

# Measuring the Money Stock 

by William N. Cox, III

On May 16, 1974, at routine weekly press conferences in Washington and New York, the Federal Reserve System issued its first public measurement of the nation's money stock level during the May 2-8 banking week ended eight days earlier: $\$ 276.8$ billion. A week later on Thursday, May 23 , the measurement for the May 8 money stock level was revised to $\$ 278.5$ billion. Two weeks after the end of that banking week, on May 30, that figure was revised again to $\$ 278.7$ billion. This last figure represented the Fed's firmest measurement of what the level of the nation's money stock had been during the May 2-8 banking week. ${ }^{1}$ Three press conferences, held 8,15 , and 22 days after the end of the banking week being measured, provided three successive measurements of what the nation's money stock had been during that particular banking week.

These measurements are the building blocks with which money stock behavior is analyzed: Weekly levels are averaged into monthly and quarterly levels, and these are compared with those of previous periods to provide growth measurements.

The importance of money stock data stems from the fact that many analysts believe the growth rate of the money stock is the most important single statistic of monetary policy. ${ }^{2}$ The weekly money stock statistics, built up and transformed into growth rates over longer periods, are essential ingredients. The purpose of this article is to describe how the Federal Reserve formulates these weekly building blocks, measuring the dollar level of the nation's money stock. We shall take a quick look at the procedures through which money stock data flow

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These numbers are successive measurements, as of the dates shown, of the amount of money in the economy during the banking week ended May 8, 1974. These were the successive numbers actually produced by the Fed reporting procedures, expressed in billions of dollars. Not only do the numbers change, but more importantly the quality of the numbers gets better and better as more and more information becomes available on succeeding dates.
from individual member commercial banks through the offices of the District Federal Reserve Banks to the Board of Governors in Washington, and we shall see what further processing is necessary before these individual bank data can be transformed into national money stock measurements. We shall emphasize the part played by Sixth District member banks.

## Initial Unpublished Measurements

The member-bank reporting process is somewhat similar to painting a wall. There first comes a reporting procedure, analogous to a rough first coat of paint, which involves only about ten percent
of the Sixth District's member banks. This procedure culminates in a rough internal measurement of the money stock. This is generated as quickly as possible for use by the Federal Open Market Committee and the Open Market Trading Desk; it is not released to the public. After that comes a second procedure - the second coat of paintwhich provides a measurement good enough for public release. This "second coat" is in turn touched up with two revisions. Overall, the concept is one of better and better coverage of higher and higher quality as more and more data are incorporated into the measurements of the money stock level for each banking week.

Let us see how the Sixth District part of the initial
unpublished measurements was generated for the banking week ended on May 8, 1974. That banking week began on Thursday, May 2. The "first coat" reporting procedure began on the following day, Friday, May 3, when 20 of the larger District member banks telephoned their local Federal Reserve offices in Atlanta, Birmingham, Jacksonville, Nashville, and New Orleans with reports of deposit levels on the day before. ${ }^{3}$ Within the next business day (by Monday, May 6), these Thursday figures had been subjected to edits and transmitted for further processing via a computer-to-computer communication system to the Board of Governors in Washington. ${ }^{4}$ This entire process-involving some phone calls from the large banks, editing, and transmission-is repeated for Friday's, Monday's, and Tuesday's balances (May 3, 6, and 7). By the Thursday immediately following the end of each banking week, the Board of Governors' staff in Washington has received initial key deposit items, covering six of the seven days in the banking week, from most of the nation's largest member banks. ${ }^{5}$ At the beginning of 1974, these banks accounted for about half of the demand deposits included in the money stock.

On Tuesday (May 7) each Federal Reserve office in the Sixth District also received a second set of telephoned reports, this time from a special sample of 30 smaller banks. These smaller banks provided key deposit figures for five days, Thursday through Monday (May 2-6). ${ }^{6}$ These weekly figures are edited and transmitted in exactly the same fashion as the larger banks' daily data reports.

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By the day after the end of each banking week, the Board of Governors' staff has in hand data for six out of seven days from most of the larger member banks around the country and a sample of smaller member banks. These figures are the raw material from which the staff produces its initial internal measurement of the money stock, one day after the end of the banking week itself. On Thursday, May 9, for example, the Federal Open Market Committee and the Trading Desk received an initial unpublished measurement of what the

money stock had apparently averaged during the week ended the previous day. ${ }^{7}$ The preliminary internal measurements made for monetary policy purposes, then, are derived from special telephone reports from 477 of the nation's 5,700 member banks, 50 of which report through Federal Reserve offices in the Sixth District.

[^2]
## The Published Measurements

The set of money stock measurements, the second coat of paint on the wall, so to speak, are based on the reserve accounting reports submitted weekly by each of the 623 member banks in the Sixth District. ${ }^{8}$ Member banks were reporting their daily deposit levels for reserve requirement purposes long before there was any concern about measuring the money stock; these reserve accounting reports have essentially been adapted to meet the new concern.

The reserve-accounting deposit reports are received by mail at Federal offices within six days after the end of the banking week being measured. As these reports arrive, the figures in them are subjected to extensive editing, both by hand and by computer, before transmission to the regional Federal Reserve Bank headquarters for further checking and subsequent transmission to the Board of Governors in Washington. As before, this information is sent via the computer-to-computer communications system. ${ }^{9}$

In our Sixth District example of the week ended May 8, about 5 percent of these deposit reports arrived on Thursday (May 9), about 15 percent arrived by Friday (May 10), about 40 percent arrived by Monday (May 13), and 99 percent by Tuesday (May 14). The remaining one percent reflected exceptional situations such as computer breakdowns at the reporting member banks.

In addition to this transmission of edited individual bank deposit data to Washington, each Federal Reserve Bank transmits on the Monday and Tuesday following the end of a banking week a pair of special summary wires for larger member banks and smaller member banks, respectively. ${ }^{10}$ In our example, a routine summary wire was sent to the Board of Governors on Monday and Tuesday, May 13 and 14. If a particular member bank has not filed its deposit report by the time these summary wires are sent, the Atlanta Reserve Bank provides its own estimation of that bank's deposit data. In other words, the Atlanta Federal Reserve Bank has 623 holes to fill; if the actual reports are not available, it fills them with estimates.

[^3]

If we view this process through a different perspective, that of the staff of the Board of Governors in Washington, we find that by the Wednesday one week after the end of the banking week being measured (by May 15), they have received edited deposit reports from about 99 percent of the member banks around the country. They have also the two summary wires, mentioned above, from each of the 12 Federal Reserve Districts. This is sufficient information to produce a publishable measurement of the money stock

level eight days after the end of the May 2-8 banking week being measured. This is the $\$ 276.8$ billion figure released on Thursday afternoon, May 16, and printed in the financial press the following Friday morning.

For two weeks thereafter, revisions and corrections are generated and transmitted through the same procedural network by both the reporting member banks and at the Federal Reserve offices. These feed into the revised money stock figures published 15 and 22 days after the end of the particular banking week.

The successive published numbers are increasingly better measurements of what the national money stock level was during a particular banking week. The two revisions often do not change the
level of the measurement very much. The important thing, however, is not that the numbers change, but that the quality of the measurements gets better and better as more and more information becomes available. Both the public and the policymakers, in other words, could place more confidence in the May 30 measurement of the May 8 money stock than they could in the May 16 measurement.

## Processing at the Board of Governors

The staff of the Board of Governors is responsible for translating the raw member bank deposit data, reported through the regional Federal Reserve Banks as we have described, into successive measurements of the money stock. There is much more involved than just adding up the relevant deposit items reported by the member banks. In particular, there are missing components of the nation's money stock which must be either estimated from separate information, or inferred from the member bank deposit information the Board has in hand, or both.

There are four major gaps: (1) the liabilities of foreign-oriented U. S. banking institutions, (2) the deposits held at nonmember banks, (3) the currency component of the money stock, and (4) the application of appropriate seasonal adjustment factors to the unadjusted totals. This section provides a summarized description of how the Board staff tries to fill these four gaps. ${ }^{11}$

Let us first look at the liabilities of four types of foreign-oriented financial institutions: Edge Act Corporations, U. S. branches of foreign banks, U. S. agencies of foreign banks, and the foreign-owned investment corporations peculiar to New York State. ${ }^{12}$ Their money stock liabilities are estimated from special end-of-month reports, and from Call Report information in the case of foreign branches outside New York. ${ }^{13}$

[^4]The second gap is quantitatively the biggest hurdle between the reported deposit data and the eventual money stock measurement: deposits at nonmember banks. From the standpoint of the economic framework within which the money stock data are being used for policy purposes, it does not matter whether a dollar of money stock deposits is held at a member or nonmember bank. It all counts because it all spends.

In comparison with the elaborate daily flow of data feeding into the money stock measurements from the member banks, corresponding data for non member banks have typically been available from the Federal Deposit Insurance Company for only four days each year, and these figures only become available about three months after the FDIC call dates. In mid-June, however, the FDIC announced that it would begin collecting weekly deposit data from large nonmember banks and furnish this information to the Federal Reserve, thus taking a great step toward closing the nonmember data gap.

To fill this gap, the staff of the Board of Governors "blows up" the data it has received from a selected sample of small member banks. The application of a blow-up ratio provides measurements of nonmember banks' contribution to the money stock, which are then revised or "benchmarked" on the dates when call report information becomes available. ${ }^{14}$

As a third gap, the nation's money stock includes not only the public's holdings of bank deposits, but also of currency and coin. The currency component of the money stock currently accounts for about one-quarter of the money stock. This component is measured by the staff of the Board of Governors on the basis of the data provided by the member banks in their mailed weekly reports and from additional information supplied by the Treasury. The procedure is to subtract currency and coin holdings reported by member banks, together with the currency and coin holdings of nonmember banks, from the amount of currency and coin which has been issued by the Federal Reserve Banks, according to Treasury and Federal Reserve records. The public's holdings of currency thus appear as a residual, in the calculation of which the reports of member banks are essential.

The fourth adjustment made by the staff of the Board of Governors involves the annual recalculation of seasonal adjustment factors. The seasonal

[^5]adjustment procedure involves a five-year weighted average of past data, which is revised every year as a new year of data is added and an old year is dropped. In recent years, seasonal factors have been recalculated each January. ${ }^{15}$

## Conclusion

We have tried to provide a bird's-eye view of how the Federal Reserve measures the money stock. We have described two reporting processes, one based on early telephoned reports from a sample of the
${ }^{15}$ See Federal Reserve Bulletin, February 1974, op. cit.
nation's member banks and culminating in early internal measurements of the money stock for use in the formulation of monetary policy by one day after the banking week being measured, and a second by a mail-reporting system involving each member bank-a procedure which produces three successively better measurements of the money stock 8, 15, and 22 days after the end of the banking week being measured. We have also described some of the editing, correction, and reporting procedures, as well as steps taken at the Board of Governors' level in Washington to fill particular gaps between the data reported by individual member banks and the eventual money stock measurements.

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# The ABC's of the Prime Rate 

by W. F. Mackara

There's been a lot of discussion lately about the prime rate. Just what is it?
Actually there is no such thing as the prime rate. Each commercial bank sets its own interest rates, and the rate it charges its most creditworthy business customers is the bank's prime rate. Although size per se is not necessarily related to creditworthiness, large firms with well-established, multiple credit lines fit the textbook mold of the best credit risks. Such firms typically have a demonstrated ability to meet their credit obligations. Equally important, they are valuable as sources of deposits.

## Have banks always had a prime rate?

The concept of a prime rate is relatively new. It was born in 1934 in the doldrums of the Great Depression. A weak economy and a low demand for bank loans usually go together, and in 1934 the economy was very weak. Many banks failed during the Thirties, but those which managed to survive had plenty of loanable funds though few borrowers. This created a situation many bankers believed could lead to so-called "cutthroat competition" in lending rates, thereby lengthening the obituary list of insolvent banks.

An interest rate of $1 \frac{1 / 2}{2}$ percent then won acceptance as a rate below which banks would incur losses on loans. ${ }^{1}$ This minimum became known as the "prime" rate. Thus conceived, it represented a floor protecting banks against losses at a time when they could ill afford them. The prime rate remained at 11/2 percent for 13 years; it was raised to $1^{3 / 4}$ percent in December 1947.

Is it still sensible to view the prime rate as a protective device?

[^6]As the economy has grown, the need for a minimum interest as a protective floor has become invalid. It is more accurate to view the prime rate almost exclusively as a base upon which to build the rest of a bank's lending rates (often, to be sure, quite loosely).

True, the prime rate is still a minimum for business loans, but it is not always set at a level where the interest yield will exceed the cost of making the loan. This was the case in late 1969, and many banks avoided the problem by charging prime customers a premium over the Eurodollar rate rather than their stated prime rate.

## How do banks administer their prime rates?

There are three basic methods used.
The first involves a general consideration of both prevailing and expected credit conditions. Of particular interest are such factors as loan demand, deposit growth, cost of borrowed funds, and the rate on commercial paper (a substitute credit source for large businesses ${ }^{2}$ ). Expecting to accommodate a growth in loan demand only at rising costs might influence a bank to boost its prime rate; on the other hand, it may lower the rate if it expects the cost of funds to fall.

The second method might be termed "follow-the-leader." Banks employing this system will watch what large banks do with their prime rate and then follow their lead, perhaps after a brief period of observation and review.

The third general method is called the formula or floating prime rate. This method utilizes a mathematical formula which sets the prime rate equal to the average rate of some money market instrument plus a specified mark-up. For example, the First National City Bank bases its prime rate on a formula adding $5 / 8$ of 1 percent to a three-week moving average of the 90-119 day commercial paper rate. Other banks using formulas include the First National Bank of Chicago and Bankers Trust of New York.

One major advantage of a formula-based prime rate is that it permits quick adjustments to money market changes. As credit conditions change, the formula prime rate will "float" with money market rates.

## Does the prime rate really move in agreement with other money market rates?

Yes, it has moved in the general direction of other short-term rates, and for good reason. When loan demand rises relative to deposit growth, banks

[^7]THE PRIME RATE 1934-1974*

| 1934 |  | 11/2\% | 1971 | January 6 | 61/2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1947 | December | $13 / 4$ |  | January 15 | 61/4 |
| 194 | December | 194 |  | January 18 | 6 |
| 1948 | August | 2 |  | February 16 | 53/4 |
| 1950 | September 22 | 21/4 |  | March 11 | 51/4 |
| 1951 | January 8 | 21/2 |  | April 23 | 51/2 |
|  | October 17 | 23/4 |  | July 7 | 6 |
|  | December 19 | 3 |  | October 20 | 53/4 |
| 1953 | April 27 | $31 / 4$ |  | November 4 | 51/2 |
|  | March 17 | 3 |  | December 31 | 51/4 |
| $\begin{aligned} & 1954 \\ & 1955 \end{aligned}$ | March 17 | 3 | 1972 | January 24 | 5 |
|  | August 4 | $31 / 4$ |  | January 31 | 43/4 |
|  | October 14 | 31/2 |  | April 5 | 5 |
| 1956 | April 13 | 33/4 |  | June 26 | 51/4 |
|  | August 21 | 4 |  | August 29 | 51/2 |
| $\begin{aligned} & 1957 \\ & 1958 \end{aligned}$ | August 6 | 41/2 |  | October 4 | 531/4 |
|  | January 22 | 4 |  | December 27 | 6 |
|  | April 21 | $31 / 2$ | 1973 | February 27 | 61/4 |
|  | September 11 | 4 |  | March 26 | 61/2 |
|  |  |  |  | April 18 | 63/4 |
| 1959 | May 18 | 41/2 |  | May 7 | 7 |
|  | September 1 | 5 |  | May 25 | $71 / 4$ |
| 1960 | August 23 | 41/2 |  | June 8 | $71 / 2$ |
|  |  |  |  | June 25 | 73/4 |
| 1965 | December 6 | 5 |  | July 3 | 8 |
| 1966 | March 10 | 51/2 |  | July 9 | 81/4 |
|  | June 29 | 53/4 |  | July 18 | 81/2 |
|  | August 16 | 6 |  | July 30 | $83 / 4$ |
|  |  |  |  | August 6 | 9 |
| 1967 | January 27 | 53/4 |  | August 13 | 91/4 |
|  | March 27 | 51/2 |  | August 22 | 91/2 |
|  | November 20 | 6 |  | August 28 | 93/4 |
| 1968 | April 19 | 61/2 |  | September 18 | 10 |
|  | September 25 | 61/4 |  | October 24 | 93/4 |
|  | December 2 | 61/2 | 1974 | January 29 | 91/2 |
|  | December 18 | 63/4 |  | February 11 | 91/4 |
| 1969 | January 7 | 7 |  | February 19 | 9 |
|  | March 17 | $71 / 2$ |  | February 25 | $83 / 4$ |
|  | June 9 | $81 / 2$ |  | March 22 | 9 |
|  |  |  |  | March 29 | 91/4 |
| 1970 | March 25 | 8 |  | April 3 | 91/2 |
|  | September 21 | 71/2 |  | April 5 | 93/4 |
|  | November 12 | 71/4 |  | April 11 | 10 |
|  | November 23 | 7 |  | April 19 | 101/4 |
|  | December 22 | 63/4 |  | April 25 | 101/2 |

Sources: Federal Reserve Bulletin and Edward J. Kane, "The Economist's Corner: Politicians Against the Prime-The Dual Rate Fiasco," The Bankers Magazine, Spring 1974, p. 89.
*This table gives the most common prevailing prime rate to large business borrowers.
must turn increasingly to other sources, such as certificates of deposit (CD's), Eurodollars, and Federal funds. ${ }^{3}$ As a consequence, the rates on these instruments will be bid up, raising the cost of these funds to banks. Likewise, banks may sell assets such as Treasury securities to obtain funds. The resulting fall in prices may cause capital losses for banks selling these assets.

[^8]If the bank loan demand is part of an amplified demand for credit in general, businesses will also seek funds through commercial paper sales, pushing up rates in that market. As the commercial paper rate approaches the prime rate, bank loans become a relatively cheaper credit source, further intensifying bank loan demand.

Faced with growing loan demand, banks will be tempted to raise lending rates, including the prime rate. This will compensate them for the increased costs of loanable funds and, at the same time, allocate loans to those willing and able to pay a higher rate. ${ }^{4}$

## Why is the prime rate "sticky"?

As mentioned, the prime rate does move in the same general direction as money market rates. However, historically the prime rate has usually lagged somewhat behind market fluctuations. That's where the "stickiness" comes in.

It is often difficult to tell if a change in market rates or loan demand is an aberration that will correct itself shortly or whether it represents a change in trend. If the former, it would be impractical to adjust the prime rate, as the bank would only have to reverse the move in the next week or so. Instead, decisions on the prime rate. are made on the basis of long-term expectations of loan demand and money market rates. If these behave consistently for several weeks, banks might consider changing their prime rates. On occasion, banks have waited a long time before making such changes.

Another factor which has long discouraged frequent prime rate adjustment has been the critical review such changes receive from the news media and political leaders. The visibility of the prime rate and its role as the keystone for banks' other lending rates have directed changes in it to public attention and concern.

## But haven't banks changed the prime rate more often in recent years?

Yes, the earlier inertia of the prime rate has diminished in recent years. The advent of the floating prime rate in 1971 and, interdependently, the closer scrutiny given the cost of funds have made banks more sensitive to changes in credit conditions. ${ }^{5}$ Thus adjustments in the prime rate have been temporally closer to movements in

[^9]money market rates. Now banks can rely more on rate changes and less on nonprice terms and conditions to attract or discourage loan demand.

## What are these "nonprice terms and conditions"?

One traditional tool is the compensating balance requirement. When a large borrower negotiates a loan, the bank usually requires that he keep a certain sum on deposit. This increases the cost of the loan over and above the interest cost because the borrower cannot use all the proceeds.

To decrease the number of prime loans, banks can also raise the standards of qualification; in other words, they become more selective to whom they will lend at the prime rate. To increase prime loans, banks can lower qualifying standards.

These adjustments are easier said than done, however. Because prime borrowers are literally a bank's best customers, loan officers are reluctant to do anything that would lose such clients. Informing established prime customers that they no longer meet new, higher standards of creditworthiness could do irreparable damage to customer relations.

Changing compensating balance requirements may not only be imprudent; it may be impossible. Prime customers generally borrow through lines of credit and commitments ${ }^{6}$ whose terms, including compensating balance requirements, are negotiated in advance and may be altered only with great difficulty.

## Just how effective are these nonprice terms?

Though of limited applicability, they are not totally useless. Revised credit standards can be used to screen new loan applicants, and compensating balance requirements can be changed when expired credit lines are renegotiated. In this way banks can influence loan demand without changing their prime rate, even if this influence is only limited.

Why don't banks relieve pressures caused by heavy loan demand and rising costs of funds by just refusing to grant loan requests?

Loan denial, particularly when it involves prime customers, is not really practical because prime customers generally borrow through prearranged loan commitments or lines of credit.

The problem that banks face during a period of high credit demand and rising costs of funds is not

[^10]so much demand by new customers, but rather the increased use of existing commitments and credit lines. Customers who have commitments and credit lines will seek more of their credit needs through bank loans. This is especially true when the spread between the prime rate and the commercial paper rate narrows, making bank loans cheaper relative to alternate credit sources. Though not every line of credit agreement is binding to banks, they try to honor such arrangements lest they damage customer relations.

## Why is there such uniformity among banks in their prime rates?

Firms which are eligible for prime rate status often do business on a national basis and thus have connections with several banks across the country. Because they borrow large sums of money, it is to their benefit to borrow at the bank with the lowest prime rate. Their many banking connections allow them to take advantage of any differentials in the prime rates. There is thus considerable competition for such customers, fostering uniformity of the prime rate.

Another factor working in the same direction is the competition banks themselves face in obtaining lendable funds. They all bid in the same markets for Federal funds, CD's, and Eurodollars and are more or less subject to the same changes in the cost of these funds.

Finally it must be recalled that banks not only compete with each other for prime customers but also with alternative sources of credit, particularly commercial paper. This, too, is a national money market, and changes in that market will be felt by these banks.

In short, competition among banks for prime customers and for sources of funds and competition between banks and other credit instruments limit differences in prime rates. Some differences do exist, however, because these competitive forces are not perfect and changes in the costs of funds and substitute instruments do not affect each bank equally.

## Doesn't this uniformity hurt smaller business borrowers, whose access to nonlocal banks is limited?

The plight of the local business borrower has long been a thorn in the side of the prime rate system. A small business or farm may have established itself as a most creditworthy borrower and valuable deposit source with one or more banks in its local market but have no such connections outside that area. Banks' prime rates will be tied to national rather than local conditions. When these differ, the prime rate may be too high or too low to equate the local supply and demand for prime loans.

The banking industry has wrestled with this problem for many years. Some banks tried using a double prime rate system. Large business borrowers with access to banks throughout the U.S. and to money market instruments would pay one "best" rate. The most creditworthy local businesses, who were more limited in their credit sources, would pay a different "best" rate.

On April 16, 1973, the Committee on Interest and Dividends (CID) gave official status to such a twotiered mechanism. In its statement of criteria for lending rates, the CID asked banks to set up a dual prime rate system. The traditional prime rate would apply to the most creditworthy large business customers. The second prime rate would apply to those smaller local businesses and farms with the highest credit standing. For classificatory purposes, the CID defined a small business or farm borrower as one whose total borrowings in the preceding 12 months were not above $\$ 350,000$ (not counting long-term real-estate mortgage liabilities) and whose assets were not more than $\$ 1$ million. This plan was to allow banks to adjust their large business prime rate to national interest rate developments without affecting local customers. ${ }^{7}$

## In the final analysis, what does a change in the prime rate signify?

A change in the prime rate is a signal of both what has happened to credit conditions and what will be happening to bank lending policies.

As mentioned, the prime rate has historically been sticky in response to money market developments. Before the advent of formulas, any one bank was reluctant to risk changing its prime rate for fear that if it misread the market signals, it would gain or lose too many loans. Banks resorted to greater use of nonprice terms and conditions, and a decision to alter the prime rate occurred only when the need to do so stood a test of time. As such, a change in the prime rate was a sign that credit conditions had changed.

The floating prime rate (more correctly, the large-business prime rate) is more responsive to changes in the money markets. This removes some stickiness from prime rate adjustments, but it does not eliminate the lag factor completely. Since most of the formulas use a multiweek moving average of one or more money market rates, changes will not be reflected in the formulas until several weeks after the rates change.

Because a change in the prime rate comes about after credit conditions have changed, adjustment of

[^11]the prime rate can be viewed as a lagged indicator of credit conditions.
A changed prime rate also signals that banks have revised their willingness to make loans. A new rate may signal a revamping of the spectrum
of interest rates, loan conditions, and willingness to lend to nonprime customers. Viewed in this context, a change in the prime rate is a portent. That is, it represents a leading indicator of the bank's general lending policies.

## Appendix

## Compensating Balances and Effective Lending Rates

Compensating balance requirements increase the effective interest rate a borrower pays over and above the stated interest rate on the loan. They do so by reducing the amount of a given loan which the borrower can actually use. ${ }^{8}$ A numerical example might help in understanding this concept.

Suppose a business wants to borrow $\$ 100,000$ on a credit line for one year at 9 -percent interest and the bank requires a 10 -percent compensating balance. The amount of interest paid would be $\$ 9,000$, but the borrower will have use of only $\$ 90,000$ of the loan ( $\$ 100,000$ minus the $\$ 10,000$ compensating balance). Thus the effective interest rate is not 9 percent, but 10 percent ( $=\$ 9,000$ / $\$ 90,000)$. If the compensating balance had been 15 percent, the effective interest rate would be 10.59 percent ( $=\$ 9,000 / \$ 85,000$ ). By adjusting the compensating balance requirement, a bank can change its effective lending rate without altering its prime rate.

In our example, we used what is known as a "straight" compensating balance requirement, which puts a single compensating balance requirement on the whole line of credit. A formula for the computation of the effective rate under this requirement may be expressed as:

$$
R=\frac{(r / 12) m_{1} L+(r / 12) m_{2} c L}{(L-c L) m_{1} / 12}=r+\frac{r c}{(1-c) m}
$$

[^12]where
$R=$ the effective interest rate,
$r=$ stated interest rate,
$L=$ line of credit in dollars,
$\mathrm{c}=$ the compensating balance requirement in percentage terms,
$\mathrm{m}_{1}=$ number of months the line is actually used,
$\mathrm{m}_{2}=12-\mathrm{m}_{1}$,
$\mathrm{m}=\mathrm{m}_{1} / 12$.
Note that the fewer months the line is used, the higher the effective rate.

There are two more complicated but widely used compensating balance requirements. One requires a balance on the whole line, plus an additional balance for the net amount actually used. In mathematical terms, assuming the basic balance and additional balance are equal percentagewise, this may be expressed as:

$$
R=\frac{(r / 12) m_{1} L+(r / 12) m_{2} c L}{(1-c)(L-c L)\left(m_{1} / 12\right)}=\frac{1}{1-c}\left(r+\frac{r c}{(1-c) m}\right)
$$

In the example above, if the basic balance and additional balance were 10 percent of the line, the total compensating balance would be $\$ 19,000$. The effective rate would be 11.11 percent (= $\$ 9,000 / \$ 81,000$ ).

A third form of the compensating balance requirement consists of a basic balance on the whole line, plus an additional balance on the whole line, if it is used. Under the assumption these two balances are equal percentagewise, the formula for the effective rate is given by:

$$
R=\frac{(r / 12) m_{1} L+(r / 12) m_{2} c L}{(L-2 c L)\left(m_{1} / 12\right)}=\frac{1-c}{1-2 c}\left(r+\frac{r c}{(1-c) m}\right)
$$

In our numerical example, if both the basic and additional balance requirements are 10 percent, the total compensating balance would be $\$ 20,000$
and the effective rate would be 11.25 percent ( $=\$ 9,000 / \$ 80,000$ ).
The effective interest rate as calculated by these equations measures the rate the borrower pays on a loan. But they do not measure the effective yield the bank receives. The reason is that the bank must hold part of the compensating balance as required reserves.

For simplicity, let us return to the effective rate when the straight compensating balance requirement is used. As noted, the borrower actually pays 10 percent on a loan with a nominal interest rate of 9 percent and a 10 -percent compensating balance requirement. The bank lends out $\$ 100,000$. It requires the borrower to maintain $\$ 10,000$ in deposits. Assuming the bank must hold 13.5 percent of deposits as required reserves, the bank holds $\$ 1,350$ of the compensating balance in reserves.

The borrower has use of $\$ 90,000$; this is the base amount on which his effective interest cost
is calculated. However, the base on which a bank's interest income is calculated is not $\$ 90,000$, but $\$ 91,350$, the size of the effective loan plus the reserves it must hold against the compensating balance. As a result, the interest income to the bank is not 10 percent, but 9.85 percent $(\$ 9,000 / \$ 91,350)$. The difference between the borrower's effective interest rate, 10 percent, and the bank's effective yield, 9.85 percent, is absorbed by required reserves.
In formula terms, the bank's effective yield is given by

$$
y=\frac{(1-c) L}{L+s c L-c L}=\frac{1-c}{1+c(s-1)},
$$

where
$y=$ effective yield to the bank,
$s=$ required reserve ratio,
and the other terms are defined above.

## NOW AVAILABLE

Some Agribusinesses in the Southeast
A collection of studies, selected from the Monthly Review, analyzing the characteristics and financial patterns of Southeastern agribusinesses, including peanuts, tobacco, and dairy and poultry production, Single copies available to individuals and banking and educational institutions from the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

## Studies in Southeastern Industries

Selected from the Monthly Review of the Federal Reserve Bank of Atlanta, this collection emphasizes in some detail characteristic industrial and financial patterns. Included are such Southeastern industries as paper, lumber, manufacturing, services, coal, and petroleum. Single copies available to individuals and banking and educational institutions from the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

## Bank Announcements

April 18, 1974
FLORIDA CENTER BANK
Orlando, Florida
Opened for business as a par-remitting nonmember. Officers: Robert J. Twigg, president; Carole Ann McGahey, cashier; James H. Green, Jr., assistant vice president. Capital, $\$ 500,000$; surplus and other funds, $\$ 500,000$.

April 30, 1974

## CITIZENS BANK OF GLENCOE

Clencoe, Alabama
Opened for business as a par-remitting nonmember. Officers: Charles A. Cantrell, president; Charles B. Barrontine, vice president and cashier. Capital, $\$ 400,000$; surplus and other funds, $\$ 480,000$.

April 30, 1974

## FIRST BANK OF ROCKLEDGE

Rockledge, Florida
Opened for business as a par-remitting nonmember. Officers: Tom Dolan, chairman; Frank E. Sullivan, III, president; Henry S. Leininger, executive vice president and cashier; Jerry Morgan, assistant vice president. Capital, \$588,240; surplus and other funds, $\$ 411,768$.

May 4, 1974

## BARNETT BANK OF LAKE PLACID

Lake Placid, Florida
Opened for business as a par-remitting nonmember. Officers: Kenneth H. Grady, president; William M. Bryan, Jr., executive vice president; J. W. Ridley, cashier; Hugh Haston, security. Capitai, $\$ 500,000$; surplus and other funds, $\$ 250,000$.

## May 4, 1974

## the People's bank of polk county

Benton, Tennessee
Opened for business as a par-remitting nonmember. Officers: Joseph V. Carter, president; Miss Gene Hilliard, cashier; Danny F. Qualls, assistant vice president; Mrs. Faye McClary, assistant cashier. Capital, $\$ 240,000$; surplus and other funds, $\$ 360,000$.

## May 7, 1974

ELLIS COMMERCIAL BANK
Sarasota, Florida
Opened for business as a member. Officers: Emmet Addy, chairman; Charles D. Bailey, president; William Matthews, executive vice president; P. Gregory Robichaud, vice president and cashier; Genevieve Sendral, assistant cashier. Capital, $\$ 300,000$; surplus and other funds, $\$ 312,717$.

May 7, 1974

## THE KEY BANK OF TAMPA Tampa, Florida

Opened for business as a par-remitting nonmember. Officers: James T. Porter, president; Josie C. Kinney, vice president; June M. Morgan, cashier. Capital, $\$ 900,000$; surplus and other funds, $\$ 450,000$.

May 9, 1974

## CLEWISTON NATIONAL BANK <br> Clewiston, Florida

Opened for business as a member. Officers: Ed Watson, chairman and president; Dewey $M$. Terrell, executive vice president and chief executive officer; Johnny E. Johnson, vice president and cashier. Capital, $\$ 480,000$; surplus and other funds, $\$ 720,000$.

May 10, 1974

## BANK OF LAUREL <br> Laurel, Mississippi

Opened for business as a par-remitting nonmember. Officers: A. Jackson Huff, Jr., president; W. Bill Ainsworth, vice president and cashier. Capital, $\$ 500,000$; surplus and other funds, $\$ 500,000$.

May 10, 1974

## CONTINENTAL NATIONAL BANK OF MIAMI Miami, Florida

Opened for business as a member. Officers: Charles Dascal, chairman; Jorge L. Martinez, president; Osvaldo D. Delgado, vice president and cashier; Paul Rauschenplat, assistant vice president. Capital، $\$ 750,000$; surplus and other funds, $\$ 1,250,000$.

May 13, 1974

## BANK OF TENNESSEE <br> Kingsport, Tennessee

Opened for business as a par-remitting nonmember. Officers: W. B. Greene, Sr., chairman; P. L. Basinger, Jr., president; Cham H. Percer, Jr., executive vice president; Dennis Phillips, vice president. Capital, $\$ 1,000,000 ;$ surplus and other funds, $\$ 875,000$.

May 15, 1974

## LYNN HAVEN COMMERCIAL BANK Lynn Haven, Florida

Opened for business as a par-remitting nonmember. Officers: M. G. Nelson, chairman and president; Jack A. Blackwell, vice president; Lee $A$. Kinard, vice president and cashier. Capital, $\$ 200,000$; surplus and other funds, $\$ 200,000$.

May 16, 1974
COMMERCIAL BANK OF OKEECHOBEE
Okeechobee, Florida
Opened for business as a par-remitting nonmember. Officers: Haynes E. Williams, chairman of the board; J. E. Spooner, president; Cecil McKinney vice president and cashier. Capital, $\$ 600,003$; surplus and other funds, $\$ 400,000$.

May 17, 1974
THE FLAGLER BANK
Miami, Florida
Opened for business as a par-remitting nonmember.

## Bank Announcements (coninued)

May 29, 1974
FIRST PRUDENTIAL BANK
West Palm Beach, Florida
Opened for business as a par-remitting nonmember. Officers: Joseph M. Reed, president; Oscar Horton, Jr., vice president: Dr. Robert Smith, cashier. Capital, \$514,000; surplus and other funds, $\$ 514,000$.

May 30, 1974

## HIGHLANDS COUNTY BANK OF AVON PARK

Avon Park, Florida
Opened for business as a par-remitting nonmember. Officers: Ben Hill Griffin, Jr., president and chairman; Lewis S. Stidham, executive vice president; D. R. Daubach, vice president and cashier; Verita Bentley, assistant cashier. Capital, $\$ 625,000$; surplus and other funds, $\$ 625,000$.

May 31, 1974

## METROPOLITAN BANK <br> Tampa, Florida

Opened for business as a member. Officers: D. Wallace Fields, chairman; Donald A. Regar, president; John N. Elder, executive vice president and cashier; A. B. Campbell, senior vice president; Stephen S. Sloan, vice president; Joseph F. Smiley, Jr., vice president; John R. Weachter, vice president; Evie Lou Nichols, assistant cashier; Larry M. Geiger, consumer counselling officer. Capital, \$8,000,000; surplus and other funds, $\$ 2,400,000$.

June 4, 1974

## BANK OF NORTH BAY VILLAGE <br> North Bay Village, Florida

Opened for business as a par-remitting nonmember. Officers: Andrew Loriz, president; Victor Lopez DeMendoza, vice president and cashier. Capital, $\$ 800,000$; surplus and other funds, $\$ 232,000$.

June 4, 1974

## COMMUNITY BANK OF REDINGTON Redington Shores, Florida

Opened for business as a par-remitting nonmember. Officers: Donald A. Henke, executive vice president. Capital, $\$ 500,000$; surplus and other funds, $\$ 500,000$.

June 5, 1974

## CITY BANK OF NORTH MIAMI <br> North Miami, Florida

Opened for business as a par-remitting nonmember. Officers: Gerald A. Keller, chairman; Christian W. Hattenbrun, president; Angelberto A. Arroya, vice president and cashier. Capital, $\$ 700,000$; surplus and other funds, $\$ 800,000$.

June 5, 1974
FIRST NATIONAL BANK OF MOORE HAVEN
Moore Haven, Florida
Opened for business as a member. Officers: Maynard Abrams, chairman; James S. Higdon, executive vice president. Capital, $\$ 400,000$; surplus and other funds, $\$ 600,000$.

June 7, 1974

## SOUTHEAST BANK OF WESTLAND Hialeah, Florida

Opened for business as a par-remitting nonmember. Officers: William D. Hewett, president; Raul Rivero, vice president and cashier. Capital, $\$ 700,000$; surplus and other funds, $\$ 300,000$.

June 14, 1974

## FIRST STATE BANK OF ALBERTVILLE Albertville, Alabama

Opened for business as par-remitting nonmember. Officers: Jerry W. Roberts, president and cashier; Kenneth L Murphree, assistant vice president. Capital, $\$ 500,000$; surplus and other funds, $\$ 500,000$.

June 14, 1974

## THE STATE BANK OF SOUTH JACKSONVILLE Jacksonville, Florida

Opened for business as a par-remitting nonmember. Officers: L. A. Symasek, president; Jack H. Turner, vice president; Johnny F. Johns, cashier. Capital, $\$ 500,000$; surplus and other funds, $\$ 300,000$.

June 18, 1974

## REPUBLIC NATIONAL BANK OF LOUISIANA New Orleans, Louisiana

Opened for business as a member. Officers: Rudolph A. McLeod, chairman; George J. Livermore, Jr., president and chief executive officer; Robert E. Ahrens, vice president and cashier; Elray Venice, vice president; Rebecca Marshall, assistant cashier. Capital, $\$ 500,000$; surplus and other funds, \$250,000.

June 19, 1974

## VANDERBILT BANK

Naples, Florida
Opened for business as a par-remitting nonmember. Officers: Roy E. Ingram, chairman; Walter R. Rogers, vice chairman: William D. Seiffert, president; Robert L. Patton, vice president and cashier; Mrs. Pauline Miller, assistant cashier. Capital, $\$ 500,000$; surplus and other funds, $\$ 500,000$.

June 25, 1974
DOUGLAS COUNTY BANK
Douglasville, Georgia
Opened for business as a par-remitting nonmember.
June 26, 1974

## MACON BANK AND TRUST COMPANY Macon, Ceorgia

Opened for business as a par-remitting nonmember. Officers: W. M. Dickey, Jr., president.

June 26, 1974

## BANK OF FLORIDA IN ST. PETERSBURG St. Petersburg, Florida

Opened for business as a member. Officers: Robert $M$. Menke, chairman; L. Eugene Oliver, Jr., president; Neil W. Savage, executive vice president; J. Homas Aldrich, vice president and cashier. Capital, $\$ 750,000$; surplus and other funds, \$750,000.
BANKING STATISTICS

## SIXTH DISTRICT BANKING NDTES

## Borrowing: Back to Normal?

Business loans continue upward . . .

*32 Large District banks; last Wednesday figures
**From end of previous year
but at a much slower rate than 1973.


Thus far in 1974, business lending at large District banks has been below the exceptional pace of 1973. From January to May this year, business loans increased $\$ 263$ million, almost $\$ 200$ million less than the increase over the same period last year. This contrast between 1973 and 1974 is broad-based, as one can see by looking at the accompanying breakdown of loan growth among several industrial categories.

As in 1973, business loans started the year on a strong note, with a sizable rise (seasonally adjusted) taking place in January. Unlike last year, however, the growth rate settled down in February and March. The most significant development was the surge in business loans during April. The weakness in both the economy and, in particular, retail sales (after correcting for inflation) made this an unexpected event.

| CUMULATIVE CHANGE IN BUSINESS LOANS AT 23 LARGE SIXTH DISTRICT BANKS <br> (\$ Mil.) <br> January - May |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 1974 | 1973 | 1972 |
| Total Business Loans | 359.5 | 501.4 | 230.8 |
| Durable Goods Manufacturing | 22.7 | 81.7 | 37.2 |
| Nondurable Goods Manufacturing | 57.5 | 77.1 | 30.3 |
| Wholesale Trade | 43.9 | 62.8 | 34.2 |
| Retail Trade | 35.7 | 55.6 | 41.1 |
| Transportation, Communication, and Other Public Utilities | 40.9 | 67.9 | -0.4 |
| Construction | 55.9 | 75.7 | 43.7 |
| Services | 54.4 | 41.3 | 54.2 |

Several special factors helped to account for the April surge. A slump in retail sales required additional business borrowing to finance the unintended build-up in inventories of unsold goods. Moreover, as firms voluntarily stockpiled materials in short supply, their need for financing also increased. Inflation intensified these inventory financing needs, as higher prices raised the dollar value of the inventories that had to be financed. Furthermore, rapidly rising prices induced some firms to buy needed materials earlier than usual, even when this necessitated borrowing money to do so.

Banks received their share of these credit demands during the first five months of 1974. As the interest rates rose on alternative business credit sources such as commercial paper and corporate

By May 1974, cost of bank funds exceeded average rates received on business loans.


Source: Quarterly Interest Rate Survey and Board of Governors release, "Weekly Summary of Banking and Credit Measures."
bonds, bank loans became a relatively more attractive source to some business borrowers. In addition, much of the increased lending in the Southeast was to national corporations, which drew on their District credit lines after utilizing such lines at larger financial centers, particularly in New York.

The April burst may prove to be a short-lived phenomenon. In May the seasonally adjusted level of business loans actually declined. Although the decline was slight-about $\$ 13$ million-it was the first such drop since August 1972. It may be premature to take this as evidence of a return to more normal growth in business loans, but some observers have advanced a number of arguments for expecting a slowdown. Businesses are reducing their demand for inventory financing. Near-record lending rates are making inventory accumulation an expensive proposition. Meanwhile, the termination of wage-price controls and the lifting of the oil embargo are now operating to relieve shortages which motivated some stockpiling in the first place. As suppliers of business credit, District banks are becoming more selective in granting new loans and extending old credit lines because the rates they are paying for borrowed funds have been above the average rate they receive on business loans (see chart). At the same time, a wider spread between the prime rate and commercial paper rates than existed in April has shifted some credit demand from banks to alternative sources.
W. F. MACKARA

# Sixth District Statistics 

## Seasonally Adjusted (All data are indexes, unless indicated otherwise.)

|  | Latest | Month | One Month Ago | Two Months Ago | One Year Ago |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIXTH DISTRICT |  |  |  |  |  |
| INCOME AND SPENDING |  |  |  |  |  |
| Manufacturing Payrolls | May | 176 | 172 | 174 | 166 |
| Farm Cash Receipts | Apr. | 173 | 203 | 202 | 166 |
| Crops | Apr. | 188 | 218 | 216 | 153 |
| Livestock | Apr. | 179 | 203 | 206 | 183 |
| Instalment Credit at Banks*/' (Mil. \$) New Loans | May | 745 | 687 r | 595 | 679 |
| Repayments | May | 670 | 643 r | 573 | 563 |
| EMPLOYMENT AND PRODUCTION |  |  |  |  |  |
| Nonfarm Employment | May | 132.4 | 132.6 | 132.8 | 129.4 |
| Manufacturing | May | 118.2 | 118.5 | 118.5 | 117.8 |
| Nondurable Goods | May | 115.6 | 115.6 | 115.7 | 115.5 |
| Food | May | 105.6 | 106.5 | 107.3 | 103.9 |
| Textiles | May | 112.7 | 112.4 | 112.2 | 112.7 |
| Apparel | May | 112.9 | 113.5 | 113.6 | 116.2 |
| Paper | May | 112.7 | 112.5 | 112.0 | 113.4 |
| Printing and Publishing | May | 130.0 | 129.0 | 129.4 | 128.7 |
| Chemicals | May | 109.7 | 109.0 | 108.5 | 109.4 |
| Durable Goods | May | 121.4 | 121.8 | 122.0 | 120.6 |
| Lbr., Wood Prods., Furn. \& F | May | 111.0 | 111.4 | 111.9 | 112.2 |
| Stone, Clay, and Glass | May | 130.1 | 129.4 | 132.6 | 127.2 |
| Primary Metals | May | 112.4 | 112.3 | 111.4 | 110.9 |
| Fabricated Metals | May | 131.8 | 133.1 | 134.0 | 128.2 |
| Machinery | May | 156.7 | 157.2 | 156.1 | 150.4 |
| Transportation Equipment | May | 110.3 | 112.3 | 109.3 | 113.3 |
| Nonmanufacturing | May | 137.5 | 137.6 | 137.8 | 133.6 |
| Construction | May | 145.4 | 152.9 | 154.7 | 145.4 |
| Transportation | May | 127.2 | 127.2 | 127.3 | 124.9 |
| Trade | May | 137.6 | 137.2 | 137.1 | 134.6 |
| Fin., ins., and real est. | May | 147.4 | 146.9 | 147.5 | 142.9 |
| Services | May | 149.5 | 148.1 | 148.1 | 143.9 |
| Federal Government | May | 104.3 | 103.8 | 104.6 | 101.3 |
| State and Local Government | May | 136.6 | 136.4 | 136.2 | 130.6 |
| Farm Employment . | May | 84.1 | 83.8 | 85.2 | 85.7 |
| Unemployment Rate: (Percent of Work Force) | May | 4.3 | 4.2 | 4.1 | 3.6 |
| Insured Unemployment (Percent of Cov. Emp.) |  | 2.2 | 2.2 | 2.1 | 1.7 |
| Avg. Weekly Hrs. in Mfg. (Hrs.) | May | 40.1 | 39.7 | 40.4 | 40.5 |
| Construction Contracts* | May | 222 | 225 r | 233 | 222 |
| Residential | May | 216 | 250 | 246 | 284 |
| All other | May | 228 | 200 r | 220 | 161 |
| Cotton Consumption** | Apr. | 79 | 86 | 90 | 79 |
| Petroleum Production** | May | 101 | 104 | 103 | 114 |
| Manufacturing Production | Dec. | 300 | 306 | 307 | 283 |
| Nondurable Goods | Dec. | 248 | 247 | 245 | 237 |
| Food | Dec. | 192 | 191 | 189 | 187 |
| Textiles | Dec. | 302 | 301 | 298 | 280 |
| Apparel | Dec. | 292 | 290 | 289 | 274 |
| Paper . | Dec. | 227 | 227 | 225 | 221 |
| Printing and Publishing | Dec. | 156 | 156 | 155 | 158 |
| Chemicals | Dec. | 321 | 324 | 320 | 303 |
| Durable Goods | Dec. | 363 | 378 | 382 | 338 |
| Lumber and Wood | Dec. | 206 | 203 | 202 | 198 |
| Furniture and Fixtures | Dec. | 189 | 188 | 191 | 187 |
| Stone, Clay, and Glass | Dec. | 217 | 210 | 212 | 195 |
| Primary Metals | Dec. | 272 | 273 | 271 | 221 |
| Fabricated Metals | Dec. | 308 | 302 | 298 | 288 |
| Nonelectrical Machinery | Dec. | 479 | 485 | 502 | 414 |
| Electrical Machinery | Dec. | 835 | 932 | 918 | 753 |
| Transportation Equipment | Dec. | 416 | 448 | 472 | 444 |
| Finance and banking |  |  |  |  |  |
| Loans* |  |  |  |  |  |
| All Member Banks | May | 274 | 272 | 269 | 231 |
| Large Banks | May | 257 | 254 | 248 | 216 |
| Deposits* |  |  |  |  |  |
| All Member Banks | May | 215 | 210 | 208 | 194 |
| Large Banks | May | 186 | 181 | 180 | 170 |
| Bank Debits*/** | May | 285 | 293 | 276 | 229 |
| alabama |  |  |  |  |  |
| INCOME |  |  |  |  |  |
| Manufacturing Payrolls | May | 178 | 175 | 176 | 162 |
| Farm Cash Receipts . | Apr. | 193.1 | 217.3 | 247.3 | 209.3 |
| EMPLOYMENT |  |  |  |  |  |
| Nonfarm Employment | May | 120.1 | 120.3 | 120.8 | 118.5 |
| Manufacturing | May | 117.3 | 117.6 | 117.8 | 151.1 |
| Nonmanufacturing | May | 121.4 | 121.5 | 122.2 | 120.0 |
| Construction. | May | 128.2 | 128.8 | 130.0 | 125.8 |
| Farm Employment . . . . . . . . . |  | 66.7 | 72.7 | 87.9 | 79.6 |



|  | Latest | Month | One Month Ago | $\begin{gathered} \text { Two } \\ \text { Months } \\ \text { Ago } \\ \hline \end{gathered}$ | One <br> Year <br> Ago |  | Latest | Month | One Month Ago | Two Months Ago | One Year Ago |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unemployment Rate: |  |  |  |  |  | EMPLOYMENT |  |  |  |  |  |
| ${ }^{\text {(Percent }}$ of Work Force) ${ }^{\text {a }}$ (; | May | 3.6 | 3.8 | 3.5 | 3.7 | Nonfarm Employment |  |  |  |  |  |
| Avg. Weekly Hrs. in Mig. (Hrs.) | May | 40.0 | 39.2 | 39.9 | 40.3 | Nonfarm Employment Manufacturing | May May | 128.2 | 128.7 118.6 | 129.0 118.9 | 125.8 |
| Finance and banking |  |  |  |  |  | Nonmanufacturing | May | 133.4 | 134.3 | 134.7 | 129.2 |
| Member 日ank Loans* | May | 268 | 257 |  | 220 | Construction | May | 135.2 | 140.1 | 146.6 | 130.7 |
| Member Bank Deposits* | May | 221 | 216 | 218 | 189 | Farm Employment | May | 93.6 | 90.5 | 85.8 | 84.3 |
| Bank Debits**** . | May | 256 | 260 | 251 | 217 | Unemployment Rate- |  |  |  |  |  |
|  |  |  |  |  |  | Avg. Weekiy Hrs. in Mfg. (His.) | May | 40.2 | 3.5 39.4 | 3.3 | 2.9 40.2 |
| tennessee |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Finance and banking |  |  |  |  |  |
| INCOME |  |  |  |  |  | Member Bank Loans* | Nay | 261 | 258 | 259 | 214 |
| Manufacturing Payrolls | May | 180 | 175 | 175 | 170 | Member Bank Deposits* | May | 203 | 203 | 200 | 178 |
| Farm Cash Receipts | Apr. | 186.0 | 205.3 | 206.7 | 159.1 | Bank Debits****. | May | 274 | 265 | 245 | 183 |

*For Sixth District area only; other totals for entire six states
**Daily average basis
Note: Indexes for bank debits, construction contracts, cotton consumption, employment, farm cash receipts, loans, petroleum production, and payrolls: $1967=100$. All other indexes: 1957-59 $=100$.

Sources: Manufacturing production estimated by this Bank; ronfarm, mfg. and nonmfg. emp., mfg. payrolis 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. 'Data benchmarked to June 1971 Report of Condition.
2Unemployment 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)


${ }^{1}$ 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



The Southeastern economy continues to be sluggish, although some sectors are showing renewed strength. Labor markets, except for strike-related job declines, were essentially unchanged in May. Strong loan demands have resulted in greater short-term borrowing by District banks. A weak housing sector hampered overall construction activity. Consumer borrowing and spending indicators showed more positive signs than in recent months. Low product prices and high costs placed a tight squeeze on livestock producers.

The number of unemployed inched upward in May, and the rate of unemployment rose to $\mathbf{4 . 3}$ percent. A year ago this rate stood at 3.6 percent. Nonfarm employment changed very little, posting only a fractional decline. Job losses were heaviest in the construction industry where several strikes, particularly in Florida and Louisiana, have idled workers. Though manufacturing jobs fell, factory hours rose and payrolls climbed sharply, reversing last month's decline.

Consumer instalment credit outstanding at commercial banks grew more rapidly in May than in any other month this year. Lending to purchase nonautomotive consumer goods grew rapidly, and loans for home repair and other personal loans also showed strength. Auto loans continued sluggish, reflecting the low volume of unit auto sales. Consumer spending showed some signs of recovery from the doldrums of the first quarter.

A sharp decline in the housing sector brought the value of construction contracts down in May. Interest rates on construction and permanent residential credit continued to creep up; deposit inflows at savings and loan associations were well below
levels of a year ago. Nonresidential contract awards were moderately above April's relatively high level.

Livestock producers continue to be plagued by falling prices and high feed costs. Overall farm prices declined in May and averaged more than one-tenth below year-ago levels, while corn prices held at 43 percent above May of 1973. Average crop prices were strengthened from April's level by strong increases for citrus and vegetable products. The growth in farm cash receipts continued to slow, reflecting the overall reduction in price levels. In spite of rate increases, farmers' use of short-term credit increased further in May; real estate credit showed a leveling trend.

The continued demand for bank credit is exerting strong pressures on District banks. In line with these credit requests and the rising cost of shortterm funds, most District banks had posted an $11^{3 / 4}$ percent prime lending rate by the end of June. Tennessee banks remain an exception, however, since state law restricts interest charges there to a maximum of 10 percent. District banks have increased their use of Federal funds, money market CD's, and the Federal Reserve discount window as sources of funds.

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


[^0]:    ${ }^{1}$ For purposes of exposition, this article focuses on the narrow or $M_{1}$ definition of the money stock. For the definition of this narrow money stock, and for other broader measures of money as well, see "The Money Stock," this Review, November 1973.
    "See "Controlling Money with Bank Reserves," this Review, April 1973, and "Numerical Specifications of Financial Variables and Their Role in Monetary Policy," Federal Reserve Bulletin, May 1974.

[^1]:    ${ }^{3}$ Nationally, these are the 177 member banks which were classified as "reserve city" banks prior to November 9, 1972. Of the 20 such banks in the Sixth District, 5 phone their reports directly to the Head Office in Atlanta, 2 call the Birmingham Branch, 5 to the Jacksonville Branch, 3 to the Nashville Branch, and 5 to the New Orleans Branch. The calls come in to the Accounting Departments at each office.
    ${ }^{4}$ These reserve city bank items make up the so-called Markstat-D wire. The data items include (1) U. S. Government demand deposits, (2) net demand deposits, (3) time deposits (including large denomination negotiable $C D^{\prime}$ s), (4) demand deposits due to other banks, (5) demand deposits due from other banks, and (6) total deposits. The editing processes point up unusual data fluctuations, which are verified with the reporting member bank. Generally, these fluctuations result from specific large transactions; occasionally, however, a mistake is uncovered and corrected. Heavy emphasis is placed on editing and transmitting data from the 80 -odd largest member banks in the Sixth District by Monday night following the end of the banking week on Wednesday.
    ${ }^{5} \mathrm{~A}$ banking week runs seven days from Thursday to Wednesday. On days when the bank is closed and balances do not change, the previous day's balances are carried forward. Thus, on a typical week without holidays, Friday's figures count for Saturday and Sunday as well.
    "Nationally, these 300 banks are called the country bank sample, since they are drawn from the member banks which were classified as "country" banks prior to November 1972. Of the 30 such member banks in the Sixth District, 4 mail their reports to the Atlanta office, 2 to Birmingham, 11 to Jacksonville, 3 to Nashville, and 10 to New Orleans.

[^2]:    'Actually, the Board of Governor's staff begins to develop measurements as soon as the first daily information from the large banks begins to come in on Monday (May 6). A new measurement is run each day thereafter, on the basis of whatever data have been received by that time. By Tuesday night (May 7), the measurements are usually developed enough to give the FOMC and the Trading Desk an idea of what the preliminary internal figure will look like two days later-a rough measurement of a rough measurement, so to speak. For an illustration and description of the reserve accounting process, see "Controlling Money With Bank Reserves," this Review, April 1973.

[^3]:    ${ }^{8}$ For an illustration and description, see "Meeting Reserve Requirements," this Review, October 1973. Of the 623 member banks in the Sixth District, 76 mail their reports to the Atlanta office, 105 to Birmingham, 295 to Jacksonville, 66 to Nashville, and 81 to New Orleans.
    ${ }^{v}$ The acronym for this process is TEDS (Transmission of Edited Deposits System). The edit checks are based on comparisons with (a) historical averages of data reported by each member bank, (b) the previous week's reports, and (c) other reports not directly connected with the money stock measurement process.
    ${ }^{10}$ In our example, this procedure is called the FR 422, or Flash Wire. These larger banks are those which phoned in the daily deposit measurements a week earlier.

[^4]:    ${ }^{11}$ We shall not emphasize here the relationship of these components in the definition of the money stock since this was covered in a previous article, "The Money Stock," this Review, November 1973.
    ${ }^{12}$ There are no Sixth District institutions involved in this reporting process, although some of the international institutions in the Sixth District do report to the Federal Reserve Bank of Atlanta for other purposes. For an overview of these international institutions and their activities in the District, see "The Spread of International Banking: A Regional View," by John E. Leimone, this Review, August 1971 (reprinted in International Finance and Trade: A Southeastern Perspective, February 1973), and "Edge Act Corporations: An Added Dimension to Southeastern International Banking," this Review, forthcoming.
    ${ }^{13}$ This information is also adjusted on the basis of daily reports from all New York institutions, reports which focus on the so-called cash items bias. See "The Money Stock," this Review, November 1973, for a description of this problem.

[^5]:    ${ }^{14}$ See "Revision of the Money Stock Measures and Member Bank Reserves and Deposits," Federal Reserve Bulletin, February 1974.
    The technical appendix to the article describes alternative regression procedures for estimating the nonmember bank deposit component.

[^6]:    ${ }^{1}$ Of course, banks have always had a "best" rate for their most creditworthy customers, and starting in 1921, large New York banks reported their lowest rate each month to the Federal Reserve. However, it was not until 1934 that the prime rate became a publicized national concept.

[^7]:    ${ }^{2}$ it should also be noted that many banks sell commercial paper through affiliates to raise funds. Thus, a rise in commercial paper rates also represents a higher cost of funds to these banks.

[^8]:    ${ }^{3}$ CD's are a form of time deposits. Eurodollars are dollar deposits in toreign banks. Federal funds are short-term loans, largely between banks

[^9]:    ${ }^{4}$ Conversely a drop in loan demand and falling market rates will eventually induce banks to lower their prime rates.
    "See "Liability Management Banking: Its Growth and Impact," Arnold Dill, this Review, February 1971 and "Liability Management Banking: Its Practice in the Sixth District," Arnold Dill, this Review, December 1971.

[^10]:    - A loan commitment is a formal arrangement between the bank and the borrower; all terms and conditions are agreed upon and specified. The bank usually charges a commitment fee and is legally obligated to meet all terms of the contract. A line of credit is a more informal scheme under which the customer may borrow up to a stated limit.

[^11]:    When the legislation under which the wage-price control program had operated did expire, the CID was eliminated. Soon
    thereafter, several banks abolished their small-business prime rate.

[^12]:    ${ }^{8}$ See Jack M. Guttentag and Richard G. Davis, "Compensating Balances," Essays in Money and Credit, Federal Reserve Bank of New York, December 1964, pp. 57-61, for a modification of this point.

