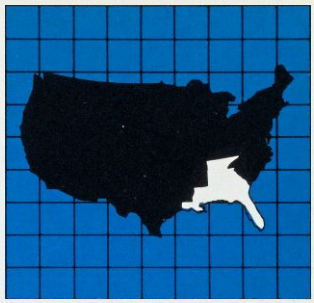
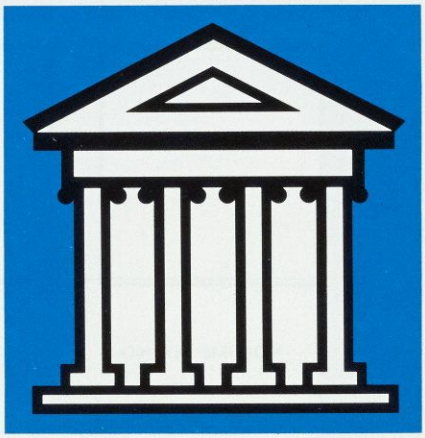
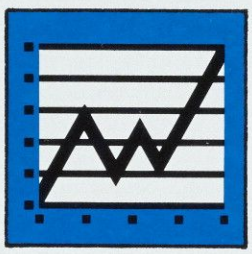
Economic Review



FEDERAL RESERVE BANK OF ATLANTA APRIL 1985





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FEDERAL RESERVE BANK OF ATLANTA

The U.S. Economy in 1985 and Beyond

Robert P. Forrestal

Our economic destiny will be shaped over the long term by technology, demographic forces, and the evolution of a global economy. In a recent speech, the Atlanta Fed's president extolled America's newly hopeful attitude, which he believes will strengthen our future.

My message, though not without certain concerns and caveats, is essentially hopeful. I would like to discuss the economic outlook for the remaining months of 1985, both for the nation and the Southeast, and, more broadly, to examine the several factors that will fundamentally shape the longer term economic prospects.

National Scene

To assess this year's outlook, we first should review the economy's performance in 1984 and evaluate what the underlying conditions portend for coming months. At the beginning of last year most economists, seriously doubting the recovery's strength and durability, predicted rather modest GNP growth. In addition, expectations were widespread that inflation would surpass that of 1983. On the brighter side, many economists forecast that a decline in the exchange rate of the dollar would improve somewhat our nation's international trade situation. Generally agreeing with this consensus outlook, I projected that economic growth was likely to slow to around 5 percent and that unemployment probably would hover at the 8 percent level, perhaps dropping to 7 1/2 percent by year-end. In addition, I expected inflation to pick up to about 5 percent in 1984.

Although these projections were not far off the mark, I was happy to have erred on the side of underestimating the enormous growth in GNP for 1984 while overestimating both inflation and unemployment. Last year actually brought heady economic growth: the full-year growth rate was nearly 7 percent—the highest in over 30 years—while inflation remained more moderate than generally expected. This expansion was led by consumers, whose purchases of homes, cars, appliances, and a myriad of durables and nondurables spurred businesses to increase production, expand their work forces, and build inventories in anticipation of continued strong sales. Business investment, particularly in machinery and other equipment and, to a lesser extent, in new plants, also contributed significantly to the rebounds in manufacturing and construction.

Mr. Forrestal, president of the Federal Reserve Bank of Atlanta, has delivered these remarks recently in several forums.

We finished the year on a strong note. The annual growth rate of GNP revived to 4.3 percent from the third quarter's sluggish pace of 1.6 percent. Buoyed by continued growth of employment and personal income, consumers regained confidence and increased their spending 3.6 percent in the fourth quarter after essentially standing pat over the summer. Advances in consumer spending together with capital investment and government purchases helped final sales rise almost 8 percent in the last three months of 1984 after declining 1 percent in the third quarter. Meanwhile, inventories increased at only half the pace of the third quarter. This combination of higher sales and lower inventory accumulation enabled producers and retailers to adjust their stocks to more desired levels, thereby setting the stage for renewed growth in factory orders, industrial output, and employment.

Early estimates of the economy's performance in the first quarter of this year indicate growth at a slower pace than in last year's final quarter. However, these preliminary indicators should not be taken as signs of serious troubles. Some of the weakness in domestic output was related to the transitory influence of bad weather, some to the increased substitution of imports spurred by the strong dollar. Yet we have not seen the kinds of economic imbalances that have presaged recessions in the past, and most fundamental sources of strength remain.

While the economy was regaining momentum late last year, inflation continued to abate. Competition from imports and oil price reductions earlier in the year accounted for much of this year-end deceleration in inflation. So far in 1985, most indicators show that the inflation rate may have bottomed out. However, we do not expect a notable resurgence of prices to accompany the moderate real income growth we expect this year.

Anticipated slower growth is a welcome change from last year's pace, which was so rapid in the first half that it threatened to reignite inflation. Healthy monetary growth and the nearly complete inventory correction have laid the groundwork for economic expansion in the coming months. Consumer purchases, investment by businesses, and expenditures by the government all should contribute to making 1985 a good year, with real GNP probably advancing around 3½ percent.

Consumer spending likely will remain vigorous since personal income and employment continue to strengthen. However, growth is unlikely to match 1984's performance. Last year's sharp gains in consumer purchases largely resulted from demand that had accumulated during two almost back-to-back recessions, and much of that deferred demand already has been met. Business spending on capital goods should continue to support expansion in 1985, even though the growth rate of business investment, like that of consumer spending, probably will be slower than in 1984. Sustained growth of final demand should be sufficient to drive ongoing expansion in business investment this year. In addition, business investment in inventories likely will rebound somewhat, following the sharp deceleration in the fourth quarter of 1984 and the improvement in final sales.

A major source of short-term strength is highly stimulative fiscal policy. Defense expenditures in particular should help maintain substantial momentum in the nation's factories despite some possible spending cuts. Recent monetary growth, especially of M1, has helped reduce interest rates, which also should encourage economic expansion in 1985. New data suggest that reduced credit costs are sparking improvement in the home building segment. Again, since much of the pent-up demand for housing has been filled, we cannot expect a return to the booming single-family construction that we saw in the recovery stage.

Of course, some potential problems loom and certain economic sectors are less likely to be sources of expansion this year. Perhaps the foremost area of continuing weakness is the international sector. The dollar's persistently high exchange value and slower recovery abroad have sapped considerable strength from American farming and manufacturing. Producers of textiles, apparel, lumber, and other import-sensitive goods experienced lackluster growth in 1984, and their condition probably will not improve in 1985. In addition, industries that depend heavily on exports, such as agriculture and machine tools, cannot hope for much stimulus from foreign demand. In contrast to recent business cycles, in

which construction and capital investment were burdened by high real interest rates, foreign trade has suffered most in this business cycle. In 1984, capital spending and residential building proceeded apace despite high real interest rates, but the year's merchandise trade deficit including insurance and freight totaled over $123 billion, far higher than 1983's record shortfall of $69 billion. The outlook for a decline in the value of the dollar still is uncertain even in light of declines in March. Despite narrowing interest rate differentials and large trade deficits, the trade-weighted index of the dollar rose considerably this year before the decline that began in late February. Even if the dollar continues to decline, it will take time to have a substantial effect on trade patterns.

A second potentially dampening factor to economic expansion is tax policy. Uncertainty about possible tax changes may persuade businesses to defer planned investment, particularly in the near term, until more is known. On the other hand, investment could increase as businesses rush to take advantage of current tax incentives before they are rescinded.

Because of the likelihood of slower growth in consumer spending and business investment, unemployment probably will decline much less this year than in 1984, but I am quite hopeful that it will fall below the 7 percent mark. Import competition, lower oil prices, and bountiful harvests should hold price increases to 3 1/2 to 4 percent, close to recent trends. Overall, I look for respectable economic growth consonant with this stage of an expansion.

Outlook for the Southeast

Southeastern businesses and workers likely will share the fruits of this continuing national economic expansion. However, because many state economies tend to concentrate along lines of local comparative advantage, various strengths and weaknesses that affect the national economy may have a more pronounced impact in certain areas. For example, defense spending will be particularly important to many southeastern states where defense-related manufacturing of electronics and transportation equipment is a major industry. Continuing healthy growth of auto sales also augurs well for car assembly plants in this region. Finally, a steady population influx should help many southeastern states, especially Florida and Georgia, outperform national averages by sustaining the need for new homes, apartments, and office buildings as well as boosting demand for business and personal services.

Agriculture, a sector of substantial importance to many parts of the Southeast, faces another troubled year. Weak foreign sales have contributed to price-depressing surpluses in domestic markets. Low prices for many crops and livestock along with historically high real interest rates make it difficult for financially troubled farmers to improve their credit situation, and no substantial change appears in the offing. The unusually high exchange rate of the dollar likewise is aggravating problems in the Southeast's energy sector by making its products more expensive in world markets, and is intensifying foreign competition faced by the region's steel producers. Moreover, many southeastern states also have a large concentration of textile and apparel industries that have been hard hit by imports, whose prices are discounted by the current value of the dollar. Notwithstanding probable weaknesses in some aspects of the Southeast's economy, on the whole most of its residents should enjoy a year of economic prosperity at least as good as that experienced by the rest of the nation.

"On the whole, most [southeastern] residents should enjoy a year of economic prosperity at least as good as that experienced by the rest of the nation."

Intermediate Range Problems

Overall, I am optimistic about the economic future, but see some weak areas that will demand change in the next few years. Among these are inflation, unemployment, the deficit, real interest rates, and international trade. The rate of price increases decelerated dramatically in the early 1980s and has remained a moderate 4 percent despite last year's rapid economic growth. Nonetheless, little more than a decade ago 4 percent was considered sufficiently high to warrant the imposition of wage and price controls. Clearly, we have room for more improvement on this front.

Similarly, because of progress toward reducing the unemployment rate from double-digit levels, we can feel enormous satisfaction with our economy's capacity to rebound. Still, the current jobless level falls short of the full employment to which our nation has been committed since the end of World War II. Moreover, unemployment in many industries and areas remains much higher than the national average. We certainly must strive to lessen the human suffering and unrealized economic potential implied by these statistics.

A third mid-range problem is the huge federal budget deficit, which the Congress and the administration now are striving to reduce. As macroeconomic growth moderates and the deficit increases in absolute terms, throughout 1985 the federal budget deficit is likely to remain around 3 1/2 to 4 percent of GNP, even if adjusted to the level that could be expected with full employment. This share compares with an average of about 1 percent since the mid-1960s.

Large federal budget deficits are extremely troubling because they tend to exert upward pressure on real interest rates, thus increasing business costs generally and discouraging investment. Consumer demand for houses, autos, appliances, and home furnishings also is dampened in such an environment. Deficit problems affect the international sector as well because high real U.S. rates make dollar-denominated investments more attractive to foreigners. The higher return from holding dollars raises our currency's exchange rate. This in turn ultimately worsens our trade deficit by raising prices foreigners must pay for exported U.S. goods and lowering prices Americans pay for imports.

Additionally, a continuation of the current international trade imbalance is encouraging a resurgence of protectionism. Understandably, some firms would welcome such measures to help them ride out what is generally viewed as an abnormal exchange rate situation. However, protectionism tends loosely to adhere to Newton's Third Law: action by one country usually is followed by countermeasures in other countries. It may take years of negotiations to reestablish the degree of free trade that prevailed at the outset, even when protectionist policies are conceived as interim measures. Furthermore, by curtailing incentives for innovation, improvements, and necessary reforms, protectionism ultimately weakens the very businesses and workers it purports to shield.

If applied today, protectionism could snuff out the weak economic recovery in many developing countries by reducing their access to American markets, eliminating a major source of what limited growth they have achieved. Many of these countries are heavily indebted, and while default by a third-world nation is highly unlikely, the problem of debt in less developed countries is a serious and long-lasting one. The issue requires continuing surveillance and careful consideration as we fashion or modify policies to

"I am optimistic about the economic future, but see some weak areas . . .: inflation, unemployment, the deficit, real interest rates, and international trade."

correct domestic economic problems and promote growth in the United States.

Longer Term Outlook

Accurately projecting how the economy will fare in the longer run, say, to the end of the century, is far more difficult. Nonetheless we can identify the fundamental forces of strength and weakness as well as broad changes that seem to be occurring in the structure of the economy. In my judgment, at least three critical environmental factors that will shape our economic destiny for years to come are at work in our society: technology, demographic changes, and the evolution of a global economy.

When in another 50 years historians and other observers look back to the era of the 1980s, they no doubt will compare our technological revolution to the industrial revolution of the 1800s. Even though we are growing accustomed to our new technology and even taking it for granted, the fact remains that we are living through a miraculous time in terms of technological breakthroughs—space exploration, computerization, and miniaturization, to say nothing of medical and surgical advances such as the mechanical heart. These are truly wonderful developments that will enrich the lives of people everywhere.

In economic terms, the application of new technology generally results in higher productivity and greater economic growth in the aggregate. The United States traditionally has been a technological leader. Experiences of the last two decades have made us forget that terms like "ingenuity" and "innovation" are virtually synonymous with America and that technological leadership is related fundamentally to our political and economic leadership among nations. During the last recession, American businesses relearned the importance of investing in technologically advanced equipment and methods in order to compete in the global marketplace. We have not yet felt the full effect of that investment. Productivity grew about 2.5 percent last year, somewhat above the postwar average rate for the second year of an expansion. The longer term challenge will be to find ways to foster greater productivity gains, especially in the services part of the economy. This sector, which is likely to provide a vast portion of the new jobs in the future, historically has been less amenable than manufacturing to the improvement of productivity through technology.

Demographic changes—the "graying" of the population and maturing of the postwar baby-boom generation—constitute a second environmental factor that will affect us and our policies. The aging of our population has profound implications for the way in which we structure our work force, retirement, Social Security, health care and delivery systems. Absorption of the "baby boomers" into the labor force is virtually complete, and so finding entry-level jobs should become less difficult than over the last decade and a half. As the postwar generation passes through its peak spending period, demand for all sorts of consumer goods should be vigorous. Productivity also should rise as experienced workers, who tend to be more productive, occupy a growing proportion of the nation's work force. Since the number of students now entering school is generally less than when baby boomers predominated in the education system, the need to invest in facilities should abate. That will free up a larger share of public funds for improving the quality of education, a trend that should magnify the expected productivity gains.

"At least three critical environmental factors . . .will shape our economic destiny for years to come . . .: technology, demographic changes, and the evolution of a global economy."

The evolution of a truly global market economy is a third environmental factor affecting the longer term outlook. Clearly, the United States no longer buys and sells only within its own borders, which obviously implies that our industry and business must learn to compete more effectively with foreign producers. Although we often berate ourselves about our performance relative to other economies, the U.S. manufacturing sector is far more innovative than some would have us believe, and it holds the potential for significant productivity advances. And I firmly believe that American management is as good as, if not better than, management anywhere in the world. That is not to ignore our weaknesses. We need to improve our productivity and the quality of our goods and services to compete more successfully in world markets.

A recent report of the Committee for Economic Development noted that one way to raise our productivity and product quality is to remove unnecessary government barriers and regulations, thus allowing free market forces to work in our economy. This a polite way of saying, "Let's get the government off our backs." For evidence that this is the right approach, we need only compare our nation's economic performance during the recovery with that of many developed and developing countries. Too frequently, their growth has been stifled by the unintended effects of a large public sector on the economy and on adaptability to change. Cradle-to-grave welfare systems are limiting economic recovery in Europe and perpetuating high unemployment rates. In less developed countries, measures such as price regulations on certain basic goods are distorting their economies, bloating their underground sectors, and generally retarding their development. If our government will retreat from the private sector, if the public sector is diminished, market forces will hone our competitive edge and thereby enhance our position in world markets.

Finally, let me add one other environmental factor. It seems that we are emerging from a period of deep negativism in our country into a far healthier attitude of hope and positive thinking. During the 1970s our nation underwent massive changes, such as the oil-price shock following the formation of OPEC and the implementation of regulations designed to assure safety in our products, workplaces, and environment. In addition, the momentum of far-reaching social change begun in the 1960s continued into the 1970s. Once barriers to racial and sexual equality began to disappear, society started to address more subtle and persistent vestiges of inequality. In this environment of profound social, political, and economic change Americans questioned and criticized some of the fundamental aspects of our culture.

The changes that occurred over the past decades exacted a considerable toll, although future generations probably will thank us for most of the decisions we made. With the pains of this transition essentially behind us, I believe that people are becoming more positive about our nation's performance, economically and in other spheres. I am grateful that we are growing more upbeat about ourselves and more adaptable to the economic realities of the 1980s, particularly the implications of global competition.

"We are growing more upbeat about ourselves and more adaptable to the economic realities of the 1980s, particularly the implications of global competition."

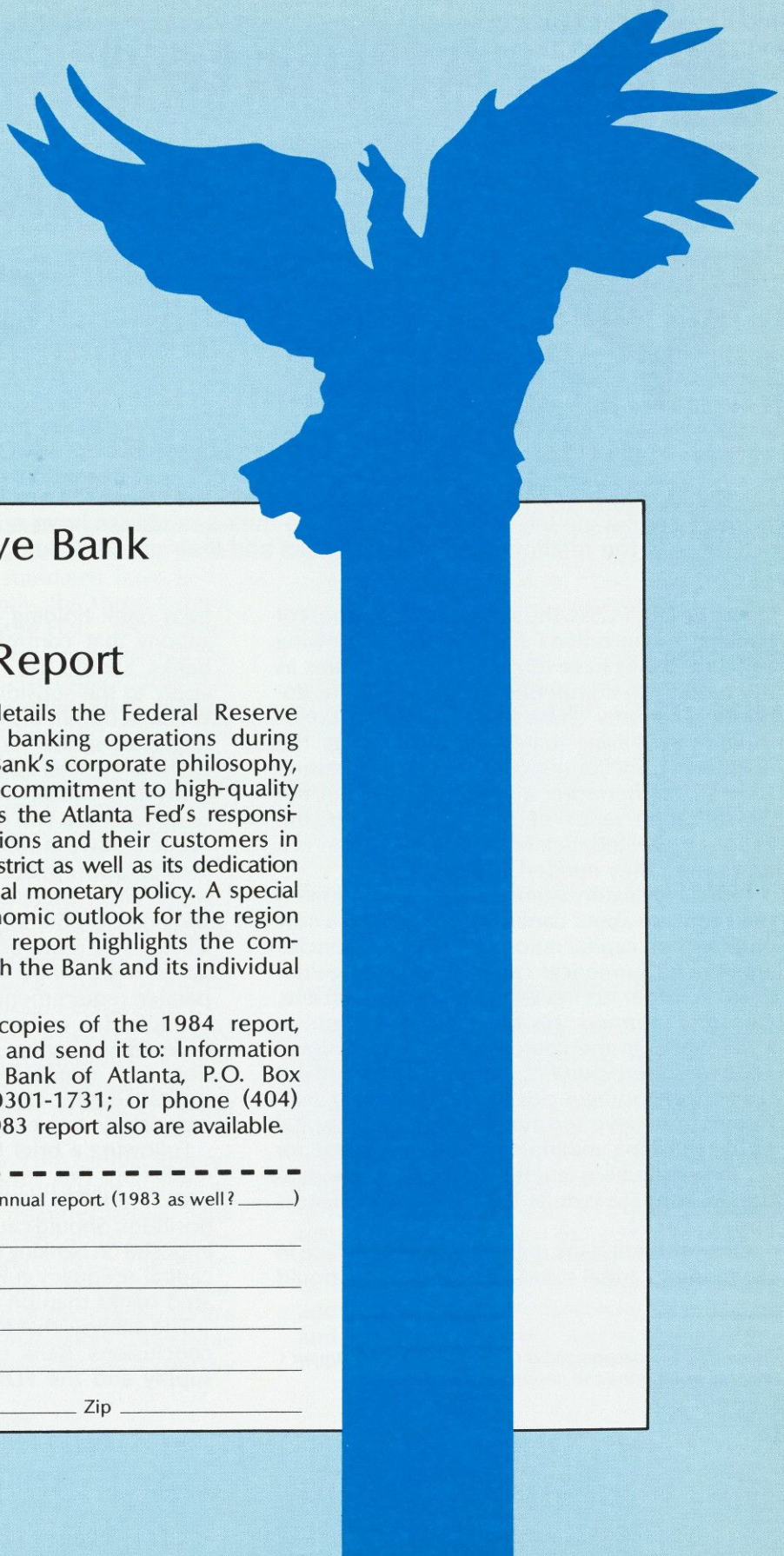
Still, we must nourish this sensitive, renewed faith in our nation's institutions. As an open and free society we are often our own severest critic and so it is natural that bad news crowds out good news from the headlines. While keeping this in mind, we also must focus on the substance

of news reports and on the underlying forces at work in our economy and our nation. Otherwise, we may lose the competitive edge that comes with well-founded self-confidence.

Policy Implications

In light of these environmental forces in our economy, I would offer the following prescriptions for sustainable, noninflationary growth through the end of the century: (1) take advantage of new technology and improve productivity; (2) invest in human capital through well-chosen policies designed to improve the quality of education and the working environment; and, most importantly, (3) reduce the federal budget deficit over the next five years so that fiscal and monetary policies work together more effectively toward stable economic growth. Future generations cannot pay the price for our failure to keep our fiscal house in order.

Let me conclude where I began. This will be a year of good economic growth, with relatively low inflation and declining unemployment. Of course, there always will be dangers and uncertainties, and when you add to those I previously mentioned other problems such as the Middle East, Central America, arms control, terrorism—and the list goes on and on—it is obvious that we live in a perilous and difficult world. But I am an optimist, and I think we optimists have proven over time to be the realists. This country always has been strong, proud, and progress-oriented, with a deep-seated belief that today is better than yesterday and tomorrow will be better still. We are at the threshold of a new world, but we are also at a crossroads. If we can solve our problems, we have an opportunity to create an economy and a society that will provide unparalleled prosperity for ourselves and our successors in the years ahead. We can succeed if we have the wisdom and the will to do it. I firmly believe we can.



Federal Reserve Bank of Atlanta

1984 Annual Report

This new publication details the Federal Reserve Bank of Atlanta's central banking operations during 1984 and spells out the Bank's corporate philosophy, particularly in terms of its commitment to high-quality service. The report explains the Atlanta Fed's responsibilities to financial institutions and their customers in its six-state southeastern District as well as its dedication to helping formulate national monetary policy. A special section discusses the economic outlook for the region while another part of the report highlights the community involvement of both the Bank and its individual staff members.

For single or multiple copies of the 1984 report, complete the form below and send it to: Information Center, Federal Reserve Bank of Atlanta, P.O. Box 1731, Atlanta, Georgia 30301-1731; or phone (404) 521-8788. Copies of the 1983 report also are available.

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Affiliated Bank Capital

Larry D. Wall

Banks play a crucial role in the economy and their deposits are federally insured. Yet new capital guidelines issued to ensure their soundness have raised questions about the relationship between banks and their parent holding companies.

Since the late 1970s, the safety and soundness of banking organizations has generated growing concern. Banks have felt mounting pressures as the barriers to competition toppled, as the domestic economy shifted toward disinflation—thereby increasing loan riskiness—and as the number of bank failures soared to post-Depression records. Furthermore, a prolonged slide in the capitalization ratios of many banking organizations suggested their financial weaknesses at a time when they needed strength.

Federal regulatory agencies have demonstrated their concern about bank safety by placing a new emphasis on capital ratios. In 1981 the agencies announced numerical capital adequacy guidelines in order to reverse the ratios' decline. Congress affirmed this measure in November 1983 when, in the context of the International Lending Supervision Act, it instructed the federal bank regulatory agencies to "cause banking institutions to achieve and maintain adequate capital by establishing minimum levels of capital for . . . such institutions and by such other methods as the appropriate federal banking agency deems appropriate."[1]

One problem bank regulatory agencies face in developing capital standards is how they should treat bank holding companies (BHCs), organizations that control one or more commercial banks. Should the capital adequacy guidelines apply to the subsidiary, or affiliated, banks, the BHCs, or both? And if both, should the numerical targets be similar for subsidiary banks and BHCs or should stricter guidelines apply to one of them? Currently, similar numeric guidelines apply to both; however, two of the three federal regulatory agencies have indicated that higher capital ratios may be appropriate for banks than for BHCs in some circumstances. The Federal Deposit Insurance Corporation (FDIC) has suggested that all banks be required to issue additional subordinated debt, while it explicitly rejected a comparable requirement for BHCs. The Office of the Comptroller of the Currency (OCC) recently ordered two banks—but not their BHCs, which it does not regulate—to increase their primary capital (equity capital, loan loss reserves, and mandatory convertible debt items).

Following a brief history of capital adequacy regulation, this study examines two questions associated with regulating affiliated bank capital positions: Should capital adequacy guidelines be imposed on banking organizations? Should stricter capital adequacy guidelines be imposed on affiliated banks than on their BHCs?

The analysis that follows suggests a number of conclusions. Bank capital protects the money supply and the FDIC, and so regulators must

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The author is an economist on the Research Department's financial institutions and payments research team.

ensure that both banks and BHCs maintain adequate capital. The capital of affiliated banks is regulated because they accept deposits insured by the FDIC; the capital of BHCs is regulated because their financial condition can affect subsidiary banks. Stricter regulation of BHCs than banks may be appropriate for providing greater capital adequacy without creating incentives to spin off activities. But, judging from our analysis, stricter regulation of banks may weaken them by prompting the parent BHC to shift activities from the bank to its nonbank affiliates.

Capital Standards

Bank supervisors' concern about capital has been traced by Yair E. Orgler and Benjamin Wolkowitz (1976) back to the beginning of this century. The early rule of thumb—that the capital to total deposits ratio should be 10 percent or more—began fading in the late 1930s, and since then a variety of capital standards have been imposed. Until very recently, the three federal bank regulatory agencies (the FDIC, the Federal Reserve, and the Office of the Comptroller of the Currency) have hesitated to set explicit numerical standards for judging bank capital. Alan J. Marcus (1983) contends that during the 1970s the regulatory authorities evaluated individual banks relative to their peers rather than to some absolute standard. Consequently, while they kept institutions from reducing capital substantially below their peers, regulators did not prevent the banking system as a whole from reducing capital.

In December 1981 the regulatory agencies announced numerical capital adequacy guidelines. The FDIC set a common standard for all the banks it supervises, requiring a bank to submit an acceptable comprehensive capital plan if its equity capital to assets ratio fell below 6 percent. If the ratio declines below the minimum acceptable level of 5 percent, the FDIC insists that the bank present a plan promptly to raise its capital to that level.

Also in 1981, the OCC and the Federal Reserve Board of Governors announced a joint plan for all national banks and state member banks. Bank holding companies were given capital guidelines by the Federal Reserve early in 1982. The guidelines drew on two measures of bank capital: primary capital, consisting of the organization's permanent equity capital, mandatory convertible debt items, and loan loss reserves; and secondary capital, defined as primary capital plus subordinated debt and limited life preferred stock. Banking organizations fall into three size categories for the purposes of the capital adequacy guidelines: multinational (as designated by the agencies; in practice, the largest 17 organizations), regional (all other organizations with more than $1 billion in assets), and community (organizations with less than $1 billion in assets). The minimum primary capital to assets ratio was 6 percent for community organizations and 5 percent for regional organizations. The regulators' plan divides total capital ratios into three zones, with organizations in the lowest zone (zone 3) falling below the minimum total capital ratios of 6.5 percent for community organizations and 5.5 percent for regional organizations. Zone 3 organizations are required to submit a plan for improving their capital. At first, no numerical standards were announced for multinational organizations; however, the OCC and Federal Reserve Board conveyed that their capital ratios should improve, as they indeed did. In June 1983, the OCC and Board extended regional guidelines to multinational organizations.

A year later, the two agencies proposed to unify capital requirements of all banking organizations by establishing a minimum primary capital to assets ratio of 5.5 percent and a minimum total capital to assets ratio of 6 percent. This measure would lower community primary capital standards by 0.5 percent and raise regional and multinational primary and total capital standards by 0.5 percent.[3] The FDIC joined the OCC and the Federal Reserve in approving these plans earlier this year.

Importance of Regulating Bank Capital

Banks are treated differently from other firms because they are vulnerable to runs on deposits. A bank run can damage the entire economy by precipitating a sharp reduction in monetary assets and disrupting the third-party payments mechanism. For instance, U.S. banks operate under a fractional reserve system whereby the institutions hold only a small volume of reserves relative to total deposit liabilities. But when a depositor withdraws $1, that bank reserve converts into $1 of currency and thus no longer can support additional deposits. Accordingly, bank deposits, and therefore the money supply, shrink by more than $1. A bank run seriously intensifies these

consequences and may wreak havoc in financial markets. A clear example of this chain of events was the severe reduction in the money supply that preceded the Depression of the 1930s.

A strong bank capital position can deter the start of bank runs, although once a run begins the level of capital probably is irrelevant. The Board of Governors recently listed significant functions of bank capital: "providing additional protection against unforeseen losses, helping to maintain public confidence in particular institutions in the banking system, partially protecting depositors from a threat of insolvency, and supporting reasonable growth of such institutions."[4] In addition, adequate bank capital is important to protect the FDIC. If a failed bank's stockholders and subordinated debtholders cannot absorb all losses, the FDIC will lose money. Furthermore, increasing capital enlarges investors' stake in the bank's financial condition and may make it more likely that they will demand prudent management. Unfortunately, bank owners also stand to receive lower returns on their investments if the bank increases its capital ratios without making other changes. The owners may try to offset lower returns by encouraging managers to invest in high risk/high return investments.[5] The motives of a bank's subordinated debtholders are less complicated because they cannot share in the greater profits generated by a high-risk bank. Potential investors in subordinated debt require that their risk premium be proportionate to the riskiness of the bank, which encourages a bank to be perceived as a low-risk institution.

Given the obvious importance of capital, would banks not maintain adequate capital in the absence of regulation? Ideally, we would pursue this question by first discussing how much capital is sufficient. But because no well-founded, numerical estimate is available, we shall attempt to demonstrate theoretically that bank capital ratios would fall too low without government regulation.[6]

Banks should maintain at least as much capital as the private sector would require if the government did not share in the risks of failure through deposit insurance. The government should not absorb losses that would be borne by equity holders in the absence of insurance. In addition to this minimum amount, an excellent case can be made that banks should hold additional capital to cover the losses to society from banking system failure. That is, banks should maintain an extra cushion of capital to reduce the probability of failures that cause a contraction in monetary assets and disrupt the third-party payments mechanism.[7]

Deposit insurance reduces the level of capital required by the private sector.[8] If government deposit insurance did not exist, depositors would have to monitor their bank's financial condition because they might lose part or all of their deposits if it failed. If depositors believed a bank was undercapitalized, they could demand a higher return on their deposits to compensate for the greater risk or could move their funds to a less risky bank. But deposit insurance means that the FDIC bears most of the potential loss of depositors, and so they have no reason to pressure banking organizations to increase capital. This would not be a problem if the FDIC based its insurance on banks' risk, but currently the agency does not have that power. Therefore, BHCs reduce capital to lower their tax burden, since interest payments on debt are tax deductible but dividend payments to shareholders are not.

BHCs also might reduce their capital in this situation, as George Benston and Clifford Smith (1976) suggested, by basing financial policy on the options pricing model. They argue that bank owners could view their bank assets as an option: if the value of the assets exceeds the value of the liabilities, then the owners will keep the bank; otherwise, the owners will relinquish the bank to its creditors and the FDIC. The value of this

"Banks should maintain an extra cushion of capital to reduce the probability of failures that cause a contraction in monetary assets and disrupt the third-party payments mechanism."

option is positively associated with bank riskiness and leverage, but creditors will resist increases in either. Extending Benston and Smith's model to include deposit insurance suggests that bank owners should decrease their capital as low as regulators and uninsured creditors will allow. If the high risk/high return investments pay off, the owners take the profits. If the assets turn sour and the bank fails, uninsured creditors and the FDIC share the losses with the owners.

Neither the argument concerning tax treatment of debt nor the options pricing analysis was developed explicitly for the case of affiliated banks. The tax treatment argument cannot be generalized to include affiliated banks, because they can meet the regulatory demand for additional capital without necessarily losing the tax benefits of debt. When an independent organization issues additional equity capital the stock must be sold in the financial markets. This additional stock reduces the organization's leverage and, hence, the tax benefits of debt. When an affiliated bank issues additional stock, it can issue the shares to its parent BHC. The parent company can finance the purchase by issuing stock itself or it can issue additional debt. In the second case, then, the capital position of the consolidated BHC remains unchanged and the BHC retains the tax advantages of high leverage.[9]

In contrast to the tax treatment argument, the options argument does apply to affiliated banks since BHCs could treat them as options. But the options argument fails to explain affiliated bank capital positions satisfactorily. Certainly, some BHCs would treat their banks as options if permitted, but most have strong incentives to maintain the long-term viability of subsidiary banks. If a BHC is perceived as regarding its bank as an option, suppliers (e.g., providers of computer services, employees, and so on) and customers will be reluctant to make long-lived investments that could be lost if the bank failed. Furthermore, BHCs recognize the need to maintain public confidence in their subsidiaries' viability. Robert A. Eisenbeis (1983) noted that some BHCs went to considerable trouble to prevent failure even in real estate investment trusts (REITs) they sponsored but did not own.

We can better explain why holding companies would seek to undercapitalize subsidiary banks by considering the effect of affiliated bank capital on the consolidated BHCs' profitability. Arnold A. Heggestad and John J. Mingo (1975) suggested that BHCs' investment in bank capital might reduce the holding companies' profits by reducing their flexibility in allocating resources. John T. Rose and Samuel H. Talley (1984) argued that maximization of consolidated BHC profits requires that the holding company be able to shift funds among its subsidiaries. Profits are maximized when the marginal cost of funds, as well as the marginal return on investments, is equal across all subsidiaries. Matching the two requires that a BHC raise funds in the subsidiary with the lowest marginal cost of funds and transfer them to the subsidiary with the highest marginal cost of funds and the greatest return on its investments.

"Some BHCs would treat their banks as options if permitted, but most have strong incentives to maintain the long-term viability of subsidiary banks."

A BHC's investment in bank capital reduces its ability to shift funds in order to maximize consolidated profits. In discussing various restrictions imposed on banks' transactions with their BHC affiliates, Larry D. Wall (1984b) concluded that the restrictions limit banks' ability to provide resources to their BHC affiliates. The net effect of the transactions on interaffiliate restrictions is to make BHC investment in bank equity a permanent commitment of funds to the bank. Thus, to maximize profits BHCs should minimize their investment in affiliated bank capital, which would allow them to preserve maximum flexibility in resource allocation.

Theory suggests that BHCs and affiliated banks will maintain greater capital in the absence of

government deposit insurance, which does not base insurance premiums on risk. Though empirical studies do not provide direct support, they are consistent with this theory, particularly with the implication that creditors currently exercise no significant influence over BHC capital ratios.

Studies of BHC capital positions generally have analyzed either the risk premiums on BHC debt or the changes in capital ratios. For the most part, analyses of risk premiums have found that they are insensitive to the BHC's capital position.[10] Typically, such studies have focused on the largest BHCs, which one might expect to be more attuned to market pressures since they rely heavily on uninsured liabilities.[11] An analysis of changes in capital ratios since the 1981 guidelines also suggests that regulators rather than financial markets are the key determinant of bank capital positions. Larry D. Wall and David R. Peterson (1985) used a disequilibrium estimation procedure that classified banks according to whether their change in capital was determined by financial markets or by the regulators. They found that the regulators wielded far more influence than the financial markets, with approximately 90 percent of their sample of large BHCs falling into the regulatory group.

The empirical evidence as to whether affiliated banks maintain greater capital in the absence of deposit insurance is weaker than that for BHCs. However, it does support the theoretical implication that minimizing affiliated banks' capital positions is important to BHCs. The factors influencing independent banks' capital do not apply to all affiliated banks. Certainly, BHCs can realize the tax advantages of debt without minimizing affiliated bank capital, and not all BHCs would treat banks as options. Nevertheless, the need to maintain flexibility in resource allocation makes it likely that BHCs will try to minimize their investment in affiliated bank capital consistent with market or regulatory pressures. This in turn suggests that BHCs' investment in affiliated bank capital (either through stock purchases or allowing the bank to retain earnings) should be an inverse function of the subsidiary's current capital position. Lucille S. Mayne (1980a) noted that affiliated bank dividend payments are related negatively to their current capital position, and Larry D. Wall (1983) had similar findings for BHC equity capital injections, BHC purchases of affiliated bank subordinated debt, and affiliated bank dividend payments.

A second theoretical implication supported by empirical findings is that the process of changing independent banks' capital positions will differ from that for affiliated banks. Disparities result because shareholders of independent banks strive to maximize the tax advantages of debt while BHCs strive to maximize their flexibility in allocating resources. Two studies that compare affiliated banks' dividend payments with the payments of independent banks support this implication. Employing a Chow test, Robert W. Kolb (1981) found that affiliated and independent banks follow different dividend policies. Lucille S. Mayne (1980b) used a binary variable in a single equation framework to determine that affiliated banks pay significantly more dividends. Additionally, in a study that examined only affiliated banks, Mayne (1980a) found that dividends are influenced by their BHCs' double leverage ratio, a ratio not relevant to independents. Wall (1983) concluded that BHC capital injections into affiliated banks and affiliated bank dividend payments both are influenced by Federal Reserve pressure exerted during the BHC acquisition process (as proxied by the number of firms acquired by the BHC).

"The need to maintain flexibility in resource allocation makes it likely that BHCs will try to minimize their investment in affiliated bank capital consistent with market or regulatory pressures."

We have explored three reasons why regulators stress bank capital adequacy: because banks hold an important position in the economy, because their capital reduces the FDIC's risk exposure, and because increased capital may

motivate a bank to reduce its risk exposure. In part, bank capital regulation is imposed as a substitute for the discipline depositors would provide were they not covered by deposit insurance, which transfers most risk to the FDIC. Without pressure from depositors and regulators, BHCs would be likely to reduce their capital because they could reap the tax advantages of debt and treat affiliated banks like options. Empirical evidence suggests the market is exercising only an insignificant influence on BHC capital positions. Furthermore, even though BHCs can obtain the tax advantages of debt without reducing their affiliated banks' capital, they probably would reduce it in order to treat their banks like options and to maximize flexibility in resource allocation. Studies also find that BHCs try to minimize their investment in bank capital consistent with regulatory or market pressure, and affiliated banks, yet it may not be obligated legally to do so. While most BHCs would not treat their subsidiary banks as options, the few that would do so could impose huge losses on the FDIC.

Even if banking affiliates are protected by the guidelines, it is important to safeguard the parent BHC's financial position. As was remarked above, BHCs have a stake in maintaining public perceptions of the viability of all their subsidiaries, and sometimes have gone to great lengths to bail affiliates out of trouble, as was the case with some REITs. Samuel H. Talley (1976) argued that an overleveraged BHC could transmit problems to its banking affiliates in three ways. First, it may draw on the banks' resources through such means as requiring them to pay larger dividends, make loans to the BHC's ailing affiliates, or purchase the assets of a troubled unit. Talley did

"In part, bank capital regulation is imposed as a substitute for the discipline depositors would provide were they not covered by deposit insurance, which transfers most risk to the FDIC."

that affiliated banks follow a different capital procedure from independents.

Stricter Capital Guidelines

The FDIC, OCC, and Federal Reserve Board capital adequacy guidelines are similar for banks and BHCs. However, the FDIC is considering placing stricter guidelines on all banks while maintaining current BHC guidelines, which raises a fundamental question—are capital guidelines needed for both affiliated banks and BHCs? Could the objectives of capital regulation be achieved by regulating either banks or BHCs, but not both?

Requiring BHCs alone to meet capital guidelines has not been seriously considered, because the transaction accounts and FDIC insured deposits are located in the affiliated bank. Thus, the primary reason for regulating BHCs is to protect the financial condition of their banks. A strong BHC can partly offset weakness in one of its note, however, that legal restrictions already limit banks' ability to aid their parents or affiliates.[12] Two further ways an overleveraged holding company could transmit problems would be if the BHC's failure destroyed market confidence in the bank, or if the courts held a bank legally liable for debts of the BHC.

Wall (1984b) discusses two more ways a BHC could undermine its affiliates. First, he notes that restrictions on bank dividend payments could be overcome if the bank increased its earnings. But if a bank already operates at maximum efficiency, then the only way it can increase earnings is by taking greater risks. A weak BHC also could harm its affiliated banks if its nonbank affiliates provide essential services to the bank or the bank's customers. Loss of such services could injure the bank's relationship with its customers or even damage its own operations.

Bank regulators also have a direct interest in the financial condition of BHCs. The FDIC is only obligated to protect bank depositors; nevertheless, it has rescued at least two BHCs, First

Pennsylvania Corporation and Continental Illinois Corporation. By providing capital assistance the FDIC safeguarded all creditors of the holding companies and allowed their shareholders to retain some interest in the banking organizations.

Clearly, capital regulation should apply to both banks and holding companies. But is the FDIC correct in asserting that higher capital guidelines should apply to banks than to BHCs? Can a case be made that higher guidelines should apply to BHCs? Or should banks and BHCs face the same standards?

One possible advantage of increasing bank but not BHC capital standards is that it might enable affiliated banks to achieve greater capital levels in a shorter period. If BHCs could raise short-term debt at a lower cost than new equity capital and subordinated debt, then they could "downstream" to their banks proceeds from these obligations as equity or subordinated debt. In a sense, holding companies could have the best of both worlds: affiliated banks would be better capitalized without the parent BHC having to issue expensive equity or subordinated debt.

Unfortunately, this potential advantage is in large part illusory, for BHCs still must be able to service the debt they issue. Because banks are almost always a BHC's primary assets, the holding company often relies heavily on bank dividends to meet its obligations. If a BHC has difficulty servicing its debt, in all likelihood its problems will spill over into its banks.

Furthermore, imposing stricter regulations on affiliated banks could increase a BHC's reliance on its other affiliates. The regulatory capital guidelines are expressed in terms of the capital to assets ratio. Therefore, one way a BHC can achieve the required ratio while avoiding increased investment in affiliated bank capital is to shift some of the bank's operations into nonbank affiliates, thereby reducing the bank's assets. Capital regulation may not by itself prompt BHCs to reorganize their banks, but in combination with other regulatory factors it may be sufficient to induce some realignment. Robert A. Eisenbeis (1983) pointed out that spinning off activities could well result in some customers being served by coordinated offerings of both the banking and nonbanking subsidiaries of a BHC. He stated that the net result of shifting activities could be that banking subsidiaries become more vulnerable to the risk-taking of their nonbank affiliates.

The case for imposing higher capital standards on affiliated banks than on BHCs therefore is flawed, but an argument can be made for the reverse. Suppose the regulatory agencies decide that substantially higher capital ratios are needed at BHCs and that if the same ratios are imposed on affiliated banks, BHCs likely would spin off bank activities. If the higher guidelines are applied to BHCs alone, the pressure to shift activities would not increase. This reasoning implies that affiliated banks—not all banks—should have lower capital ratios than BHCs. The guidelines for independent banks should equal those for BHCs in order to maintain competitive equality across different types of organizations.

Conclusion

In recent years, bank regulators have shown increasing concern about the capital adequacy of banking organizations. An issue that must be addressed in setting capital guidelines is the treatment of bank holding companies. Should the guidelines apply to BHCs, to their affiliated banks, or to both? Furthermore, if both are regulated, can stricter guidelines be applied to one type of organization?

Our analysis suggests that capital regulations should apply to both affiliated banks and to their BHCs in order to safeguard the money supply and the FDIC's insurance fund. Guidelines are needed for affiliated banks to prevent some BHCs from treating their banks like options; that is, the holding company takes the profits from successful high risk/high return investments while leaving the FDIC to absorb most of the costs if investments fail. BHC capital regulation is necessary because the financial condition of the parent organization can affect its subsidiary banks significantly.

The regulations imposed on subsidiary banks should be no more rigorous than those on the BHC—and perhaps they should be weaker. The potential advantage of imposing stricter capital regulation on affiliated banks is that they may be able to raise their capital faster than BHCs, since BHCs may downstream their short-term debt issues to affiliated banks as equity or subordinated debt. However, the advantage is relatively minor since the financial condition of the BHC

influences that of its subsidiary banks. Furthermore, imposing minimum capital adequacy requirements on affiliate banks will tend to make them even more dependent on their nonbank affiliates, because it creates incentives for banks to spin off activities to them. Imposing tighter regulations on a BHC than on its banks, by contrast, could permit increases in required BHC capital without encouraging banks to spin off activities.

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NOTES

[1]12 U.S.C. 3907.

[2]Mandatory convertible debt is a debt issue that includes a convenant mandating conversion into common or perpetual preferred stock.

[3]See the *Federal Register* of July 30, 1984 for additional details on the proposed revisions.

[4]See also Yair E. Orgler and Benjamin Wolkowitz (1976) for a discussion of the functions of bank capital.

[5]See Michael Koehn and Anthony M. Santomero (1980) for an analysis of the impact of capital standards on a banking organization's risk exposure, and Maggie McComas (1985) for a less rigorous discussion of the problem.

[6]Larry D. Wall (1984a) gave a numerical estimate of adequate total capital. He was only trying to obtain a rough estimate, however, and his crude approximation was not set forth as a policy recommendation. Several theoretical studies suggest alternative ways of defining capital adquacy, but do not provide numerical estimates. For example, theoretical estimates of optimal capital are provided by Eli Talmor's (1980) model based on gambler's ruin model and George E. Morgan III's (1984) model based on the capital asset pricing model (CAPM).

[7]See Anthony Santomero and R. Watson (1977) for further discussion of optimal bank capital standards.

[8]Numerous studies of the effect of deposit insurance on bank capital have been done. For example, Stephen A. Buser, Andrew H. Chen, and Edward J. Kane (1981) describe the effect of deposit insurance and how regulatory agencies offset this effect. In a relatively non-technical way, Mark Flannery (1982) describes the effect of deposit insurance on bank behavior.

[9]This analysis holds only in cases where the affiliated bank is included on the BHC's consolidated tax statement. Otherwise, the bank's dividend payment to the BHC would be partly taxable. The bank's income can be consolidated with its parent if the parent owns 80 percent or more of the bank's stock.

[10]Examples include David Burras Humphrey and Samuel H. Talley (1975), and Donald Fraser and J. Patrick McCormack (1978).

[11]One could argue, however, that large banks receive more government protection. FDIC procedures often result in the protection of all depositors in large banks.

[12]These restrictions include limitations on bank dividends and loans to affiliates. See Larry D. Wall (1984b) for a discussion of these restrictions.

REFERENCES

Albert, Andrew and Richard Ringer. "Continental Gets Massive Federal Rescue," *American Banker*, July 27, 1984, pp. 1, 5.

Benston, George and Clifford Smith. "A Transactions Cost Approach to the Theory of Financial Intermediation," *Journal of Finance*, vol. 31 (May 1976), pp. 215-31.

Buser, Stephen A., Andrew H. Chen, and Edward J. Kane. "Federal Deposit Insurance, Regulatory Policy, and Optimal Bank Capital," *Journal of Finance*, vol. 36 (March 1981), pp. 51-60.

Eisenbeis, Robert A. "How Should Bank Holding Companies Be Regulated?" *Economic Review*, Federal Reserve Bank of Atlanta, vol. 68 (January 1983), pp. 42-47.

Flannery, Mark J. "Deposit Insurance Creates a Need for Bank Regulation," *Business Review*, Federal Reserve Bank of Philadelphia (January/February 1982), pp. 17-27.

Heggestad, Arnold A. and John J. Mingo. "Capital Management by Holding Company Banks," *Journal of Business*, vol. 48 (1975), pp. 500-05.

Koehn, Michael and Anthony M. Santomero. "Regulation of Bank Capital and Portfolio Risk," *Journal of Finance*, vol. 35 (December 1980), pp. 1235-44.

Kolb, Robert W. "Affiliated and Independent Banks: Two Behavioral Regimes," *Journal of Banking and Finance*, vol. 5 (December 1981), pp. 523-37.

Marcus, Alan J. "The Bank Capital Decision: A Time Series-Cross Section Analysis," *Journal of Finance*, vol. 38 (September 1983), pp. 1217-32.

Mayne, Lucille S. "Bank Dividend Policy and Holding Company Affiliation," *Journal of Financial and Quantitative Analysis*, vol. 15 (June 1980b), pp. 469-80.

Mayne, Lucille S. "Bank Holding Company Characteristics and Upstreaming of Bank Funds," *Journal of Money Credit and Banking*, vol. 7 (May 1980a), pp. 209-14.

McComas, Maggie. "More Capital Won't Cure What Ails Banks," *Fortune*, January 7, 1985, pp. 80-86.

Morgan, George Emir. "On the Adequacy of Bank Capital Regulation," *Journal of Financial and Quantitative Analysis*, vol. 19 (June 1984), pp. 141-62.

Orgler, Yair E. and Benjamin Wolkowitz. *Bank Capital*. New York: Van Nostrand Reinhold Company, 1976.

Rose, John T. and Samuel H. Talley. "Financial Transactions within Bank Holding Companies," *Journal of Financial Research*, vol. 7 (Fall 1984), pp. 209-17.

Rose, Sanford and Teresa Carson. "FDIC Will Support First Penn with $300 Million," *American Banker*, April 28, 1980, pp. 1, 14.

Santomero, Anthony M. and R. Watson. "Determining an Optimal Capital Standard for Banking Industry," *Journal of Finance*, vol. 32 (September 1977), pp. 1267-82.

Talley, Samuel H. "Regulating Bank Holding Company Capital," *Financial Management*, vol. 5 (Winter 1976), pp. 68-70.

Talmore, Eli. "A Normative Approach to Bank Capital Adequacy," *Journal of Financial and Quantitative Analysis*, vol. 14 (November 1980), pp. 785-811.

Wall, Larry D. "Financial Transactions between Bank Holding Companies and Their Subsidiary Banks." Ph.D. dissertation, University of North Carolina at Chapel Hill, 1983.

_____. "The Future of Deposit Insurance: An Analysis of the Insuring Agencies' Proposals," *Economic Review*, Federal Reserve Bank of Atlanta, vol. 69 (March 1984a), pp. 43-57.

_____. "Insulating Banks from Nonbank Affiliates," *Economic Review*, Federal Reserve Bank of Atlanta, vol. 69 (September 1984b), pp. 18-28.

_____ and David R. Peterson. "Are the Capital Adequacy Guidelines Influencing Large Bank Holding Companies?" Mimeo, 1985.

Farmland Price Behavior: A Study in Diversity

Gene Wilson and Gene Sullivan

In 1984, the USDA reported a substantial upturn in prices for southeastern farmland. Yet regional sources contend that considerable variation exists among and within states, and that such price differences are widening.

Land prices in some midwestern and Great Plains states dropped as much as 17 percent during 1984 and 32 percent since their 1981 peak. Within the Southeast, some farming areas have shown similar or greater declines while others have experienced price increases. Considerable diversity exists among the region's states and among areas within states but, on balance, average southeastern land prices declined by less than 5 percent during 1984, according to some estimates. However, prices tended to plummet in southeastern areas where land has no actual or potential alternative uses or is unsuitable for specialty crops. The small decline for the region as a whole reflects prices for land near expanding urban areas or where agricultural production has been profitable, such as in poultry and vegetable-producing regions.

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The fall in asset values—especially the primary asset, farmland—has been a factor in the agricultural sector's financial distress. Farm real estate accounts for approximately 76 percent of the total value of all farm assets nationwide; in the Southeast, the value is slightly higher at 78 percent (see Table 1). As a result, even small changes in farmland prices can alter the financial position of farmers seriously. Those whose principal financing depends on capital gains from farmland price increases can experience severe financial problems when real estate values drop.

In total, the value of farm real estate in the Southeast fell $6 billion between 1981 and 1984 (see Table 2). Although this is largely a paper decline, it reflects an increasing problem both for heavily indebted farmers and their lenders as borrower equity diminishes. Nationally, the average loss in real estate value was $28,000 per farm between 1982 and 1984.

Supply and Demand

Farmland often is regarded as a homogeneous commodity, but clearly it is not since land varies greatly in quality. It has the additional characteristics of being immobile (thus

tied to the local land market) and potentially useful for a number of non-agricultural purposes. For these reasons, wide disparities exist in the value of farmland not only between states but even between counties within the same state.

In a free market the value of farmland depends on the relationship between supply, or the quantity offered for sale, and the demand of potential users. Since the amount of farmland is finite, the supply has an upper limit. The quantity available in local markets at any given time may be even more limited because land ordinarily is held within the same family for generations. In a typical year, less than 3 percent of the total supply of farmland changes hands, and the overwhelming majority is offered for sale by farmers (as opposed to non-farmers). Farmers sell either upon leaving the business or to generate additional cash flow. Thus, when the farm economy prospers and farmers earn good returns, less land is likely to be sold. When farmers are pinched economically, additional land tends to be offered for sale.

Demand for land is relatively more complex than supply, as it can originate from either the farm or the non-farm sector. Whereas agricultural demand for farmland is tied closely to the prosperity of farmers, non-agricultural demand can flow from at least three sources: (1) developers who want the property for its commercial or residential value, (2) speculators who think land investment prospects are favorable, and (3) people who use farmland as a hedge against inflation. Historically, non-farm demand for farmland has been highest in periods of rapid inflation or in areas with considerable development potential. Demand from real estate developers typically is strongest in urban-fringe areas of

Table 1. Farm Real Estate as a Percentage of Total Farm Assets

	1980	1981	1982	1983	1984*
Alabama	76	79	77	76	77
Florida	86	86	86	85	85
Georgia	76	76	74	72	73
Louisiana	82	83	83	82	83
Mississippi	75	80	78	76	78
Tennessee	72	74	72	69	71
Sixth District	78	80	79	77	78
United States	76	77	77	75	76

*Preliminary figures.
Source: Computed from data in USDA, Economic Research Service, *Economic Indicators of the Farm Sector, 1983.*

Table 2. Farm Real Estate Assets
($ billions)

	1980	1981	1982	1983	1984*
Alabama	8.6	9.9	9.7	9.1	8.9
Florida	17.0	18.7	17.5	17.6	18.0
Georgia	12.1	12.7	11.5	11.1	10.9
Louisiana	11.9	14.0	14.1	13.7	13.7
Mississippi	10.9	13.8	13.1	11.9	12.5
Tennessee	10.7	11.5	10.9	10.3	10.7
Sixth District	71.1	80.6	76.7	73.6	74.5
United States	695.1	762	754.6	709.2	705.2

*Preliminary figures.
Source: USDA, Economic Research Service, *Economic Indicators of the Farm Sector, 1983.*

rapid population growth, such as counties of the Atlanta MSA.

At any one time the strength of the demand components may vary, or they all can interact simultaneously. Past studies have indicated that, until the 1950s, land values were closely related to net farm income, which suggests that demand within the farm sector itself had been the primary factor in demand for agricultural land. This hypothesis is logical, because suburban sprawl has been more characteristic of the last 30 years than of earlier periods. Over recent decades, however, the connection between farm income and farmland prices has attenuated.

Beginning in the 1970s, various elements combined to produce rapid escalation in farmland prices. High commodity prices at the opening of that decade increased farm income, providing both the incentive and the financial means for farm expansion. In addition, low and sometimes

Table 3. Farm Real Estate Debt and Percentage Held by Commercial Banks

	1970		1974		1978		1982	
	Debt ($ millions)	Percent	Debt ($ millions)	Percent	Debt ($ millions)	Percent	Debt ($ millions)	Percent
Alabama	402	21	540	25	807	24	1,369	14
Florida	614	11	993	11	1,554	10	2,664	6
Georgia	584	28	956	30	1,583	21	2,424	14
Louisiana	456	16	639	17	934	17	1,776	12
Mississippi	624	18	830	19	1,167	19	1,970	11
Tennessee	543	25	744	31	1,114	30	1,653	21
Sixth District	3,219	20	4,702	22	7,159	19	11,856	12
United States	29,182	12	39,527	14	63,307	12	105,539	8

Source: Debt—George Amols and Wilson Kaiser, "Agricultural Finance Statistics, 1960-1983," *Economic Research Service Statistical Bulletin*, 706 (April 1984). Percent—Computed from data in USDA, Economic Research Service, *Economic Indicators of the Farm Sector, 1983.*

Table 4. Index of Farm Real Estate Values (1967=100)

	Alabama	Florida	Georgia	Louisiana	Mississippi	Tennessee	United States
1915	12	12	13	14	11	16	24
1920	21	22	31	28	25	33	40
1925	10	22	17	20	16	22	29
1930	17	22	14	19	14	20	26
1935	13	16	10	15	11	15	18
1940	15	17	12	17	12	18	19
1945	21	28	19	23	19	26	29
1950	31	28	26	32	29	43	40
1955	43	41	37	44	36	51	53
1960	57	74	55	66	53	66	68
1965	85	100	80	80	81	88	86
1970	121	121	138	116	125	123	117
1975	233	224	298	191	204	236	213
1980	407	358	432	369	338	375	401
1981	488	436	386	555	550	406	439
1982	483	414	356	553	525	383	436
1983	458	422	344	542	483	364	411
1984	450	431	339	542	508	375	406

Source: USDA, *Farm Real Estate Market Developments*, June 1973 and May 1984.

negative real interest rates encouraged farmers to undertake debt. Furthermore, as advances in farm technology continued to make larger farms more economically efficient, they spurred expansion of existing farms. All these factors led to a substantial jump in agricultural demand for farmland.

Table 3 shows the alarming growth in farm real estate debt between 1970 and 1982. While not all of this debt involved land transactions, such large upswings in farm real estate debt likely reflected considerable activity in the market for farmland. In the Sixth District, such debt increased by almost $4 billion between 1970 and 1978, then jumped an additional $4 billion in the next four years.

Coincidental with the mushrooming demand for acreage within the farm sector, non-agricultural demand also climbed markedly. Speculative demand arose from both the farm and non-farm sectors when annual rates of increase in farmland prices began to soar well above nominal interest rates. Growing acquisitions of farmland for residential or commercial development added to the overall demand (and also gave rise to serious concerns about "disappearing" farmland).

Reflecting the combined influence of these market forces, the national average value of farmland rose by 275 percent between 1970 and 1981. Increases were even higher in several Sixth District states, notably Louisiana. That state's land prices, also influenced by mineral values, nearly quadrupled during this period (see Table 4). Relative to the base year of 1967, national average farmland values rose at about the rate of inflation until the early 1970s (see Chart 1). Since then, farm real estate values have far surpassed the consumer price index. Consequently, part of the increased demand for farmland during the past decade apparently was fed by investors' desire to hedge against inflation. Although farmland values have declined since 1981, the sharp gains of the late 1970s have not yet been erased.

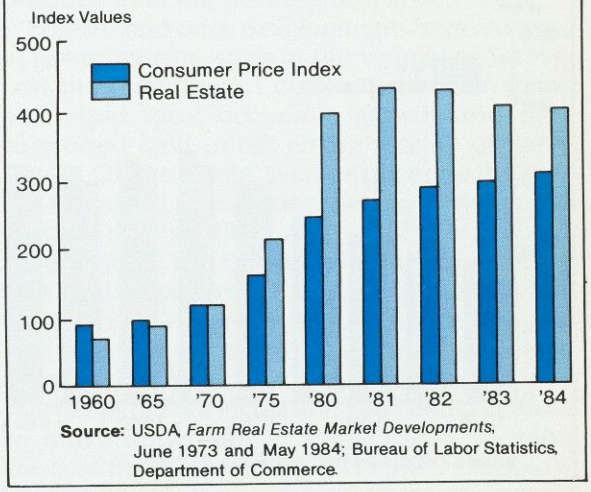
A variety of economic factors brought land price escalation to an abrupt halt in 1981. Agricultural demand for land plunged as commodity prices fell and farm profitability declined. Production costs, especially for fuels, machinery, and interest, had risen rapidly while farmers pursued their hectic expansion of output. Additionally, the spread of economic recession to many countries in 1981 and the dollar's soaring value weakened demand for agricultural products. The combination of rising costs and lower prices severely pressured net farm income. Revenue prospects were dimmed even further by increasingly frequent droughts, especially in the Southeast. Not only did land price escalation halt in 1981 as a result of these developments, but prices since have declined substantially in some of the most prominent farming areas.

Almost simultaneously in that year, inflation began to slow dramatically, reducing the attraction of farmland for hedging purposes. Also, interest rates on real estate debt skyrocketed, which made the purchase of farmland increasingly costly. With the onslaught of the national recession in 1981, developers placed new economic initiatives on hold and slowed land acquisitions. All of these factors led to the subsequent decline in farmland values that has affected both the region and the nation.

Recent Price Behavior

While average farmland prices for the 48 contiguous states fell 7 percent from 1981 to 1984, trends differ vastly from one area to another. Prices across the Midwest and most of the Great Plains sank as much as 32 percent from 1981 to early 1984, and preliminary reports indicate a persisting slide, with prices down as much as 17 percent within the past year. On the other hand, prices in a few states (Texas, for

Chart 1. Comparison of Index of Farm Real Estate Values and Consumer Price Index (1967 = 100)



Source: USDA, *Farm Real Estate Market Developments*, June 1973 and May 1984; Bureau of Labor Statistics, Department of Commerce.

example) have continued to climb during this period.

How have land values behaved in the Southeast? According to an April 1, 1984 report from the U.S. Department of Agriculture (USDA), from 1983 to 1984 prices turned up enough in some states to erase most of the 7 percent decline that had occurred since 1981. Only in Alabama, Georgia, and Louisiana, according to the USDA, did average prices either hold steady or continue to fall slightly (see Chart 2). People knowledgeable in the area of farm credit throughout the Southeast strongly disagree with portions of the USDA's report while confirming some of the price trends it carries. In fact, great diversity characterizes land price movements from area to area across the District and within individual states.

Essentially, there are three categories of farmland: (1) land with potential for development, (2) land used for producing specialty crops such as oranges, and (3) land devoted primarily to traditional field crops. Our research indicates that price behavior has varied greatly according to category. The value of land with development potential generally has changed little recently, as demand from non-farm sources supported the price. On average, land used for growing specialty crops also has maintained its value. The most severe price declines have affected land devoted to crop farming that has minimal potential for non-farm development. Such land has declined from 25 to 50 percent in price over the past four years.

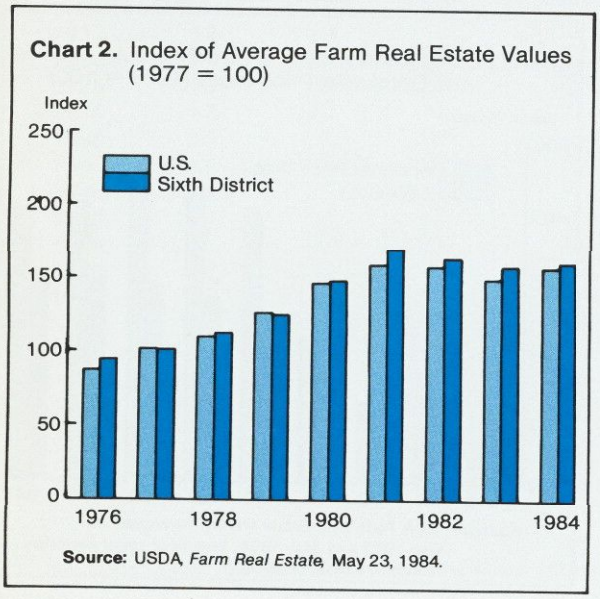


Chart 2. Index of Average Farm Real Estate Values (1977 = 100)

Source: USDA, *Farm Real Estate*, May 23, 1984.

Relatively low farm product prices, unfavorable weather that reduced crop yields in 1984, and large debt burdens incurring high interest costs have exerted unrelenting financial pressure on farm operators. As a consequence, farmers have continued to liquidate their assets in soft markets. Most potential purchasers of farmland are other farmers whose income levels are diminished by the same forces compelling the most hard-pressed to liquidate. A growing number of voluntary and involuntary farm liquidations adds to the supply of land for sale while reducing the number of potential buyers. Thus, while USDA estimates of average farmland prices have fallen only moderately in each southeastern state, prices in predominantly agricultural counties have decreased far more. Lenders with whom we discussed these trends frequently cited examples of land that has sold at near half of 1981's peak prices. Apparently, state average land prices mask vast diversity between particular agricultural areas within each state.

State Developments

Our sources within the region corroborate the considerable diversity prevalent between areas, and attest that differences are widening. The following is a state-by-state summary of their responses to our queries about recent land price developments.

Alabama. According to the USDA's report in the spring of 1984, farmland values had declined by 8 percent from their 1981 peak. However, our contacts report wide variations across the state. In the Tennessee River Valley, some of the most fertile land in the state, prices turned up during 1984. Prices held steady in the peanut-producing area, but major declines occurred in Alabama's blackbelt area from Montgomery westward, where most acreage is devoted to grasslands and soybean production. Specific blackbelt tracts sold at prices as much as 40 percent below earlier peak levels. Further declines seem probable. Prices of principal products remain depressed, and demand from paper companies and outside investors, whose interest supported land prices in the past, has been lacking in the past two years.

On the positive side, the price of land in the western part of the state along the Tennessee-Tombigbee Waterway has strengthened recently.

The potential for increased industrial development, as well as the establishment of hunting clubs and other recreational facilities along the waterway, has positively influenced land prices there.

Market activity for Alabama farmland is reported to be slow, with ample supply but little demand. On average, Alabama's land prices are expected to register a moderate decline of 2 to 5 percent for 1984, about the same as occurred during 1983.

Florida. Price trends are mixed in the Sunshine State. In the Panhandle region, where farming activity is similar to that in southern Georgia and Alabama, land prices are 25 to 40 percent below 1981's peak levels. For 1984, prices appear to have held stable. Farther east, land prices are reported to range from $700 to $900 an acre, down about $100 in recent years.

As a result of the serious freeze of December 1983, extensively damaged citrus groves in central Florida have dropped sharply in value. In addition, market transactions in planted citrus acreage have practically ceased since discovery of the citrus blight late last summer. Because demand is virtually nonexistent and prices are low, an increasing amount of citrus acreage in the area is being sold to developers. Farther south, however, undamaged citrus groves actually have risen in value: groves priced at $11,000 per acre in 1981 recently were valued at $15,000 last year.

Land devoted to most other types of farming also has increased in price. Pressures from residential, industrial, and recreational developments are primarily responsible for pushing up farmland values, especially in south Florida. For the state as a whole, prices apparently increased an average of 2 to 5 percent during 1984.

Georgia. Since their peak in 1981, land prices in central and southern Georgia have declined from 25 to 50 percent. The market for land was virtually inactive during 1982 and 1983; only during the past year have enough transactions occurred to allow a reliable measurement of market prices. Recent purchases show prices varying from $500 to $1,000 an acre. In counties where row crops such as corn and soybeans are grown, prices have tended to decline more severely than other crop land suitable for peanuts and tobacco. During 1984, irrigated farmland was marketed for as little as $800 an acre, approximately 40 percent below its 1981 peak.

For the Piedmont area and specifically the fringe counties of metropolitan areas, land prices have remained relatively stable since 1981, with some instances of price increases in 1984. In the corridor along I-75 in northwest Georgia, large acquisitions of land for industrial development and demand for small tracts for part-time use have supported prices. It seems that prices increased in the northern half of Georgia, where poultry farms did well early in 1984. For the state as a whole, however, estimates are that average prices declined moderately in 1984.

Louisiana. On average, Louisiana's farmland prices held steady from 1983 to 1984, according to the USDA's survey. In addition, Louisiana's average decline of 3 percent since 1981 was the lowest for any state within the region. The factors shoring up Louisiana's farmland prices include the state's relatively profitable sugarcane production, its modest impact from droughts that devastated much of the agriculture in southeastern states, and the positive influence of revenue from mineral leases in oil- and gas-producing regions.

Conditions deteriorated somewhat in 1984, according to our contacts in the area. The December 1983 freeze killed or weakened sugarcane root stocks, leaving sparse stands of cane and depressed production. Drought also gripped the northern regions of the state, including the important Mississippi Delta area in the northeast sector. Some areas sustained an estimated 12 percent decline in land values during 1984 alone. Since 1981, values of heavy (clay) soils have dropped as much as 30 percent, again owing primarily to the unprofitability of soybean production in the northeastern area.

Positive land-price developments have emerged in gas-producing areas in the vicinity of Shreveport and Thibodeaux. Continuing suburban sprawl and rapid local economic growth also have supported land prices in the vicinity of Baton Rouge. On the whole, average prices for the state are estimated to have declined by as much as 5 percent during 1984.

Mississippi. The USDA's 1984 survey indicated that land values rose 5 percent in the previous year, recouping nearly half of the decline that had occurred since 1981. Our industry contacts in Mississippi dispute those numbers, contending that prices did not increase in 1983 and continued to move downward in 1984. Last year, some tracts of the most fertile land in the Delta sold at

discounts of 22 percent or more from prices existing five years ago. In the area surrounding Columbus and southward toward Meridian and Jackson, price declines of around 35 percent were recorded. Land values in these regions are tied largely to profits from soybean production, which has been scant to nonexistent in most years since 1980. Droughts cut production per acre in 1981, 1983, and 1984; with the exception of 1983, soybean prices averaged 20 percent or more beneath 1980's level.

Like that in other states, Mississippi farmland adjacent to metropolitan areas (Jackson, Hattiesburg, or Memphis, Tennessee) as well as along the state's Gulf Coast has shown more positive price trends. In spite of these increases, however, our sources estimate land prices declined an additional 5 to 8 percent in 1984. Prospects for an upturn in 1985 look questionable unless farm product prices improve significantly.

Tennessee. In the major cropping areas in western Tennessee, land prices have declined 25 to 30 percent from the 1981 peak, largely because of a series of droughts and low prices for soybeans and cotton. The negative trends only worsened in 1984. Excessive late-season rains compounded problems by damaging unharvested crops and preventing farmers from harvesting 1984's drought-reduced production.

In central and eastern Tennessee, price trends were positive in 1984, except in the most rural areas where agriculture is the only potential use for the land. Manufacturing workers have upheld values of small tracts near cities and towns with their brisk demand to acquire land for part-time farming activities. The increasing or stable land values in eastern Tennessee, combined with declining land values in the western part of the state, have nearly closed the former gap between prices in the two areas. On balance, Tennessee farmland apparently held at year-ago levels or increased slightly during 1984.

Summary

High commodity prices, low interest rates, advances in farm technology, and a boom in residential and commercial construction caused farmland prices to escalate rapidly throughout the 1970s. By 1981, however, economic forces combined to reverse this upward trend. Although agricultural land values fell throughout the nation, considerable price diversity prevailed between states and even within states. To a large extent, such diversity hinged on whether the land had potential for development, could produce specialty crops, or was devoted primarily to traditional field crop production.

In its April 1984 report, the USDA concluded that in the Southeast an upturn in farmland prices by 1984 had moderated the impact of the preceding years' decline. However, our informal survey of those knowledgeable in the area of farm credit indicates that vast and widening price diversity characterizes the region and that, except for Florida, the southeastern states still are struggling to recover from the farmland price plunge.

Economic Briefs

Trends in Florida Citrus

Gene Wilson and Ann Pegg

Periodic bouts with adverse weather have diminished the importance of the citrus industry in Florida agriculture. Only a few years ago, citrus growers accounted for 30 percent of the state's total farm revenue, but more recently their share has slipped to only 25 percent, a decline of $200 million. The Florida citrus industry employs approximately 45,000 grove workers, half of whom are migrant workers. The nearly 9,500 Florida citrus farms vary greatly in size: although 4 percent exceed 1,000 acres, the majority (76 percent) are much smaller, with operations below 100 acres. The industry plays a major role in the economy of rural Florida and has a wide impact on the state's overall economy. Consequently, the health of the citrus industry is a matter of serious concern for Floridians.

Barely a year after the devastating freeze of December 1983, Florida was gripped by another blast of record-breaking cold. In the northernmost counties with high concentrations of groves, such as Pasco, Orange, and Lake counties, temperatures dropped into the teens for several hours, severely damaging crops and trees. Even in the southern citrus-producing counties of Martin and Highlands temperatures fell into the low twenties, freezing fruit but harming trees to a lesser extent.

While the price impact of the recent freeze is proving to be slight, the cumulative effects of both freezes are holding juice prices well above those in mid-1983. Little change is expected soon in the price level; until late summer, orange juice supplies will depend on existing inventories of the United States and Brazil, plus this season's remaining harvest. Although the short-term price impact of the most recent freeze appears limited, the aftermath of this freeze highlights new trends in the citrus industry itself.

Florida's role as a major producer in the world market is diminishing. The state's orange production this season, for example, is estimated at 104 million boxes—the smallest crop since the 1960s. As Florida's prominence has declined, Brazil has made significant inroads on the world juice market during the past quarter-century. In fact, until the recent years of adverse weather in Florida, Brazilian growers increasingly worried about over-production. A return to more temperate winters could stimulate Florida citrus production, of course, while another damaging freeze could cost the state still more of its world market.

The increasing occurrence of freezes in the past 10 years is reshaping the industry's geography. The heart of Florida citrus production has continued to shift southward as the industry seeks more favorable winter weather. The 1985 freeze represents still another blow to citrus production in north central Florida, which has seen both profits and jobs lost. Expediency is encouraging producers to move into south central Florida from their historical base in more northerly counties. Indeed, a shift in production already is evident in the southern counties' expectations of supplying 30 percent of the state's crop this year.

Another geographic shift taking place is a tendency to plant in coastal rather than interior counties, as coastal climates temper extreme weather changes. That shift also could be slowed by a return to more typical Florida winters.

An additional result of the freezes appears to be a growing disparity between profitability of groves in the north central production area and those in the lower counties. Many upper county producers already feared a reduced crop, if any, as a consequence of the December 1983 freeze. The recent cold wave accentuated the plight of

northern groves by further damaging trees and lowering the juice yield of the existing crop. In south Florida, juice yields declined only moderately. Consequently, for south Florida orange growers higher prices are offsetting any crop losses incurred, while northern growers find themselves hard-pressed to recover costs of grove maintenance.

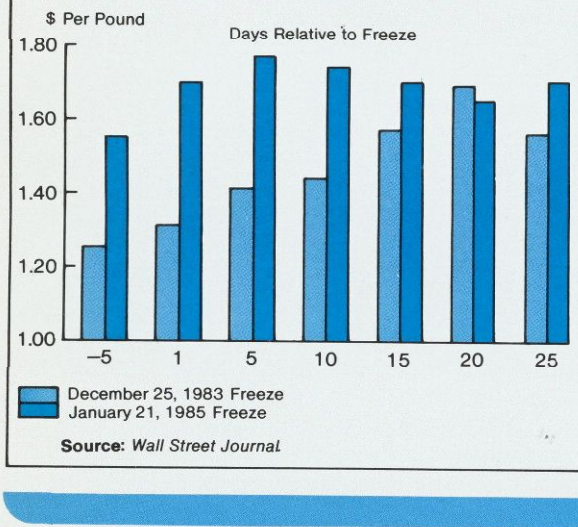
In addition to the differences in profit, the net worth of citrus growers in the two areas is notably dissimilar. With Florida's northern groves experiencing losses and being perceived as increasingly risky propositions, their value to citrus growers has fallen. Farm sector demand for such groves tends to be rather weak, which makes sales to developers with competitive bids more attractive. In contrast to the declining value of ailing northern groves, undamaged groves in south Florida have appreciated markedly in price. For example, a grove valued at $11,000 per acre in 1981 had risen to $15,000 an acre in 1984.

Not only is citrus production shifting southward, but some citrus producers in the north have decided they no longer can afford to compete against Mother Nature and have withdrawn from the business. Thus, Florida's overall citrus land area has lessened. The 760,000 acres devoted to citrus in 1984 represents a decline of 86,000 acres since 1982. The reduction in old groves actually totaled 160,000 acres, but this was offset in part by 73,000 acres of new plantings.

Florida's grapefruit production, on the other hand, has been spared the orange crop's substantial drop-off. This growing season should yield a grapefruit crop 5 percent larger than last year, owing mainly to large plantings and the fruit's high resistance to freezing. It is unfortunate for growers, though, that grapefruit demand does not match that for oranges.

In summary, Florida citrus growers' repeated experiences with freezes is causing major changes in this important agricultural sector. Reduced production levels, coinciding with significant Brazilian expansion, are lessening the state's role in the world orange juice market. The state's industry is undergoing a shift in its major area of production as well as a contraction in size. The impact of this change extends to the general Florida economy, with increased sales of groves to developers and reductions in the industry's labor demand. The future of the Florida citrus industry undoubtedly will hinge on whether the severe freezes of 1983 and 1985 were isolated incidents or harbingers of coming years.

Chart 1. Orange Juice Price Behavior in Market Days Before and After Freeze (Futures Market, March Contract)



Source: *Wall Street Journal*

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Retail Sales: A Primer

R. Mark Rogers

Economic and financial analysts often view the U.S. Department of Commerce's retail sales statistical series as an indicator of the economy's current strength. Sometimes, however, misleading inferences are drawn from the release of this

indicator, possibly because of a misunderstanding of what information is conveyed by the series. While some analysts tie changes in retail sales to changes in GNP, the comparison is not appropriate. In fact, the retail sales series plays a role in determining only a portion of GNP, that of personal consumption expenditures on goods. Furthermore, other GNP components behave independently of personal consumption of goods. As a result, we should not expect the two series to march in lockstep.

This article examines a number of related issues. What relationship does the retail sales series have to certain components of GNP? How can the series be interpreted? How is the usefulness of the series affected by the survey, by the representativeness of the sample, and by the revisions procedure?

Personal Consumption Expenditures

A common misconception is that the retail sales data series is a major component of GNP. In fact, retail sales data do not enter GNP figures directly. Instead, they constitute a significant portion of personal consumption expenditures (or PCEs), which comprise about two-thirds of GNP. To understand more clearly how retail sales affect this aggregate, consider how PCEs fit into the picture.

Within GNP accounts, the Commerce Department subdivides PCEs into durables, nondurables, and services consumption, each derived from a variety of data sources. The Commerce Department breaks down retail sales only into durables and nondurables components; hence, the series helps in estimating only two of the three major components of consumption. Services personal consumption, missing from retail sales, accounted for about 50 percent of total personal consumption—just over 30 percent of total GNP—in the fourth quarter of 1984.

The Commerce Department uses retail sales data in estimating the two goods components of PCEs. Specifically, the department uses a computer matrix to transform retail sales data (excluding the auto component and some others, such as gasoline sales, which are estimated independently) from an establishment, or "who sold it," basis to a product-by-product basis. It also deletes some retail sales components considered investment rather than consumption, such as hardware sales to building contractors. Some judgment calls also enter into the estimation procedure when data are not timely. Overall, the transformed retail sales data make up about 80 percent of the durables and nondurables PCEs.[1]

Auxiliary data sources are used for unit auto sales, gasoline sales, and a few other components. The data on unit auto sales are more reliable than the similar retail sales data because the figures are actual sales reported by firms, not surveys. Gasoline sales for passenger cars, and also other vehicles, are estimated using data from a variety of sources, including the U.S. Department of Transportation and Bureau of Labor Statistics.

Components in Retail Sales But Not in PCEs

1. survey estimates of new and used motor vehicles and parts sales, including imports, business sales, and government purchases
2. gasoline service station sales
3. building materials, hardware, garden supplies, and mobile home dealer sales

Components in PCEs But Not in Retail Sales

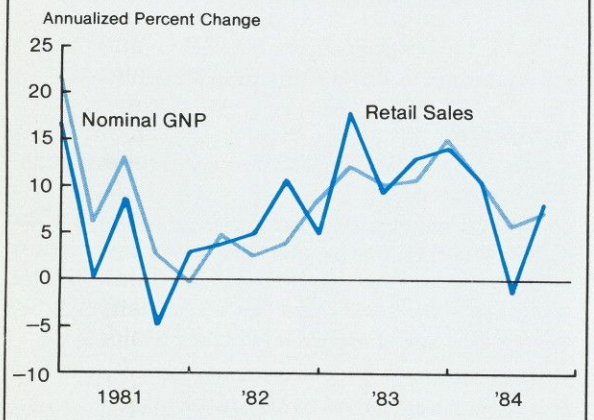
1. services
2. unit new private domestic motor vehicle sales from producers' data
3. dealers' margins on used car sales (which are implicitly part of used car sales in the retail sales series)
4. gasoline and oil sales, based on Department of Transportation and Department of Labor data
5. food and fuel produced and consumed on farms
6. food and clothing received as compensation in kind
7. expenditures abroad by U.S. residents
8. personal remittances in kind to foreigners

In sum, the retail sales series roughly follows the combined durables and nondurables components of PCEs. However, the retail sales series does not trace overall PCEs as well because of the inclusion of the large services component.[2]

Retail Sales As an Indicator of GNP

Given this information, it is evident that while the retail sales series certainly conveys useful information, it provides a less than accurate indicator of the current strength and direction of the economy as measured by GNP. In fact, the short-run comparison of changes in retail sales to changes in GNP is not sound. As Chart 1 shows, percentage changes in retail sales sometimes move with a different amplitude or even in a different direction from nominal GNP. Clearly, the retail sales series is more volatile than GNP and does not precisely follow GNP movements on a quarterly basis. The reasons for this lie outside the make-up and estimation of the retail sales series.

Chart 1. Quarterly Retail Sales versus Nominal GNP



Source: U.S. Department of Commerce.

GNP comprises several aggregate components, each of which is determined by different behavioral factors. The goods components of personal consumption expenditures have the same behavioral determinants as retail sales, but other GNP components do not. As a result, services consumption and government purchases tend to be more stable than personal consumption of goods. Also, residential and nonresidential investment experience their own cycles separate from durables and nondurables consumption. Even though retail sales are related to goods consumption, they represent only about 30 percent of overall GNP, and the other components of GNP can move in divergent directions.

While the retail sales series is not a good indicator of changes in total GNP in the short run (for example, on a quarterly basis), the series is related to durables and nondurables consumption.[3] Hence, the retail sales series is a somewhat better indicator of final sales of the goods components of GNP than of the GNP aggregate itself. On a monthly basis, how reliably do the retail sales figures estimate such activity? Examining the procedure for conducting and revising the retail sales survey helps to answer this question.

Survey and Revisions

Retail sales estimates undergo several revisions. Because revisions can be large, the advance estimate often constitutes a relatively poor economic indicator in the short run. Each month, the Commerce Department releases an advance estimate as well as preliminary and final estimates for earlier months, which the media simply refer to as "revised." In addition to these revisions, annual revisions and five-year census benchmark revisions also are made.

To understand how the Commerce Department makes monthly revisions, let's first examine the survey sample.[4] The Commerce Department's goals of achieving relatively low variance in the estimates during revision and a relatively light

burden for reporting establishments determine its survey technique and estimation processes. Of approximately 36,000 establishments the department surveys, only about 4,000 (evenly chosen from large, single-unit and large, multi-unit firms) report every month. Other large companies generally report once every three months. These companies form the backbone of three rotating survey panels with each month's panel including a sampling of smaller retailers, each surveyed once or twice a year.

Although the panel varies monthly, its membership maintains the same representative characteristics of the Commerce Department's sample as a whole. The entire sample, in turn, was constructed to represent the distribution, by size and standard industrial classification (SIC), of the different types of stores surveyed in the *1977 Census of Retail Trade*. Therefore, each month's rotating sample, consisting of both permanent and rotating respondents, is intended to represent the retail trade sector as reflected in that retail census. Reliance on this census introduces a problem of survey sample stratification: the composition of today's retail sales differs from that of the census, which was based on 1977 consumer buying patterns. Today, more sales occur in electronics stores, discount retailers, and specialized retailers and fewer in department stores and auto dealerships.

This stratification problem is lessened to a large degree by the Department of Commerce's reliance on information from Social Security and from annual samples. Social Security provides current data on "births" and "deaths" of establishments. Commerce uses this information to update the sample of firms available for monthly surveys, thus sharpening the surveys' reflection of current buying patterns. The SIC stratification remains the same for the survey, but as newer stores (and older) represent shifts in product lines, so does the retail sales survey. Annual surveys also help pick up new sales trends since the last five-year census.

Every panel reports two months of sales data (or an estimate of sales if actual figures are not available): data for the month just ended and for the previous month. The earlier month's sales figures contribute to revisions of data reported in the previous month's survey by a different panel. The department's request for sales data through rotating panels reduces the reporting burden for most of the firms, and its request for two months of data increases the reliability of the revised product.

Advance Estimate. The April retail sales figures that will be released in mid-May can exemplify the advance estimate process. In the first week of May, some 12,000 companies will report their estimated or (if available) actual sales for April and the actual sales for March. However, because some of the data cannot be processed for release until mid-June, the less accurate but more easily processed advance report was devised. The Commerce Department will use a sub-sample of 2,500 companies from the 12,000 to derive the advance April estimate for release in mid-May. The April advance report sometimes incorporates firms' preliminary estimates for April sales since the month had just ended when they submit their sales figures to the Commerce Department.

In the sub-sample of 2,500 firms, the April advance report will use for its calculations not only that month's figures but March sales. The Commerce Department relies on historical seasonal data to estimate an average ratio of March-to-April sales. Based on this ratio and March sales, another projection for April sales will be made separately from the respondent firms' figures. Both the firms' reported aggregate April estimate and the Commerce's Department's ratio method estimate will be weighted to derive the advance estimate released to the public. The department has determined that the weighted figure provides a more accurate estimate of final retail sales than does an early estimate derived from the sub-sample's April figures alone.

Preliminary and "Final" Estimates. The April preliminary estimate, the first to be based on a full sample, will be released in June once all the data are analyzed. Like the advance estimate, the

Table 1. Monthly Percentage Changes in Retail Sales Estimates (Seasonally Adjusted)

	Advance	Preliminary	Final	With Revised Seasonals*
1985				
February	1.4	N.A.	N.A.	
January	0.7	0.5	N.A.	
1984				
December	–0.1	–0.5	–0.8	0.2
November	1.8	2.0	1.5	1.2
October	–0.1	0.1	0.5	0.6
September	1.6	1.2	1.5	0.9
August	–0.8	–0.6	–0.1	–0.2
July	–0.9	–2.0	–1.7	–1.4
June	0.8	0.5	1.0	1.1
May	0.2	0.5	–0.9	0.5
April	2.9	3.1	3.5	2.8
March	–2.2	–2.0	–1.5	–1.1
February	–0.2	–0.8	–1.1	–0.4
January	2.2	3.3	3.8	3.2

*Percentage changes for both 1984 and 1983 are based on new seasonally adjusted figures released in March 1985.

Source: U.S. Department of Commerce.

preliminary estimate is a weighted average of figures from the first full sample as well as a ratio estimate obtained from the historical data comparing the current month (April) to the previous month. The advance and preliminary figures can differ because the large firms may not represent all retailers and because of random differences in sales between the two groups. As with the advance estimate, the preliminary retail sales estimate is based in part on some firms' projected sales for the month.

In July the Commerce Department releases the final, or revised, April estimate. This estimate is based on an additional full sample collected during early June, together with the data from May's panel. Hence, the revised estimate is the first to include a panel reporting almost entirely actual sales for the whole month. Therefore, revised figures can differ from earlier estimates if sales trends at the end of the month vary significantly from those at the beginning, on which some firms base their projections. However, the final estimate is a composite based on a weighted average of the preliminary composite estimate for April and the April estimate obtained solely from the second month's reporting panel. As such, this figure still is influenced by the earlier estimate.

Unfortunately, even the "final" estimate for any month is not final. The Commerce Department calculates new seasonal factors and includes them in later revisions released around

	Advance	Preliminary	Final	With Revised Seasonals*
1983				
December	0.1	0.1	0.7	0.7
November	1.9	1.1	1.2	1.2
October	1.1	1.4	1.7	1.5
September	1.6	1.3	1.4	1.0
August	–1.4	–1.6	–0.1	–0.1
July	0.0	9.4	0.4	0.4
June	0.7	0.3	0.8	1.5
May	2.1	3.1	3.1	1.8
April	1.6	1.7	2.3	0.9
March	0.3	1.7	2.3	2.2
February	–0.4	–1.2	–1.2	0.1
January	0.1	–0.4	0.9	0.2

mid-March for the previous year's data. It revises monthly estimates for sales levels to achieve consistency with year-end sales reports while maintaining as much as possible the pattern of percentage changes that were estimated earlier on a monthly basis. Furthermore, the Commerce Department compiles a detailed census of retailers every five years, then reworks previous estimates for annual sales levels to be consistent with the five-year censuses. Of course, monthly changes are necessary for additional consistency within the years revised. The last five-year census occurred in 1982, but revisions in the U.S. total were not released until March 1985. The 1982 census of retailers will be the foundation for the retail sales survey design early in 1987.

Summary

The retail sales series should be viewed primarily as an indicator of the strength of final sales of goods. Changes in GNP may differ from changes in retail sales because of the inclusion of many components other than expenditures on goods. Adjusted retail sales represent a relatively small portion of GNP—only about half of all personal consumption expenditures and consequently only about one-third of GNP. Furthermore, GNP figures include components that exhibit different cyclical behavior. Specifically, services tend to be stable while investment in structures and equipment expenditures can take on their own cyclical patterns.

As noted earlier, monthly retail sales figures are revised, on occasion significantly. While sales of goods are inherently volatile, the series provides the best information available on a timely basis. When viewed within the context of other monthly indicators, retail sales estimates provide valuable insight, especially into the strength of the goods sector.

The author is an economic analyst on the Research Department's macropolicy team. He thanks Irving True at the Commerce Department, Susan Burch at the Federal Reserve Board, and Walter Dolde at Townsend-Greenspan for their suggestions.

NOTES

[1] Revised retail sales data are used in personal consumption revisions each month until that particular quarter for GNP is "closed out," as when the next quarter's flash estimate is released.

[2] For the services components of PCE, the Commerce Department must rely on many different data sources as no single primary source exists. One source is the owner-occupied dwellings housing survey used to derive housing services consumption. For statistics, the Commerce Department looks to the housing stock and rental equivalents. For hotel and motel services, a private accounting firm produces data used by the Commerce Department's Bureau of Economic Analysis. The long list of private sources includes organizations as diverse as the American Council of Life Insurance, the Air Transport Association, AT&T, and the American Kennel Club.

[3] Only over a longer time horizon of two or more quarters is the retail sales series more closely tied to changes in GNP. As such, changes in inventories is the "equilibrating mechanism" that eventually ties changes in retail sales to changes in GNP.

[4] Much of the material discussing the survey sample and revisions procedures is based on appendices in *Monthly Retail Trade*, published by the U.S. Department of Commerce, Bureau of the Census.

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UNITED STATES									
Commercial Bank Deposits	1,463,097	1,488,634	1,326,657	+ 10	Savings & Loans**				
Demand	316,032	346,254	299,371	+ 6	Total Deposits	725,336	725,323	637,308	+ 14
NOW	97,709	101,204	87,544	+ 12	NOW	22,347	23,038	18,669	+ 20
Savings	394,548	386,146	352,739	+ 12	Savings	166,190	165,257	173,594	- 4
Time	596,887	701,005	619,272	- 4	Time	540,262	540,543	448,738	+ 20
Credit Union Deposits	59,410	59,023	49,687	+ 20		DEC	NOV	DEC	
Share Drafts	6,502	6,605	5,120	+ 27	Mortgages Outstanding	598,559	598,425	483,596	+ 24
Savings & Time	52,961	52,465	44,492	+ 19	Mortgage Commitments	37,584	40,633	32,331	+ 16
SOUTHEAST									
Commercial Bank Deposits	169,711	171,155	151,756	+ 12	Savings & Loans				
Demand	36,618	40,298	35,799	+ 2	Total Deposits	94,469	97,207	N.A.	
NOW	12,703	13,067	11,416	+ 11	NOW	3,593	3,784	N.A.	
Savings	44,411	43,604	39,730	+ 12	Savings	20,733	21,152	N.A.	
Time	79,926	79,258	68,513	+ 17	Time	70,793	72,882	N.A.	
Credit Union Deposits	6,659	6,599	5,749	+ 16		DEC	NOV	DEC	
Share Drafts	600	610	494	+ 21	Mortgages Outstanding	75,325	75,225	68,866	+ 9
Savings & Time	5,959	5,892	5,137	+ 16	Mortgage Commitments	4,364	4,507	4,640	- 6
ALABAMA									
Commercial Bank Deposits	17,743	17,856	15,798	+ 12	Savings & Loans**				
Demand	3,858	4,134	3,741	+ 3	Total Deposits	6,154	6,075	5,280	+ 17
NOW	1,216	1,226	1,031	+ 18	NOW	255	251	150	+ 70
Savings	3,484	3,417	3,222	+ 8	Savings	951	923	896	+ 6
Time	9,676	9,716	8,305	+ 17	Time	5,029	4,989	4,278	+ 18
Credit Union Deposits	999	994	922	+ 8		DEC	NOV	DEC	
Share Drafts	104	105	88	+ 18	Mortgages Outstanding	4,315	4,306	3,846	+ 12
Savings & Time	874	866	797	+ 10	Mortgage Commitments	215	174	288	- 25
FLORIDA									
Commercial Bank Deposits	60,675	60,983	53,777	+ 13	Savings & Loans**				
Demand	13,238	14,276	12,941	+ 2	Total Deposits	59,965	62,648	54,615	+ 10
NOW	5,240	5,407	4,764	+ 10	NOW	2,457	2,629	2,165	+ 13
Savings	20,827	20,456	18,685	+ 11	Savings	14,070	14,435	14,974	- 6
Time	22,795	22,553	18,609	+ 22	Time	43,580	45,734	37,943	+ 15
Credit Union Deposits	3,006	2,970	2,498	+ 20		DEC	NOV	DEC	
Share Drafts	305	310	248	+ 23	Mortgages Outstanding	44,589	44,447	41,223	+ 8
Savings & Time	2,581	2,545	2,121	+ 22	Mortgage Commitments	2,870	2,916	3,181	- 10
GEORGIA									
Commercial Bank Deposits	26,183	26,526	22,201	+ 18	Savings & Loans				
Demand	7,256	8,058	6,739	+ 8	Total Deposits	8,374	8,346	N.A.	
NOW	1,677	1,772	1,493	+ 12	NOW	306	314	N.A.	
Savings	6,748	6,556	4,964	+ 36	Savings	1,886	1,854	N.A.	
Time	11,788	11,708	10,044	+ 17	Time	6,347	6,337	N.A.	
Credit Union Deposits	1,389	1,387	1,201	+ 16		DEC	NOV	DEC	
Share Drafts	96	98	74	+ 30	Mortgages Outstanding	8,990	9,004	8,326	+ 8
Savings & Time	1,304	1,297	1,150	+ 13	Mortgage Commitments	401	420	477	- 16
LOUISIANA									
Commercial Bank Deposits	27,699	27,948	25,572	+ 8	Savings & Loans**				
Demand	5,627	6,237	5,777	- 3	Total Deposits	10,912	11,221	9,150	+ 19
NOW	1,623	1,663	1,499	+ 8	NOW	291	301	210	+ 39
Savings	5,850	5,774	5,451	+ 7	Savings	2,247	2,319	2,370	- 5
Time	15,072	14,867	13,335	+ 13	Time	8,546	8,752	6,669	+ 28
Credit Union Deposits	184	182	203	- 9		DEC	NOV	DEC	
Share Drafts	17	16	23	- 26	Mortgages Outstanding	9,266	9,304	8,046	+ 15
Savings & Time	180	179	197	- 9	Mortgage Commitments	434	511	446	- 3
MISSISSIPPI									
Commercial Bank Deposits	12,689	12,708	11,923	+ 6	Savings & Loans				
Demand	2,395	2,580	2,419	- 1	Total Deposits	1,769	1,597	N.A.	
NOW	914	919	841	+ 9	NOW	54	54	N.A.	
Savings	2,464	2,409	2,480	- 1	Savings	301	351	N.A.	
Time	7,219	7,127	6,506	+ 11	Time	1,470	1,204	N.A.	
Credit Union Deposits	*	*	*			DEC	NOV	DEC	
Share Drafts	*	*	*		Mortgages Outstanding	2,062	2,074	2,035	+ 1
Savings & Time	*	*	*		Mortgage Commitments	178	147	63	+183
TENNESSEE									
Commercial Bank Deposits	24,722	25,134	22,485	+ 10	Savings & Loans**				
Demand	4,244	5,013	4,182	+ 1	Total Deposits	7,295	7,320	6,817	+ 7
NOW	2,033	2,080	1,788	+ 14	NOW	230	235	176	+ 31
Savings	5,038	4,992	4,928	+ 2	Savings	1,278	1,270	1,337	- 4
Time	13,376	13,287	11,714	+ 14	Time	5,821	5,866	5,350	+ 9
Credit Union Deposits	1,081	1,066	925	+ 17		DEC	NOV	DEC	
Share Drafts	78	81	61	+ 28	Mortgages Outstanding	6,103	6,090	5,390	+ 13
Savings & Time	1,020	1,005	872	+ 17	Mortgage Commitments	266	339	185	+ 44

Notes: All deposit data are extracted from the Federal Reserve Report of Transaction Accounts, other Deposits and Vault Cash (FR2900), and are reported for the average of the week ending the 1st Monday of the month. This data, reported by institutions with over $15 million in deposits as of December 31, 1979, represents 95% of deposits in the six state area. The major differences between this report and the "call report" are size, the treatment of interbank deposits, and the treatment of float. The data generated from the Report of Transaction Accounts is for banks over $15 million in deposits as of December 31, 1979. The total deposit data generated from the Report of Transaction Accounts eliminates interbank deposits by reporting the net of deposits "due to" and "due from" other depository institutions. The Report of Transaction Accounts subtracts cash items in process of collection from demand deposits, while the call report does not. Savings and loan mortgage data are from the Federal Home Loan Bank Board Selected Balance Sheet Data. The Southeast data represent the total of the six states. Subcategories were chosen on a selective basis and do not add to total.

* = fewer than four institutions reporting.

** = S&L deposits subject to revisions due to reporting changes.

N.A. = not comparable with previous data at this time.

CONSTRUCTION

	JAN 1985	DEC 1984	JAN 1984	ANN % CHG		JAN 1985	DEC 1984	JAN 1984	ANN % CHG
12-month Cumulative Rate									
UNITED STATES									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	62,351	61,483	52,264	+ 19	Value - $ Mil.	74,368	74,412	69,204	+ 7
Industrial Bldgs.	9,084	8,800	5,592	+ 62	Residential Permits - Thous.				
Offices	14,840	14,810	13,024	+ 14	Single-family units	887.6	890.7	900.7	- 1
Stores	9,780	9,542	7,187	+ 36	Multi-family units	744.8	748.2	716.0	+ 4
Hospitals	1,852	1,851	2,065	- 10	Total Building Permits				
Schools	1,042	993	857	+ 22	Value - $ Mil.	136,719	135,895	121,468	+ 13
SOUTHEAST									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	9,597	9,497	8,271	+ 16	Value - $ Mil.	13,857	13,854	12,934	+ 7
Industrial Bldgs.	1,005	987	676	+ 49	Residential Permits - Thous.				
Offices	2,216	2,247	2,036	+ 9	Single-family units	186.6	186.1	184.7	+ 1
Stores	1,959	1,902	1,376	+ 42	Multi-family units	170.3	171.7	165.2	+ 3
Hospitals	402	402	470	- 14	Total Building Permits				
Schools	122	105	152	- 20	Value - $ Mil.	23,454	23,351	21,205	+ 11
ALABAMA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	726	730	543	+ 34	Value - $ Mil.	449	449	440	+ 2
Industrial Bldgs.	198	197	35	+466	Residential Permits - Thous.				
Offices	91	99	62	+ 47	Single-family units	8.1	8.0	8.0	+ 1
Stores	126	127	102	+ 24	Multi-family units	6.7	6.7	8.1	- 17
Hospitals	53	53	5	+960	Total Building Permits				
Schools	6	7	9	- 33	Value - $ Mil.	1,175	1,179	983	+ 20
FLORIDA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	4,796	4,747	4,133	+ 16	Value - $ Mil.	7,959	7,964	7,578	+ 5
Industrial Bldgs.	495	479	360	+ 38	Residential Permits - Thous.				
Offices	1,037	1,079	969	+ 7	Single-family units	101.1	100.8	99.8	+ 1
Stores	1,107	1,071	777	+ 42	Multi-family units	96.7	97.9	92.1	+ 5
Hospitals	163	162	297	- 45	Total Building Permits				
Schools	52	46	57	- 9	Value - $ Mil.	12,755	12,711	11,711	+ 9
GEORGIA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	1,822	1,809	1,384	+ 32	Value - $ Mil.	2,835	2,828	2,436	+ 16
Industrial Bldgs.	189	189	175	+ 8	Residential Permits - Thous.				
Offices	551	558	464	+ 19	Single-family units	44.0	43.9	41.9	+ 5
Stores	299	293	159	+ 88	Multi-family units	26.5	26.4	25.0	+ 6
Hospitals	47	51	35	+ 34	Total Building Permits				
Schools	22	18	28	- 21	Value - $ Mil.	4,656	4,637	3,820	+ 22
LOUISIANA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	1,191	1,166	1,164	+ 2	Value - $ Mil.	1,040	1,039	1,098	- 5
Industrial Bldgs.	33	31	33	0	Residential Permits - Thous.				
Offices	283	283	370	- 24	Single-family units	13.5	13.9	16.6	- 19
Stores	243	228	130	+ 87	Multi-family units	13.5	13.0	17.1	- 21
Hospitals	103	99	97	+ 6	Total Building Permits				
Schools	34	26	49	- 31	Value - $ Mil.	2,231	2,205	2,262	- 1
MISSISSIPPI									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	255	250	195	+ 31	Value - $ Mil.	385	383	316	+ 22
Industrial Bldgs.	12	12	10	+ 20	Residential Permits - Thous.				
Offices	40	40	22	+ 82	Single-family units	6.1	6.0	4.7	+ 30
Stores	58	56	40	+ 45	Multi-family units	4.6	4.8	5.1	- 10
Hospitals	9	9	19	- 53	Total Building Permits				
Schools	3	3	4	- 25	Value - $ Mil.	640	633	511	+ 25
TENNESSEE									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	807	795	852	- 5	Value - $ Mil.	1,189	1,191	1,066	+ 12
Industrial Bldgs.	78	79	63	+ 24	Residential Permits - Thous.				
Offices	214	188	149	+ 44	Single-family units	13.8	13.5	13.7	+ 1
Stores	126	127	168	- 25	Multi-family units	22.3	22.9	17.8	+ 25
Hospitals	27	28	17	+ 59	Total Building Permits				
Schools	5	5	5	0	Value - $ Mil.	1,997	1,986	1,918	+ 4

NOTES:

Data supplied by the U. S. Bureau of the Census, Housing Units Authorized By Building Permits and Public Contracts, C-40. Nonresidential data excludes the cost of construction for publicly owned buildings. The southeast data represent the total of the six states. The annual percent change calculation is based on the most recent month over prior year. Publication of F. W. Dodge construction contracts has been discontinued.

GENERAL

	LATEST DATA	CURR. PERIOD	PREV. PERIOD	YEAR AGO	ANN. % CHG.
UNITED STATES					
Personal Income ($bil. - SAAR)	3Q	3,032.7	2,970.9	2,755.1	+10
Taxable Sales - $bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's		N.A.	N.A.	N.A.	
Petroleum Prod. (thous.)	FEB	8,910.8	8,737.2	8,661.9	+ 3
Consumer Price Index 1967=100	FEB	317.4	316.1	306.6	+ 4
Kilowatt Hours - mils.	DEC	186.9	183.2	185.0	+ 1
SOUTHEAST					
Personal Income ($bil. - SAAR)	3Q	370.8	361.8	333.7	+11
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	4,547.3	4,358.1	3,999.8	+14
Petroleum Prod. (thous.)	FEB	1,507.0	1,510.0	1,404.0	+ 7
Consumer Price Index 1967=100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	DEC	27.9	28.5	27.8	+ 0
ALABAMA					
Personal Income ($bil. - SAAR)	3Q	40.5	39.8	37.0	+ 9
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	103.7	109.4	109.1	- 5
Petroleum Prod. (thous.)	FEB	53.0	53.0	49.0	+ 8
Consumer Price Index 1967=100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	DEC	4.0	4.0	3.7	+ 8
FLORIDA					
Personal Income ($bil. - SAAR)	3Q	140.0	136.1	125.1	+12
Taxable Sales - $ bil.	JAN	85.1	84.0	74.3	+15
Plane Pass. Arr. 000's	DEC	2,309.5	2,081.9	1,827.0	+26
Petroleum Prod. (thous.)	FEB	36.0	37.0	49.0	-27
Consumer Price Index - Miami Nov. 1977 = 100		JAN 168.6	NOV 168.3	JAN 165.0	+ 2
Kilowatt Hours - mils.	DEC	7.5	8.2	7.3	+ 3
GEORGIA					
Personal Income ($bil. - SAAR)	3Q	67.7	65.9	59.8	+13
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	1,705.6	1,688.4	1,610.9	+ 6
Petroleum Prod. (thous.)		N.A.	N.A.	N.A.	
Consumer Price Index - Atlanta 1967 = 100		FEB 322.4	DEC 318.2	FEB 309.3	+ 4
Kilowatt Hours - mils.	DEC	4.5	4.4	4.6	- 2
LOUISIANA					
Personal Income ($bil. - SAAR)	3Q	49.0	48.2	45.6	+ 7
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	248.0	285.5	272.7	- 9
Petroleum Prod. (thous.)	FEB	1,329.0	1,331.0	1,220.0	+ 9
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	DEC	4.5	4.8	4.2	+ 7
MISSISSIPPI					
Personal Income ($bil. - SAAR)	3Q	23.1	22.6	21.1	+ 9
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	31.2	33.8	31.4	- 1
Petroleum Prod. (thous.)	FEB	89.0	89.0	86.0	+ 3
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	DEC	2.0	1.9	1.9	+ 5
TENNESSEE					
Personal Income ($bil. - SAAR)	3Q	50.0	49.3	45.1	+11
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	DEC	149.3	159.1	148.7	+ 0
Petroleum Prod. (thous.)		N.A.	N.A.	N.A.	
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	DEC	5.4	5.2	6.1	-11

	FEB 1985	JAN 1985	FEB 1984	ANN. % CHG.
UNITED STATES				
Agriculture				
Prices Rec'd by Farmers Index (1977=100)	135	135	144	- 6
Broiler Placements (thous.)	86,001	85,507	80,879	+ 6
Calf Prices ($ per cwt.)	66.20	64.10	63.90	+ 4
Broiler Prices (¢ per lb.)	30.5	30.9	37.4	-18
Soybean Prices ($ per bu.)	5.74	5.90	7.29	-21
Broiler Feed Cost ($ per ton)	217	221	243	-11
SOUTHEAST				
Agriculture				
Prices Rec'd by Farmers Index (1977=100)	127	129	134	- 5
Broiler Placements (thous.)	33,640	32,984	31,217	+ 8
Calf Prices ($ per cwt.)	60.7	59.2	60.3	+ 1
Broiler Prices (¢ per lb.)	29.0	29.7	36.7	-21
Soybean Prices ($ per bu.)	5.85	6.02	7.40	-21
Broiler Feed Cost ($ per ton)	217	215	235	- 8
ALABAMA				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	2,014	-	1,990	+ 1
Broiler Placements (thous.)	11,455	11,152	10,596	+ 8
Calf Prices ($ per cwt.)	64.0	59.9	59.0	+ 8
Broiler Prices (¢ per lb.)	27.0	29.0	35.5	-24
Soybean Prices ($ per bu.)	5.95	6.03	7.47	-20
Broiler Feed Cost ($ per ton)	205	205	275	-25
FLORIDA				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	3,803	-	3,896	- 2
Broiler Placements (thous.)	2,098	2,087	1,827	+15
Calf Prices ($ per cwt.)	65.2	62.4	63.1	+ 3
Broiler Prices (¢ per lb.)	30.0	29.0	36.0	-17
Soybean Prices ($ per bu.)	5.95	6.03	7.47	-20
Broiler Feed Cost ($ per ton)	235	235	260	-10
GEORGIA				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	3,236	-	2,927	+11
Broiler Placements (thous.)	13,553	13,165	12,694	+ 7
Calf Prices ($ per cwt.)	60.7	57.3	57.1	+ 6
Broiler Prices (¢ per lb.)	29.0	29.0	36.5	-21
Soybean Prices ($ per bu.)	5.73	5.86	7.61	-25
Broiler Feed Cost ($ per ton)	250	245	215	+16
LOUISIANA				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	1,326	-	1,612	-18
Broiler Placements (thous.)	N.A.	N.A.	N.A.	
Calf Prices ($ per cwt.)	62.0	59.4	62.2	- 0
Broiler Prices (¢ per lb.)	31.5	32.0	38.0	-17
Soybean Prices ($ per bu.)	5.90	5.97	7.44	-21
Broiler Feed Cost ($ per ton)	250	255	295	-15
MISSISSIPPI				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	1,856	-	2,056	-10
Broiler Placements (thous.)	6,534	6,580	6,101	+ 7
Calf Prices ($ per cwt.)	64.6	60.0	61.7	+ 5
Broiler Prices (¢ per lb.)	31.5	32.0	39.0	-19
Soybean Prices ($ per bu.)	5.65	6.03	7.52	-25
Broiler Feed Cost ($ per ton)	164	162	191	-14
TENNESSEE				
Agriculture				
Farm Cash Receipts - $ mil. (Dates: NOV, NOV)	1,703	-	1,702	+ 0
Broiler Placements (thous.)	N.A.	N.A.	N.A.	
Calf Prices ($ per cwt.)	60.7	56.3	58.6	+ 4
Broiler Prices (¢ per lb.)	29.0	29.0	36.5	-21
Soybean Prices ($ per bu.)	6.06	6.18	6.95	-13
Broiler Feed Cost ($ per ton)	185	188	220	-16

Notes:
Personal Income data supplied by U. S. Department of Commerce. Taxable Sales are reported as a 12-month cumulative total. Plane Passenger Arrivals are collected from 26 airports. Petroleum Production data supplied by U. S. Bureau of Mines. Consumer Price Index data supplied by Bureau of Labor Statistics. Agriculture data supplied by U. S. Department of Agriculture. Farm Cash Receipts data are reported as cumulative for the calendar year through the month shown. Broiler placements are an average weekly rate. The Southeast data represent the total of the six states. N.A. = not available. The annual percent change calculation is based on most recent data over prior year. R = revised.

EMPLOYMENT

	JAN 1985	DEC 1984	JAN 1984	ANN. % CHG.		JAN 1985	DEC 1984	JAN 1984	ANN. % CHG.
UNITED STATES									
Civilian Labor Force - thous.	113,475	114,028	111,025	+ 2	Nonfarm Employment- thous.	94,594	96,291	91,065	+ 4
Total Employed - thous.	104,344	106,049	101,270	+ 3	Manufacturing	19,603	19,749	19,030	+ 3
Total Unemployed - thous.	9,131	7,978	9,755	- 6	Construction	4,115	4,407	3,779	+ 9
Unemployment Rate - % SA	7.4	7.2	8.0		Trade	22,148	22,869	21,044	+ 5
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	16,056	16,261	15,856	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	20,791	21,001	19,828	+ 5
Mfg. Avg. Wkly. Hours	40.2	41.2	40.6	- 1	Fin., Ins., & Real Est.	5,724	5,736	5,537	+ 3
Mfg. Avg. Wkly. Earn. - $	378	386	369	+ 2	Trans. Com. & Pub. Util.	5,172	5,265	5,023	+ 3
SOUTHEAST									
Civilian Labor Force - thous.	15,027	15,057	14,548	+ 3	Nonfarm Employment- thous.	12,478	12,623	11,891	+ 5
Total Employed - thous.	13,773	13,885	13,221	+ 4	Manufacturing	2,308	2,320	2,240	+ 3
Total Unemployed - thous.	1,254	1,172	1,327	- 6	Construction	753	780	675	+12
Unemployment Rate - % SA	7.7	7.9	8.6		Trade	3,069	3,151	2,871	+ 7
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	2,206	2,219	2,178	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	2,581	2,587	2,426	+ 6
Mfg. Avg. Wkly. Hours	N.A.	N.A.	N.A.		Fin., Ins., & Real Est.	706	706	674	+ 5
Mfg. Avg. Wkly. Earn. - $	N.A.	N.A.	N.A.		Trans. Com. & Pub. Util.	722	728	699	+ 3
ALABAMA									
Civilian Labor Force - thous.	1,790	1,798	1,746	+ 3	Nonfarm Employment- thous.	1,370	1,385	1,346	+ 2
Total Employed - thous.	1,587	1,589	1,532	+ 4	Manufacturing	353	349	351	+ 1
Total Unemployed - thous.	202	208	214	- 6	Construction	63	67	58	+ 9
Unemployment Rate - % SA	10.5	11.7	11.5		Trade	291	303	278	+ 5
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	286	287	293	- 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	228	229	221	+ 3
Mfg. Avg. Wkly. Hours	40.5	41.4	40.9	- 1	Fin., Ins., & Real Est.	64	64	61	+ 5
Mfg. Avg. Wkly. Earn. - $	339	344	319	+ 6	Trans. Com. & Pub. Util.	71	72	70	+ 1
FLORIDA									
Civilian Labor Force - thous.	5,237	5,196	5,011	+ 5	Nonfarm Employment- thous.	4,344	4,369	4,094	+ 6
Total Employed - thous.	4,895	4,879	4,642	+ 5	Manufacturing	518	517	491	+ 5
Total Unemployed - thous.	342	316	369	- 7	Construction	334	339	292	+14
Unemployment Rate - % SA	6.2	5.8	7.0		Trade	1,147	1,167	1,089	+ 5
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	673	677	649	+ 4
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	1,108	1,104	1,035	+ 7
Mfg. Avg. Wkly. Hours	40.7	41.7	41.5	- 2	Fin., Ins., & Real Est.	307	307	289	+ 6
Mfg. Avg. Wkly. Earn. - $	316	326	312	+ 1	Trans. Com. & Pub. Util.	247	248	239	+ 3
GEORGIA									
Civilian Labor Force - thous.	2,768	2,843	2,657	+ 4	Nonfarm Employment- thous.	2,532	2,565	2,346	+ 8
Total Employed - thous.	2,603	2,687	2,480	+ 5	Manufacturing	548	553	527	+ 4
Total Unemployed - thous.	165	157	176	- 6	Construction	137	144	114	+20
Unemployment Rate - % SA	5.5	5.7	6.1		Trade	642	664	570	+13
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	445	445	440	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	461	459	412	+12
Mfg. Avg. Wkly. Hours	40.7	41.8	40.5	+ 0	Fin., Ins., & Real Est.	133	133	124	+ 7
Mfg. Avg. Wkly. Earn. - $	319	329	299	+ 7	Trans. Com. & Pub. Util.	158	159	150	+ 5
LOUISIANA									
Civilian Labor Force - thous.	1,912	1,893	1,888	+ 1	Nonfarm Employment- thous.	1,589	1,611	1,562	+ 2
Total Employed - thous.	1,698	1,708	1,688	+ 1	Manufacturing	180	184	175	+ 3
Total Unemployed - thous.	214	186	200	+ 7	Construction	111	114	112	- 1
Unemployment Rate - % SA	10.7	10.5	10.4		Trade	381	389	373	+ 2
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	322	326	317	+ 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	311	313	305	+ 2
Mfg. Avg. Wkly. Hours	N.A.	N.A.	N.A.		Fin., Ins., & Real Est.	83	83	82	+ 1
Mfg. Avg. Wkly. Earn. - $	N.A.	N.A.	N.A.		Trans. Com. & Pub. Util.	118	118	117	+ 1
MISSISSIPPI									
Civilian Labor Force - thous.	1,074	1,073	1,046	+ 3	Nonfarm Employment- thous.	832	843	801	+ 4
Total Employed - thous.	949	963	923	+ 3	Manufacturing	219	220	214	+ 2
Total Unemployed - thous.	125	110	123	+ 2	Construction	36	38	33	+ 9
Unemployment Rate - % SA	10.7	10.8	10.8		Trade	179	186	168	+ 7
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	189	189	183	+ 3
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	126	127	124	+ 2
Mfg. Avg. Wkly. Hours	40.8	41.0	40.5	+ 1	Fin., Ins., & Real Est.	34	34	33	+ 3
Mfg. Avg. Wkly. Earn. - $	291	292	280	+ 4	Trans. Com. & Pub. Util.	39	40	38	+ 3
TENNESSEE									
Civilian Labor Force - thous.	2,246	2,254	2,200	+ 2	Nonfarm Employment- thous.	1,811	1,850	1,742	+ 4
Total Employed - thous.	2,041	2,059	1,956	+ 4	Manufacturing	490	497	482	+ 2
Total Unemployed - thous.	206	195	245	-16	Construction	72	78	67	+ 7
Unemployment Rate - % SA	7.7	8.6	12.5		Trade	429	442	393	+ 9
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	291	295	296	- 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	347	355	329	+ 5
Mfg. Avg. Wkly. Hours	40.8	41.8	40.4	+ 1	Fin., Ins., & Real Est.	85	85	84	+ 1
Mfg. Avg. Wkly. Earn. - $	333	342	315	+ 6	Trans. Com. & Pub. Util.	89	91	85	+ 5

Notes: All labor force data are from Bureau of Labor Statistics reports supplied by state agencies.
Only the unemployment rate data are seasonally adjusted.
The Southeast data represent the total of the six states.
The annual percent change calculation is based on the most recent data over prior year.