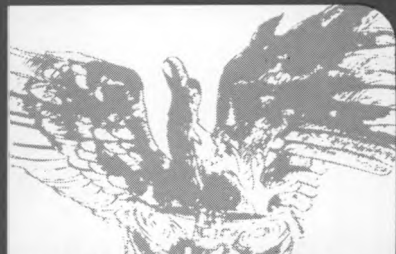


Binding cab.

ECONOMIC REVIEW

Federal Reserve Bank
of Atlanta

July/August 1978



**Southeastern Inflation:
1971-77**

**Usury: The Recent
Tennessee Experience**

**Increasing Liquidity
Pressures**

**Labor Force Participation
and Job Opportunities**

**Flue-Cured Tobacco:
Output Down, Prices Up**

**Working Paper
Abstracts**

Federal Reserve Bank of Atlanta
Federal Reserve Station
Atlanta, Georgia 30303

Address Correction Requested

Bulk Rate
U.S. Postage
PAID
Atlanta, Ga.
Permit 292

LIBRARY

AUG 21 1978

FEDERAL RESERVE BANK OF PHILADELPHIA

FEATURES:

Southeastern Inflation: 1971-7767

Cost-of-living increases have been slightly more volatile in the Southeast than nationwide in recent years.

Usury: The Recent Tennessee Experience69

Tennessee's seven-month experience with a binding usury ceiling on consumer loan rates fit the predictions of conventional economic theory almost to the letter. Lenders sought alternative sources of earnings, rationed consumer credit with stiffer contract terms and customer standards, or stopped lending. Borrowers turned to retailers, credit cards, and out-of-state lenders or slowed their repayments as credit became difficult to get.

Working Paper Abstracts

- **Southern Banks and the Confederate Monetary Expansion80**
- **Of Money and Prices: Some Historical Perspectives ...81**

Banking Note: Increasing Liquidity Pressures82

District banks have had to step up their borrowing in recent months as the aging of the business upswing brought an acceleration of credit demands and a slowdown in core deposit growth. We probably won't see a replay of 1974's intense liquidity pressures this year, however.

Labor Force Participation and Job Opportunities84

This study confirms that job seekers' success attracts new hopefuls into the labor market; their failure discourages labor force participation. With such movements into and out of the labor force, unemployment rates cannot accurately reflect the health of labor markets.

Flue-Cured Tobacco: Output Down, Prices Up89

While last year's drought and smaller acreage allotments held down national output of flue-cured tobacco and boosted auction prices to a new record, District growers reaped the benefits of both good yields and high prices.

Economic Review, Vol. LXIII, No. 4. Free Subscription and additional copies available upon request to the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303. Material herein may be reprinted or abstracted, provided this **Review**, the Bank, and the author are credited. Please, provide this Bank's Research Department with a copy of any publication in which such material is reprinted.

Director of Research: Harry Brandt
Editing: Patricia Faulkinberry
Editing Assistance: Adolph Jordan
Production and Graphics:
Susan F. Taylor and Eddie W. Lee, Jr.

SOUTHEASTERN INFLATION: 1971-77

by William N. Cox

How much has inflation eroded my spending power? Has my paycheck kept up with inflation? Has inflation hit me harder than people in other parts of the country? People in other income brackets?

We can find a fairly good set of data with which to answer these questions by looking at the Bureau of Labor Statistics "cost-of-living data" from which we calculated the inflation rates on the next page.¹ The BLS starts with three mythical four-person families with different economic standards of living—lower, intermediate, and higher budgets—whose 1977 spending levels are shown in Table I. Then BLS researchers use surveys and interviews to estimate the annual cost of maintaining each living standard in various locations around the country. These estimates are better suited for regional comparisons of

cost-of-living changes than are the Consumer Price Indexes, as we have pointed out previously in this **Review**.²

The BLS provides these inflation estimates for four Sixth District cities—Atlanta, Baton Rouge, Nashville, and Orlando—and for a sample of smaller towns in the South. For each of the three budget levels, the accompanying tables compare regional inflation estimates with the U.S. "urban" average (which also includes small towns). We show the effects of inflation on family budgets in two ways: including and excluding all taxes.

These estimates of inflation, expressed as average annual rates, span two three-year periods: autumn 1971 to autumn 1974 and autumn 1974 to autumn 1977. (Autumn 1971 marked the beginning of the wage-price freeze; President Ford took office

¹Statistics and documentation are available from the Bureau of Labor Statistics, Suite 540, 1371 Peachtree Street, N.E., Atlanta, Georgia 30309.

²James T. Fergus, "Cost-of-Living Comparisons: Oasis or Mirage?," this **Review**, July-August 1977.

TABLE 1
SPENDING LEVELS NECESSARY TO MAINTAIN
THREE ECONOMIC LIVING STANDARDS, AUTUMN 1977
(for families of four)

	Lower Budget		Intermediate Budget		Higher Budget	
	Including Taxes	Excluding Taxes	Including Taxes	Excluding Taxes	Including Taxes	Excluding Taxes
Urban U.S.	\$10,481	\$8,657	\$17,106	\$13,039	\$25,202	\$17,948
Atlanta	9,594	8,125	15,483	12,066	22,584	16,499
Baton Rouge	9,572	8,125	15,283	12,074	22,695	17,015
Nashville	9,413	8,065	15,290	12,218	22,206	16,922
Orlando	9,661	8,240	14,910	11,953	21,832	16,663
Nonmetropolitan South	9,202	7,825	14,471	11,395	20,584	15,284

Source: Annual releases of the Bureau of Labor Statistics, 1977, "A Guide to Living Costs."

TABLE 2
COST-OF-LIVING INCREASES, EXCLUDING TAXES
 (annual percentage rates)

	Lower Budget			Intermediate Budget			Higher Budget		
	1971-74	1974-77	1971-77	1971-74	1974-77	1971-77	1971-74	1974-77	1971-77
Urban U.S.	7.8%	5.8%	6.8%	8.1%	6.2%	7.1%	6.2%	7.4%	6.8%
Atlanta	8.2	5.2	6.7	8.9	6.1	7.5	8.7	6.1	7.4
Baton Rouge	7.7	6.2	7.0	8.4	6.2	7.3	8.3	6.1	7.2
Nashville	8.0	5.5	6.8	8.3	6.2	7.2	8.1	6.0	7.1
Orlando	8.6	4.8	6.7	8.8	5.9	7.4	8.6	6.1	7.4
Nonmetropolitan South	8.9	5.5	7.2	9.3	6.2	7.7	9.2	6.2	7.7

TABLE 3
COST-OF-LIVING INCREASES, INCLUDING TAXES
 (annual percentage rates)

	Lower Budget			Intermediate Budget			Higher Budget		
	1971-74	1974-77	1971-77	1971-74	1974-77	1971-77	1971-74	1974-77	1971-77
Urban U.S.	8.4%	4.4%	6.4%	9.3%	6.1%	7.7%	9.3%	6.6%	8.0%
Atlanta	8.8	3.7	6.2	10.1	5.7	7.9	10.7	6.3	8.4
Baton Rouge	8.1	4.8	6.4	9.4	5.7	7.3	9.3	6.0	7.7
Nashville	8.5	3.9	6.1	9.2	5.6	7.4	9.2	6.0	7.6
Orlando	9.1	3.2	6.1	9.7	5.3	7.4	9.7	5.9	7.8
Nonmetropolitan South	9.4	3.9	6.6	10.3	5.6	7.9	10.5	6.2	8.3

Source: Annual releases of the Bureau of Labor Statistics, 1971-77, containing cost-of-living estimates for selected urban areas in the autumn of each year. The 1975, 1976, and 1977 releases are entitled "A Guide to Living Costs."

in August 1974 in the middle of the 1974-75 recession.)

What do the comparisons show? They suggest four things. First, over the entire 1971-77 period, the effect of inflation on southeastern families was not significantly different from that which their counterparts experienced elsewhere, regardless of budget level.

Second, both nationally and in the Southeast, the impact of inflation diminished significantly from 1971-74 to 1974-77 in all budget categories.

Third, when the inflation rate was high nationally, it was even higher in the Southeast, and when the inflation rate fell across the nation, it dropped even further in the Southeast. In almost every case, including or excluding taxes, the southeastern inflation readings were higher than the nation's in 1971-74 but lower than the nation's in 1974-77. We cannot tell from the data we

have whether this is typical or unusual for the Southeast. Recessions hold down prices, however, and we do know that the 1974-75 recession hit the Southeast later and harder than the rest of the country, which is unusual in the light of historical experience.

Fourth and finally, the BLS data suggest that the 1971-77 inflation hit intermediate and higher budget families harder than low budget families, particularly when taxes are considered. The tax part could be expected because inflation boosts families into higher income tax brackets. But the results are somewhat surprising, since a number of studies have suggested the opposite—that lower income families have been hit harder by post-war inflation.³ ■

³See, for example, J.G. Williamson, "Strategic Wage Goods, Prices, and Inequality," *American Economic Review*, March 1977, pp. 29-41.

USURY: THE RECENT TENNESSEE EXPERIENCE

by Robert E. Keleher and B. Frank King

In March 1978, the Tennessee electorate voted to remove a 10-percent usury ceiling from the state constitution. This usury vote was apparently a response both to events which took place in the state during the period of high interest rates in 1974 and to an important judicial decision made in August 1977 pertaining to interest rates on consumer loans. Empirical studies have examined the effects of the Tennessee usury ceiling in 1974, but documentation of the more recent consumer lending experience has been minimal at best.¹ This article reports on a study of that experience.

Historical Background. Prior to March 1978, the state constitution limited interest rates on most loans made by Tennessee lenders to Tennessee borrowers to 10 percent. Whereas most states have adopted numerous exemptions to their usury statutes, Tennessee's ceiling was comparatively comprehensive and difficult to amend. Consequently, when short-term market interest rates exceeded 10 percent between April and November of 1974, its usury ceiling applied to a wide spectrum of credit transactions. Other studies have demonstrated that during this period, the usury ceiling significantly disrupted credit flows in Tennessee and propagated the use of nonprice credit rationing.²

As a response to these events in Tennessee (as well as in two other states), the Congress of the United States passed, and President Ford signed into law, the

Mansfield-Albert Bill (Public Law 93-501) at the end of September 1974. This bill allowed most financial institutions in the state to charge interest rates higher than those allowed by the Tennessee (or any other state) Constitution. It thus relieved the financial disruption in Tennessee. In early 1975, while this law was still in force, short-term interest rates fell below the 10-percent level. In mid-1977, the Mansfield-Albert Law expired, so that if interest rates regained double-digit levels, Tennessee would again be susceptible to credit disruptions arising from the usury ceiling.

During this entire period, consumer lending in Tennessee was generally unaffected by the usury ceiling. A number of statutes which effectively granted exceptions to a simple 10-percent interest ceiling had been enacted over the years by the state legislature. In particular, the Industrial Loan and Thrift Act permitted various add-ons, discounts, and fees which, in effect, exempted direct consumer lending by finance companies from a strict 10-percent annual percentage rate usury ceiling. Provisions in other acts gave banks and credit unions similar latitude in rates charged on their direct consumer loans. Moreover, the Retail Instalment Credit Act allowed finance charges on retail credit purchases which permitted effective rates to exceed 10 percent. This latter law was construed by the courts to give legal support to the "time-price differential" doctrine whereby the difference between a cash price and a time price was not considered to be interest and, thus, not subject to the constitutional usury ceiling. The time-price differential was said by the courts

¹ For an examination of the 1974 Tennessee experience, see R.E. Keleher, "State Usury Laws: A Survey and Application to the Tennessee Experience," *Working Paper Series*, Federal Reserve Bank of Atlanta, January 1978.

² See Keleher, *op. cit.*

to apply to credit cards, merchant-originated credit (like store credit accounts), and conditional sales contracts. In addition, subsequent purchases of such receivables were not covered by the usury ceiling. These laws and the courts' interpretations of them effectively insulated most forms of consumer lending from the 10-percent usury ceiling.

On August 22, 1977, however, these circumstances were changed when the Tennessee Supreme Court invalidated that part of the Industrial Loan and Thrift Act which had permitted finance companies to charge effective rates in excess of 10 percent. The court's interpretation was that interest could not exceed a 10-percent annual percentage rate on direct consumer loans. Technically, the court decision did not apply to laws other than the Industrial Loan and Thrift Act; however, the statutes covering commercial banks and credit unions were clearly vulnerable to similar interpretation. Thus, most banks and credit unions interpreted the decision to apply to their direct consumer lending. In general, however, the decision was not considered to apply to forms of lending covered by the Retail Instalment Credit Act.

When the court decision was rendered, a constitutional convention was considering an amendment to change the usury ceiling as well as other amendments to the state constitution. The convention subsequently recommended an amendment removing the usury ceiling. This amendment was endorsed in the March referendum. As a result of this vote, the interest rate provisions of the Industrial Loan and Thrift Act were reinstated as of March 31—the election certification date. Thus, between the Supreme Court's usury decision in August 1977 and the effective date of the constitutional amendment, a binding usury ceiling on direct consumer lending was in effect in Tennessee.

This seven-month period has several earmarks of a laboratory experiment on the results of an effective usury ceiling. Market rates on consumer instalment loans were above 10 percent prior to the August 1977 decision. The court's imposition of a strict 10-percent annual percentage rate ceiling was rather sudden and not entirely expected. Lenders and

borrowers had made few prior adjustments. The decision left several different alternatives for lenders and borrowers; thus, a variety of reactions could be observed. In addition, the ceiling was lifted after a time, allowing observation of market participants' readjustment to a freer environment.

Tennessee's unintended experiment has provided an opportunity to see if the effects of a binding usury ceiling coincide with a rather fully developed body of economic principles and evidence about such ceilings. To examine these effects, we conducted a series of interviews with persons who were knowledgeable about lenders' and borrowers' reactions to the ceiling and analyzed the available data. We found that while the ceiling was binding, less credit was available. Borrowers and lenders sought credit alternatives that were not covered by the usury ceiling. Some lenders stopped lending almost entirely; others used non-price rationing techniques to reduce lending that was covered by the ceiling. Some borrowers could not get credit; many of those who could get credit borrowed at rates above the ceiling. Those who had the most difficulty in borrowing had low incomes, wanted to borrow small amounts, and did not have well-established credit. The usury ceiling protected these borrowers from high credit costs only to the extent that it made credit unavailable to them at any cost.

All of our findings are consistent with orthodox economic principles that have been articulated often and for many years. In addition, the findings parallel those of most other studies of actual experiences with effective usury ceilings. These facts add further to the confidence that one can have in both the theory and the evidence concerning the effects of usury laws. In the rest of this article, we proceed first with an outline of the economic principles that relate to the effect of usury ceilings. Following that, we present an account of the Tennessee evidence and then a statement of conclusions.

THE THEORY

When market interest rates exceed the usury ceiling, some credit market

distortions can be anticipated. Interest rates subject to the usury ceiling are prevented from performing their credit rationing function—borrowers demand more credit than lenders are willing to supply at the legal interest ceiling. This situation is normally referred to as an excess demand for credit. The portfolio adjustments made by lenders and borrowers in response to this excess demand will largely determine the impact of the usury ceiling on various sectors of the state economy. These responses may take the form of shifts in the supply and demand for credit, as well as a more extensive use of nonprice credit rationing.

Shifts in Supply and Demand. When market interest rates are above usury ceilings, lenders are prohibited from earning market-determined returns on credit instruments subject to usury. Lenders observe that assets not subject to usury ceilings (either local instruments not covered by the ceiling or out-of-state instruments) offer more attractive returns and that safer (lower risk) instruments can be acquired at rates equivalent to the ceiling. Consequently, lenders may shift funds into these substitute assets in order to obtain a better risk-return mix in their portfolios.³ In so doing, lenders affect the allocation of credit within the state as well as between states.

Certain financial institutions such as finance companies, however, may be limited by regulation or convention to very specialized portfolios and thereby may be prevented from shifting into alternative assets. Moreover, if the cost of funds to these specialized institutions is market-determined (and, consequently, at high levels during a period when the ceiling is effective), they may be forced to reduce the size of both sides of their balance sheet by paying off liabilities as well as by extending fewer loans.

These portfolio adjustments have implications for the supply of credit subject to the usury ceiling. Specifically, as the interest rates on credit instruments not subject to usury rise relative to the

usury ceiling, the supply of loans covered by the ceiling will diminish. Since credit is highly mobile, particularly in an integrated national credit market, the speed of these supply shifts may be quite rapid. The more open the state economy and the larger the set of allowable exemptions in the usury statute the greater will be the degree of contraction of the usury-covered credit supply.

In addition to reducing the supply of credit which is subject to usury, effective usury ceilings will increase the demand for that credit. Borrowers within and outside of the state will attempt to shift out of the higher priced market-regulated credit and into the lower priced credit covered by the ceiling. As a consequence, the demand for credit instruments subject to usury will be greater than it would have been in the absence of the ceiling. These shifts in both demand and supply will work to expand the excess demand created by the effective usury ceiling.

Portfolio changes made by lenders and borrowers in response to effective usury ceilings will have several important consequences. First, to the extent that lenders shift out of loans subject to usury ceilings and into out-of-state instruments, credit will leave the state economy. Borrowers in the area will have access to less credit, and to the extent that expenditures are credit-financed, expenditures and income will be lower.

Second, financial institutions which have narrow, specialized portfolios and sources of funds with costs that are market-determined will be forced by lower earnings to diminish (or cease) lending. On the other hand, lenders which have diversified portfolios and are able to quickly (and inexpensively) adjust by shifting into credit instruments not covered by the ceiling will not be adversely affected to any substantial degree. Borrowers using the specific type of credit covered by the ceiling will find less accommodation, particularly if they do not have access to alternative sources of credit not subject to the ceiling. Borrowers with access to alternative sources will be able to obtain credit but at market rates above the usury ceiling. In sum, if the portfolio adjustments

³ First, however, lenders will normally accommodate prior loan commitments and lines of credit.

described here were the only responses of lenders, then it could be anticipated that specialized financial institutions, borrowers with access to few alternatives, and certain credit-dependent sectors of the state economy would be more adversely affected than would diversified lenders and borrowers.

Contract-Related Forms of Nonprice Credit Rationing. Shifting into higher yielding assets not covered by usury ceilings, however, is not the only option available to lenders. Given the excess demand created by the usury ceiling, lenders may attempt to continue to make some loans covered by the ceiling. If some loans are still profitable at the usury rate, lenders will use nonprice rationing devices based on the characteristics of the loan customer or contract to choose profitable loans and weed out unprofitable ones.

Nonprice rationing methods are intended to increase the profitability of loans that remain subject to an effective usury ceiling. Profitability can be improved by (a) lowering costs, (b) reducing risk, or (c) increasing the effective (as opposed to nominal) interest rate. Forms of contract-related nonprice credit rationing normally employed by lenders are adaptations of these three possibilities. They include, for example, the following:⁴

1. increases in collateral (lower risk and lower investigative and monitoring costs);
2. increases in the compensating balances required (increase effective return);
3. alterations in maturity structure or repayment schedules (lower risk and increase effective yield);
4. increases in fees, such as service charges, commitment fees, insurance charges, down payments, etc. (increase effective yield); and
5. increases in the size of the loan (lower cost).

Although use of these indirect forms of paying interest may not perform the rationing function so efficiently as direct interest charges, lenders and borrowers may nonetheless be able to avoid some

of the effects of a usury ceiling by adopting them. The use of these nonprice rationing devices will cause more credit to be supplied and less to be demanded at the ceiling rate. That is, at a given contract interest rate, lenders are willing to offer more loans if collateral is higher, compensating balances are higher, or various charges and/or fees are higher; conversely, borrowers will demand fewer loans. The effects of the usury ceiling on credit supply and demand are thus mitigated.

This form of nonprice rationing has some important implications for certain sectors of the state economy as well as for financial institutions. First, ceiling-constrained credit sectors of the economy are not so adversely affected as when financial institutions exclusively shift funds into assets not covered by the ceiling. Credit is still available in these sectors, albeit at an effective price higher than the usury ceiling; more consumers dependent upon credit can still obtain funds. Second, the earnings of financial institutions, particularly those with specialized portfolios, will not be so adversely affected, since nonprice rationing devices merely substitute for higher interest charges.

Although nonprice forms of rationing are generally less efficient than price rationing (higher transactions and information costs are involved), they do function as substitutes for direct price changes. If these methods are easily and extensively employed, there does not appear to be much reason to have a usury law, since the law will only be circumvented with a less efficient form of rationing.

Customer-Related Forms of Nonprice Credit Rationing. Borrower characteristics may also be employed as nonprice rationing criteria. These characteristics relate both to the risks of lending to a particular borrower for specific purposes and to the desirability of accommodating those borrowers who have maintained a continuing and profitable relationship with the financial institution. The most extensively used customer attributes are those that relate to the quality of the individual's credit—wealth, income, stability, and indebtedness. In addition, the length and profitability of the

⁴ For more detailed explanations as to the rationale for these nonprice rationing devices, see Keleher, *op. cit.*

customer's relationship to the lender may be used as an index of both risk and future profitability.

If financial institutions respond by employing these customer-related non-price rationing criteria, unique effects on borrowers, the state economy, and state financial institutions will result. First, since low risk borrowers will most likely receive credit at the usury ceiling—at rates below those determined in the market—they may benefit from the ceiling. However, borrowers with lower incomes and asset sizes who have not established long-term customer relationships will find credit more difficult to obtain. Moreover, such borrowers are less likely to have access to alternative types of credit not covered by the ceiling. Even if they have such access, however, they will pay interest rates above the usury ceiling. In short, effective usury ceilings may result in the price of credit being lower only for low risk, well-established borrowers. For riskier borrowers without established customer relationships, credit may either be unavailable at any price or available only at rates above the usury ceiling.

Second, if financial institutions continue to accommodate a large number of long-term customers at the usury ceiling, profits of these institutions will be lower than they otherwise would have been. This is particularly true if lenders accommodate these well-established customers with money purchased at market rates. Under these conditions, lenders will eventually shift funds into assets not covered by the ceiling or begin to apply contract-related forms of nonprice credit rationing more intensively.

Three general categories of lender response to an effective usury ceiling have been reviewed; namely, shifts into alternative credit instruments and the use of contract- and customer-related forms of nonprice credit rationing. The initial response of borrowers would be to seek more credit at the usury ceiling rate. Finding it available only under nonprice rationing schemes or unavailable, borrowers would try to meet the nonprice rationing criteria and to find alternative sources of credit. Failing that, some borrowers may not borrow at all.

Each of these responses has unique implications for particular sectors of the state economy as well as for the financial institutions themselves. Although it is likely that these three reactions will be simultaneous, to some extent their impact may be felt in different time frames. For example, the longer the usury law remains effective the more likely that financial institutions will shift into assets not subject to usury and adopt contract-related forms of nonprice credit rationing, even if it means a de-emphasis of accommodating their best, well-established customers. In view of these three possibilities, if it is observed that loan volume has been significantly affected by an effective usury ceiling, then it can be concluded that either the contract-related nonprice rationing measures were not employed, customer relationships were of minor importance, or that these effects were offset by shifts of funds into market-regulated instruments. If it is observed that loan volume was not significantly influenced by an effective usury ceiling, then either nonprice rationing was employed or long-term customer relationships were of substantial importance.

THE TENNESSEE EVIDENCE

In order to determine the influences of the August 1977 usury decision on borrowers and lenders in Tennessee, we talked to a group of people whom we expected to be familiar with both borrower and lender reactions. This group included finance company and commercial bank lenders, consumer representatives, and one state regulator of finance companies. All were located in the Chattanooga and Nashville areas. We chose them because we thought they would have information useful to us and because they were accessible. The group was not a scientifically representative sample, but the seven finance companies included large and small, local and national concerns, and the six banks included large and small institutions, with Federal Reserve members predominating. We also drew information from several statistical reports that we felt were relevant. Information gathered from all sources was remarkably consistent.

Immediate Lender Adjustments. The pattern of reactions that showed up in

our interviews and our statistics corresponded generally to what we expected on the basis of the theory expounded above. We concentrated our attention on banks and finance companies because these lenders made most of the loans affected directly or indirectly by the August decision. Each reacted within the context of its legal powers and the types of customers that it served. Finance companies were the more seriously affected.

Finance Companies. Prior to August 1977, the finance companies from which we got information had been making loans at well above the annual percentage rate of 10 percent imposed by the courts. These loans were primarily to individual consumers, but two larger companies did substantial financing of equipment and inventories for small businessmen. Generally, the finance companies that we interviewed stopped making new loans in Tennessee after August 22. The very few new loans that they reported were loans to established customers who had emergencies or loans already committed before August 22. These finance companies let most of their existing loans run off during the seven-month period from August 1977 through March 1978. Those with loans that they had expected to be refinanced when they made them generally accepted a partial payment and extended the balance at the 10-percent ceiling rate, and those that got applications for extensions from customers who could not pay generally honored these requests.

The finance companies ceased making loans because they felt that they could not raise money, administer loans, take risks, and make a profit at the 10-percent rate plus the state's maximum service charges. They pointed out that they operated on borrowed funds, could spread fixed costs of originating and administering loans only over small-denomination loans, and made loans with a relatively high default risk. The default risk associated with their loans varied; two reported that many of their customers also had bank credit cards, and two others reported that most of their customers could not get a card. Nevertheless, all

companies reported that they were unable to make a profit at the 10-percent rate.

We got a general impression that these finance companies were somewhat less aggressive in their collection policies while the usury ceiling was binding. They reported that they had "carried" quite a few customers with problems, although they might not have under other circumstances. Their softer policies seemed to arise from their impression that customers were being squeezed by a credit shortage, had few alternatives for borrowing to pay or consolidate loans, and were likely to take personal bankruptcy if pushed to make payment. These companies also treated the usury problem as temporary and were thus hesitant to jeopardize long-term seasoned relationships that might provide profitable business after the crisis was over. Banks reported the same thing. Further, this tendency toward ease on collections was confirmed by one local consumer credit counseling service that reported a large decline in the number of new clients between August 1977 and February 1978 and a jump toward previously normal levels in March of this year after the constitutional amendment passed.

The finance companies with offices outside Tennessee made some referrals to those offices and forwarded credit information on referred borrowers. One company purchased an out-of-state office primarily for referrals; another attempted to unsuccessfully. Customers that they referred were generally those with the least risk and requests for the largest loans. A large proportion were small businesses at the two companies that served this group. The finance companies' Tennessee regulator reported that loans from out of state were not more prevalent because Tennessee had long had a rule that the physical presence of an out-of-state lender or his agent in the state to collect a loan caused its interest rate to revert to the 10-percent usury ceiling, retroactive to the date the loan was extended.

Despite some extensions of new loans, some refinancing, and a less aggressive collection policy, each finance company

that we talked to reported a substantial decline in loans outstanding from August 1977 through March 1978. Their estimates of the drop ranged from 20 to 35 percent and are consistent with those of their regulator, who estimated a 30-percent reduction in outstandings for all Tennessee companies during the period. This represents a decline in outstandings of about \$150 million.

The finance companies used funds generated by this decline in several ways which were much influenced by the individual situations of the companies. The funds generally went to pay off various sorts of debts, usually commercial paper or bank lines. Those companies with out-of-state offices allocated some funds to them—probably to handle Tennessee business, at least in part. Two companies attempted to expand their purchases of conditional sales contracts from merchants. In doing this, they could acquire consumer loans that had been exempt from the usury ceiling by the time-price differential interpretation discussed above. One succeeded, but the other met stiff competition from banks and captive finance companies such as GMAC and had little success. Both of the finance companies were affiliated with bank holding companies which have bank subsidiaries in their market areas. The independent companies that we interviewed did not expand lending of this sort—commonly called indirect lending—because their managements felt that they could not survive in the indirect market alone. They wanted as few encumbrances as possible to closing shop if the usury ceiling were not increased.

Banks. Commercial banks depended much less on consumer lending and had a larger proportion of low risk consumer loan customers than finance companies. Those that we talked to planned to stay in the consumer lending business whether or not the usury ceiling was raised, but they intended to make substantial changes in their approach if the usury amendment failed. They tended to make a broader range of adjustments and to go further toward the positions they would have adopted if the ceiling had been set permanently at 10 percent. In contrast to

the finance companies, which generally stopped lending, the banks made many of the partial adjustments described in our discussion of usury.

Five of the six banks we talked to shifted funds from types of loans that were covered by the 10-percent ceiling to those that were not. Under Tennessee law, the types of consumer loans that were not covered were instalment loans that fell under a time-price differential concept. They included loans made directly by a merchant for merchandise and then discounted to the bank. Credit card purchases also fell under this concept.

Two banks made no attempt to divert funds from loans subject to the 10-percent ceiling to consumer loans that were not covered. They simply reduced their consumer loans. One of these was trying to lower its loan-deposit ratio anyway. The other was a small bank that had no base of dealer discount business to start with and only a small credit card business. It allocated funds to other assets such as business loans.

The most general bank reaction was to increase indirect automobile and equipment lending by discounting dealer paper on this merchandise. The banks that tried to maintain consumer lending made some moves to increase their indirect lending. Two of the larger ones were particularly aggressive, bringing on new dealerships and expanding programs with existing dealers. From comments by banks and finance companies, it is evident that captive finance companies also increased their efforts at indirect lending, apparently seeing an unexploited market made more attractive by the lower usury ceiling.

Two of the banks that expanded indirect lending quite aggressively also successfully channeled requests for smaller consumer instalment loans into credit card advances and preauthorized personal lines of credit, feeling that the costs of making and administering these loans were lower. They selectively raised credit limits on credit cards and notified their customers of new or increased personal credit lines. They stepped up their efforts to market this type of credit.

TABLE I
AVERAGE YEAR-TO-YEAR CHANGE IN MONTHLY EXTENSIONS
OF INSTALMENT CREDIT, SEPTEMBER 1977-MARCH 1978,
REPORTED BY SMALL SAMPLES OF BANKS IN EACH STATE

	Percent Change		
	Tennessee	Alabama	Georgia
Automobile Loans			
Purchased Paper	39	34	64
Direct Loans	-29	19	12
Total	7	24	29
Credit Cards			
Retail Purchases	21	22	26
Cash Advances	89	39	10
Total	30	23	25
Other Instalment			
Loans for Personal Expenses	-31	21	12
Other Consumer Loans	-18	44	- 8
Total Instalment Credit	1	23	21

At best, the banks we interviewed held consumer lending steady by replacing declining direct consumer loans with indirect loans, credit cards, preauthorized overdrafts, and personal lines of credit. None reported gains in overall consumer lending; some were unable to keep total consumer loans constant. One of their problems, in addition to stiff competition in indirect lending, may have been the public's belief that consumer credit was not available. A couple of the bankers admitted (dolefully) that their own statements may have helped to promote this misconception.

Data on consumer lending by Tennessee banks are sparse but quite consistent with the statements made by the bankers in our interviews. The Federal Reserve Bank of Atlanta collects detailed instalment lending data from banks in its District as part of a national sample. Seven of these banks are in Tennessee. We compared the monthly reports of these banks with those of control groups of nine banks in Alabama and eleven in Georgia. The groups are dominated by larger banks and are not necessarily representative of their states, but statistics on their behavior conform very closely to the results that both our theory and interviews lead us

to expect. The details are reported in Table 1.

During the period when the usury ceiling was binding on consumer loans in Tennessee, direct automobile loans at our group of Tennessee banks declined sharply; these loans rose sharply at the banks in Alabama and Georgia. Indirect automobile loans rose in all three states, as Tennessee banks apparently transferred auto lending business from direct to indirect loans. The Alabama and Georgia banks outdistanced those in Tennessee in growth of total automobile loans.

In addition, the use of credit cards, particularly of cash advances, grew more rapidly in Tennessee. Extensions of other consumer instalment loans, most of which were covered by the 10-percent ceiling, fell off sharply; this contrasts with the gains of Alabama and Georgia banks. Overall, the seven Tennessee banks barely increased their consumer loan extensions during the period, while at banks sampled in the other two states, these extensions grew by more than 20 percent.

Besides diverting funds to other instruments, bankers also modified their contracts on loans affected by the ceiling. They changed credit contracts in two ways. All raised the minimum size of

consumer loans made under the 10-percent ceiling in order to spread fixed costs of administering and originating each loan over larger loans. The data on bank consumer lending, described above, show no greater increase in the average size of consumer loans at the Tennessee banks than at those in Alabama and Georgia during the August 1977-March 1978 period, indicating that the Tennessee banks may have been making few loans at the minimum size to begin with.

Most banks decreased the maturity of their consumer loans. Two that had been making direct auto loans with a four-year maturity cut back to three years; another put a two-year maximum on all direct consumer lending. Regarding the usury problem as probably temporary, some banks shifted from their normal equal instalment loans to 18-month or 12-month balloon notes—that is, notes with a large final payment. They hoped to refinance the large final payments at a higher rate when they came due. Other banks made few or no balloon notes because they felt that the expense of making a new loan for the balloon portion was likely to be more than the gain from a higher rate.

Two characteristics dominated the banks' customer-related responses—risk and relationship. Each bank reported tightening its credit risk standards in order to reduce the cost of loans made under the 10-percent ceiling. However, none reported asking for more pledged security on their loans. Tightening of credit standards is confirmed by a substantial volume of complaints to the state government from bank customers who had previously been eligible for loans but who were refused on the grounds of credit risk shortly after the August 1977 decision.

In addition to tightening credit standards, each bank also promulgated rules that no loans would be made to customers who had no prior deposit relationship. Interestingly, the smaller banks reported that they interpreted these rules flexibly and made loans in some cases if a customer would shift his deposit from another bank. The larger banks' rules seemed to have been considerably less flexible.

The banks' reactions underscore the effect of the usury ceiling on profits from a particular type of lending. They continued lending to much the same group of customers by way of instruments not affected by the 10-percent ceiling or in ways that were less costly to administer. They sought to lower the unit costs of lending by raising the minimum size of loans, serving customers they already knew, and cutting out the most risky borrowers. They also sought to ensure future profits by taking care of existing customers.

Anticipated Long-Run Lender Adjustments. Actions of both types of lenders that we interviewed were influenced by the possibility that the August decision would be in effect only temporarily. Despite the sharp decline in lending volume, no finance company that we visited closed offices because of a lower usury ceiling. (Many offices were closed by other firms, usually large national companies.) These firms maintained offices in order to keep a vital staff intact, to have a convenient place to collect payments, and to maintain a presence in a familiar location (and to satisfy lease requirements in some cases). However, each reported cutting its staff by 30 percent or more. Each bank reported that it tried to keep its staff intact, primarily through reassignments.

We asked the lenders what they planned to do if the March constitutional amendment failed. Each finance company planned to stop making new loans, to close offices, and eventually to leave the business in Tennessee. The largest firm that we talked to described rather elaborate plans to consolidate its Tennessee offices by stages before closing up entirely. Banks spoke of some staff reductions and a small number of branch closings; they indicated that more shifts toward alternative types of consumer credit might have been made.

Such anticipated moves are similar to those actually made by Arkansas financial institutions under a 10-percent usury ceiling that is even more comprehensive than that of Tennessee. Studies of the Arkansas experience indicate that a permanent effective usury ceiling is

accompanied by increased use of security requirements, service fees, insurance charges in credit contracts, a reduction of credit availability within the state, and the disappearance of finance companies from the state's consumer lending business⁵.

Borrower Reactions. Borrowers reacted to the lower usury ceiling by conforming to lenders' requirements, by seeking alternatives of various sorts, by stretching existing credit, by reducing additions to savings deposits, and by postponing purchases. That commercial banks continued to make loans under the 10-percent ceiling indicates that some borrowers adapted to the ceiling by meeting the requirements of larger loan size, better risk, close relationship, and shorter maturity. That banks were unable to maintain direct lending volume and finance companies virtually stopped making new loans show that not all borrowers were able to adapt in these ways.

In states bordering Tennessee, some borrowers were able to get loans from commercial banks and finance companies that were not subject to a usury ceiling of 10 percent. As mentioned above, some Tennessee finance companies referred some customers to their out-of-state offices, usually customers who were better credit risks and wanted to borrow relatively large amounts. In explaining this, the persons that we interviewed noted that borrowers of small amounts were generally reluctant to travel far for loans. More important, however, was the state rule that required out-of-state lenders who entered the state to collect a loan to bring the loan into conformity with Tennessee usury standards.

Borrowers who were referred to out-of-state offices were joined by many who crossed state lines without referral. Managers at two finance companies and one bank across the Georgia state line from Chattanooga reported numerous inquiries from potential customers in Tennessee during the six weeks following the August 22 decision. The Georgia

banker complained that Chattanooga banks served the best customers from both states at 10 percent and all of the rejects came to him. (He reported that many became his rejects also.) The Georgia finance company that served Tennessee's small loan customers doubled its outstandings in seven months and reported that all finance companies in the area were very busy during the period.

In areas both near to and far from the state lines, borrowers sought other alternative means of borrowing. Banks' ability to expand their indirect lending for cars and equipment and the aggressive moves of captive finance companies in this type of lending indicate that consumers who purchased large durable goods increased their direct borrowing for merchandise on notes that were then discounted to financial institutions. This alternative may have worked well for purchasers of larger consumer durable goods, but it had limited use in financing other purchases.

A more generally applicable type of credit for smaller purchases and small cash loans was the credit card. Several banks reported heavier bank credit card volume during the period. One had more requests for increased borrowing limits than usual, and another raised limits on many of its card accounts of its own accord. Further, two of the finance companies reported that a greater-than-usual proportion of their business during the period immediately after the ceiling was lifted involved loans to refinance credit card outstandings that had reached credit limits.

The consumer credit data reported in Table 1 indicate greater increases in extensions of credit card credit in the Tennessee banks than in the Alabama and Georgia banks. The increases were particularly great in cash advances. In Tennessee, cash advances had generally carried a 10-percent rate even before the August 1977 decision, but they were available at least to some credit card customers. Those customers apparently increased their use of this available credit in the face of loss of other types.

In addition to bank cards, retail stores' credit programs seem to have gotten more

⁵ See, for example, K.J. Burns, R. Daigler, and L.S. Scruggs, "The Impact of Restrictive Interest Rates on Consumer Credit," October 1977, and the several references therein to research on the Arkansas case by Lynch.

use. Two bankers and one finance company manager who were familiar with the business reported that the larger retail stores did a larger-than-usual credit business while the 10-percent ceiling was effective.

Like indirect borrowing, however, use of credit cards had its limits. Some finance company managers doubted that many of their customers could have used the credit card alternative to any great extent. These customers' incomes and assets were too low and their credit was insufficiently established to make them eligible for credit cards. Customers in these categories who could get cards generally had low credit limits.

A further credit-related alternative used by some borrowers was limiting payments on outstanding credit. Only one institution that we talked to reported that consumer loan delinquencies were less than usual; that was a bank which had changed its collection system during the early summer of 1977. Generally, the arrival of Christmas and winter, with its higher utility bills, touched off a greater-than-usual increase in delinquencies. We reported above that lenders, knowing alternative sources of credit were scarce, tended to carry more borrowers for longer than usual. Thus, they allowed borrowers to use outstanding credit as a substitute for new extensions.

Some of the persons that we interviewed speculated that some consumers had drawn down savings deposits and other liquid assets in order to continue spending. One reported hearing talk of "too much cash" from some automobile dealerships. Data on net time and savings deposit changes at Tennessee banks and savings and loan associations are consistent with such behavior. Although it remained positive, the growth rate of these deposits in Tennessee declined relative to that of similar deposits in Alabama and Georgia during the six months following the August usury decision.

All of the credit alternatives used by borrowers were apparently inadequate to maintain spending. Existence of these credit alternatives, coincidence of other spending influences, and the probable diffuseness of the usury ceiling's spending impact make the magnitude of this

TABLE 2
CHANGE IN ESTIMATED RETAIL SALES
BEFORE AND AFTER USURY DECISION*

(average monthly percent change,
seasonally adjusted data)

State	March 1977- July 1977	September 1977- January 1978
Alabama	2.5	0.5
Georgia	1.2	0.8
Tennessee	1.4	-2.2

*Estimates are based on sales tax collections.

negative spending influence difficult to measure. Analyzing the influence from the lender's side, we found that the banks we talked to were able at most to maintain their overall volume of consumer credit, that the finance companies virtually ceased to make new loans, and that access to out-of-state lending was generally limited to residents of border areas who were less risky borrowers of larger amounts. One doubts that expanded retail credit, delinquencies, and other alternatives overcome this diminution. Analyzing from the borrower's side, the increase in delinquencies and the surge of new borrowing since the ceiling was raised on March 31 indicate that at least some borrowers were strapped for credit and put off spending until credit was available to them.

Changes in retail sales in Tennessee during the five months after the August usury decisions are consistent with some negative effect on consumer spending. The average monthly change in sales during the five months prior to the decision was a positive 1.4 percent; during the five months after, a negative 2.2 percent. Average growth in the neighboring states of Georgia and Alabama also dropped in the September 1977-January 1978 period, but the drop was not so severe and gains continued (see Table 2).

The bankers that we interviewed were split on whether businesses that they normally made loans to had experienced severe ill effects. About half saw little appreciable impact; the others felt that small retailers without credit plans, particularly sellers of furniture, appliances, and used cars, had been adversely affected in a serious way.

Borrowers, then, like lenders, sought and used available alternative sources of credit. These included out-of-state lenders, dealers who could discount credit they granted directly for merchandise, both bank and retail consumer credit card programs, and extensions of existing credit either through formal arrangements or delays in repayment. There is some indication that the alternatives failed to completely make up for the sharp decline in direct credit and that total spending in the state was lower than it otherwise would have been, but estimates of the amount of this impact are difficult.

Apparently, borrowers of small amounts, with lower incomes, without established credit, and with needs for nondurable goods or services were most often unable to get credit as a result of the 10-percent ceiling. The least risky customers of banks were generally able to get bank loans either directly under the 10-percent

ceiling or through dealer paper. Durable goods buyers with established credit generally found financing available at the dealer; those with credit cards could use these up to their assigned credit limits, and less risky borrowers of large amounts in border areas could find out-of-state sources.

The Theory and Our Evidence. Our interviews and the available data are generally consistent with the predictions of economic theory about the effects of the August 1977 usury decision. That theory—and its predictions—is by no means novel. Indeed, economists have often (and almost unanimously) indicated that effective usury ceilings will redirect credit flows, will make credit more difficult to get, and will fail to produce their intended effect—to allow small borrowers credit at low rates. The Tennessee experience, then, constitutes additional support for these contentions. ■

WORKING PAPER ABSTRACTS

The following articles summarize staff analyses that may interest those in the economics and banking professions as well as others. They are more technical than the typical Economic Review article. The analyses and conclusions are those of the authors. Studies of this kind do not necessarily reflect the views of the Federal Reserve Bank. Each complete study is available as part of a series of Federal Reserve Bank of Atlanta Working Papers. Single copies of these and other studies are available upon request to the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

SOUTHERN BANKS AND THE CONFEDERATE MONETARY EXPANSION

by *John M. Godfrey*

In the past, the role of southern banks in the Confederate monetary expansion was never adequately explained because researchers had not assembled the relevant data in a comprehensive and logical way. New and revised data, which fill in missing information and correct misinformation, have been compiled from U.S. Treasury reports, state documents, and

surviving bank reports and records. An analysis of the new data reveals that banks contributed much less to the monetary expansion than has generally been reported. Even when bank notes and deposits were advancing most rapidly, the growth contributed only moderately to the Confederate monetary expansion. And after early 1862, the increase in bank

money had only a minor impact on aggregate monetary growth. However, earlier studies by John Christopher Schwab and Eugene Lerner generally misrepresented the role of southern banks and the impact of bank money on overall money supply growth. A particular fault was their failure to take into consideration banks' holdings of currency and other cash, which resulted in a double-counting of a portion of the money supply.

Based upon these new and revised data, this Working Paper examines the changes in bank-created money and bank-held money from 1860 through 1864 and investigates the reasons for these changes. The basic banking data are described, and the banking terms used are defined.

The historical discussion is divided into three periods. Bank money in the South declined during 1860 because of developing political uncertainties but posted a strong advance the following year as a result of relatively rapid growth in war-related bank credit. From early 1862 through early 1864, smaller increases in bank credit and larger bank acquisitions of interest-bearing Treasury currency reduced the rate of bank money growth. When the Confederate government enacted a major currency reformation in February 1864, there was an immediate and massive impact on banks. Bank deposits dropped sharply, and a large portion of outstanding bank loans was repaid. ■

OF MONEY AND PRICES: SOME HISTORICAL PERSPECTIVES

by Robert E. Keleher

Recently, a number of economists have developed a "new" approach to analyzing the balance of payments and exchange rates. This approach emphasizes the importance of the demand and supply of money in determining the balance of payments and exchange rates. Accordingly, this view has come to be known as the monetary approach to the balance of payments and exchange rates. Elaborations of this view have established that in examining the causal relationship between money and prices, different models must be applied to the small, open economy (SOE) and the closed world aggregate. Moreover, in examining the relationship between money and prices in the individual small, open economy, the case of fixed exchange rates should be analyzed differently than the case of flexible exchanges. Thus, the monetary approach indicates that in examining the money-price causal relationship, three fundamental cases exist that must be clearly distinguished from one another, namely, the closed economy, the SOE under fixed exchange rates, and the SOE under

flexible exchange rates. In this study, the relationship between money and prices in each of these three cases is briefly outlined. It is then demonstrated that all three of the above frameworks, as well as their implications for money and prices, were well recognized by earlier generations of economists.

Of the three frameworks, the fixed exchange rate model of the SOE frequently has been misrepresented and misunderstood. Moreover, its historical development has not been adequately documented. Consequently, this paper gives particular emphasis to this model. In discussing the development of these models, attention is generally given to major monetary writers in English thought beginning with Hume. In addition to Hume, the contributions of Smith, Ricardo, Tooke (and the Banking School), J. S. Mill, Wicksell, and Laughlin are discussed. Finally, some reasons are suggested for the demise of the SOE fixed exchange rate model before its recent revival in the modern monetary approach. ■

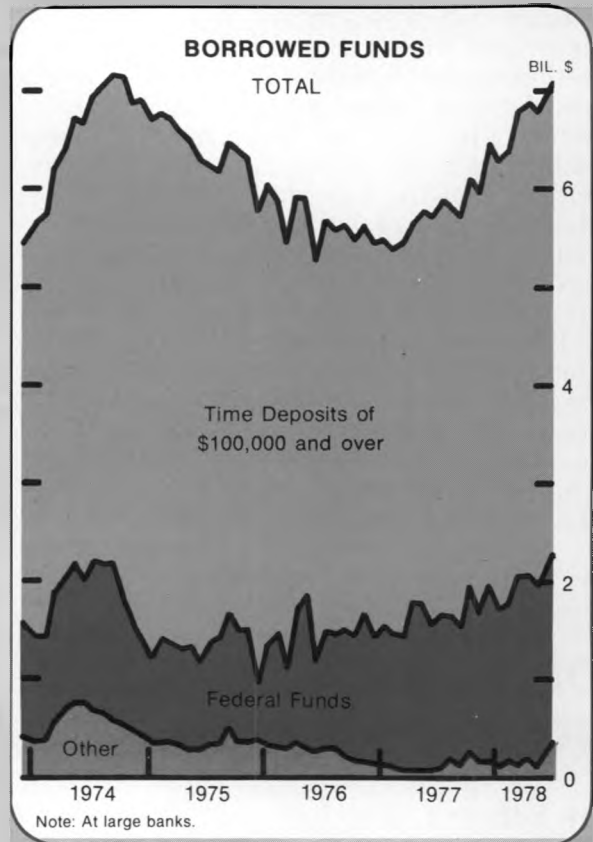
SIXTH DISTRICT BANKING NOTES

INCREASING LIQUIDITY PRESSURES

In recent months, the District's 32 largest banks have found it increasingly necessary to borrow funds to meet rising loan demands. This need to borrow typically develops in the latter stages of an economic expansion when the combined demand for consumer, business, and real estate credit is most intense and the large banks find it most difficult to attract funds from traditional deposit sources. However, the liquidity pressures that the large District banks have experienced in recent months are not nearly as severe as those that developed during 1974, and they have had no problems finding buyers for money market CDs or purchasing Federal funds.

During the early stages of a business expansion, loan growth is generally moderate and inflows of banks' "core" deposits—net demand deposits and savings and time deposits (except for those issued in denominations of \$100,000 and over)—are sufficient to fund the new loans. For example, in the 12 months ended in September 1977, loans at the large banks advanced nearly \$1.3 billion (about 11 percent) and "core" deposit gains totaled \$1.4 billion. As a result, the banks' collective net borrowings were less than \$100 million.

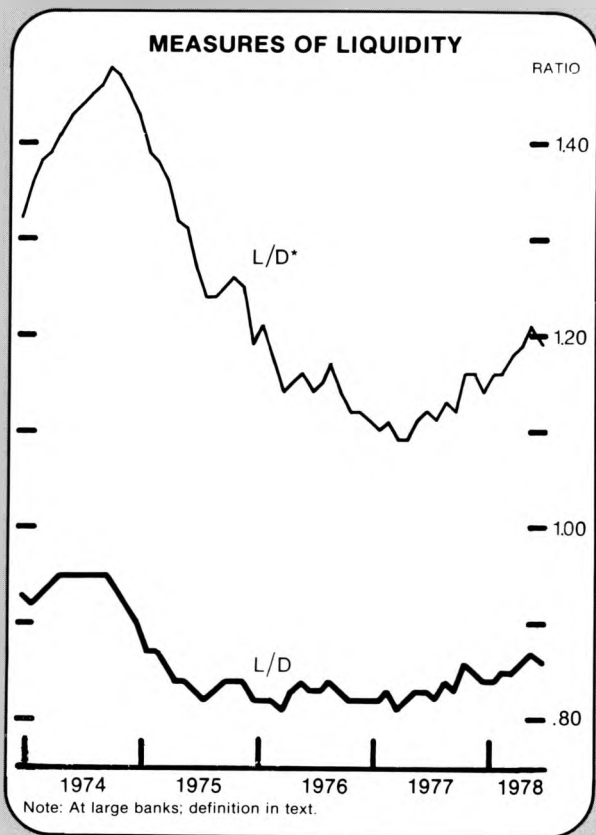
Since last fall, the large banks have moved into a new stage. Conditions changed and brought pressure on the large banks to acquire funds in the financial markets. Between September 1977 and May 1978, loans grew \$1.3 billion, an annual rate of 14 percent, with business loans accounting for nearly one-half of the gain and consumer instalment and real estate loans making up the remainder. But growth in "core" deposits slowed to only a \$100-million increase. When interest rates are rising, large city banks generally face stronger competition for "core" deposits than do suburban and rural banks, so the recent weaker "core" deposit gains were in line with past experiences. In the face of this development, the large banks aggressively stepped up their use of managed liabilities by \$1.1 billion. Sales of negotiable CDs and other time deposits issued in denominations



of \$100,000 and over rose more than \$600 million, with most of the remaining funds coming from greater use of the overnight Federal funds market.

The traditional measures of liquidity such as the loan-to-deposit ratio (L/D) point out the increased liquidity pressures of the large banks. In May, the large banks collectively had an L/D of 87, up from a low of 81 in early 1977. However, the loan-to-deposit ratio more appropriate to the large banks includes only "core" deposits (i.e., net of large-denomination time deposits), expressed as L/D*. The L/D* for the large banks stood at 121 in May, up from 112 in September and an early 1977 low of 109. The bigger increase in the L/D* clearly points out the need of these banks to borrow more heavily to support the strong loan growth. The May L/D* for small- and medium-size District banks was only about 74 but was nearly 180 for large New York City banks.

Despite the recent advance in the L/D* and even though the total volume of borrowed funds is approaching the mid-1974 level, liquidity pressures have not been



nearly as ominous as in 1974. At that time, the L/D* peaked at nearly 150 and several banks were under intense day-to-day pressures to obtain sufficient borrowed funds. Lately, bank earnings have been generally strong and rising, and banks' commitments for future lending have been more manageable. Also, changes in most banks' borrowing costs have been more readily reflected in changes in interest rates on loans, so that banks' net interest margins (interest revenue less interest expenses) have not been severely squeezed. In 1974, some banks faced undue strains because they used interest-sensitive short-term liabilities (at high rates) to fund fixed-rate, longer term loans (made at low rates). With loan rates moving with borrowing costs, banks are better able to pay the higher market rate for borrowed funds if the need arises.

The need to rely on borrowed funds may not become nearly as critical in 1978 as in 1974. Since late in 1974, banks have had more flexibility in the interest rates they can pay for state and local government

deposits. The new six-month maturity time deposits with interest rates tied to the six-month Treasury bill rate should enable many large banks to broaden their deposit bases by attracting interest-sensitive deposits of \$10,000 and over. Also, banks may pay higher rates to draw longer term consumer deposits.

While the large banks have been using borrowed funds in about the same absolute quantity as in 1974, there have been some qualitative improvements in the structure of the liabilities. Banks have significantly extended the maturity of their large-denomination negotiable CDs. The average maturity of outstanding large CDs this spring was 3.3 months, with nearly 40 percent maturing in over 3 months. In mid-1974, however, the average maturity was 2.2 months and only 20 percent matured in more than 3 months. The longer the maturity of liabilities the less the need for banks to roll over maturing CDs.

Banks also have a much larger secondary source of liquidity in their securities portfolios. U. S. Government securities holdings recently totaled over \$2.3 billion, up from slightly under \$1.0 billion in late 1974. The shortest maturity Treasury bills and notes, amounting to nearly \$900 million, could be easily sold or allowed to mature in order to obtain funds. (Some of these securities, of course, may not be readily available because they are pledged for public deposits; or they may already be a source of funds because they have been sold under short-term repurchase agreements.) In 1974, holdings of short maturity Governments were about \$250 million, with Treasury bills comprising less than \$40 million.

The recent strength in loan demand has caused the District's larger banks to rely increasingly on borrowed funds. Even though managed liability usage is up, the banks have not been experiencing significant liquidity pressures. The large District banks can be expected to manage a continued rise in lending by making further use of borrowed funds. However, if these banks find it necessary to borrow substantially more while interest rates are rising, they will likely see pressures developing that are similar but less severe than those of mid-1974.

John M. Godfrey

LABOR FORCE PARTICIPATION AND JOB OPPORTUNITIES

by *Charlie Carter*

An important influence on the decision to seek work is the prospect that search efforts will be successful. One good indicator of job prospects is the success of those currently seeking employment. Our evidence shows that when a larger fraction of the working-age population is successful, people who would not otherwise seek work are encouraged to enter the labor force. The reverse occurs when job seekers are generally unsuccessful.

Two Theories of Cyclical Labor Force Responses. Findings of earlier empirical studies suggest that labor force participation rates are positively related to short-run swings in the pace of economic activity.¹ On the one hand is the "discouraged-worker hypothesis." It argues that increases in the demand for labor not only provide employment opportunities for those currently seeking employment but swell the labor force with others who withdrew or held back when job prospects were unfavorable. These individuals are willing to work at existing wage rates but have failed to participate in the labor force because job opportunities were scarce. To the extent that persons leave the labor force during cyclical declines—i.e., lose their jobs and do not seek others—the reduction in employment will exceed the increase in unemployment.

On the other hand, individuals may decide not to enter the labor market, even if prospects are favorable. Returns from working may not be significantly higher than returns from not working. Rising benefits from public assistance programs, broader industry coverage under unemployment insurance programs, and the relative value of leisure discourage labor force participation.

Opposing the discouraged-worker effect is the "additional-worker" effect. An initial drop in employment results in large-scale discouragement and, later, withdrawal from the labor force. However, the additional-worker hypothesis maintains that subsequent declines in employment are met with smaller reductions in labor force participation. As the period of economic slack continues, downward pressures on family incomes and living standards force additional family members to enter the labor force. By reducing real income, inflation reinforces the added-worker effect. Therefore, the additional-worker effect may partially offset the negative impact of the discouraged-worker effect on labor force participation.

Of course, the net impact of cyclical changes in activity on labor force participation depends on the relative importance of the two effects. If the discouraged-worker effect dominates, the net influence on labor force participation will be negative. The change would be positive if the additional-worker effect dominates and zero in the case where the two effects are of equal strength.

Problems in Testing for Labor Force Responses. Interest in the cyclical sensitivity of labor force participation began in the mid-1960s, with seminal works by Dernburg-Strand (D-S) and Tella

¹See, for example, Thomas Dernburg and Kenneth Strand, "Cyclical Variation in Civilian Labor Force Participation," *The Review of Economics and Statistics*, November 1964, pp. 378-91; Peter S. Barth, "Unemployment and Labor Force Participation," *Southern Economic Journal*, January 1968, pp. 375-83; Joseph M. Bonnin and William Y. Davis, "Labor Force Responsiveness to Short-Run Variations in Economic Opportunity," *Southern Economic Journal*, October 1971, pp. 161-72; and Alfred Tella, "The Relations of Labor Force to Employment," *Industrial and Labor Relations Review*, XVII (April 1964), pp. 454-69. For the most recent treatment, see George C. Perry, "Potential Output and Productivity," *Brookings Papers on Economic Activity*, 1:1977, pp. 11-47, and Michael L. Wachter, "Intermediate Swings in Labor Force Participation," *Brookings Papers on Economic Activity*, 2:1977, pp. 545-74.

who used the employment-to-population ratio to predict labor force responses. Since then, many other studies have examined this issue.

Empirical findings have generally attached greater significance to the discouraged-worker effect. Therefore, during cyclical declines in economic activity, labor force participation shrinks and labor force growth slows. By not counting those who withdraw from the labor force because they think they cannot find work, reported unemployment statistics understate the "true" magnitude of unemployment. Also, labor force data used to estimate productive capacity understate the potential labor supply, which leads to underestimates of the output potential of the economy.

Substantial employment growth without significant reductions in unemployment during the earlier part of the current economic expansion and renewed emphasis on potential output have stimulated interest in the subject. Besides overlooking "hidden unemployment" during downturns, the unemployment rate gives little recognition to employment growth during upswings. Thus, if the discouraged-worker effect dominates, the unemployment rate will portray labor market conditions as being better than they are in bad times and worse than they are in good times.

Since cyclical changes in labor force participation interfere with the jobless rate's ability to represent labor market conditions, many economists have begun to consider alternative measures. Indexes of help-wanted advertising, the duration of unemployment, quit rates, and unemployment rates of prime age males and other demographic groups are most often used. A measure receiving increasing attention by labor market analysts is the proportion of the working-age population that is employed.² By focusing on employment and population instead of unemployment and labor force,

this measure is more cyclical than unemployment rates and gives greater attention to job growth. Also, because it uses employment rather than unemployment, the measure more closely reflects aggregate demand pressures on labor markets. The working-age population may also be considered a better measure of the number of individuals who want a job than the labor force, which measures working and "actively" searching for work.

Our Test of Labor Force Responses.

If the national labor force expands and contracts with cyclical swings in the level of economic activity, a cyclical pattern is likely to be found in subnational labor markets. Moreover, labor force participation in regions (or states) could be expected to be even more volatile due to interregional and interstate migrations of labor. On a national scale, individuals respond to cyclical fluctuations in job opportunities by participating or not participating in the labor force. Except for choosing new occupations, no other alternative is available. However, when cyclical changes in employment opportunities are not uniform across the nation, the options are not limited to participation or nonparticipation but are broadened to include relocation in regions or states where job prospects are more promising. Therefore, studies of cyclical changes in labor force participation that are national in scope overlook the effects of a possible redistribution of labor among regions due to regional differences in labor market conditions. For that reason, we chose to test for labor force responses on the state and District level.

The Model. Using a simultaneous equation approach developed by D-S and widely used elsewhere, we tested labor force responses with seasonally adjusted monthly data for the state of Florida from January 1970 to December 1977. The dependent variable was the civilian labor force participation rate—the proportion of the working-age population seeking or holding employment. Since no state measures of aggregate economic activity, such as output, industrial production, or capacity utilization were available, the employment ratio described above was used to measure cyclical

²See Geoffrey Moore, "How Full is Full Employment?" (Washington, American Enterprise Institute, 1973); Geoffrey Moore, "The Numbers Aren't Everything," *New York Times*, October 2, 1975, Op-Ed pages; Christopher Green, "The Employment Ratio As an Indication of Aggregate Demand Pressures," *Monthly Labor Review*, April 1977, pp. 25-32; and Julius Shiskin, "Employment and Unemployment: The Doughnut or the Hole?," *Monthly Labor Review*, February 1976, pp. 3-20.

variation in job opportunities. We hypothesized that since a reduction in this ratio represents a deterioration of job prospects, the discouraged-worker effect should create a positive relationship between the employment ratio and labor force participation.

To detect additional-worker effects, we added the "expiration ratio," or the number of new monthly expirations of unemployment insurance benefits relative to the working-age population, to the equation. Eligibility for benefits from state and Federal unemployment insurance programs requires labor force participation by the recipient. However, when the primary worker expects his benefits to expire, other family members

(spouses and teen-agers) may be forced to enter or be deterred from leaving the labor force. We, therefore, expected a positive relationship between labor force participation and the expiration ratio.³ Since labor force participation will expand before the actual expiration of unemployment insurance benefits, this variable entered the equation with a lead of two months, as in the D-S model. Also, to capture the secular effects of changing legal and social attitudes toward working females, rising opportunity costs of homework relative to

³To be sure, the expiration ratio accounts for only some of the additional-worker effect. Since unemployment insurance benefits do not completely make up for lost earnings, some added workers may enter the labor force in response to extended unemployment of the head of the household.

APPENDIX

The final form of the D-S estimating equation used here was

$$(1) \text{LFPR}_t = a_0 + a_1 \text{ER}_t + a_2 \text{XR}_{t+2} + a_3 \text{TND}_t + e_t$$

where LFPR is the civilian labor force participation rate; ER is the employment ratio; XR is the expiration ratio; and TND, the trend term, is the reciprocal of the working-age population. The initial estimation with ordinary least squares showed evidence of serial correlation. The Hildreth-LU technique for eliminating serial correlation was used and produced the following estimates, with t-statistics in parentheses:

$$\begin{aligned} \text{LFPR}_t = & .11106 + .8275\text{ER}_t + .0121\text{XR}_{t+2} - 183.6\text{TND}_t \\ & (6.371) \quad (18.918) \quad (12.120) \quad (-4.456) \\ R^2 = & .8245 \quad D-W = 1.984 \quad SE = .0034. \end{aligned}$$

Coefficients on both the employment and expiration ratios assumed their expected signs and are highly significant, as is the trend term. The Durbin-Watson statistic shows an absence of serial correlation. The independent variables explain more than three-fourths of the monthly swings in labor force participation. Therefore, the estimated equation documents both discouraged-worker and additional-worker effects in Florida's labor market.

Equation (1) alone is not sufficient to determine the relative strengths of the two effects because the employment ratio and the expiration ratio are interrelated. Monthly expirations of unemployment insurance benefits are inversely related to previous levels of employment. Estimating the net effect of job opportunities on labor force participation, then, required a simultaneous estimation of their effect on the expiration ratio. The specific form of the expiration ratio equation used was

$$(2) \text{XR}_t = b_0 + b_1 \text{ER}_{t-1} + b_2 \text{XR}_{t-1} + e_t$$

where all variables are as described in equation (1).

The following coefficients were estimated for equation (2):

$$\begin{aligned} \text{XR}_t = & .832 - 1.5079\text{ER}_{t-1} + .9568\text{XR}_{t-1} \\ & (.864) \quad (-1.82) \quad (28.9) \\ R^2 = & .948 \quad D-W = 1.74 \quad SE = .168. \end{aligned}$$

market work, the decline in fertility rates and the trend toward smaller families, rising Social Security payments, and the tendency of adult men to remain in school longer, a trend term was entered into the equation.

The Findings. The coefficients and statistics we estimated for this equation confirmed that both the discouraged-worker and additional-worker effects significantly influence Florida's labor market participation in the ways we expected. But, since employment levels partly determined the number of unemployment insurance expirations in a later period, we had to quantify that effect in order to estimate the net effect of the employment ratio on labor force participation. The Appendix describes the technique used and presents

the estimated coefficients and summary statistics.⁴

When both direct and indirect effects are considered, we estimated that a cyclical decline in employment in Florida of 100 resulted in a withdrawal of 41 workers from the labor force during the test period. Thus, reported unemployment statistics which show a rise in unemployment of only 59 understate the "true" magnitude of unemployment in Florida by 41.

Other Areas. For the remaining Sixth District states, the participation data are annual averages and the analysis is only exploratory at this point. Tables 1 and 2

⁴Since $\frac{1}{b} = \frac{1}{b_1} + \frac{1}{b_2}$ by definition, simultaneity could bias the coefficient of $\frac{1}{b}$ toward unity. However, the extent of this bias cannot be determined. Disaggregation by age-sex groups was desirable, but such data were not available.

Then, to solve for the net effect of cyclical changes in job prospects on labor force participation, equations (1) and (2) should be considered in their stationary states. A close approximation of such a solution was obtained by assuming that the employment and expiration ratios are constant over time, i.e.,

$$ER_t = ER_{t-1} = \hat{ER}, \text{ and } XR_t = XR_{t-1} = \hat{XR}.$$

Under those assumptions, equations (1) and (2) were restated as follow:

$$(1a) \text{ LFPR}_t = a_0 + a_1\hat{ER} + a_2\hat{XR} + a_3\text{TND}_t + e_t, \text{ and}$$

$$(2a) \hat{XR} = \frac{b_0}{1 - b_2} + \frac{b_1}{1 - b_2} \hat{ER}.$$

Substituting equation (2a) into equation (1a) and simplifying provide an equation that specifies the net effect of an instantaneous change in the employment ratio on labor force participation:

$$(3a) \text{ LFPR}_t = A_0 + A_1\hat{ER} + a_3\text{TND}_t + e_t,$$

$$\text{where } A_0 = \frac{a_0(1 - b_2) + a_2b_0}{1 - b_2}, \text{ and}$$

$$A_1 = \frac{a_1(1 - b_2) + a_2b_1}{1 - b_2}.$$

Plugging the parameters estimated for equations (1) and (2) into equation (3a), we calculated that $A_1 = .4051$.

TABLE 1

**LABOR FORCE PARTICIPATION RATES, U.S. AND
SIXTH DISTRICT STATES, 1970-77**

(percent)

	1970	1971	1972	1973	1974	1975	1976	1977
Alabama	59.1	61.6	58.0	57.1	57.3	56.9	57.0	58.2
Florida	56.1	54.9	54.0	55.1	56.0	56.2	55.3	55.3
Georgia	62.8	63.3	63.6	64.1	63.6	63.1	63.9	63.9
Louisiana	55.4	55.4	54.8	55.1	54.5	56.1	56.2	57.7
Mississippi	53.8	53.5	56.0	57.4	58.6	58.3	58.8	58.9
Tennessee	61.0	60.3	61.0	60.8	61.9	60.4	59.9	60.8
District	58.3	58.2	57.6	58.1	58.2	58.3	58.2	58.7
U.S.	61.3	61.0	61.0	61.4	61.8	61.8	62.1	62.8

Sources: Population figures derived from **Current Population Reports: Population Estimates and Projections**, "Estimates of the Population of States: By Age, April 1970-July 1, 1977." Labor force data are annual averages obtained from each state, bench marked estimates of labor force levels, employment levels, and unemployment levels, 1970 to 1977 (unpublished).

TABLE 2

**EMPLOYMENT-TO-POPULATION RATIOS, U.S. AND
SIXTH DISTRICT STATES, 1970-77**

(percent)

	1970	1971	1972	1973	1974	1975	1976	1977
Alabama	55.6	58.2	54.4	54.6	53.9	52.5	53.2	53.9
Florida	53.7	52.3	51.2	52.8	52.5	50.2	50.4	50.8
Georgia	60.3	60.8	61.0	61.6	60.3	57.6	58.7	59.4
Louisiana	51.8	51.3	50.6	51.4	49.9	52.0	53.4	53.7
Mississippi	51.0	50.7	53.6	55.2	55.9	53.5	55.0	54.5
Tennessee	58.4	57.5	58.7	58.4	58.8	55.4	56.3	57.0
District	55.4	55.2	54.9	55.5	55.1	53.1	53.8	54.4
U.S.	57.4	56.6	57.0	57.8	57.2	56.0	56.8	57.9

Sources: Population figures derived from **Current Population Reports: Population Estimates and Projections**, "Estimates of the Population of States: By Age, April 1970-July 1, 1977." Employment data are annual averages obtained from each state, bench marked estimates of labor force levels, employment levels, and unemployment levels, 1970 to 1977 (unpublished).

give 1970-77 labor force participation rates and employment-to-population ratios, respectively, for both the U.S. and Sixth District states. The cyclical behavior of labor force participation is evident in each Sixth District state. Although the timing and magnitudes differ, labor force participation declined in all District states during the last recession, reflecting the dominance of the discouraged-worker effect. The cyclical decrease in participation was greatest in Tennessee, from a high of 61.9 percent in 1974 to 59.9 percent in 1976. In Alabama, labor force participation dropped a full percentage point as well. (Comparisons among the other Sixth District states and the nation are left to the reader.)

Summary. Our purpose here has been to determine the presence and relative importance of the discouraged-worker and additional-worker effects on labor force participation in the Sixth District states. A detailed statistical analysis of Florida labor markets provided evidence of both influences and of the dominance of the discouraged-worker effect. The patterns of labor force participation rates and employment ratios over the last recession suggest that discouragement was not limited to Florida but was a Districtwide phenomenon. And, to the extent that cyclical changes in opportunities discourage (encourage) labor force participation, conventional measures understate (overstate) the "true" magnitude of unemployment. ■

FLUE-CURED TOBACCO: OUTPUT DOWN, PRICES UP

by Yvonne F. Davies

Drought-reduced yields, smaller allotments, and record high auction prices characterized the 1977 U.S. flue-cured tobacco crop.¹ Although production in the Sixth District states was less affected by drought than in other producing areas, the District crop rode the coattails of a high price associated with low output nationally. In drought-stricken areas, lower yields increased farmers' unit costs and squeezed net returns, but in the Sixth District, growers' net returns improved considerably.

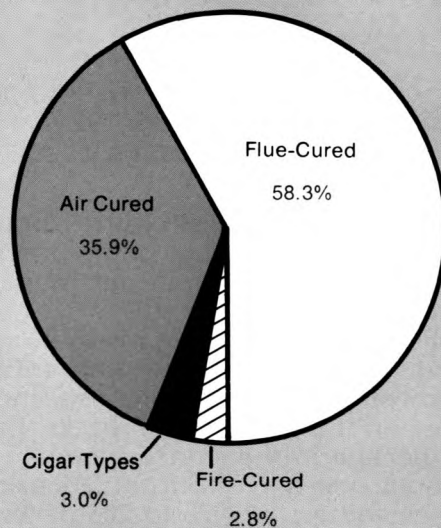
The National Scene. Flue-cured tobacco, the leading cigarette and export tobacco, is produced in only six states—North Carolina, South Carolina, Georgia, Virginia, Florida, and Alabama. The crop has been grown under acreage-poundage marketing quotas since 1965, with allotments enforced by the U.S. Department of Agriculture. Price support is made available to eligible producers.² In 1977, the 1,127-million pound flue-cured crop accounted for 58 percent of the U.S. tobacco crop (see Chart 1). The flue-cured crop was 14 percent smaller than the 1976 crop and 20 percent below 1975's production. The small crop resulted from a 12-percent reduction in acreage allotments by the USDA to bring supplies in line with use and a 3-percent drop in yields due to dry weather.

¹Flue-cured tobacco acquired its name from the curing method formerly in use. Tobacco leaves were strung and stored in barns where heat was forced in through flues. During the curing process, the tobacco became milder and acquired an aroma. Now, bulk barns have largely replaced this labor-intensive method. Bulk curing involves the passage of conditioned air through tightly packed tobacco.

²The 1977 support level was \$1.138 per pound. The tobacco price support program provides for annual adjustment in the support price using a formula which takes into account increases in prices paid by farmers for goods and services.

CHART 1
FLUE-CURED TOBACCO, THE LEADING
CIGARETTE AND EXPORT TOBACCO,
CONSTITUTES THE MAJORITY OF THE U.S.
TOBACCO CROP

(Percentages are based on 1977 output)



SOURCE: USDA, 1977 data.

The demand for flue-cured tobacco depends almost entirely on its use in cigarettes to give them certain flavor and smoking characteristics. Domestic cigarette blends are composed mainly of flue-cured tobacco, with most of the remainder being burley tobacco. In 1977, a little more than half of the flue-cured supply was used domestically; the rest was exported (see table). Since 1973, flue-cured exports have decreased, as competing foreign tobaccos have been in more ample

FLUE-CURED TOBACCO PRODUCTION AND UTILIZATION, 1975-77

	<u>Unit</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
District States:				
Production*	mil. lbs.	180.0	155.2	161.0
Yield per Acre	pounds	2,018	1,877	2,062
Acres Harvested	acres	89,200	82,640	78,080
Gross Sales*	mil. lbs.	190	163	169
Average Auction Price	cts./lb.	100.1	110.2	115.8
Value of Sales	mil. \$	191	180	196
United States:				
Production*	mil. lbs.	1,415.0	1,316.3	1,127.3
Yield per Acre	pounds	1,973	1,974	1,910
Acres Harvested	acres	717,200	666,640	590,080
Gross Sales*	mil. lbs.	1,469	1,370	1,186
Average Auction Price	cts./lb.	100.0	110.6	117.9
Value of Sales	mil. \$	1,469	1,515	1,398
Total Utilization:*				
Domestic Use	mil. lbs.	671	634	625
Exports	mil. lbs.	522	514	500

*Annual data for production, sales, and utilization of flue-cured tobacco differ because of the nature of the crop. Growers sell 95 percent of their leaf tobacco at auctions; the rest is sold at the farm directly to tobacco manufacturers. Before it can be processed into consumer products, tobacco must be stored so aging can take place. A year's supply consists of production during the year plus the carryover of government loan stocks and stocks held by manufacturers and dealers.

Sources: **Crop Production**, 1977 Annual Summary, 1-16-78; **Tobacco Market News**, weekly reports from 7-16-77 to 10-7-77; and **Tobacco Situation**, March 1978.

supply and relatively less costly. Domestic use has declined also, but only since 1975, reflecting the slowdown in per capita cigarette consumption.

Publicity about smoking's health dangers, plus price increases, has resulted in a downtrend in per capita use since 1963, when it peaked at 217 packs. Last year's decline in the smoking rate was about one percent, from 205 packs (4,092 cigarettes) in 1976 to 203 packs (4,064 cigarettes) per capita. But gains in adult population have caused total cigarette consumption and sales to rise, although more slowly, each year (see Chart 2). In 1977, a record 620 billion cigarettes were smoked.

Although total tobacco acreage is a negligible proportion of total crop acreage, the crop is an important source of both farm and nonfarm income, particularly in producing areas. In 1977, consumers spent \$17.1 billion on tobacco products, with \$15.8 billion of the total for cigarettes. Sale of these tobacco products generated \$6.2 billion in governmental revenues (\$2.5 billion in Federal,

\$3.6 billion in state, and \$0.1 billion in local). National cash receipts from tobacco farming in 1977 represented only 2 percent of all farm receipts; however, in North Carolina, where flue-cured tobacco production is centered, tobacco receipts accounted for 33 percent of the total. In the Sixth District states, tobacco provided 3 percent of farm receipts. The 78,080 acres of flue-cured tobacco harvested in the District required expenditures of \$113 million for equipment, supplies, and labor last year. The cutback in plantings from 1975 to 1977 reduced outlays by \$4 million. Such reductions are economically significant to tobacco-producing communities.

A Closer Look at the Sixth District.

Flue-cured tobacco is grown in only three of the Sixth District states—Georgia, Florida, and Alabama—referred to as the Georgia-Florida Belt. These states produced 161 million pounds in 1977, 14 percent of the U.S. flue-cured crop (see table). Production in the Georgia-Florida Belt is centered in Georgia's southeastern counties, where 135 million

CHART 2

U.S. CIGARETTE CONSUMPTION 1960-77

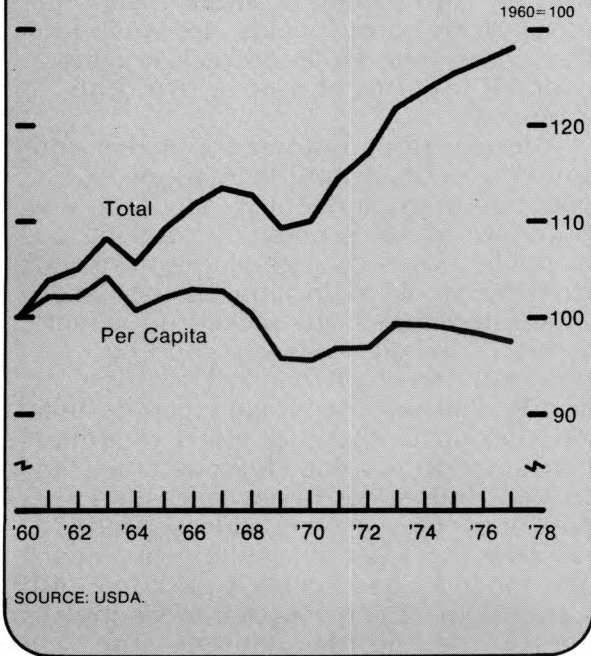
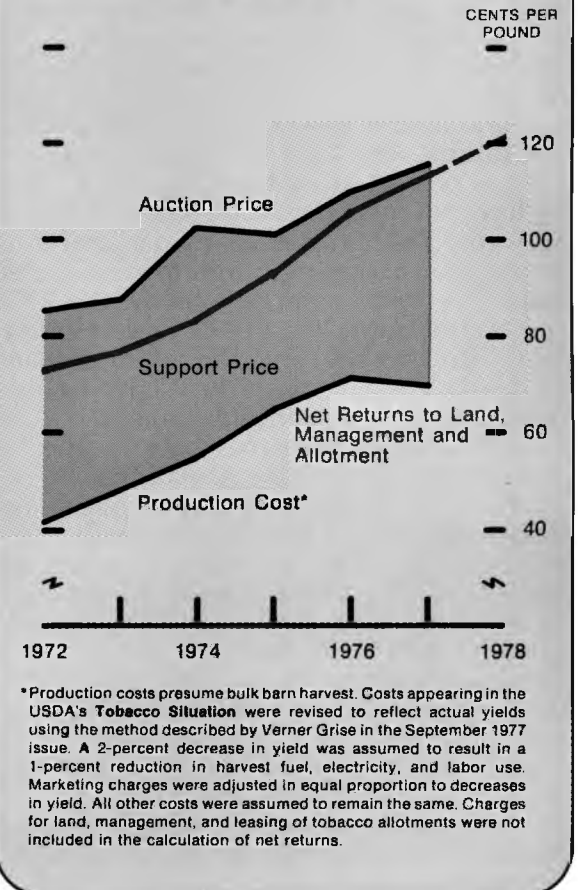


CHART 3

FLUE-CURED TOBACCO: COSTS AND RETURNS IN THE SIXTH DISTRICT STATES, 1972-77



pounds were harvested in 1977. Florida's north central counties produced 25 million pounds and south central Alabama, 1 million pounds. Despite reduced acreage allotments in 1977, the District's improved yields provided a 1977 crop that exceeded the 1976 crop (see Chart 3). In most producing areas, unfavorable weather conditions (the dry weather in May) cut yields and hurt crop quality. However, Florida was the only District state to show a reduced yield from 1976 levels.

Auction sales of the District's 1977 flue-cured crop lasted 50 days—from July 13 to October 6. Early season auction prices averaged below those in 1975 and 1976. The lower prices were due to changed grade standards that permitted discounts for excess sand on the lower tobacco leaves that ripen first. Further into the season, prices moved up to record levels and, for the season, averaged \$1.16 per pound in the District and \$1.18 per pound nationwide. The higher auction prices and larger sales volume in 1977 produced \$196 million in

gross sales for District producers, the highest value since 1974's \$203 million. This contrasts with the nation, where a drop in quantity sold offset the price rise, decreasing gross sales 8 percent to \$1,398 million.

Returns to flue-cured tobacco growers in the District improved considerably in 1977 (see Chart 3). The average auction price of \$1.16 per pound less production costs of 70 cents per pound provided "net" returns³ of 46 cents per pound. The 1977 spread between market

³These net returns should not be construed as profit, since production costs do not include charges for land, management, and leasing of tobacco allotments. These expenses vary markedly from one tobacco grower to another but are roughly estimated to range from 25 to 35 cents a pound.

price and production costs exceeded the slim returns in 1975 and 1976 and compared favorably to returns of the 1972-74 period. Producers outside the District did not fare quite so well. With yields off sharply in 1977, their production costs per pound climbed. Record auction prices tempered the cost increases, however, and "net" returns of producers outside the District edged up from 42 cents a pound in 1976 to 43 cents a pound in 1977.

Outlook. The 1978 U.S. flue-cured crop is projected by the USDA at 1,125 million pounds, about the same as last season. Although this year's national poundage marketing quota for flue-cured tobacco is only 1 percent below the 1977 quota, the quota for the Georgia-Florida Belt is down 9 percent. The larger cutback in this Belt is due to its 1977 crop being larger than normal; the 9-percent reduction brings the area back in line with its historical share of national production. In response to the poundage quota, tobacco growers throughout the nation announced their intentions to plant 579,520 acres in flue-cured tobacco (a 2-percent reduction from 1977). District growers, when surveyed as to their intentions, indicated they will set 71,520 acres, 8 percent less than the 78,080 acres in 1977. The 1978 crop should be of higher quality than in previous years as a result of a change in the tobacco program. Growers who agree not to harvest the four lower leaves can plant up to 120 percent of their acreage allotment. This change should reduce the surplus of lower stalk, lower quality tobacco.

If 1978 yields are close to their historical averages, production costs

should rise about 5 percent (about three cents a pound) over 1977. The increase is due to higher wage rates. Since the price support for tobacco will be raised 6.3 percent in 1978, the higher production costs should be more than offset. With normal yields, growers of flue-cured tobacco could realize gains over 1977 returns of four to five cents a pound.

A longer run consideration is that anti-smoking publicity and legislation continue to expand. Thirty-one states now have laws either prohibiting smoking in public places or segregating smokers from nonsmokers. In January, the pace of antismoking efforts picked up when a major campaign was launched by the Department of Health, Education, and Welfare to discourage cigarette use. Another factor that may affect cigarette consumption is rising cigarette taxes. In 1977, four states raised taxes on cigarettes. By year-end, state cigarette tax rates averaged almost 13 cents a pack and ranged from 2 cents a pack in North Carolina to 21 cents a pack in Connecticut, Florida, and Massachusetts. The Federal excise tax, unchanged since 1951, is 8 cents a pack. The long-run impact of higher taxes and antismoking efforts on total smoking and, hence, on flue-cured tobacco demand is uncertain. To date, the major effects have been a decrease in the rate of growth in annual cigarette sales since 1973 and the introduction of low tar, low nicotine cigarettes. If the antismoking campaign proves successful in reducing total cigarette consumption, continuing reductions in acreage planted in tobacco seem likely. ■

NEW PUBLICATIONS

INSIDE THE FEDERAL OPEN MARKET COMMITTEE

Excerpts from an address by Monroe Kimbrel, President, Federal Reserve Bank of Atlanta

RESEARCH PAPER SERIES

Convenience and Needs: Holding Company Claims and Actions

by Joseph E. Rossman, Jr., and B. Frank King

WORKING PAPER SERIES

An Empirical Test of the Linked Oligopoly Theory: An Analysis of Florida Holding Companies

by David D. Whitehead

Copies of these publications are available from the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303. Please include a complete address with ZIP code to ensure delivery.