposits	1,556,274	1,521,424	1,711,309
Federal Reserve notes in actual circulation	1,963,232	1,912,988	1,356,284

BANK DEBITS, END-OF-MONTH DEPOSITS, AND DEPOSIT TURNOVER

Four Southwestern States

(Dollar amounts in thousands, seasonally adjusted)

Standard metropolitan statistical area	DEBITS TO DEMAND DEPOSIT ACCOUNTS[1]				DEMAND DEPOSITS[1]			
		Percent change				Annual rate of turnover		
	March 1971 (Annual-rate basis)	March 1971 from February 1971	March 1971 from March 1970	3 months, 1971 from 1970	March 31 1971	March 1971	February 1971	March 1970
ARIZONA: Tucson	$ 7,368,204	3%	24%	20%	$ 258,817	29.4	29.9	25.7
LOUISIANA: Monroe	3,188,796	—1	22	18	93,789	35.7	36.5	32.2
Shreveport	10,502,736	—11	8	9	249,150	42.0	45.8	41.9
NEW MEXICO: Roswell[2]	934,128	5	9	0	39,185	24.4	23.2	22.7
TEXAS: Abilene	2,174,940	—3	9	7	107,557	21.0	22.1	20.3
Amarillo	6,564,660	10	10	6	164,245	39.7	37.0	37.7
Austin	10,048,404	—2	2	13	364,133	29.2	31.3	34.8
Beaumont-Port Arthur-Orange	6,444,996	—6	6	6	251,309	26.3	28.2	25.6
Brownsville-Harlingen-San Benito	2,198,520	4	21	15	85,455	25.9	25.8	24.1
Corpus Christi	6,248,448	—2	22	23	282,876	22.0	22.4	25.1
Corsicana[2]	564,036	13	29	16	34,737	16.6	15.4	14.1
Dallas	131,412,444	6	6	11	2,303,550	57.0	55.5	57.6
El Paso	7,949,100	10	15	11	240,682	32.7	30.1	30.8
Fort Worth	27,709,296	15	31	19	691,200	40.7	36.0	33.5
Galveston-Texas City	3,026,172	—7	10	6	107,672	27.3	27.9	25.7
Houston	105,639,084	—1	9	11	2,595,165	40.4	41.4	39.2
Laredo	1,083,624	2	15	14	43,593	25.0	25.2	23.6
Lubbock	4,973,916	12	14	11	163,875	30.1	27.4	29.0
McAllen-Pharr-Edinburg	1,927,548	5	16	12	105,822	18.3	17.8	17.0
Midland	2,086,320	1	5	3	138,656	15.5	15.7	14.7
Odessa	1,718,004	5	4	—2	94,270	18.2	17.1	20.8
San Angelo	1,560,252	8	28	19	75,349	21.2	20.5	17.9
San Antonio	20,777,940	2	25	18	708,004	30.3	31.0	27.0
Sherman-Denison	1,190,664	6	9	6	67,580	17.7	16.7	17.0
Texarkana (Texas-Arkansas)	1,574,040	0	10	5	75,061	21.3	21.9	20.5
Tyler	2,308,140	0	9	7	102,085	22.9	23.6	22.8
Waco	3,345,036	6	14	6	132,937	26.7	26.8	25.8
Wichita Falls	2,416,044	—5	17	11	125,098	19.5	21.0	17.8
Total—28 centers	$376,935,492	3%	11%	12%	$9,701,852	39.1	38.8	38.2

[1] Deposits of individuals, partnerships, and corporations and of states and political subdivisions
[2] County basis

BUILDING PERMITS

Area	NUMBER		VALUATION (Dollar amounts in thousands)				
					Percent change		
					March 1971 from		3 months, 1971 from 1970
	March 1971	3 mos. 1971	March 1971	3 mos. 1971	Feb. 1971	Mar. 1970	
ARIZONA							
Tucson	1,350	2,625	$ 8,666	$ 22,207	—6%	49%	60%
LOUISIANA							
Monroe-West Monroe	101	291	2,627	5,698	125	359	43
Shreveport	688	1,573	5,364	12,166	24	230	46
TEXAS							
Abilene	52	133	435	1,030	47	147	—51
Amarillo	136	329	2,196	8,628	—59	—9	—51
Austin	583	1,437	12,525	39,309	5	21	66
Beaumont	190	445	1,241	2,804	52	—28	—2
Brownsville	99	242	889	1,508	272	288	74
Corpus Christi	928	2,578	5,104	14,391	—2	50	63
Dallas	2,098	5,391	28,860	72,814	41	—51	—19
Denison	26	88	199	901	—13	—55	—34
El Paso	567	1,391	10,215	30,040	—17	—3	12
Fort Worth	437	1,184	6,754	16,174	33	75	—19
Galveston	76	195	3,008	5,506	460	236	187
Houston	3,846	10,805	48,253	148,563	—24	77	53
Laredo	37	145	313	2,227	—30	—36	77
Lubbock	381	628	7,684	16,605	141	209	66
Midland	72	180	687	1,627	0	29	95
Odessa	98	227	630	1,569	59	—56	—50
Port Arthur	80	210	181	1,233	—77	81	89
San Angelo	68	185	680	2,676	—59	—33	—37
San Antonio	1,743	4,215	12,241	25,329	66	—8	8
Sherman	110	245	1,087	2,642	64	21	—39
Texarkana	38	114	286	2,194	—74	4	—9
Waco	278	645	1,811	4,126	77	—74	—52
Wichita Falls	91	213	4,299	6,218	438	203	203
Total—26 cities	14,173	35,714	$166,235	$448,185	5%	6%	18%

VALUE OF CONSTRUCTION CONTRACTS

(Million dollars)

Area and type	March 1971	February 1971	January 1971	January—March 1971	January—March 1970
FIVE SOUTHWESTERN STATES[1]	720	584	546	1,850	2,043r
Residential building	399	275	225	900	655
Nonresidential building	224	198	227	648	628r
Nonbuilding construction	97	112	94	302	760r
UNITED STATES	6,386	4,993	4,383	15,749	15,900r
Residential building	2,729	1,818	1,631	6,187	4,862r
Nonresidential building	2,199	1,654	1,711	5,563	6,366r
Nonbuilding construction	1,458	1,521	1,041	3,999	4,672r

[1] Arizona, Louisiana, New Mexico, Oklahoma, and Texas
r — Revised
NOTE. — Details may not add to totals because of rounding.
SOURCE: F. W. Dodge, McGraw-Hill, Inc.

NONAGRICULTURAL EMPLOYMENT

Five Southwestern States[1]

Type of employment	Number of persons			Percent change Mar. 1971 from	
	March 1971p	February 1971	March 1970r	Feb. 1971	Mar. 1970
Total nonagricultural wage and salary workers	6,274,400	6,262,000	6,242,100	0.2%	0.5%
Manufacturing	1,112,300	1,115,800	1,177,200	—.3	—5.5
Nonmanufacturing	5,162,100	5,146,200	5,064,900	.3	1.9
Mining	227,900	228,600	228,900	—.3	—.4
Construction	379,000	375,400	375,300	1.0	1.0
Transportation and public utilities	448,200	448,600	445,800	—.1	.5
Trade	1,462,800	1,458,700	1,429,500	.3	2.3
Finance	324,100	324,000	314,900	.0	2.9
Service	1,008,800	1,004,100	992,600	.5	1.6
Government	1,311,300	1,306,800	1,277,900	.3%	2.6%

[1] Arizona, Louisiana, New Mexico, Oklahoma, and Texas
p — Preliminary
r — Revised
SOURCE: State employment agencies

DAILY AVERAGE PRODUCTION OF CRUDE OIL

(Thousand barrels)

Area	March 1971	February 1971	March 1970r	Percent change from February 1971	Percent change from March 1970
FOUR SOUTHWESTERN STATES	7,156.8	7,278.3	6,741.5	—1.7%	6.2%
Louisiana	2,676.0	2,792.1	2,348.0	—4.2	14.0
New Mexico	338.0	343.0	363.5	—1.5	—7.0
Oklahoma	604.2	601.1	612.0	.5	—1.3
Texas	3,538.6	3,542.1	3,418.0	—1.1	3.5
Gulf Coast	745.2	741.9	691.6	.4	7.8
West Texas	1,657.4	1,659.2	1,625.4	—.1	2.0
East Texas (proper)	234.5	235.7	193.4	—.5	21.3
Panhandle	71.6	72.7	81.0	—1.5	—11.6
Rest of state	829.9	832.6	826.6	—.3	.4
UNITED STATES	9,862.5	9,968.2	9,500.4	—1.1%	3.8%

r — Revised
SOURCES: American Petroleum Institute
U.S. Bureau of Mines
Federal Reserve Bank of Dallas

INDUSTRIAL PRODUCTION

(Seasonally adjusted indexes, 1957-59 = 100)

Area and type of index	March 1971p	February 1971	January 1971	March 1970
TEXAS				
Total industrial production	181.1	181.3	179.2r	180.1
Manufacturing	200.4	201.1	198.2r	203.1r
Durable	199.2	200.7	203.4	218.4
Nondurable	201.2	201.3	194.8r	192.9r
Mining	136.2	136.0	135.0r	132.6
Utilities	275.2	275.2	273.3r	257.3r
UNITED STATES				
Total industrial production	165.2	164.9	165.6r	171.1
Manufacturing	162.9	162.7	163.5r	170.8r
Durable	157.7	157.6	158.1	171.0r
Nondurable	169.3	169.1	170.2r	170.6r
Mining	139.8	137.2	139.2	135.1r
Utilities	242.0	242.9	241.5r	230.3

p — Preliminary
r — Revised
SOURCES: Board of Governors of the Federal Reserve System
Federal Reserve Bank of Dallas

GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Million dollars)

Date	GROSS DEMAND DEPOSITS Total	GROSS DEMAND DEPOSITS Reserve city banks	GROSS DEMAND DEPOSITS Country banks	TIME DEPOSITS Total	TIME DEPOSITS Reserve city banks	TIME DEPOSITS Country banks
1969: March	10,268	4,781	5,487	7,722	3,042	4,680
1970: March	10,284	4,727	5,557	7,231	2,581	4,650
October	10,684	4,860	5,824	8,317	3,305	5,012
November	10,843	4,899	5,944	8,622	3,476	5,146
December	11,271	5,161	6,110	8,825	3,554	5,271
1971: January	11,532	5,236	6,296	9,038	3,635	5,403
February	11,272	5,118	6,154	9,299	3,689	5,610
March	11,219	5,117	6,102	9,548	3,788	5,760

PLANTED ACREAGES

Five Southwestern States[1]

(Thousand acres)

Crop	Indicated March 1, 1971	1970	1969	Percent change 1971 from 1970
Cotton	6,819	6,672	6,589	2%
Upland	6,709	6,597	6,512	2
American Pima	110	75	77	47
Peanuts	447	438	432	2
Rice	994	994	1,163	0
Sorghums	9,282	8,637	9,177	7
Soybeans	2,221	2,100	2,198	6
Winter wheat[2]	8,942	8,963	9,874	0%

[1] Arizona, Louisiana, New Mexico, Oklahoma, and Texas
[2] Indicated December 1, 1970
SOURCE: U.S. Department of Agriculture

increase, which was more than usual for this period, was accommodated mainly through sizable inflows of demand deposits, although these banks also acquired a substantial amount of funds in the Federal funds market.

Much of the inflow of funds went to meet loan demands. Total loans, adjusted for loans sold outright to bank affiliates, advanced substantially more than normal for this period. Finance companies drew heavily on their bank lines of credit, possibly to help finance the recent sharp increase in auto sales. Growth in real estate loans continued stronger than usual, probably reflecting increased construction and lower mortgage rates. Although demand for business loans was slightly weaker than normal, it was considerably stronger than in the comparable period last year.

Banks also added substantially to their investment portfolios, even though the rise in loans was greater than normal. Most of the additions were in municipal issues, probably because of the large volume of such issues coming to market and their comparatively attractive yields.

Total bank deposits expanded considerably more than usual, despite a contraseasonal decline in time and savings deposits. The sizable gain in demand deposits resulted mainly from significant increases in deposits of individuals, businesses, and the U.S. Government. Demand deposits of the U.S. Government rose substantially in the last week of the period, due probably to the inflow of income tax payments. The fall in time and savings deposits resulted almost entirely from a drop in outstanding CD's. These banks slightly increased their borrowings from nondeposit sources, however—especially the commercial paper market.