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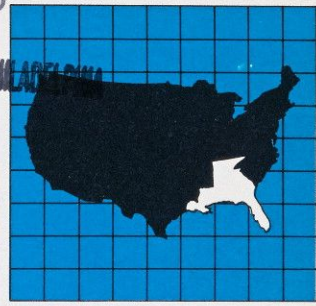
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FEDERAL RESERVE BANK OF PHILADELPHIA

# Economic Review



FEDERAL RESERVE BANK OF ATLANTA

JANUARY/FEBRUARY 1980

**SOUTHEAST** The Recession At Last?

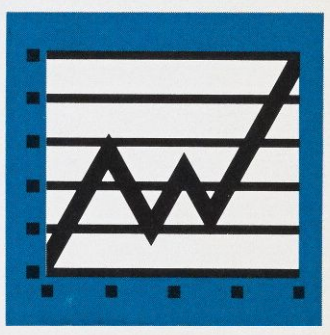
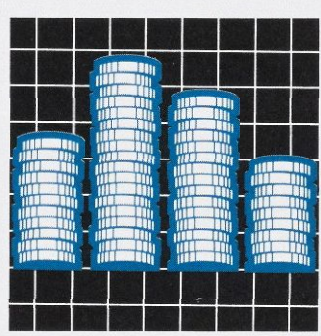
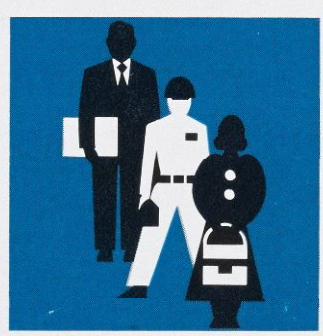
**VOLCKER** What Do 1980 Targets Mean?

**MONEY** Q and A on Monetary Policy

**BANKING** Defining Geographic Banking Markets

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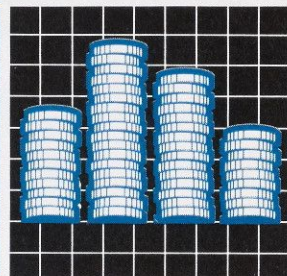




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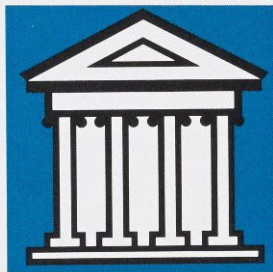
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Susan F. Taylor and Eddie W. Lee, Jr.



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## To Our Readers

**R**egular readers will notice that the *Economic Review* has a new cover. We hope it gives you a better idea of what's inside.

But our new cover reflects some ongoing — and more substantial — changes. Federal Reserve policies have always depended largely on the Fed's technical understanding of economic problems and their remedies. Over the years, however, we have observed that the success of Fed policies also depends partly on the public's understanding of economic processes. Gaps in public understanding may be just as crucial as gaps in professional expertise.

In this periodical, therefore, we hope to inform people who lead public opinion about the Fed's policies and the economic environment, particularly in the Southeast. Public demand for clear and credible presentation of such information has long been evident, but the demand has intensified.

Surveys of the audience we are trying to reach have convinced us that, perhaps in common with specialists in other disciplines, we have overestimated our ability to communicate. The new cover reflects our continuing efforts to narrow the gap between specialists and concerned laymen throughout this periodical: in subject matter, language, and graphic design.

At the same time, we have not forgotten our more specialized readers who look to the *Review* to keep abreast of our basic research. We will continue to summarize these projects in the *Review* and make the original research, complete with details of methodology and data, available to the technician in our Research Paper and Working Paper series.

The *Review's* primary objective is to serve the public. To do that, we must communicate. We hope you will let us know how we're doing.

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# The Southeast's Economy: Review and Outlook

*by Charles J. Haulk*

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**Perhaps there never was a more confusing year than 1979.** The year started with most observers talking about a mild recession followed by a mild recovery. The Southeast would fare better than the nation in most of the forecasts. But most observers were wrong.

After an unexpectedly strong fourth quarter in 1978, some slowing could have been reasonably expected nationally in the first half of 1979. However, with the gasoline shortages, the truckers' strike, and weather problems, the first and second quarters were decidedly downbeat. Car sales, housing, and employment slowed appreciably. Then, in the face of rapid money and credit growth, the national economy rebounded strongly in the third quarter, propelled by resurgent retail sales and home buying. Just when most forecasters were talking as if the recession were well under way, third-quarter sales, profits, and real GNP data became available, indicating a strongly rebounding economy. The unexpected turnaround resulted, by and large, from a sharp drop in personal savings and a renewed expansion of consumer credit. Faced with this rebound, worsening inflation, and a falling dollar in the exchange markets, the Federal Reserve on October 6 moved abruptly and dramatically to stem rapidly increasing money and credit growth.

Once again the economy abruptly changed direction from the rebound to a period of contraction in some sectors. The instantaneous and sharp rise in both short- and long-term interest rates led to a dramatic slowing of mortgage commitments, which would have a lagged effect on home building rates. Car sales slipped back to the weak second-quarter pace. Layoffs in auto and auto-related industries, the lumber industry, and the steel industry became widespread by December. Truck assemblies had also fallen. In the meantime, real personal income continued to slide in the face of 13-percent inflation compared with the 8-percent wage growth that conformed to Presidential guidelines. After a weak first half, then, the U. S. economy was surprisingly strong in the second half.

**The Southeast in 1979.** In the Southeast, home building was flat through the year but terribly uneven from state to state. Florida and Georgia continued well ahead of their 1978 pace, while the other states were lagging, particularly Louisiana and Alabama. Nonresidential construction maintained a strong pace throughout the Southeast.

Employment growth was marginal through the first nine months, just enough to keep the unemployment rate from rising. The typical fourth-quarter surge appeared to be under way in

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Although the predicted recession did not arrive in the Southeast, 1979 saw substantial increases in inflation and household illiquidity. The recession should finally appear in second-quarter 1980 and should be, at worst, no deeper or longer than in the nation. If persistent inflation requires tighter monetary policy, however, the economy could slow even more than expected.

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October as jobs grew in almost every category. The unemployment rate, after dipping below 6 percent early in the year, held steady at just over 6 percent for the last half of 1979.

Farmers had a respectable year, with the exception of hog and poultry growers who got caught in a cost-price squeeze during the fall months. Crop acreage expanded dramatically in response to the outlook for favorable market prices for most commodities at planting time. Good weather through the summer months increased yields sharply from their drought-depressed levels during 1977 and 1978. Crop prices remained strong, thanks to brisk export demand, and cash crop income jumped an estimated \$1 billion above 1978's level, with the majority of the increase coming from a one-third larger crop of soybeans. In total, 1979's farm cash receipts were about 20 percent above the \$12.7 billion recorded for 1978.

Banking activity was strongest in the acquisition of time and savings deposits. Money market certificates were an important source of time and savings deposit growth at banks and savings and loan associations. Demand deposits and loans grew only moderately, and loan growth had fallen well below the national pace.

In sum, the year was a little better than expected for employment and income

growth but was disappointing in light of soaring inflation and increased household illiquidity.

**After such perplexing developments, what can we look for in 1980?** To forecast regional economic activity, we are forced to consider three things. First, we need to know how the national economy will perform. Secondly, we need to know how the region typically behaves relative to the nation, and finally, we must take into account noncyclical or random factors that could cause future behavior to differ from past cyclical behavior. By random or noncyclical factors, we mean such things as new military contracts, hurricane damage repair, and new government programs that will result in increased employment.

The main problems with this kind of forecast, of course, are that national performance can be known only with wide tolerance and that the interaction of cyclical and noncyclical regional factors is not always clear. Therefore, we must recognize that regional forecasting can be doubly hazardous—there are simply more things to go awry.

**The National Outlook.** By all accounts, the immediate outlook for the nation's economy is generally downbeat. The consensus among several major forecasters reviewed by this author at the end of 1979 would call for continued inflation at

near current levels before a break in late 1980, a rise in the unemployment rate to the 8-percent range, and negative real economic growth for at least the first half, if not the first three quarters of 1980. The Georgia State Forecasting Project, for example, puts real GNP growth in the negative for four quarters starting with fourth quarter 1979, with a year-over-year drop of 0.4 percent.

Recent events have made many forecasts somewhat outdated. It would appear likely now that if the recession comes, it will be strongly felt through at least the first half of 1980, with lagged effects on unemployment through the end of 1980. If inflation persists, it could require a tighter rein on monetary and fiscal policy for a longer period than many thought until very recently. That restraint could mean a longer recession and perhaps a considerably deeper one. The monetary authorities have set their course. Fiscal policy, however, is difficult to call at this point. Whatever its effects, they will not be felt until later in the year.

An optimistic forecast would call for a 1.5- to 2-percent drop in real GNP peak to trough, a moderate forecast would put the drop at 3 percent, and a pessimistic forecast would be for a 4- to 5-percent drop on the same order of magnitude as the 1974-75 recession.

**How will that drop be divided among regions?** The people in the Southwest and West argue that although they might slow down, they won't show an actual income decline. Their performance in the 1974-75 recession gives credence to that assertion. In the Pacific, Mountain, and Southwest regions, employment declined less than half as much as in the nation as a whole and about one-third as much as in the Southeast. If that pattern is repeated,

then a disproportionate share of the recession must fall on other regions.

We know that in most recessions, housing and consumer durable goods are the first to suffer, followed by nonresidential construction and capital spending. If the recession is unusually severe, certain postponable nondurables, such as apparel, can be hurt badly.

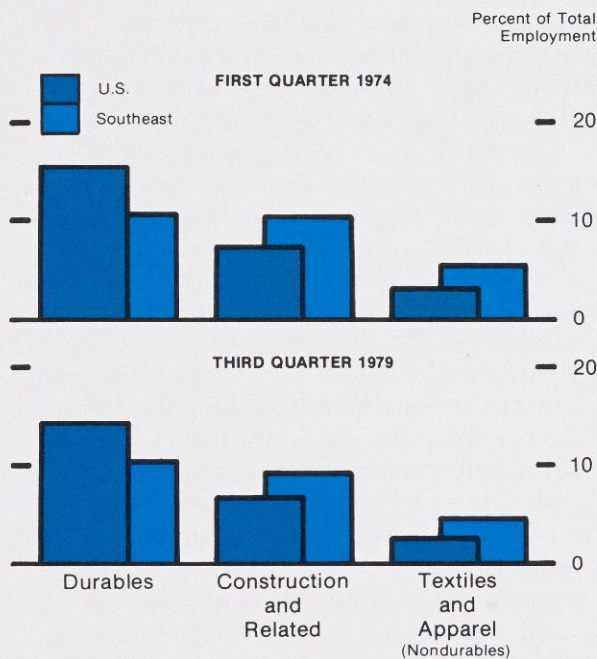
**Cyclical Factors in the Southeast.** Because of its relatively low share of durables manufacturing (which is hit hardest in a recession), the Southeast since the late Forties had escaped the severe inventory corrections which result in large numbers of unemployed.

However, in 1974-75, construction was one of the hardest hit sectors because of the disintermediation (shifts of consumer funds from banks to open market securities) at savings and loan associations, combined with euphoric overbuilding. Because the Southeast had a greatly disproportionate share of its work force in construction and construction-related industries, it incurred sharp job losses. In addition, the textile and apparel industries had income drops that percentage-wise were similar to the declines in furniture and motor vehicles. Petroleum and chemicals, services, and state and local governments actually had income gains.

Chart 1 shows that in 1979 the Southeast was in somewhat better condition in employment in both construction and durables manufacturing but had about the same share of nondurables employment as it had in 1974.

Other sectors, including government, services, trade, transportation, utilities, and finance, generally maintain stable employment through an economic downturn. The Southeast has about the same proportion of these service-oriented jobs

**CHART 1**  
**SOUTHEASTERN INDUSTRY MIX**  
**RELATIVE TO THE NATION**



Southeast in 1979 had less concentration in construction and durables employment than in 1974; about the same in nondurables.

as the nation, although government is slightly larger and services slightly smaller in the Southeast.

Because of the increased share of government employment and the decline in construction and manufacturing share, **the Southeast's economy should be somewhat better positioned to withstand a recession than it was in 1974.** Moreover, we have not seen the overbuilding that we did in 1973-74.

Besides the industry mix and the absence of overbuilding, there is another important stabilizing factor at work in the

nation and the Southeast. That factor is transfer payments. When the recession of 1974-75 hit, 12.1 percent of the Southeast's personal income was derived from transfer payments (pensions, Social Security, unemployment payments, etc.). The U. S. ratio was 11 percent. By the first quarter of 1975, when the economy hit bottom, 15 percent of the Southeast's income and 13.4 percent of the nation's personal income were transfer payments. The higher proportion of transfer payments kept the Southeast's income decline below that of the nation even though the region's unemployment rate was higher. Unemployment compensation in the South increased sixfold as a percentage of total income during the recession.

It seems reasonable to argue that transfer payments will act to soften a downturn. The problem with transfer payments is that, as we saw in 1974-75, although they cushion income drops, they cause a greater burden of the battle against inflation to fall on cyclically sensitive industries like construction and manufacturing.

Another variable that deserves special attention is population and labor force. Three demographic factors will heavily influence short-term economic behavior. The first is the growth in the working-age population and the rates at which those people participate in the labor force. The second is the rate of household formation, which, in turn, drives demand for housing, appliances, furniture, carpeting, etc. The third factor is the overall population growth. Population growth through migration has been a primary source of economic expansion in several southeastern states, with Florida the obvious big beneficiary, followed by Georgia and Tennessee.

In 1980, household formation in both the Southeast and the U. S. will remain fairly rapid because of the favorable age distribution of the population. Labor force growth should slow some because fewer people tend to seek employment when the unemployment rate is rising, but that is a very uncertain outlook.

In-migration has continued since the last recession but, through 1978, had not regained the 1973-74 pace in Florida or Georgia. The inflow of people to Alabama and Tennessee picked up smartly, while Mississippi and Louisiana continued to experience net outflows.

In-migration depends heavily on economic conditions in the rest of the country. If the northern economy is in recession, many people will find it difficult to sell their homes and, therefore, will not move. That phenomenon had a dramatic impact on the Southeast during 1974-75.

One final cyclical factor we need to consider is consumer attitudes and finances. Although we have not seen a regional survey of consumer attitudes, it is probable that southeastern consumers are concerned about the same things which affect the national sample. Consumers, according to many surveys, are in a volatile mood. The buy-in-advance psychology and the use of credit seem to have taken a stronger-than-ever hold on consumers in the South and the rest of the nation.

Consumer debt has grown in the Southeast at a pace somewhat slower than in 1978 but still much faster than income. By September, we estimated consumer instalment debt to be 16 percent of personal income, just slightly higher than nationally. Although there are reports of increased traffic at credit

counseling centers and a rise in individual bankruptcies, the American Bankers Association survey of consumer instalment debt delinquency rates in the Southeast indicates that while rates are high by historical standards, as of September 1979, they were at or below September 1978 levels. Indications are that home buyers are being very careful to keep their house payments in order. Economists, including the present writer, have for some months been concerned about the tendency of households—both nationally and in the Southeast—to reduce their liquid assets to the current levels—this, despite an increase in the number of two-income families. One would have expected some increase in the savings rate by this time, but as of third quarter 1979, that had not happened. Evidently, consumer response to expected inflation is a much more powerful force than economists have thought.

It seems inevitable that at some point, a cutback in consumer spending will occur. Real measured personal income lost ground throughout 1979. Real after-tax weekly earnings of production workers were down over 4 percent through the year. This brings us to a disturbing question. How reliable an indicator are measured income and earnings? The level of retail activity belies the reported figures. It suggests increasing activity in the "underground economy" (gambling, bartending, and other unreported income). The same is true for employment data.

**Noncyclical Factors.** As we mentioned earlier, there are at any time certain random or noncyclical events which, when superimposed on the normal business cycle, can either exacerbate or moderate cyclical swings. In the Southeast, there are several such items. First, the energy



situation continues to be a strong positive factor in Louisiana with its petroleum and gas resources, and to the Southeast in general because of its climate. Second, there is an increasing tendency for the forestry-related industries to move away from the Northwest to the Southeast, where growing conditions, topography, and transportation facilities make the Southeast a less costly area for producers. Third, foreign investment from Europe, Latin America, Japan, and Canada has given the Southeast an edge over the rest of the country. Fourth, several major building projects are underway in the region. In Georgia, the King's Bay Naval Base will take several years to build. In Florida and Louisiana, huge theme park projects will provide many jobs for years. The Alabama and Mississippi coasts will generate jobs as rebuilding from hurricane damage continues. The proposed step-up in defense spending will benefit the southeastern states, which have disproportionately high shares of income related to military operations. All of these plus many others too numerous to mention should soften the recession in the Southeast.

**The outlook for the Southeast is that a recession will get underway in earnest in second quarter 1980.** The depth and duration of that recession will depend on the experience of the nation as a whole. If the recession is moderate nationally (as most forecasters predict), the Southeast will likely fare better than the nation. If the recession is severe nationally, the Southeast's experience could be equally severe. The reason is that, while the industry mixes in the Southeast and U. S. are different, they contain offsetting differences. The greater share of durable goods employment nationally is balanced

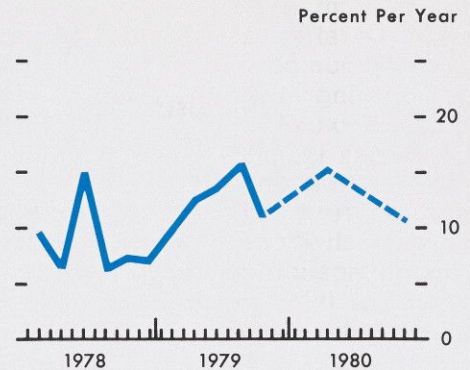
by a larger share of construction and textile and apparel employment in the Southeast. Overbuilding and the large immigration streams, which were reduced to a trickle in 1974, put the Southeast's construction sector in dire straits in 1974-75. This time, serious overbuilding seems to have been prevented as builders and their lenders have been much more cautious. Florida has not experienced the huge population inflows of 1972-73, so a slowing of the inflow due to a recession and weak housing markets elsewhere will not have the same devastating effect this time. Tennessee and Alabama could be slightly harder hit in this regard because their population inflows are larger than in 1973. All told, construction is in for some weakening, probably less than in 1974-75.

Durables manufacturing will be off, especially in transportation equipment and construction-related industries. Auto and truck assemblies are already well below year-earlier rates. Lumber and steel fabricators dependent on construction will be hurt. Furniture and carpet producers will also feel the effects of reduced housing starts. In apparel and textile production, typical recessionary cutbacks in employment and income reductions should be expected. The reductions could be worse than the average postwar downturn, but we cannot now foresee things getting as bad as in 1974-75. However, an acceleration of inflation from recent rates could put a 1974-75 type recession in the realm of possibility.

Judging from previous experience with recessions, government and service sector employment is likely to fare moderately well. Some trade, as well as transportation jobs, could be lost. These should be offset by growth in state and local government employment and other services.

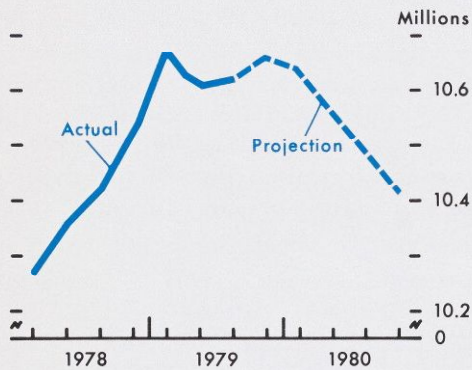
# key economic variables

## 4. CONSUMER PRICE INFLATION



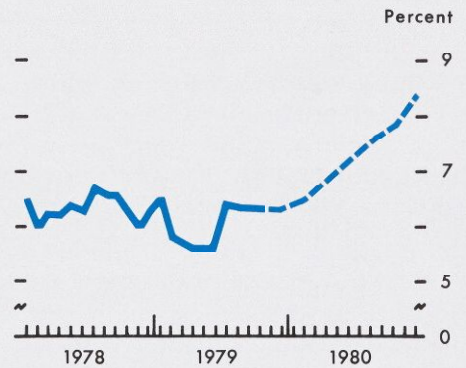
Could slow in second half.

## 2. NONFARM EMPLOYMENT



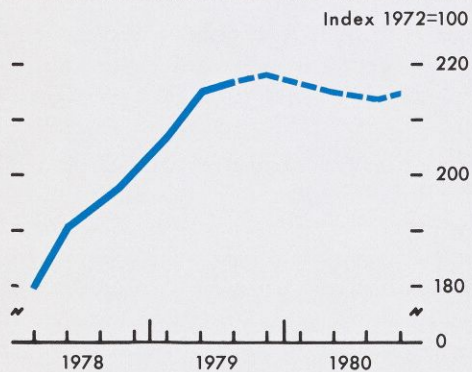
Will stagnate and drop after recent gains.

## 5. UNEMPLOYMENT RATE



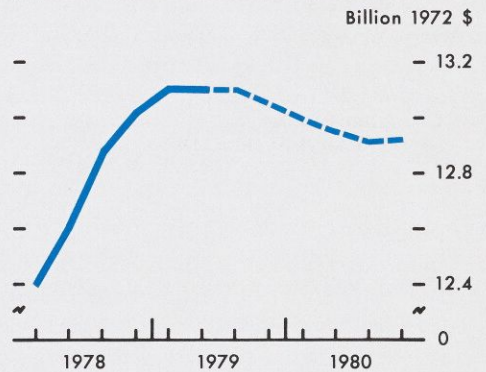
Will likely start rise by end of first quarter.

## 3. RETAIL SALES



In real terms, drop could be sharper.

## 6. REAL PERSONAL INCOME



Will probably fall slightly.

For the banking industry, the outlook is for a slow year. All types of loan demand should be down, and while some declines in the cost of funds may occur, profits will be adversely affected. There are no strong indications at this time of severe liquidity problems such as occurred in 1974; however, with weak deposit growth, which developed in late 1979, and the possibility of one final surge in business loan demand as inventories mount, we could see liquidity problems at some institutions. Savings and loan associations have experienced large increases in the costs of funds and are caught in a profit squeeze which will likely continue.

In Charts 2-6, we show several key economic variables which the Federal Reserve Bank of Atlanta watches in order to gauge the Southeast's economic condition. The charts contain data from 1978 and 1979 for reference and the author's forecast for 1980, shown by the dotted portion of the line. All of the results assume a moderate national downturn.

Southeastern employment (Chart 2), which has shown remarkable gains in recent years, is likely to stagnate early in 1980 and drop slightly for a quarter or two before returning to positive growth in late 1980 or early 1981. Manufacturing payroll income will probably drop quite sharply in early 1980 and continue down for the entire year, with perhaps some recovery late in the year. Retail sales (Chart 3) may turn down markedly in real terms (or in unit sales) if not in dollar value. Auto sales should continue weak, particularly the larger models, as gasoline prices rise and threats of shortages once again scare away potential buyers.


Apparel sales, which have been unimpressive, are also likely to decline. Less

active use of consumer credit will negatively affect sales of big-ticket items, such as appliances, furniture, and boats. Some small recovery in retail sales could begin in late 1980. That will, of course, depend partly on the inflation rate and the relative restraint of monetary policy.

The inflation outlook (Chart 4) is nothing if not gloomy. With another round of oil price increases, record prices for many other commodities, more liberal wage guidelines for 1980, and the accompanying rise in unit labor costs, overall inflation as measured by the GNP deflator might be even worse in 1980 than in 1979. Consumer prices will probably be growing at extraordinarily high rates early in 1980 but could slow in the second half to a rate below double-digit levels.

Unemployment (Chart 5) will most likely begin to increase in most District states early in 1980, conceivably to the 8- to 9-percent range by the end of 1980. This assumes that the labor force will grow at 2 percent and that 300,000 jobs will be lost in manufacturing and construction. That compares favorably to the 460,000 lost in 1974-75. Again, we point out that if inflation proves to be more resistant than we think to the monetary and fiscal policy now in place, the peak in the unemployment rate could come later and be higher.

Real income (Chart 6), which declined 3 percent during the 1974-75 recession, will probably fall about 2 percent from peak to trough.

1979 was not a particularly good year for economic forecasters, and the world situation in 1980 is even more volatile than last year. If history is any guide, 1980 probably holds at least some surprises for the Southeast and the rest of the nation. 



## The Meaning of the 1980 Monetary Targets: Excerpts from Testimony before the House Banking Committee, February 19, 1980

*Paul A. Volcker, Chairman, Board of Governors  
of the Federal Reserve System*

### Uncertainties Cloud 1980 Outlook

Important uncertainties continue to cloud the outlook for 1980. One of the most critical questions is whether consumers, faced with lower real incomes and expecting higher prices, will continue to spend an extraordinarily high proportion of their income despite heavy debt burdens and reduced liquidity. Purchasing power is again being absorbed by sharply higher oil prices, and there is no assurance that that process will quickly come to an end. The President has, of course, submitted his budget for fiscal 1981. But

international political developments have raised some new questions about prospects for defense spending in the years ahead, and there are uncertainties about other elements in the budget as it makes its way through Congress. . . .

Amid the present uncertainties, stimulative policies could well be misdirected in the short run; more importantly, far from assuring more growth over time, by aggravating the inflationary process and psychology they would threaten more instability and unemployment.

### Long-Term Restraint Needed on Money Growth

The implications for monetary policy are clear. While there may be legitimate debate about the impacts of monetary policy in the short run, there is little doubt that inflation cannot persist in the long run unless it is accommodated by excessive

expansion of money and credit. Put more affirmatively, restraint on growth in money and credit, maintained over a considerable period of time, must be an essential part of any program to deal with entrenched inflation and inflationary expectations. . . .

### 1980 Targets Mean Financial Restraint

The 1980 growth ranges established by the Federal Open Market Committee for the key monetary aggregates are in line with that basic, continuing objective. In the short run, we believe those targets are fully consistent with an orderly process of economic adjustment and modest growth, provided the inflation rate subsides as the year wears

on. We also believe that, should inflationary pressures begin to build more strongly in the context of strengthening demand, those same targets would imply strong financial restraint. In fact, the restraint implied by the new targets would be inconsistent with higher rates of inflation over a significant period of time.

**Short-Term Rates Will Vary Widely**

... Movements of short-term market interest rates—such as the Federal funds rate—should not necessarily be taken as harbingers of a fundamental

change in the stance of monetary policy; that policy will in any event continue to be directed toward reining in excessive monetary growth.

**Fed Committed to Reducing Money Growth**

Let there be no doubt; the Federal Reserve is determined to make every reasonable effort to work toward reducing monetary

growth from the levels of recent years, not just in 1980, but in the years ahead.

**New Procedures Offer Better Control**

The policy actions taken on Oct. 6 of last year, which entailed changes in our operating techniques to provide better assurance of containing the growth in the money supply, were one demonstration of that commitment. And I can report that developments since that time with respect to monetary

and credit growth have been remarkably consistent with our immediate objectives.

We cannot conclude from those results that our procedures ensure that money growth will always remain tightly on a narrow path over short periods of time, or that that is necessarily wholly desirable.

**Inflationary Psychology Fuels Money Demand**

Stimulated in large part by international developments, indications are that inflationary anticipations have tended to rise once again, and in combination, these developments appear to be generating somewhat greater

demands for money and credit. In the judgment of the Board, these developments underscore the need to take such measures as may be required to maintain firm control over the growth of money and credit.

**Restraint is Essential**

Sustained monetary restraint is not an easy, automatic, and painless solvent for our economic difficulties—the only claim I will make is that it is essential. It works, in part, by limiting the potential growth in nominal economic activity—that is, growth measured in current, inflated

dollars. If other policies are working at cross purposes, the restraint can be blunt, uneven, and decidedly uncomfortable, with too much of the impact in the short term falling on employment and income rather than on prices.

**Discipline Required in Public Policy**

To achieve [our] essential objective [turning around the expectations of inflation] will require sustained discipline, not just in monetary policy, but in

other areas of public policy. That discipline will certainly need to be reflected in the budgetary decisions of this Congress.

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# Questions and Answers on Monetary Policy

*with Stuart G. Hoffman*

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**Q** I understand that the Federal Reserve has intensified its efforts to control the growth of the nation's money supply. Why? What influence does money have on the rate of inflation?

**A** Let's begin by recognizing that excessive money growth, along with energy-related facts and overly stimulative fiscal policy, contributes heavily to chronic inflation. As I am sure you are well aware, the rate of inflation has accelerated in this country over the past several years. The Consumer Price Index (CPI) rose at a 6½-percent annual rate in 1977, 9 percent in 1978, and 13¼ percent in 1979. Rapid money growth clearly contributed to the acceleration of inflation during that time. To quote Chairman Volcker, "... I do believe that moderate, noninflationary growth in money and credit, sustained over a period of time, is an absolute prerequisite for dealing with the inflation that has

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**Q** What rate of money growth for 1980 does the Fed feel is consistent with its goal of reducing the rate of inflation?

**A** In February 1980, Chairman Volcker reported to Congress the monetary growth target ranges selected by the Federal Open Market Committee (FOMC) for 1980. This process is in accordance with procedures outlined in the Full Employment and Balanced Growth Act (Humphrey-Hawkins Bill) passed by Congress in 1978. The Committee selected an M-1A growth range of 3½ to 6 percent, and M-1B range of 4 to 6½ percent, and an M-2 range of 6 to 9 percent. Recently, the Board of Governors redefined the monetary aggregates. Old M-1—which consisted of currency and traditional bank checking deposits—was redefined to exclude those checking deposits held by foreign commercial banks and official institutions. This new aggregate is referred to as M-1A. The Board also defined another new aggregate—M-1B—which includes M-1A plus

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Many readers write or ask us questions on a host of economic topics. They seem most eager for easily understood answers on the mysteries of monetary policy and financial developments. We asked Senior Financial Economist Stuart Hoffman to respond to some typical questions about recent monetary policy.

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ravaged the dollar, undermined our economic performance and prospects, and disturbed our society itself.”

The inflationary effects of overly rapid money growth are not felt immediately. In fact, evidence suggests that money does not begin to impact prices until nearly one year later and continues to be felt in the following year. This is widely referred to as the “lagged effect” of monetary policy on inflation. Recognizing this important, albeit delayed, causal relationship between excessive money growth and inflation, the Federal Reserve has committed itself to more vigorous efforts to slow the rate of money growth. This should eventually result in a slower rate of price increase.

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new checkable deposits, specifically NOW accounts, automatic transfer accounts (ATS), credit union share drafts, and demand deposits at mutual savings banks. This move was designed to remedy the criticism that old M-1 was an obsolete measure of the public’s total transactions balances. M-2 was redefined to include M-1B plus savings accounts and small-denomination (under \$100,000) time deposits at both banks and thrifts, overnight repurchase agreements (RPs) at banks, overnight Eurodollars, and money market mutual fund shares. These recently announced monetary growth ranges for 1980 are an important clue to how determined the Committee is to keep money growth on a moderate track. I believe that these ranges continue the Fed’s efforts in 1979, most forcefully in October, to reduce money growth to a less inflationary rate over time.

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***“These growth ranges are an important clue to how determined the Committee is to keep money growth on a moderate track.”***

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**Q** I've heard many people refer to the special FOMC meeting in October 1979 at which several emphatic actions were taken to help reduce inflationary pressures. But I'm still not sure I understand the whole story. What circumstances convinced the Committee that such actions were necessary?

**A** After slowing in the first quarter of 1979, measures of money growth suddenly accelerated sharply in the second and third quarters, that is, in the six months prior to the Committee's special meeting in early October. In fact, M-1 growth reached 10½ percent at an annual rate and M-2 nearly a 12-percent annual rate during that six-month period. Such rapid growth, if continued, would have resulted in money growth well above the FOMC's targets for 1979. Those targets, adopted in February 1979 in accordance with the Humphrey-Hawkins Act, called for an M-1 target growth range of 3 to 6 percent (adjusted for technical factors) and an M-2 target range of 5 to 8 percent. If money were

**Q** Exactly what did the Federal Reserve do at its special October meeting?

**A** The Federal Reserve took three actions to help combat inflation. First, it raised the Federal Reserve discount rate from 11 to a record 12 percent. The discount rate is the interest rate that the Federal Reserve charges its member banks for borrowing. Actually, the discount rate is determined by each Federal Reserve Bank's own Board of Directors, subject to approval by the Board of Governors in Washington.

A second action taken by the Board of Governors was to impose marginal reserve requirements on certain types of liabilities (used to finance the rapid growth in bank credit) that were not formerly subject to requirements or that had been subject to lower reserve requirements.

The third change decided upon by the Federal Open Market Committee was a change in the operating strategy for influencing money growth that had evolved during the 1970s and was in practice up until October 6. Essentially, the Federal Open Market Committee had been using the Federal funds rate—the overnight interest rate on interbank loans—as a “handle” for influencing money growth. When the funds rate rises, individuals and businesses prefer to hold less money because of the higher opportunity



allowed to continue to grow in excess of the targets, it would have served to further entrench the prevalent inflationary psychology and ultimately fuel the fire of inflation itself. This was clearly unacceptable to the Federal Open Market Committee. Also, the foreign exchange value of the dollar had again come under significant downward pressure during most of the summer, partly in response to the inflationary implication of the accelerated money growth. Additionally, speculative excesses in financial and commodity markets were readily apparent. In these circumstances, the FOMC felt more forceful actions were necessary.

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***“If money were allowed to continue to grow in excess of the targets, it would have served to further entrench the prevalent inflationary psychology and ultimately fuel the fire of inflation itself.”***

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costs of foregone interest income. Following this strategy, when money growth was excessive, the Committee would raise its Federal funds rate target to retard money growth and vice versa. However, the Committee had always been reluctant to allow the Federal funds rate to rise sharply during a short period of time. A certain amount of interest rate stability had always been a separate objective itself. This often reduced the Committee's ability to hit its short-run money growth targets. Inevitably, when the Committee's twin objectives of money growth and interest rate stability were in conflict, something had to give, and more often than not, it was money growth.

When it became apparent that controlling money through the Fed funds rate was not an effective strategy, the Committee decided to try a different approach. An alternative strategy is to use the supply of bank reserves as the “handle.” With the change on October 6, the Committee placed a higher priority on controlling money growth by supplying an appropriate amount of bank reserves. The consequence is that the Committee currently allows the Federal funds rate to vary considerably more than in the past as bank reserve and credit demands dictate.

**Q** When can we expect the policy moves taken by the Federal Reserve to actually reduce inflationary pressures? How soon can we look for inflation to slow down?

**A** Most economists distinguish three important lags between monetary policy actions and their effect on economic activity. First, it takes some time before a tight rein on bank reserves reduces money growth. After October 6, though, the "bite" on money growth occurred quite rapidly, with old M-1 and M-2 increasing at only 3- and 6¾-percent annual rates, respectively, in the final three months of 1979. However, at least another quarter of slow money growth is necessary before concluding that a significant trend has been achieved. Second, a slowdown in money, once accomplished, produces a moderation in aggregate economic activity within six to nine months. This is reflected in lower rates of production and a possible rise in unemployment. Third, the slowdown in aggregate demand is ultimately reflected in a declining rate of inflation during the following year. Thus, the initial effect of a "tighter" monetary policy on inflation is negligible but gradually builds up for as long a period as two years.

**Q** Since 1980 is expected to be a recession year, there are sure to be pressures to accelerate growth in the money supply. How can the public tell if the Fed remains firm to its commitment to pursue more moderate money growth objectives consistent with an eventual decline in the rate of inflation?

**A** The Fed has often been criticized in the past for implementing "stop and go" policies. However, the moderate money growth targets adopted for 1980, even lower than those for 1979, present a clear "stop" sign for rapid money growth. To find out if the strategy is working, financial analysts and the public can compare actual money growth with the announced monetary guideposts. Since money fluctuates widely from month to month, it's not necessary for M-1A, M-1B, and M-2

So one would not expect any immediate anti-inflationary impact from the procedural changes taken in early October 1979. Indeed, the *initial* reaction may actually be the reverse. The explanation is that a tighter monetary stance initially pushes up interest rates. Businessmen quickly pass the higher interest costs through to prices, while higher home mortgage rates for home buyers enter directly into calculations of the CPI. In fact, inflation has remained uncomfortably high. This is related to the earlier excessive money growth, along with certain special factors, such as continued pass-through to retail levels of oil price increases, unexpected jumps in food prices, and a sharp rise in home mortgage rates.

Even if the Fed's policies continue to reduce money growth, the beneficial effects on inflation will probably not be visible until the latter half of 1980 but should continue to build thereafter.

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***"The initial effect of a 'tighter' monetary policy on inflation is negligible but gradually builds up for as long a period as two years."***

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growth to be within the annual target each and every month. But what is important is to watch for whether the money growth fluctuations are averaging out over several months to a rate within the Committee's long-run range. If so, slower money growth will make an important contribution toward reducing inflationary pressures before the end of 1980. Further relief should then come in 1981 and beyond. [FR](#)

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***"To find out if the strategy is working, financial analysts and the public can compare actual money growth with the announced monetary guideposts."***

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# Relevant Geographic Banking Markets: How Should They Be Defined?

*by David D. Whitehead*

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**Introduction.** Bank mergers and bank holding company acquisitions often cause controversy. The controversy usually centers on a concern that combining two or more competing banks will result in higher prices and reduced services. These fears and others have led to laws which control bank mergers and bank holding company acquisitions. A major objective of these laws has been to avoid combinations of competing banks.

To enforce these laws with respect to existing competition, the bank regulatory agencies and the courts must make two fundamental decisions. First, they must determine whether banks seeking to combine actually compete. Second, they must determine whether allowing the proposed acquisition or merger would significantly lessen competition in the market or markets where they compete. Both of these decisions require the regulatory agencies and the courts to define the geographic market or markets in which the banks operate.

If the combining banks are found to be in the same geographic market, the seriousness of the probable competitive consequences of the merger or acquisition is judged primarily by the relative size of the combined organization. The power of an organization to affect the marketplace depends upon many factors, but the most important of these factors is generally agreed to be the relative size of the organization, i.e., a bank's size relative to other banks in the market. The larger the proportion of a given market

controlled by a single firm, the greater the degree of discretion that firm may exercise in terms of its pricing and output decisions.

The relative size of an organization, however, is inversely related to the size of the market in which that organization interacts. As the geographic limits of a market are expanded, more banks may be included. As the number of banks defined to be within the market is expanded, the relative size of any given bank must decrease.

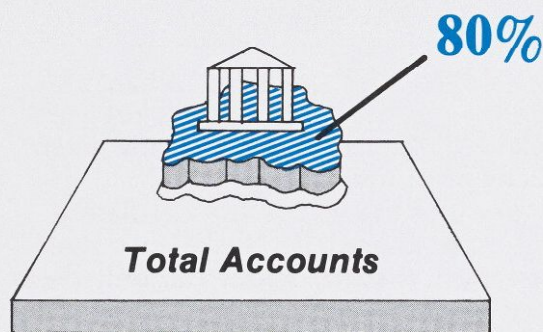
Because the courts and regulatory agencies depend on the relative size criterion, their decisions can only be as sound as the soundness of the definition of the relevant geographic banking area. For this reason, relevant geographic markets must be defined so as to approximate as closely as possible our theoretical concept of markets.

This article attempts to develop a way to define markets that is both practical and capable of overcoming the more obvious shortcomings of other methods relying on secondary data (see Appendix). The definition will also be theoretically acceptable because it focuses on the major requirements of a market—interaction between suppliers and demanders—which also encompasses the need for responsiveness on the part of suppliers to the competitive actions of other suppliers.

The need to incorporate interactions between suppliers and demanders is met by identifying the area in which each

Controversy about bank mergers and bank holding company acquisitions is usually based on fears of higher prices and reduced services. The problem for courts and regulatory agencies trying to enforce merger and acquisition laws has been that no uniformly accepted method of defining geographic banking markets exists. The author reviews previous efforts to define banking markets and proposes a method which is both practical and theoretically acceptable. Since it deals largely with theoretical material and scholarly disputes, this article is more technical than others in this issue.

individual bank or banking office successfully markets its services. Regulators call this a bank's *primary service area* and specifically define it as the smallest area contiguous to the bank's office from which it gets 80 percent of its accounts.



**Primary Service Area:** smallest area contiguous to the bank's office from which it draws 80% of all its accounts.

Two banks are likely to react to each other's decisions on service charges, interest rates, or new services if they both draw a significant number of customers from the same area—that is, if their primary service areas overlap. A set or cluster of overlapping service areas may then be used to define a group of banks that influence one another—that are in the same market. Therefore, overlapping primary service areas identify banks which will react to the competitive stimuli of one another. We can then use a set or cluster of primary service areas joined by

overlapping areas to delineate a geographic banking market, or what has been called a local banking market. Since the primary service areas are easily identifiable, this method is practical as well as theoretically acceptable.

Once we have defined the relevant geographic banking area, it is relevant for all banks located within these boundaries. However, the definition may not hold for all times. Economic growth or decline may alter banking markets. Changes in population density, commuting patterns, and new bank entries on the perimeter of the market may change a bank's primary service area and must be taken into account over time.

To understand why this method can be useful, we need to know more about the theoretical concept of markets and how the primary service area can be used to determine relevant geographic banking markets that are consistent with this concept.

### Theoretical Markets

The common thread running through all theoretical concepts of markets is price equalization. Alfred Marshall, for example, defined a market as "the whole of any region in which buyers are in such free intercourse with one another that prices of the same good tend to equalize easily and quickly." George Stigler defines it as ". . . the area in which the price of a commodity tends to uniformity, allowances being made for transportation costs."

To assure price equalization, two conditions are necessary. The first is that the product is homogeneous (what is offered by different sellers is basically the same); the second is that buyers and sellers are located in such close geographic proximity that sellers are viewed as good alternative sources of supply by a significant portion of the consumers in the market.

When these two conditions are met, an interplay is set up between the firms and their customers. Customers purchase from firms that offer the product at the lowest price. Thus, a price reduction on the part of one producer attracts customers away from other firms in the market. These other firms must respond by lowering their prices if they are to stay competitive. As a result, prices among all producers are equalized within the market setting. In addition to price equalization, the definition of a market must include both the supply and demand activities.

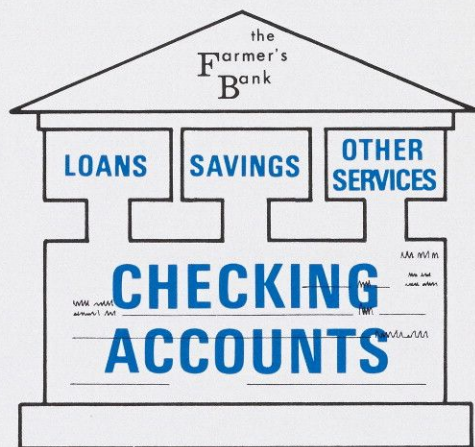
### **The Supply Side—Determining What Is Produced**

The first step in defining a geographic market is to define the product. Yet, doing so for commercial banks presents a problem. These banks are by nature multiproduct firms. They offer a wider range of financial services than any other type of financial intermediary. In fact, their range of services is so impressive that it becomes one of their distinguishing characteristics. With two exceptions—demand deposit accounts and loans to small businesses—other financial intermediaries can offer a good substitute for any given service offered by commercial banks. But no other type of financial institution can be considered a good substitute for the range of services offered by a bank.

Their very multiplicity of services suggests one approach to defining their product. The courts (and to a more limited degree, the regulatory agencies) have defined the product of commercial banking as the wide range of services

which, taken together, constitute the “relevant line of commerce.” The use of the “relevant line of commerce” definition allows the product of a commercial bank to be differentiated from that of a savings and loan or consumer finance company in the same way that the product of a department store is differentiated from that of a dress shop. In doing so, it separates the commercial banking industry from all other industries in the financial service sector.

The “relevant line of commerce” definition also captures the second distinguishing characteristic of commercial banking—the offering of demand deposits. Because demand deposits are more or less unique to commercial banks, they can and have been used by the courts as a proxy for all commercial banking services. This seems to be reasonable if customers view the holding of a demand deposit as a necessary condition for easy access to the other services offered by the bank. That is, demand deposits can stand as a proxy for all commercial banking services if the concept of product interdependence is accepted.



A checking account, as viewed by the customer, is a basis for obtaining other financial services from his bank; therefore, courts and regulatory agencies have used demand deposits as a proxy for all commercial banking services.

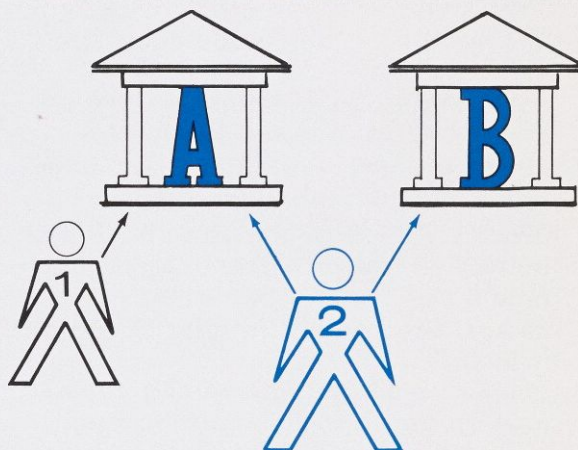
Viewing the product of commercial banks as an interdependent group of financial services that may be proxied by a single product simplifies the problem. It allows for a definition of a single geographic market that permits us to analyze not only competition between banks that offer the wide range of services but also any individual service offered by banks and any competition between banks and nonbank financial institutions supplying these services. The ability to analyze the individual services offered by banks and the competition between banks and nonbank institutions is important because, while the courts have maintained that commercial banking may be generally described as a "line of commerce," they still insist on an analysis of the competitive effects that a merger or acquisition may have on any specific service or product offered by the financial institutions involved. Therefore, on the supply side, the key to defining a geographic market is identifying the product and identifying those firms which offer that product.

### **The Demand Side: Identifying the Customers**

The second step in defining a relevant geographic market is to identify the location of customers who are important to competing banks. The same qualities of uniqueness and interrelatedness that make demand deposits a good proxy for commercial bank products make holders of demand deposits a reasonable proxy for the customers of commercial banks. *Therefore, identifying the geographic location of deposit holders served by a bank will approximate the relevant geographic area served by that bank, i. e., the bank's primary service area.*

The primary service area of a bank is usually defined as the smallest geographic area from which the bank derives 80 percent of its demand deposits. The regulatory agencies that use this definition implicitly assume the customers outside a bank's primary service area are

not vital to the pricing and output decisions of that bank. In a monopoly situation, the primary service area of the bank will be identical to the relevant geographic banking market.



While the first group of customers lives so near Bank A that Bank B is not a reasonable alternative, the second group's location makes either Bank A or Bank B a reasonable choice. Group Two is thus critically important in establishing a market.

Carrying the analysis a step further, in any situation involving two banks, the primary service area of each bank may be smaller than the relevant market. This is because, given the convenience nature of banking, two banks located in close geographic proximity may each serve two separate groups of customers. The first group lives and/or works so near to the bank in question that the second bank will not seem a reasonable alternative unless it adjusts its prices so substantially that members of this group are willing to endure the transportation cost, time, and/or inconvenience necessitated by dealing with the other bank.

The second group of customers is located more or less equidistant between the two banks. This group experiences

only minimal transportation cost, time, and inconvenience when shifting an account from one bank to the other. Even small changes in price may be enough to induce members of this group to move their accounts.

This movement from one bank to another in reaction to price changes is critical in establishing a market. An overlap of primary service areas between two banks assures that these conditions exist. In other words, it assures that the two banks are direct competitors. The geographic area described by the primary service area of each of these two banks would then describe the relevant banking market, assuming banks cannot use nonprice techniques to differentiate their product.\*

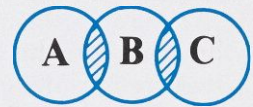
Note that all customers need not be common to the two competing banks. However, a large enough percentage of the customers of each bank must be located in the area where the two primary service areas overlap to assure that either bank must react to the competitive action of the other bank or lose a significant share of its business.

The primary service area concept works equally well for a larger number of banks. Each bank in the market need not be a direct competitor of every other bank defined to be within the market. Each must, however, share a large enough primary service area overlap with at least one other bank within the market to ensure that a competitive action on the part of one bank will result in a competitive reaction on the part of all other banks through a chain reaction sequence.

Note that the competitive reaction need not be direct. Indirect competitors—those that do not share a common group of customers—must also react to each other's actions, as the chain reaction sequence will influence the actions of those banks with whom they are in direct

competition. In this way, the competitive action of any bank in the market will eventually affect every other bank in the market, requiring some competitive reaction on their part or a loss of customers. Perhaps a diagram may help to explain this.

### A Banking Market "Chain Reaction":

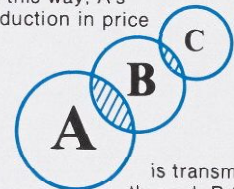


The circles around "banks" A, B, and C are their primary service areas. The three circles overlap, producing a "cluster" of overlapped service areas.

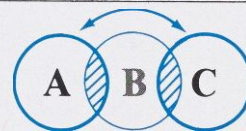


Banks A and B are direct competitors; they share a primary service area overlap. Therefore, any reduction in A's price will force B to reduce its price or lose customers. Since B and C share overlapped primary service areas, C must also reduce its price following B's lead or lose customers.

In this way, A's reduction in price



is transmitted through B to C.



Therefore, even though A and C don't share a service area overlap, both are in the same market because A's competitive action is transmitted through B to C, i.e., prices in the market tend to equalize over all sellers.

Defining a geographic banking market by aggregating primary service areas that share some degree of overlap assures that

\*Note: Two important questions that this approach brings out have been given insufficient empirical study and still require considerable judgment on the part of the analyst: (1) How large is the fringe group of customers that is not vital to a bank's decision? (2) How much service area overlap is necessary for one bank to influence another directly?



all banks within the market react to common demand conditions. It also assures that at least some portion of the customers of each of the banks in the market view at least one other bank in the market as a good alternative source of financial services. As a result, a competitive action on the part of one bank, i.e., a change in price and/or quality of banking services can reasonably be expected to draw customers from at least one other bank in the market. The bank losing these customers will react by a similar competitive action. This interaction assures a market.

### **Product Segregation**

Once a geographic area has been defined as the relevant banking market, it is possible to determine what impact other financial intermediaries have on commercial banks and vice versa. This is done in much the same way that regional economic models are opened up to allow for outside influences. That is, the competitive influence exerted by any other type of financial institution offering a service similar to that offered by a commercial bank is considered an exogenous shock which, if sufficient, could cause a reaction on the part of any bank. In turn, this reaction will be transmitted to all other banks in the market. Since we have taken as a constraint the court's line of commerce product definition, the impact of financial intermediaries other than banks will be relevant only as their activities affect the competitive activities of banks in terms of a specific financial service in the given geographic market. In the same way, changes in the competitive behavior of banks affect other financial intermediaries offering similar services in the defined market.

As a result, the defined geographic market can be used to analyze the competitive consequences in any product line offered by commercial banks, taking into account that other financial intermediaries offer the same type of service. If a question relates to mortgage loans, for example, all suppliers of this type of loan

in the geographically defined banking market are relevant to the analysis.

### **Benefits of the New Definition**

The use of overlapped primary service areas or, more precisely, clusters of primary service areas to define geographic banking markets offers several advantages. By concentrating on geographic areas from which banks actually draw customers, it directly addresses the interaction between demanders and suppliers. Since no other proposed criterion allows both supply and demand to be included, no other assures the necessary interaction among market participants.

In addition, a definition based on clusters of overlapped primary services can be easily applied in a practical setting. Simply by knowing the location of the primary service areas of banks and/or branches, we can establish the basic outline of the market. Questions about whether to include a given bank within a given market can be resolved by a simple survey or bank interviews to determine what area the bank draws its deposits from. Courts and regulatory agencies can research previous cases to ascertain primary service areas in places where other acquisitions or merger activity have occurred.

Finally, a definition based on clusters of overlapped primary service areas assures that the markets' boundaries are fixed at any point in time but are expandable over time as growth occurs. A fixed market guarantees that every organization attempting to enter the market through the acquisition of a given sized bank will receive the same treatment as its competitors.

The combined advantages of the suggested method make it a reasonable solution to the problem of defining relevant geographic banking markets. In sum, this approach is theoretically justifiable, operationally practical, and results in an even-handed evaluation of the potential competitive consequence of merger and acquisition in a given market.

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## APPENDIX

# Defining Banking Markets: An Analytical Review of the Literature

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At present, there is no uniformly accepted method of defining geographic banking markets. The courts have most often defined markets on the basis of "the area in which the competitive effect would be direct and immediate,"<sup>1</sup> which has resulted in geographic markets delineated on the basis of local areas as opposed to state or regional areas.<sup>2</sup> The concept that banking markets are local is now well accepted by the courts and regulatory agencies. The geographic areas most often utilized to approximate local banking markets by the courts have included cities, counties, Ranally Metropolitan areas, and standard metropolitan statistical areas.

On more of an academic level, a number of studies have been undertaken to establish

methods for delineating either the primary service area of a bank or geographic banking markets. These studies may be subdivided into three basic categories—first, those which attempt to specify the geographic distribution of a bank's customers, i.e., the bank's primary service area; second, those which use a customer survey method to delineate the location and characteristic of users of some type of banking services, thereby establishing a geographic market for these services; and third, a group of studies of a more general nature which key on some demand and/or supply variables to generate a model for identifying geographic banking markets. While each of the three types of studies accumulates useful information, each has its limitations.

Examples of the first type of study are [1], [2], [4], [15], and [16]. Each of these studies focused on an individual bank and then attempted to ascertain the geographic area served by the individual bank. To the extent that each of these attempted to delineate the geographic area served by a bank, they were not attempting to establish a banking market. The geographic areas served by a bank and a banking market are completely different concepts.

The studies by [6], [7], [10], and [17] are good examples of the second category. Each of these studies used a survey to establish where residents and/or businesses of given communities obtained banking services—from within the local community or elsewhere. These surveys were intended to isolate those factors which are important to bank customers

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<sup>1</sup>United States vs. Philadelphia National Bank, et al., 374 U. S. 321, 1963.

<sup>2</sup>See Douglas Austin's, "The Line of Commerce and the Relevant Geographic Market in Banking: What Fifteen Years of Trials and Tribulations Have Taught Us and Not Taught Us About the Measurement of Banking Structure," **Proceeding of a Conference on Bank Structure and Competition**, Federal Reserve Bank of Chicago, April 1970, pp. 185-209, for a complete discussion of how the courts have defined markets.

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in choosing a bank. Each concluded that banking markets are essentially local, i.e., a given community, or, in the case of suburban areas, banking markets are expanded to include bedroom communities of larger metropolitan areas. In the latter case, commuting patterns increase the number and geographic distribution of banking alternatives and, hence, the geographic extent of the banking market. These studies indicate that banking markets are local and that one's choice of a bank is, in large measure a function of convenience. These research efforts, however, did not result in the identification of variables which would prove useful in constructing a generalized model to predict geographic banking markets from secondary market data, such as population density, distance, or commuting patterns. Rather, each advocated a case-by-case approach to banking market determination.

The third group of studies are those which attempted to build on a theoretical base a generalized method for approximating geographic banking markets. Studies in this category include [5], [9], [12], and [18]. Studies [9] and [12] focused directly on the price equalization characteristic of markets and attempted to define markets on this characteristic. Price equalization is perhaps a necessary condition within a market, by definition. However, it is not sufficient in and of itself to delineate a market in geographic space, given that more than a single market may have the same price. In other words, price equalization is a characteristic of a market and is a good test as to whether or not a defined geographic area is,

in fact, a market, but it cannot be used independently to delineate a spatial area as a market. Study [5] developed a model which is used to focus on the share of accounts a bank is likely to draw from a given Zip Code area. Its share is dependent basically on relative distance, relative ages of banks, and relative prices of banking services. The model stratifies the area in question by Zip Codes and then measures the degree of competition between organizations, based on the degree to which they obtain deposits from each area. Since the focal point is the share of deposits within a particular Zip Code area obtained by a given bank, it implicitly assumes a direct relationship between the share of Zip Code deposits obtained and the degree to which that bank will compete for those deposits. However, a bank may receive 50 percent of a given Zip Code area's total deposits, but this may constitute such a small percentage of the bank's total deposits that the bank would not change its price in order to compete for customers located in this area. As such, two banks obtaining deposits from this area may or may not compete in this area. This information is neither necessary nor sufficient by itself to include a bank in the market or exclude a bank from the market.

Study [18] focused on the use of secondary economic/demographic data to approximate "areas of convenience" for banking services. This study delineates geographic markets on the basis of population density, economic functions, and size of communities. It was found that this type of market definition is

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superior to using political subdivisions. Closely related to this type of approach is that suggested in studies [8] and [14] in which a combination of banking and demographic data is used to define markets. The latter two studies suggest that a case-by-case approach is necessary. In fact, study [14] presents the only public statement by a member of the Federal Reserve Board staff on the approach to market area determination used at the Board. In cases involving "simple markets," i.e., markets in which it appears all sellers are viewed as good alternative sources of supply by all customers, it is necessary only to define the periphery of the market, and this can be accomplished by looking at the extent and durability of price variations among suppliers of the services over the area. Significantly, different prices imply different markets, taking adequate account of adjustment time and quality differences. For complex local markets, i.e., markets which are so large geographically that customers don't view every seller as a reasonable alternative source of supply, markets are approximated by either entire counties or SMSAs and/or Ranally metro areas. If any doubt remains after looking at each of these market approximations, the Board requests the Reserve Banks to carry out small surveys or, on rare occasions, large-scale surveys.

The current state of affairs as far as banking market determinations are concerned was adequately expressed by Governor Wallich in a dissenting statement on a recent case.

"In this case, an array of alternative market delineations has been presented for the Board's consideration. Each of them, with the exception of Applicant's ten-county market, has some merit, reflecting recognized economic and competitive relationships, but no one of them is entirely satisfactory."<sup>3</sup>

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<sup>3</sup>Dissenting Statement of Governor Wallich, Order Denying Acquisition by Independent Bank Corporation, Ionia, Michigan, of The Old State Bank of Fremont, Fremont, Michigan; **Federal Reserve Bulletin**, October 1979, pp. 867-870.

It should be obvious at this point that researchers have not established an unambiguous model that may be used generally to determine geographic banking markets. No rule of thumb may be generally applied to identify banking markets in geographic space. At best, the results of all these studies indicate that banking markets are, in fact, local and must be defined on a case-by-case basis. Regulatory agencies have generally accepted the concept of local banking markets and have approached the problem of geographic banking markets on a case-by-case basis. Further, it seems to be agreed that use of secondary data, such as population density, commuting patterns (to work or to shop), transportation networks, and common advertising, may all be important for delineating geographic banking markets. These factors are indications of homogenous economic regions which, to some extent, allow for an interaction between buyers and sellers. Other factors, such as natural barriers, socio-economic barriers, and banking laws may serve to break these competitive interactions. Regulatory authorities attempt to take each of these factors into consideration in determining a relevant geographic banking market. These factors, in effect, set up conditions under which it is asserted that customers have access to or view a number of banks as viable alternatives for banking services, thus establishing the necessary interaction between buyers and sellers to delineate a market. The limitations of this approach are that each of these factors is simply an indication that a market may exist; alternative factors may give conflicting evidence as to whether or not a market actually exists. The degree to which each or any of these factors must be present in order to establish the existence of a market lacks specification. Some of the same problems are inherent in the method of defining markets suggested in the present study, however, with an important difference. The clustering of overlapped primary service areas assures that competitive stimuli are transmitted from bank to bank; customers in these areas are in fact capable of changing banks relatively easily. 

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## Monthly Southeastern Economic Indicators

This compilation of data from our monthly *Updates* (with revisions) includes major business statistics (employment, finance, and income) for the Sixth Federal Reserve District (for 1968-78) and for each of the six states included in the District (for 1974-78). Published in December 1979.

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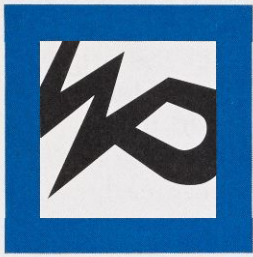
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## Historical Southeastern Statistics

Published in December 1979, this summary of major economic trends shows the relative economic growth of the region. Data are presented for the six states in the Sixth Federal Reserve District and for the eleven southeastern states from (in most cases) 1930 to 1978. Tables include Resident Population, Income, Employment, Production, Agriculture, Finance, and Retail Sales.

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# Working Paper Reviews

The following articles are staff reviews of more complete studies in the Federal Reserve Bank of Atlanta Working Paper series.

*B. Frank King*

## Future Holding Company Lead Banks: The Federal Reserve's Standards and Record

When a large banking organization attempts to acquire another large organization in a different area of the country, courts and regulatory agencies must decide whether the bank to be acquired might, if left alone, expand and form its own multibank holding company. Since 1967, the Federal Reserve System has been involved in such decisions.

By fits and starts, the nation appears to be moving toward greater acceptance of interstate banking. If this leads to interstate branching, the Federal banking agencies and the Department of Justice will most likely be faced with thorny problems in their analysis of the competitive effects of mergers across state lines. Straightforward potential competition questions will certainly arise. In the past, for example, when a bank or holding company wanted to enter a new market by acquiring a smaller bank, authorities have asked what the effect will be on competition. But a potentially important, and much less frequently discussed, problem may override the significance of such questions.

This problem—how to identify future lead banks—arises when a large banking

organization attempts to acquire another large organization in an entirely separate area of the country. In addition to deciding whether the acquiring bank will have competitive advantages in its new market, courts and regulatory agencies must consider the possibility that the bank to be acquired might, if left alone, expand and become a competitor of the acquirer in other markets.

Although in the past these banking and antitrust agencies have not emphasized a bank's potential to expand (and, by forming its own multibank holding company, to become a new lead bank), such considerations are not entirely new to the Federal Reserve System. The System has, in a series of cases starting as far back as 1967, considered whether the organization being acquired would itself form a multibank holding company and thus become a direct competitor of the company applying for it.

What factors has the Board considered in projecting future lead banks? Under what conditions have such projections become important to Board decisions? How accurate were the Board's projections? Was there a pattern to its successful projections? In his Working Paper, B. Frank King discusses these questions and provides a basis for interpreting and evaluating the Board's criteria and its record on projections.

**The Board, according to King, identifies future lead banks (banks which could form their own multibank holding companies) because these banks may fit into two theoretical and sometimes combined concepts: the "wings" effect and the "deconcentration" effect. The "wings"**

effect is the *current* influence on market prices and output of a likely competitor on the fringe of a market ("in the wings"). The "deconcentration" effect refers to what would happen to future prices and output if that competitor entered the market. The number of competing banks would increase, and the "concentration" of customers would be dispersed. The accuracy of the Board's projections, then, depends to a large extent on the quality of its judgment of these two effects. Once these general effects have been applied to the specific acquisition and a potential lead bank has been identified, the Board's argument has generally been that these two effects are likely to occur and that the future lead bank, if left alone, is likely to form its own multibank holding company that would compete with the applying multibank company. The Board would then deny the acquisition of the future lead bank on the grounds that it would have adverse effects on competition.

In his analysis of the 13 future lead banks identified by the Board between 1967 and 1975, King concludes that **identifications of future lead banks were based primarily on large size relative to other banks in the state or region and the capability of management.** The Board has been most concerned about the threat of elimination of future lead banks when there have been few other lead banks in the area and high concentration in local, regional, and/or state markets. King's examination of the accuracy of the Board's projections shows that the Board correctly identified future lead banks in slightly more than half (7) of the cases, that it was wrong in one-fourth (3) of the cases, and that it is too early to judge the remaining fourth (3) of the cases. In the second part of the Board's projection (whether the future lead bank and the company seeking to acquire it actually became competitors), King discovers subsidiaries of four of seven lead banks to be competing with the original applicant (although points of competition were not extensive).

**King's analysis of the Board's successful and unsuccessful projections reveals several patterns.** First, the earlier the original denial, the more likely "future" lead banks are to become real lead banks. This, of course, may be due to the additional elapsed time since these early decisions. Second, of the designated future lead banks, the larger organizations were generally more likely to become actual lead banks than the smaller ones. Part of the explanation for these patterns may be due to a slower economy and the Board's tighter acquisition policy after 1973, but the patterns appear over the entire 1967-1975 period.

Throughout that period, the Board's main interests appeared to lie in preserving both wings and deconcentration effects of future lead banks in local markets with high concentration and where few relatively large, capable banks existed. King finds that the Board has only had moderate success in predicting future lead banks that would come into competition with other organizations. All but 3 of the 13 future lead banks continue to be at least "in the wings," but so far Board denials could have led to market deconcentration in only a minority of the instances. The criteria for future lead bank projections seem valid, King concludes, but the accuracy of the projections could be improved through further research on lead bank characteristics. [ER](#)

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**Future Holding Company Lead Banks: The Federal Reserve's Standards and Record** by B. Frank King, October 1979, 11 pp. Includes Bibliography and Appendix of future lead bank decisions.

A copy of this study is available upon request to the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

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*Robert E. Keleher and  
Charles J. Haulk*

## Money-Income Causality at the State-Regional Level

Recent theoretical developments and statistical procedures suggest that money-income causality at the regional level may be the reverse of that at the national level. Changes in regional income, the authors argue, produce changes in regional money supply.

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Does an increase in money supply in a region contribute to inflation? Does personal income in a state depend on the supply of money in that state? The answer to both questions, surprisingly, appears to be no. These were some of the implications when Federal Reserve Bank of Atlanta economists Robert E. Keleher and Charles J. Haulk applied international monetary theory and innovative statistical procedures to U. S. states and regions.

Instead of changes in money supply causing changes in income (as in a relatively isolated national economy), the study found that the reverse is true at the regional level. Changes in income contribute to changes in the money supply. If that is the case, several practical and theoretical implications arise. First, it implies that inflation in a region is not determined by the money supply in that region. Inflation, in fact, induces more money to be demanded, since the larger the income, the more people need money to complete transactions. Second, based on this "reverse causation" conclusion, regional banks who want to forecast future demand deposits would be advised to employ regional income instead of national money supply as a principal explanatory factor. A third corollary would

be that contrary to some theories, an increase in regional money would not contribute to increased regional inflation.

**The theoretical context of the study** has to do with the fact that until recently, economists treated the U. S. as a closed economy (a self-sufficient economy which has little or no interaction with other, external economies). It has become increasingly evident, however, that the U. S. is actually an open economy with substantial interchange across its borders. Consequently, economists have devoted much recent theoretical work in international monetary economics to analyzing small, open economies (an individual U. S. state or region or a small country, for example).

One group, in particular, those who advocate the monetary approach to the balance of payments (MABP), has examined the small, open economy (SOE) under fixed exchange rates within an integrated world economy. That is, an economy where the rate of exchange with currencies of other economies is fixed. Since most countries now employ more flexible exchange rates, the case of the individual state or region within the U. S. is one of the few remaining examples of a fixed rate SOE. When it examines the world system (by definition, a closed economy), this "global monetarist" school contends, among other things, that world money demand, in conjunction with the world money supply, determines the world price level. Causation in a closed system, it maintains, runs from money to nominal income. In other words, an increase in money supply will eventually cause an increase in nominal income.

When applied to a small, open economy, under fixed exchange rates, however, this same literature indicates that changes in the domestic money supply cause no permanent changes in interest rates, prices, or income. Causation in such a SOE, then, may be the reverse of the closed economy.



The MABP framework, which consists of an integrated closed economy with small, open economies within it, can be applied to the U. S. economy and its states and regions. Causation between money and income at the state-regional level, then, may be the reverse of that at the national (U. S.) level.

**This interpretation, however, has not been adequately recognized by recent studies of causality at the state and regional level.** Most studies examining the relationship between money and state and regional economic activity have focused on the regional impacts of national monetary policy. These studies have used models in which causality runs from money to income.

A few recent studies have examined causal relationships between regional money and regional economic activity. Although maintaining that this regional approach to money-income causality is unique and interesting, Robert E. Keleher and Charles J. Haulk in their Working Paper contend that previous regional studies are deficient for several reasons.

Keleher and Haulk point out that these theoretical developments (which suggest reverse causation) have not been employed in recent regional studies. They also cite innovative statistical procedures (developed by Granger, Sims, and others) directly relating to studies of causality which have not been employed in studies of money and income in states and regions.

Keleher and Haulk then proceed to apply both recent theoretical and empirical developments in their study of money-income causality at the state and regional level. Their analysis improves our understanding of the monetary dimension of the regional economy and provides information about the regional transmission of monetary policy. Keleher and Haulk note that the regional environment presents a uniquely appropriate data set in which to test aspects of the monetary approach to the balance of payments.

They also give several reasons why, theoretically, the monetary approach to the balance of payments may be more applicable to the regional than to the national economy.

The MABP, for example, deemphasizes artificial barriers to trade (i.e., trade restrictions) and assumes rapid arbitrage in commodity and asset markets. It emphasizes the self-regulatory adjustment process and deemphasizes structural characteristics (monopolistic or oligopolistic sectors, different tax systems, etc.). It further assumes that the closed economy within which the single SOE operates is a single, integrated economy. These conditions, the authors argue, are more closely met in the regional than in the national economic environment.

Basing their empirical technique on Granger's definition of causality and Sims' procedure for testing causality, Keleher and Haulk analyze data from the states within the Sixth Federal Reserve District and conclude that the tests support the predictions of the theory that causal relationships between money and income in the SOE under fixed exchanges may be the reverse of that in the large, closed economy. Causality, that is, may run from income to money in the SOE, rather than from money to income as in the closed economy. [ER](#)

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**Money-Income Causality at the State-Regional Level** by Robert E. Keleher and Charles J. Haulk, November 1979, 30 pp. Bibliography.

A copy of this study is available upon request to the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.

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