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# ◆ Regional Outlook ◆

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FEDERAL DEPOSIT INSURANCE CORPORATION

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## FDIC ATLANTA REGION



DIVISION OF  
INSURANCE

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## In Focus This Quarter

◆ **Y2K**—Preventing the Year 2000 (Y2K) computer problem is becoming ever more costly as the time and resources left to do so disappear. Equally costly, according to some estimates, will be the litigation that follows in the problem's wake. A failure to address Y2K exposures immediately and successfully may amount to a gamble backed by the value of the bank franchise and the officers and directors who run it. *See page 3.*

*By Gary Ternullo*

◆ **Trends in Commercial Real Estate Loan Pricing and Underwriting**—An abundant supply of financing is placing pressure on commercial real estate loan pricing and underwriting standards. Underwriting standards are being increasingly influenced by the rapid growth in commercial mortgage-backed securities and real estate investment trusts. While many within the industry believe that broader public funding of commercial real estate projects will lead to greater market transparency and improved underwriting discipline, there are a number of unique risk considerations related to the rapid growth and continuing development of these alternative funding sources. *See page 7.*

*By Steven Burton*

◆ **Total Return: A Useful Tool for Monitoring Investment Portfolio Risk**—The Federal Financial Institutions Examination Council is rescinding the 1991 policy that required "high-risk" testing for mortgage derivative products and has released for comment a policy encouraging risk management across all types of instruments on an investment portfolio basis. Total return, a concept that includes fluctuations in market value, is a useful tool for measuring the performance of an investment portfolio and providing information about market risk at the portfolio level. *See page 13.*

*By Allen Puwalski*

## Regular Features

◆ **Regional Economy**—Growth in the Atlanta Region continues to surpass that of the nation as a whole, though by a narrowing margin...in many states, only metropolitan areas see gains while the economies of rural counties lag behind...though diminishing in size, the Atlanta Region's agricultural sector continues to play a critical role in rural areas. *See page 16.*

*By Scott C. Hughes, Jack M.W. Phelps, Pamela R. Stallings*

◆ **Regional Banking**—Strong performance continues for most insured institutions...institutions are finding alternative funding sources to support growth...the Region's agriculture banks may be facing increased competitive risks. *See page 21.*

*By Jack M.W. Phelps, W. Brian Bowling, Pamela R. Stallings, Scott C. Hughes*

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## *Y2K: Banking in the twenty-first century may provide grand new opportunities—but you have to get there first*

- **As a result of a three-decades-old programming convention, January 1, 2000, may find some computer systems unable to function correctly, if at all. Links within and between systems and organizations make the problem a complex one.**
- **Cures are expected to be difficult and costly. If those cures fail, litigation could be equally costly, and much of it may be aimed at directors and officers.**
- **Accordingly, senior bank management should be actively involved in making sure the cure takes place. A failure to do so amounts to a gamble backed by the value of the bank franchise and those who run it.**

### *Complex Problem, Complex Cure*

By now the story is well known. At midnight on December 31, 1999, computer systems that process dates using only the last two digits of a year will cease to function correctly, if at all. Equipment that contains embedded systems—chips or circuitry designed to perform specific functions—also may fail. And the problem is pervasive. It lies within systems and between systems, in both software and hardware. The large number of ways dates are used, the number of places they can occur, and the number of creative ways for naming them confounds an accurate assessment.

Fixing the Year 2000 (Y2K) problem will require considerable time and effort. Computers and applications must be inventoried, examined for date usage, corrected where necessary, and then tested—not just by themselves but in combination with every other system with which they interact. This includes not only a bank's own systems but also those of its servicers, correspondents, customers, vendors, and trading counterparties. Moreover, there are a variety of ways to address the problem, ranging from expanding date fields to four digits to simply subtracting 28 years from every date before processing—any of which could introduce new incompatibility problems when systems that have been

fixed in different ways attempt to interact.<sup>1</sup> And because not all systems can be corrected at once, interfaces or bridges between corrected and uncorrected systems also must be developed to maintain business system continuity. Most important, it must all be done *before* the non-negotiable deadline of December 31, 1999.

For bank management, there are two ways to find out how serious the problem will be. The first is to commit resources to determining just how exposed the bank's systems are—the first concrete step in actually solving the problem. The second is to gamble the franchise by doing little or nothing and letting the century date change provide the ultimate stress test.

### *Costs*

The costs of a cure are many. First, there are the costs of actually finding and fixing the problem. Estimates of this cost have ranged widely, although the *Gartner Group's* estimate of \$300 to \$600 billion worldwide is the most widely quoted. Using a different approach, *Software Productivity Research (SPR)* places the global number at over \$1.3 trillion, including a \$176 billion slice for the United States alone. Then there are the estimated costs of litigation. At the low end, SPR places them at \$300 billion globally and projects that fully one-third of that amount will be generated in the United States. At the high end, the *Giga Information Group* sees a much more litigious future—estimating that Y2K-related legal costs could exceed \$1 trillion.

Significant opportunity costs may accrue as well, and the degree to which Y2K-related outlays fail to provide

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<sup>1</sup> Every 28 years the same combination of dates and days recurs. Subtracting 28 years from a date before processing and then adding them back upon output has been suggested as a temporary but partial remedy because it permits applications to continue measuring time by subtracting two-digit years from each other. *Windowing* is another partial correction whereby some two-digit years—say those less than “50,” for example—are assumed to be preceded by “20” (thus “49” becomes “2049” in date calculations) while the remainder are assumed to be preceded by a “19” (thus “50” becomes “1950”). Both approaches only delay the need for permanent corrections.

more efficient or functional systems will serve as a starting point for measuring the value of technology investments forgone. These forgone improvements will be especially costly for institutions that have started their repairs too late. They may find not only that the time for system improvements and upgrades has slipped away, but that they have insufficient time for anything beyond a patchwork solution that will continue to cost them beyond the year 2000.

At the macro level, the tally of potential Y2K costs includes declining stock values, business failures, and recession. **J.P. Morgan** has estimated that as much as 40 percent of organizations' remediation costs have not been accounted for in their information technology budgets, presumably indicating that many firms will see their share value erode as the costs of Y2K fixes and related losses are priced into their future earnings. The cost of *not* being Y2K compliant might be substantial as well. According to the **Gartner Group**, as many as one in two firms may discover just how substantial as they head into 1999 with even their most *mission-critical* systems unfixed. The potential for these firms to fail looms large among the factors that have led Edward Yardeni, chief economist at **Deutsche Morgan Grenfell**, to assign a 40 percent chance of recession in the year 2000. Peter de Jager, a consultant who also has commented extensively on Y2K issues, went even further, suggesting that 1 percent of all businesses would fail because of Y2K problems. Whatever the eventual number, many of these businesses will also be bank borrowers.

### **Systems and Systemic Risks**

More immediate than the risk of borrower failures is the risk that a bank's own systems may fail. Banks are heavily dependent on software applications that employ dates. Among other things, they use them for calculating interest paid or due and for managing the horizons of their assets and liabilities. If these applications begin returning erroneous calculations, bank operations could be seriously disrupted.<sup>2</sup> If they fail altogether, the bank's

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<sup>2</sup> For example, interest due from borrowers for a one-year period beginning in 1999 and ending in 2000 might be calculated not as one year's interest *due* but rather as nearly one century of interest *payable* ( $00 - 99 = -99$ ) if only the last two digits of the year are used in the calculation. Similarly, any other time calculation that straddles the century date change might return answers wrong in both size and sign.

credibility—and hence its franchise value—can be substantially damaged or even irrevocably lost.

The solution is often described in software terms, but executable software is not the only problem. Correcting software to process four-digit years does little good if bank databases that store the critical information about who owes what to whom and when still store them in two-digit form. Hardware is another critical area. Nearly all electronic devices have embedded, permanently programmed chips that can be difficult to find because the functions they perform are not always apparent. This situation could lead to a host of nuisances, with automated teller machines, point-of-sale terminals, bank vaults, check and credit card processing equipment, and even building systems succumbing to the Y2K problem.

This dependence on external components and services creates a systemic exposure as well. The substantial efficiencies that now exist in transmitting payments among and between banks and borrowers are a direct result of technology. Servicers and clearinghouses fulfill computer-intensive intermediary roles in this high-velocity business—pooling payments from those who owe and redistributing them among those to whom they are due. Anything that interrupts these flows can have a substantial impact on the ability of banks to settle with their customers and with each other. Accordingly, both the Bank for International Settlements and the U.S. Federal Reserve are concerned about the Y2K threat for two reasons—first because it can interrupt the operations of systems dedicated to making interbank payments and second because it can interrupt the operations of the individual participants and generate a liquidity shock that could cause other institutions to fail.



Unfortunately for banks, even a fully successful, industry-wide Y2K fix will not completely mitigate their risk. The year 2000 story is simply too dramatic and lends itself too well to sensationalism. Therefore, in addition to managing the cure, bankers will have to manage the perceptions of their customers and of the public at large—a considerable challenge given that a loss of confidence by a small number of customers could precipitate liquidity problems for institutions even in the absence of a genuine threat.

### *Liability in the Executive Suite*

It bears frequent repeating that Y2K is a business problem and not just a technical one. Its intricacies go beyond those of the systems themselves and extend into the labyrinth of business relationships and fiduciary obligations that bind directors and officers—and the assorted attorneys, auditors, consultants, and service providers who assist them—to their banks. Through this network could pass liability and litigation that could be several times the cost of fixing the problem itself. And although the problem may have had a technical origin, claims would likely be directed against those with deeper pockets who jointly and severally, it will be argued, should have corrected or disclosed the institution's Y2K exposures.

While the bank failures of the late 1980s and early 1990s are often attributed to unforeseen economic

events, it will be difficult to assert such a defense for a failure to address the Y2K problem. It is simply too visible and offers too much advance notice. This is one reason why the potential potency of Y2K litigation should be taken seriously. Moreover, placing the blame, no matter how well deserved, at the feet of vendors and consultants may offer little protection. The Federal Financial Institutions Examination Council (FFIEC) has indicated that senior bank management should be fully aware of their vendors' progress and develop contingency plans should those vendors fail.<sup>3</sup> This pronouncement has elevated the standard for prudent Y2K actions in such a way as to make imperative the active involvement of top bank management in both solving

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<sup>3</sup>*Safety and Soundness Guidelines Concerning the Year 2000 Business Risk*, December 1997. The full text is available on the FFIEC website at [www.ffiec.gov](http://www.ffiec.gov).

### *Managing the Y2K Process*

On May 5, 1997, the Federal Financial Institutions Examination Council—an interagency group composed of the Federal Deposit Insurance Corporation, Federal Reserve, Office of the Comptroller of the Currency, Office of Thrift Supervision, and National Credit Union Administration—released a statement on Year 2000 project management awareness that included an outline of the Y2K management process. That outline identified five phases that each financial institution would have to navigate in identifying and fixing its Y2K exposures:

**Awareness.** Before Y2K exposures can be fixed, they must be seen as problems. Creating awareness, however, is not easy because the pervasiveness of components and intersystem links that can harbor or pass the problem create complexities that are neither intuitive nor easily quantified. However, it is critical that senior managers understand the problem and fully support the commitment of resources to fixing it.

**Assessment.** In this phase, all information systems, electronic equipment, and building systems must be evaluated for specific Y2K exposures. Remediation plans must then be devised. In addition to plans for fixing the problem, contingency plans will be needed as a precaution against unforeseen Y2K failures originating from both within and outside the bank.

**Renovation.** Renovation includes not only fixing the problem internally but monitoring the efforts of customers, counterparties, vendors, and service providers. The prudent execution of due diligence and best practices at this stage will provide a measure of confidence that exposures have been addressed. It will also provide a measure of protection from liability claims should problems nevertheless emerge.

**Validation.** Validation means testing how a bank's systems will respond on their own as well as when connected with those outside the bank. The FFIEC believes that one full year should be available for testing and correcting problems that either remain or are introduced by the renovation process. Accordingly, institutions should plan on completing the previous three phases by the end of 1998.

**Implementation.** Testing corrected systems to ensure their compliance does not complete the process. The final step is to gain acceptance by the users as to the ability of the system to satisfy business requirements. A failure at this stage will require further correction or the implementation of contingency plans.

*For the full text of this and other FFIEC guidance, see the FFIEC website at [www.ffiec.gov](http://www.ffiec.gov).*



the problem and ensuring that the franchise will be protected if one or more of those solutions fail.

### ***Betting the Franchise***

The FFIEC has divided Y2K remediation into five phases—awareness, assessment, renovation, validation, and implementation (see Inset 1, page 5). As a benchmark for progress, the FFIEC has indicated that the validation phase—the phase in which testing of Y2K fixes is conducted—should be well under way for all banks by the end of 1998. This leaves less than a year for laggards to complete the first three phases. Banks that are not devoting adequate resources to identify and address their exposures need to be aware that the consequences of delay or inaction could be severe. The bank supervi-

sory agencies, Congress, and the financial markets are taking the risk to heart. So too are attorneys intent on sharing in what has been described as potentially the most expensive litigation in history.

Insurance companies are concerned as well, as evidenced by extremely high Y2K policy premiums or outright refusal to write Y2K coverage. Thus, any business interruptions and liability that emerge may have to be financed from the bank income statement and balance sheet. As such, a bet that Y2K will not be a problem might well amount to a gamble backed by the bank franchise and those who run it. (See Inset 2 below for additional sources of information.)

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### ***For Further Information***

Further information on the Y2K problem can be obtained from banking regulatory agencies at the websites shown below.

Federal Deposit Insurance Corporation (FDIC)	<a href="http://www.fdic.gov">www.fdic.gov</a>
Federal Financial Institutions Examination Council (FFIEC)	<a href="http://www.ffiec.gov">www.ffiec.gov</a>
U.S. Federal Reserve Board of Governors	<a href="http://www.bog.frb.fed.us">www.bog.frb.fed.us</a>
National Credit Union Administration (NCUA)	<a href="http://www.ncua.gov">www.ncua.gov</a>
Office of the Comptroller of the Currency (OCC)	<a href="http://www.occ.treas.gov">www.occ.treas.gov</a>
Office of Thrift Supervision (OTS)	<a href="http://www.ots.treas.gov">www.ots.treas.gov</a>

The following websites contain additional information concerning the Y2K problem. Their inclusion here does not serve as an endorsement by the FDIC of any information contained therein.

Market Partners Inc.— <i>Year 2000 Resources for Banks</i>	<a href="http://www.marketpartners.com">www.marketpartners.com</a>
Gartner Group— <i>Technology Consultant</i>	<a href="http://www.gartner.com">www.gartner.com</a>
Software Productivity Research (SPR)— <i>Technology Consultant</i>	<a href="http://www.spr.com">www.spr.com</a>
De Jager LLC (Peter de Jager)— <i>Technology Consultant</i>	<a href="http://www.year2000.com">www.year2000.com</a>
Giga Information Group— <i>Technology Consultant</i>	<a href="http://www.gigaweb.com">www.gigaweb.com</a>
Y2K LLC (Williams, Mullen, Christian & Dobbins)— <i>Attorneys</i>	<a href="http://www.Y2K.com">www.Y2K.com</a>
Economics Network (Dr. Edward Yardeni)— <i>Economist</i>	<a href="http://www.webcom.com/yardeni">www.webcom.com/yardeni</a>

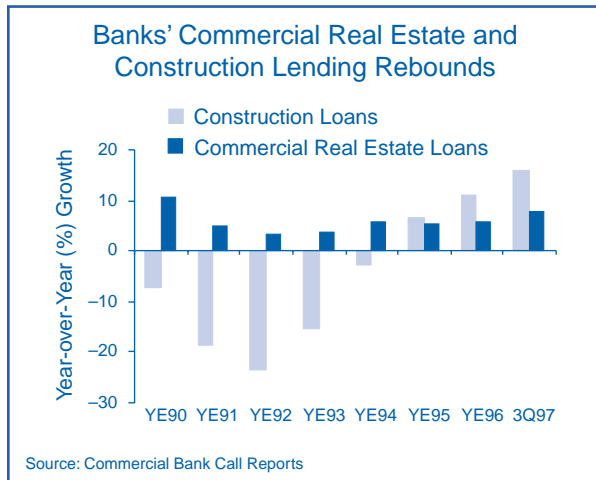
## *Trends in Commercial Real Estate Loan Pricing and Underwriting*

- An abundant supply of capital is placing significant pressure on commercial real estate loan pricing.
- Considerable evidence suggests that a large percentage of insured institutions are easing commercial real estate and construction lending underwriting standards.
- The rapid rise in commercial mortgage-backed securities and real estate investment trust funding could change the way banks underwrite commercial real estate loans and have important effects on their competitive position in the lending markets.

As reported in last quarter's *Regional Outlook*, banks provided the largest share of funding for commercial real estate during 1995 and 1996 compared with all other financing sources (see *Strong Demand and Financial Innovation Fuel Rebounding Commercial Real Estate Markets*). Chart 1 shows that banks' commercial real estate and construction lending continues to increase and that year-over-year growth rates in these two loan categories are accelerating. At the same time, however, alternative funding sources in the form of commercial mortgage-backed securities (CMBS) and real estate investment trusts (REITs) are also experiencing significant growth. *Commercial Mortgage Alert* reports that \$26 billion in CMBS was issued through September 1997, up from \$17 billion for the same period in 1996. The same publication projects that CMBS issuance will top \$40 billion during 1997, compared with last year's record issuance of \$29.8 billion. Measures of REIT activity also indicate impressive growth. According to the *National Association of Real Estate Investment Trusts*, REITs issued \$26.3 billion in equity through October, compared with \$12.3 billion for all of 1996. In addition, REIT market capitalization rose \$50 billion (64 percent) through the first nine months of 1997.

While it is good news to borrowers, the abundance of capital for commercial real estate projects raises the often-quoted concern that "too much money is chasing too few deals." Market observers worry that fierce competition and an excessive supply of financing are lead-

CHART 1

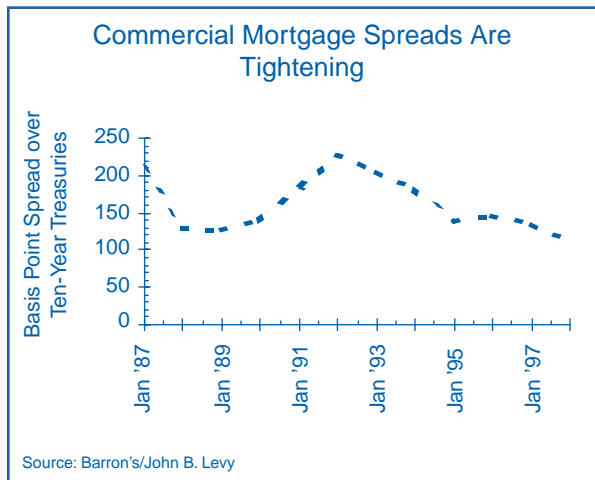


ing to both inadequate loan pricing relative to risks borne by lenders and looser loan underwriting standards. This article examines current trends in commercial real estate loan pricing and loan underwriting. It also explores the possible influences of CMBS and REITs on loan underwriting practices and commercial real estate markets.

### *An Abundance of Capital Has Placed Significant Pressure on Commercial Real Estate Loan Pricing*

Chart 2 (next page) shows that prime-graded commercial mortgage spreads have steadily declined since 1992 and are now at levels not seen since the real estate boom years of 1988 and 1989. At 113 basis points above ten-year treasuries, current spreads on ten-year commercial mortgages are only slightly higher than A-rated ten-year industrial corporate bonds, which traded at spreads of 66 basis points over comparable-term treasuries as of September 1997. Some property sectors have experienced more narrowing of spreads than others. *American Council of Life Insurance (ACLI)* data show that mortgage spreads relative to treasuries compressed 31 basis points for industrial, 22 basis points for hotel, 21 basis points for retail, 11 basis points for multifamily, and 10 basis points for office real estate from March 1996 to March 1997. Moreover, because of continuing downward pressure, current pricing varies little across

CHART 2



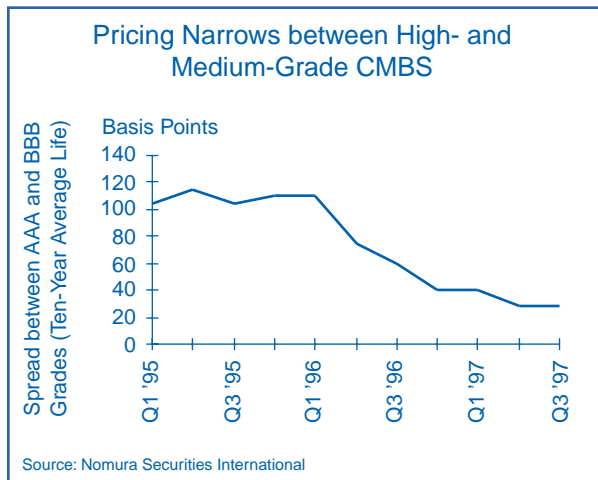
the quality spectrum. For instance, Chart 3 indicates that spreads between AAA- and BBB-rated CMBS have narrowed considerably since year-end 1995, from 110 basis points to a scant 28 basis points.

It seems likely that competitive factors will continue to place pricing pressure on lenders. The relatively recent entrance of Wall Street firms into the financing arena via conduits is a striking example of just how competitive the market for commercial real estate financing has become.<sup>1</sup> Conduits are rapidly becoming the dominant issuer of CMBS and underlie much of the rapid growth in CMBS noted above. Through the first nine months of 1997, *Commercial Mortgage Alert* reported that conduits accounted for 50 percent of total CMBS issuance, compared with 30 percent during the same period in 1996.

Many industry participants see conduits and REITs as significant and increasing competitive threats to traditional lenders. For example, a recent issue of *Commercial Real Estate South* discussed the continuing expansion of conduit business into a much wider range of property and credit quality types. This publication noted that conduits have a particular incentive to aggressively pursue higher quality loans in order to strengthen pools that contain weaker credits. Such aggressiveness threatens to squeeze banks' profit margins on low-risk deals, which might give banks an incentive to pursue lower quality credits. Given their focus on larger credits, conduits presently pose a competitive threat primarily to larger lenders. However, the

<sup>1</sup> Conduits are entities created to originate mortgage loans for distribution to investors in the secondary market.

CHART 3



rapid growth of capital within the industry may eventually force larger lenders to target smaller markets, which would in turn increase competition at the regional or local community level. While their influence is less direct, the growing use of REITs to finance commercial real estate projects also places pressure on loan pricing spreads, since lenders must compete for a smaller pool of customers. With their access to a seemingly limitless source of public funding, REITs could pose a particular threat to community bankers by dominating certain geographic markets or property sectors.

Narrowing pricing spreads raise concerns over whether lenders are being adequately compensated for the operational, funding, credit, and market risk inherent in originating, servicing, and holding commercial real estate loans. More important, tightening spreads raise prospects that lenders will ease other loan terms and relax loan standards to the extent that they are unable to differentiate their product based solely on price. While such easing may enable lenders to retain business in the face of stiff competition, imprudent underwriting could ultimately lead to higher loan losses than would otherwise be the case in the event of a downturn in commercial property markets.

### ***Are Commercial Real Estate Loan Underwriting Standards Becoming Looser?***

Most industry experts have argued that the memory of the real estate downturn of the late 1980s and early 1990s keeps lenders from becoming overly aggressive in making commercial real estate loans despite the abundance of funding alternatives currently available to



borrowers. These experts point out that today's loan-to-value (LTV) ratios are lower than they were at the peak of the last real estate boom, that lenders are concentrating more on obtaining adequate debt-coverage ratios, and that lenders are requiring borrowers to bring more cash equity to the table. One might also argue that practices have improved and become much more uniform with the implementation of regulatory appraisal standards and the adoption of interagency guidelines for real estate lending policies. Rating agencies impose additional guidelines and standards as lenders originate loans for possible sale into the secondary markets.

While information about specific quantitative underwriting criteria applied to new loan originations by commercial banks is not readily available, some sense of industry trends may be gleaned from competitors' practices. For example, the *ACLI* performs a quarterly survey of underwriting criteria for commercial real estate loan commitments originated by major life insurance lenders. The *ACLI*'s second quarter 1997 survey indicated that new commitments (total volume of \$4.1 billion) had a weighted average LTV for all property types of 66 percent and a weighted average debt-coverage ratio (DCR)<sup>2</sup> of 1.6 times. These figures compare favorably to an LTV ratio in late 1989 approaching 75 percent and a DCR just under 1.3 times.

*ACLI* data suggest that recent commercial mortgage originations are better supported by borrower equity and property cash flows than they were in the late 1980s. It is important to recognize, however, that LTV and DCR ratios are driven largely by market conditions and expectations. Property valuations take into account recent sales and expected cash flows, and cash flows available to service debt are based on projected net operating revenues, which often incorporate projected increases in rents and other revenue sources. In other words, the overwhelmingly favorable conditions in today's real estate markets may also be a factor in the improved LTV and DCR ratios. Keeping in mind the cyclical nature of real estate, one can easily see how a shift from today's positive outlook to a more pessimistic outlook might result in a sharp reversal in these commonly cited ratios.

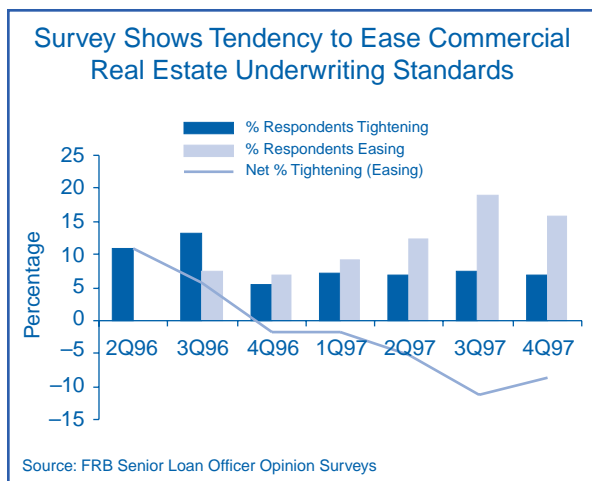
Notwithstanding these quantitative considerations, there are indications that banks are easing commercial

<sup>2</sup> The debt-coverage ratio measures annual net operating income generated by a property relative to annual principal and interest payments due on the underlying loan.

real estate underwriting standards. This evidence, derived from industry and examiner surveys conducted by the three banking agencies, includes the following observations:

- In the *Office of the Comptroller of the Currency's (OCC's) 1997 Survey of Credit Underwriting Practices*, OCC examiners reported eased commercial real estate lending standards in 38 percent of banking companies surveyed. For comparison purposes, the 1996 survey reported eased standards in 16 percent of banking companies surveyed. Among institutions with eased lending standards in the 1997 survey, examiners noted a 75 percent incidence of reductions in loan fees or rate spreads, a 43 percent incidence of eased guarantor requirements, and a 29 percent incidence of lower collateral requirements. Examiners cited competitive factors and a change in economic outlook as the main reasons for changes in underwriting standards.
- Chart 4 summarizes current and historical results of the *Federal Reserve Board Senior Loan Officer Opinion Survey* for responses to the question of whether bank credit standards for approving applications for commercial real estate loans have eased, tightened, or remained unchanged. These survey results show that banks have had a tendency to ease underwriting standards since the fourth quarter of 1996. This tendency appears to have become stronger through the third quarter 1997 survey but moderated somewhat in the most recent survey. The most recent survey showed that large banks (over \$15 billion in assets) were much more likely to indicate easing commercial real estate standards than

CHART 4



smaller banks. Specifically, 21 percent of large banks reported easing standards, while only 3 percent reported tightening standards. In comparison, only 9 percent of smaller banks reported easing standards, while 13 percent reported tightening standards.

- Results from the *FDIC Report on Underwriting Practices* indicate possible easing of standards for construction and development (C&D) loans at FDIC-supervised banks. A comparison of examiner responses for the third quarter 1997 survey (covering examination reports filed from April through September 1997) with responses for the third quarter 1996 survey leads to the following observations<sup>3</sup>:
- The percentage of banks frequently or commonly originating C&D loans tied to speculative projects (that is, projects lacking meaningful preleasing or presales, or loans without a formal take-out commitment for permanent financing following completion of construction) rose markedly, from 11 percent to 29 percent.
- The percentage of banks frequently or commonly granting C&D loans without considering alternative repayment sources other than income generated by the project being financed rose significantly, from 8 percent to 20 percent.
- The percentage of banks frequently or commonly basing C&D loans on unrealistic appraisals rose from 5 percent to 11 percent.
- The percentage of banks frequently or commonly funding or deferring interest payments during the term of construction loans rose from 7 percent to 15 percent.

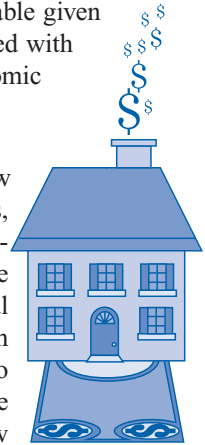
Much of the commentary in recent issues of various trade journals echoes the results of these regulatory surveys.<sup>4</sup> In brief, many industry participants are seeing a higher incidence of (1) banks funding construction loans without preleasing commitments on major portions of rentable space, (2) banks easing LTV ceilings, (3)

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<sup>3</sup> The authors of this survey note that comparisons of survey results across time periods must be interpreted with caution since the survey samples are dictated principally by examination scheduling factors. As a result, sample populations may be materially different from one period to another.

lenders curtailing reserve requirements for such items as tenant improvements and insurance, and (4) nonrecourse lending. Some industry participants have also noted the increasing acceptance of “trended rents,” whereby property valuations are based on positive rent projections extrapolated several years into the future. Of course, these trended rents will hold true only if economic circumstances remain favorable for extended periods—an assumption that may not be reasonable given the cyclical nature of real estate coupled with the advanced age of the current economic expansion.

With a combination of relatively low interest rates, rising real estate prices, and an expanding economy, it is perhaps not too surprising that some lenders have eased commercial real estate underwriting standards. Such easing may be a natural response to improved confidence in the real estate markets. However, indicators that show loosening standards may also be warning flags that lenders have succumbed to tighter pricing and competitive pressures. To avoid losses like those sustained by banks during the last real estate downturn, prudent lenders will refrain from incorporating unrealistic expectations into their lending practices.



### ***CMBS Could Change the Way Lenders Underwrite Loans***

Much as residential mortgage lending standards were shaped by the advent of mortgage-backed securities, CMBS promise to change the way banks underwrite and service commercial real estate loans. For instance, lending terms and practices could become increasingly standardized as lenders attempt to improve the liquidity and marketability of their commercial mortgage portfolios. Banks that choose to deviate from these emerging standards will sacrifice flexibility in terms of their ability to manage portfolio risks and respond rapidly to liquidity demands.

The ability to securitize commercial real estate loans also may fundamentally alter the way lending decisions

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<sup>4</sup> See, for example, *Commercial Real Estate South*, “Public Markets Fuel Financing Glut” (October 1997); *Midwest Real Estate News*, “Wall Street and Main Street Squeeze Lenders” (October 1997); and *Commercial Property News*, “Michelson, Greenland Seize Low CMBS Spreads” (1 May 1997).

are made. Before the development of CMBS markets, loan approval was essentially a binary, good-or-bad, accept-or-reject decision whose primary focus was on the credit risk inherent in a single asset. In contrast, the most important elements in CMBS are deal structure, price execution for multiple tranches, credit enhancements, and portfolio composition. Here, the loan originator is more likely to use a portfolio approach in making credit decisions: That is, how will this loan enhance the expected return and risk diversification of the overall pool?

External rating agencies will become increasingly important as CMBS markets expand, since these agencies' guidelines will effectively dictate the underwriting standards applied to securitized loans. While such standardization could arguably improve market discipline and loan performance disclosure, there are several potential risks to consider as the CMBS markets evolve:

- While rating agencies do incorporate qualitative considerations into their analysis, issue ratings and credit enhancement level decisions are driven primarily by *quantitative* factors, namely debt service coverage and expected loss levels. Moreover, most of the *qualitative* factors the agencies consider involve an analysis of portfolio balance and pool diversification. Hence, weak or poor qualitative standards (for example, lack of alternative repayment sources or minimal borrower equity in the project) applied to individual loans within the pool may receive only secondary consideration. A quantitative perspective also ignores such immeasurable factors as borrower "character" and the existence of long-standing lender-borrower relationships.
- Rating agencies cannot be relied upon as a backstop to unsound underwriting practices. While they generally review a substantial volume of the loans within a pool, typically the largest individual credits, they are not practically able to review every credit in the securitization. Some within the industry have even suggested that investment bankers commonly move one problem property, discovered through one agency's sample, into pools reviewed by another agency in the hope that it will not be sampled.
- Competition among the rating agencies could become a factor in the underwriting process. This "shopping of the agencies" could result in continual pressure for rating agencies to ease their underwriting guidelines.
- In theory, bank-issued CMBS transfer much of the underlying credit risk associated with commercial real estate lending to investors. However, like other types of asset securitization, CMBS raise concerns over the degree to which banks will voluntarily absorb investor losses. Bank issuers may be more likely than nonbank issuers to provide voluntary support to poorly performing CMBS for at least two reasons: A tarnished reputation in one aspect of a bank's operations could carry over to other business activities like deposit taking and borrowing due to a bank's broad brand name association within the marketplace; and banks often have greater financial resources than nonbanks with which to support securitization activities.

Because the rapid growth in CMBS has been a relatively recent phenomenon, current underwriting guidelines applied by the rating agencies to CMBS have not been tested during a cyclical downturn in real estate prices. It remains to be seen how the market will react to rising loan losses that result in investor losses.

### ***Will Increased Public Funding through CMBS and REITs Improve Market Discipline?***

Many contend that the increased transparency brought to the market by CMBS will temper cyclical swings in real estate values. This viewpoint argues that investors will serve as a constraint against the natural tendency to overbuild commercial real estate during boom periods, since less funding will be allocated to segments of the market where excess capacity exists. This viewpoint presupposes that the investing public is sophisticated enough to recognize when markets are out of balance and when projects are economically infeasible. In this sense, CMBS shift much of the burden of monitoring credit quality standards and credit performance from lenders to public investors.

In contrast, others have argued that lenders are much better suited than investors to make judgments about credit quality standards and project feasibility. This line of reasoning suggests that the increase in public ownership of property through CMBS and REITs could actually reduce market discipline, since the most sophisticated participants with access to the best information (that is, lenders) may come to have less at stake in making prudent credit decisions. Of course, excessive losses attributable to any one CMBS issuer might lead to differentiation in pricing based on investors'

perceptions of the quality of underwriting applied by specific issuers.<sup>5</sup>

Putting market efficiency arguments aside, the sheer volume of REIT and CMBS activity causes some concern over the extent to which such financing is driving property valuations. With such an abundance of capital flowing into the commercial real estate market, it is perhaps easy to see why lenders might opt to ease standards rather than lose business. However, to the extent securitization activities are driving decisions in today's commercial real estate markets, lenders might wish to consider how property values would react if the availability of such financing were sharply diminished. The most recent real estate downturn provided a ready example of how tighter credit availability compounded the effects of declining commercial property values by limiting the ability of lenders to sell distressed properties. While there may not be consensus on whether CMBS and REITs will temper cyclical price swings, the underwriting standards and practices evolving in response to these financing vehicles will likely play a crucial role in determining the magnitude of losses experienced by investors and banks during the next downturn in commercial property values.

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### ***Selected Articles for Further Reading***

Bloomfield, Craig. "Michelson, Greenland Seize Low CMBS Spreads." *Commercial Property News*. 1 May 1997. p. 33.

"CMBS Issuance Seen Topping \$40 Billion." *Commercial Mortgage Alert*. 10 November 1997. p. 1.

Fitch Investor Services, Inc. "Commercial Mortgage Stress Test." *Fitch Research: Structured Finance Special Report*. 8 June 1992.

Office of the Comptroller of the Currency. *Advisory Letter 97-3: Credit Underwriting Standards and Portfolio Credit Risk Management*. 3 March 1997.

Sinderman, Martin. "Public Markets Fuel Financing Glut." *Commercial Real Estate South*. October 1997. p. 1.

Wolf, Barney. "Wall Street and Main Street Squeeze Lenders." *Midwest Real Estate News*. October 1997. p. 1.

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<sup>5</sup> The evolution of the credit card securitization markets is one example of how investors now differentiate between issuers in terms of pricing.

## ***Total Return: A Useful Tool for Monitoring Investment Portfolio Risk***

- **The Federal Financial Institutions Examination Council (FFIEC) is replacing the 1991 policy that contained a specific “high-risk test” for mortgage derivative products (MDPs) held by insured institutions with a policy that encourages risk management across all types of instruments on an investment portfolio basis.**
- **A good way to start measuring portfolio risk is by monitoring an appropriate measure of return.**
- **Total return, a concept that includes fluctuations in market value, is a more appropriate tool than simple yield for measuring the performance of an investment portfolio, especially one that contains bonds with embedded options.**

The Federal Financial Institutions Examination Council (FFIEC) has released for comment a new Joint Agency Policy Statement on Investment Securities and End-User Derivatives Activities that will replace a statement issued February 3, 1992. While much of the content of the former statement has been retained, the section requiring specific “high-risk” testing for mortgage derivative products (MDPs) has been eliminated. The “high-risk” test applied specifically to bonds collateralized by residential mortgage pass-through certificates or whole loans but that distributed cash flows to bondholders on a basis other than pro rata.<sup>1</sup>

The goal of the original policy statement was to deter banks from investing in products that presented risks that they were not able to adequately monitor and control. MDPs were singled out because of their rapid growth, nontraditional and potentially risky nature, and common use by insured financial institutions. The new policy states that, as a sound management practice, institutions should conduct prepurchase and ongoing analysis of all their investments at a level appropriate to the size and complexity of those holdings.

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<sup>1</sup> A security was deemed “high risk” if it exhibited any of the following characteristics: (1) it had a weighted average life of more than ten years; (2) its average life extended by more than four years or shortened by more than six years from a 300 basis point parallel shift in rates; (3) its price changed by more than 17 percent given a 300 basis point parallel shift in rates.

The policy change is in part a response to increasing bank investment in securities that have complex cash flows analogous to MDPs but that escaped the analysis requirement of the previous policy. Mortgage index amortizing notes are an example of popular bank investments that potentially exhibit all the risks of MDPs but were not subject to the testing requirement of the soon-to-be rescinded policy because they are not collateralized by mortgages. Callable agency and “step-up” bonds are popular bank investments because they offer a slightly larger spread to Treasury than noncallable agency securities, and they were not subject to the “high-risk” test under the old policy. However, the additional yield offered on these kinds of securities compensates the investor for assuming additional risk. Appropriately measuring portfolio return can enhance the ability to monitor the extent to which these kinds of securities put future earnings at risk.

### ***Total Return Analysis Is a Useful Tool for Analyzing Risk at the Portfolio Level***

Total return analysis is a basic but useful tool that can alert management to the level of certain risks in an investment portfolio. It can also provide information that is useful for validating the assumptions used in more sophisticated models. Total return is calculated from three components: beginning price, income and reinvested cash flow, and ending price (market value) at a horizon date. Total return incorporates the change in the market value of the investment, resulting in a more comprehensive measure of performance than other measures that ignore such changes. Monitoring total return on a portfolio basis can provide institutions with important information about the risks inherent in the portfolio and how these risks may be changing over time.

In two articles in the *ABA Banking Journal*,<sup>2</sup> Nicholas Betzold and Richard Berg convincingly dispute the

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<sup>2</sup> The articles were published in December 1996 and April 1997. Reprints of the articles are available at the *ABA Banking Journal* website at <http://www.banking.com.aba/backissues.htm>.



view that if the investment strategy is to buy and hold to maturity, total return is not relevant. Consider the following example. In 1990, Bank A purchases a seven-year security yielding 8.83 percent that is callable after three years. At the same time, Bank B buys a non-callable seven-year agency security yielding 8.53 percent. For three years, Bank A's bond yields 30 basis points more than Bank B's. However, from 1990 to 1993, interest rates fell almost 300 basis points. Bank A's bond would likely be called, forcing the bank to reinvest at a significantly lower rate for the remaining four years of the seven-year investment horizon. Over the seven-year horizon, Bank A could expect an average yield that is about 150 basis points less than Bank B's.



From the yield perspective, Bank A enjoyed three years of superior performance. However, during those three years, monitoring total return might have revealed a less favorable but more accurate picture of Bank A's performance relative to Bank B's. Here is why: As

rates fell from 1990 to 1993, bonds gained in value. However, as rates fell, the market value of the callable security would have gained incrementally less than the noncallable bond because each downward tick in rates increased the expectation that the bond would be called, and the higher coupon would be earned over a shorter period. In contrast, the noncallable security's market value would have enjoyed the full benefit of the falling rate environment because its maturity and cash flows are fixed.

The disparate change in the market value of the two bonds reflects the fact that Bank A, in essence, sold a call option to the bond issuer. The issuer bought the right to repurchase the debt at par after three years. Bank A was compensated for selling this right to the issuer with increased yield. In the example, the issuer's option to call the bond would have gained value as rates fell. The increasing positive value of the call option to the issuer represents an increasing negative value to the bondholder and erodes the value of the bond.

Step-up bonds present reinvestment risk similar to that of generic callable bonds, but with the added complexity of a coupon that rises, usually annually, if the bonds are not called. Total return analysis would similarly

reveal adverse changes in the value of the embedded call options and the extent to which the additional coupon is compensating for call risk.

### **UBPR Yield**

Bank management often uses the portfolio yield that is calculated in the Uniform Bank Performance Report (UBPR) to assess performance of the bank's securities portfolio against its peers. This yield measure is calculated by dividing annualized book income on a tax equivalent basis (plus or minus amortization or accretion of any premium or discount) by the amortized cost of the securities. This measure of present yield says little about potential future yield and the extent to which, because implicit options have been sold, the latter has been put at risk for the sake of the former.

Total return measures the risk-adjusted return of a portfolio more closely than yield because it incorporates changes in reinvestment risk over time. *Ultimately, a portfolio manager who earns total returns consistently higher than average will earn more in terms of simple yield. Conversely, a manager who earns less in terms of total return will eventually find an unfavorable reinvestment environment that will erode reported yield.*

The popularity of using yield to gauge the performance of bank securities portfolios may be due to the convenient presentation of bank peer portfolio yields in the UBPR. Some managers may be reticent to evaluate portfolio performance using total return without a peer-like benchmark for calibrating total return expectations.

Betzold and Berg have devised an investment portfolio index (introduced in the April 1997 *ABA Banking Journal*) that is designed to track the total return of a typical bank portfolio composed of the same percentages of investment sectors as the average bank. The portfolio on which the index is based is rebalanced monthly as principal pays down, and it is rebalanced quarterly to reflect the latest Call Report data on portfolio allocations. Table 1 depicts the investment weighting of the index as of December 31, 1996, based on September 30, 1996, Call Report data.

According to Betzold and Berg, this index produced total returns that closely approximated those of the actu-

## In Focus This Quarter

al median bank total portfolio measured by Call Report data from 1993 through third quarter 1997.<sup>3</sup> They concluded that their index seems to provide a reasonable proxy for the total return of the “average” bank investment portfolio.

Chart 1 shows the performance of the index so far this year.<sup>4</sup> Changes in the index value over time can be translated into total returns that approximate the median bank portfolio’s total return. For example, the annualized total return for the index from year-end 1996 through third quarter 1997 was 6.72 percent and is calculated as follows:

Calculate the bond equivalent semiannual yield and express the semiannual bond equivalent yield as an effective annual yield.

$$6.72\% = 100 \left[ \left( \frac{105.00}{100.00} \right)^{\frac{4}{3}} - 1 \right]$$

The performance of the index for 1997 suggests that banks’ total investment portfolio returns were highly negatively correlated with changes in the five-year Treasury rate (see Chart 2). This finding indicates that changes in total return from period to period can provide useful information about the level of a portfolio’s interest rate sensitivity. As emphasized above, these changes in total return over time include the effects of changes in market value of any call options on a bank’s investment securities and hence provide information about the degree to which future income is at risk.

Given the increasing level of optionality embedded in the average bank securities portfolio—even if it arises solely from callable agency debt and “step-up” structured notes—yield should not be the sole measure of overall portfolio performance. Total return analysis is an appropriate supplement that gauges the risk-return characteristics of an investment strategy that involves selling implicit options.

*Allen Puwalski, Senior Financial Analyst*

<sup>3</sup> While the Call Report does not contain the information necessary to compute total return precisely, the authors computed an estimate using the reported yield and market value data.

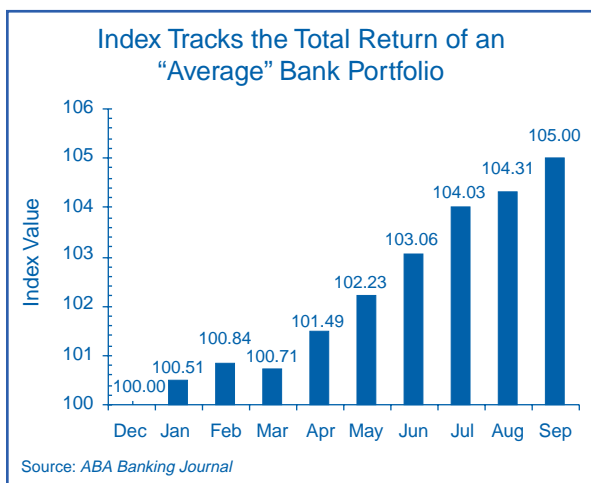
<sup>4</sup> The index is published monthly in the *ABA Banking Journal*.

**TABLE 1**

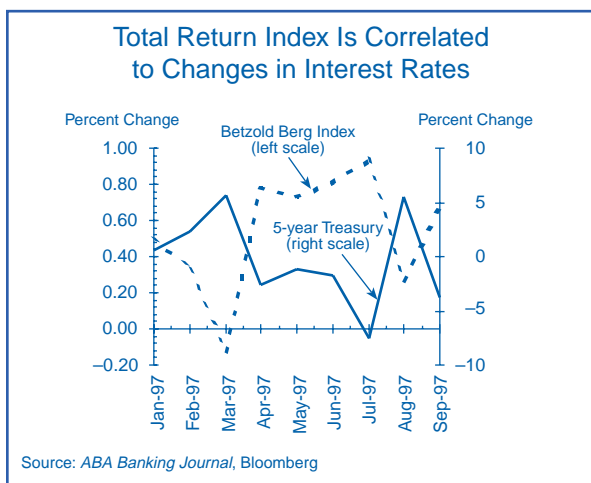
COMPOSITION OF BETZOLD BERG INDEX DECEMBER 31, 1996	
SECURITY TYPE	PERCENT OF INDEX
TREASURIES	24.52
AGENCIES	24.38
MUNICIPAL BONDS	12.26
FIXED-RATE MORTGAGE OR MORTGAGE-RELATED PRODUCTS	19.93
OTHER SECURITIES	6.09
ADJUSTABLE-RATE SECURITIES	13.00

SOURCE: BANK AND THRIFT CALL REPORTS, SEPTEMBER 30, 1996

**CHART 1**



**CHART 2**



## *Growth Continues at a Moderate Pace in the Atlanta Region*

- Growth in the Atlanta Region continues to outpace that of the nation as a whole, although the gap is narrowing.
- While growth in Florida remains strong, consumer confidence surveys in the state may point toward declining levels of optimism about the future.
- In many states, only metropolitan areas see job gains, while the economies of rural counties lag behind.
- Though diminishing in size, the Atlanta Region's agricultural sector continues to play a critical role in rural areas.

Though most analysts in the Atlanta Region contend that the current expansion will continue, albeit at a slowing pace, the Region is susceptible to national and international shocks. At the moment, growth in the Atlanta Region continues to surpass that of the nation as a whole, though by a narrowing margin. As explained in the *Regional Outlook*, Fourth Quarter 1997, were it not for Florida, the Region's performance would lag behind the national average. Slowing job growth, however, may prevent further tightening in labor markets across the Region. Already, low jobless rates are contributing to an acceleration in wage growth in the Region (see Chart 1).

Economic conditions, however, continue to vary geographically. In the third quarter of 1997, out of the Atlanta Region's 630 counties, 27 percent had jobless rates in excess of 7 percent (see Chart 2). Generally strong growth remains concentrated in several metro-

politan areas, while many rural counties continue to experience losses.

### *Florida Remains the Region's Top Performer, but Are 'Cracks' Appearing?*

Florida's performance remains the best in the Region, with year-over-year job growth at about 3.5 percent.

CHART 1

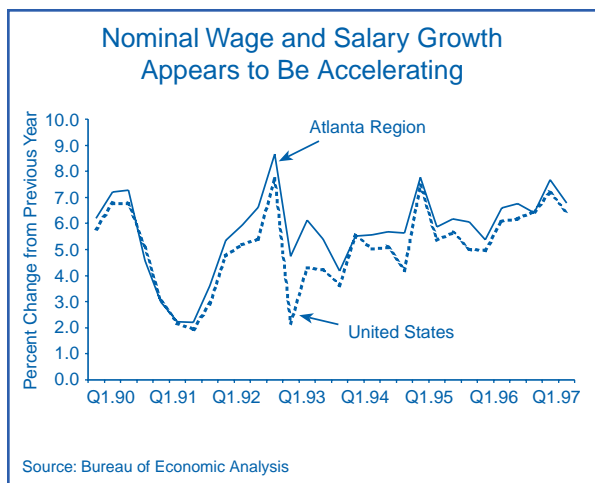
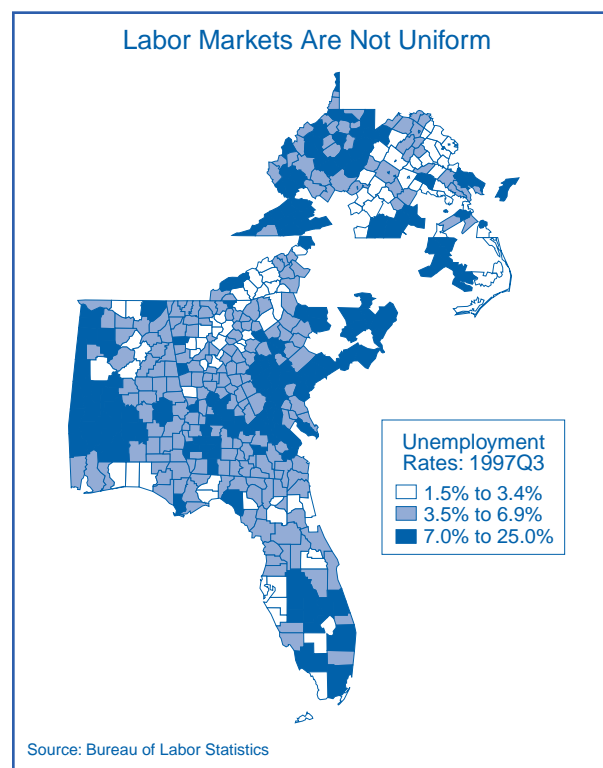


CHART 2



Some areas of weakness, however, may be emerging. Labor markets in the southern portion of the state have softened, a fact that may be reflected in southeast Florida's flat consumer confidence index. Of more concern is that preliminary data for Florida's overall consumer confidence index fell by two points in November; some analysts in the state, concerned about the risk of recession, find these data troubling. A flattening in consumer confidence has occurred even in tourist-fueled central Florida, the core of the state's economic growth. Some economists feel that consumer spending in the state may be reaching a peak, especially if the state's older, more affluent residents defer purchasing big-ticket items in the wake of recent volatility in the stock market. The component of the survey that deals with market conditions for the purchase of major household items fell in November as well. The realization of weaker spending levels *and* its consequent impact on loan demand may be emerging already. In the third quarter of 1997, consumer lending's share of total loans among the state's insured institutions fell from 18.62 percent a year earlier to 17.83 percent.

**Georgia's Growth Accelerates but Is Concentrated in Atlanta**

Georgia's economy is rebounding from the shadow of the post-Olympic blues. In the third quarter of 1997, year-over-year job growth increased after several quarters of decline (see Chart 3). More recent monthly data indicate that growth has continued to accelerate. Even so, the rise in job growth still places Georgia's rate of expansion well below its peak in 1994 and generally on a downward trend. *The recent acceleration, however,*

*has heightened labor scarcity*, particularly in Atlanta, where most economic gains remain concentrated. By contrast, many other areas of the state continue to see weaker *employment* increases, reinforcing the notion that the state's growth is dichotomous (see **Regional Outlook**, Third Quarter 1997). Despite this recent acceleration, Atlanta's economic growth potential may be at risk in the short term from overbuilding in retail real estate, slowing net in-migration, and the threat of rising environmental regulation.

**Economic Growth in Alabama and North Carolina Slows**

Reflecting the weaker economic performance in **Alabama** and **North Carolina** is the fact that job growth has declined and the jobless rate, unlike trends nationally, increased in the third quarter. Weakening growth may aggravate credit quality conditions in the two states. *Personal bankruptcies in the third quarter of 1997 continued to rise in both states.* Part of Alabama's slower growth stems from continued erosion in manufacturing, where losses in the apparel industries over the past year approached 4,000 jobs. In North Carolina, the most dramatic area of decelerating growth has been in retailing, which accounts for 17.5 percent of total employment. In the third quarter, employment in this segment of the economy was slightly below levels of a year ago (see Chart 4).

Although slower growth in the third quarter has resulted in a slight increase in the jobless rate (3.7 percent), labor markets in North Carolina still remain tighter than the national average. Continued low rates of unemploy-

CHART 3

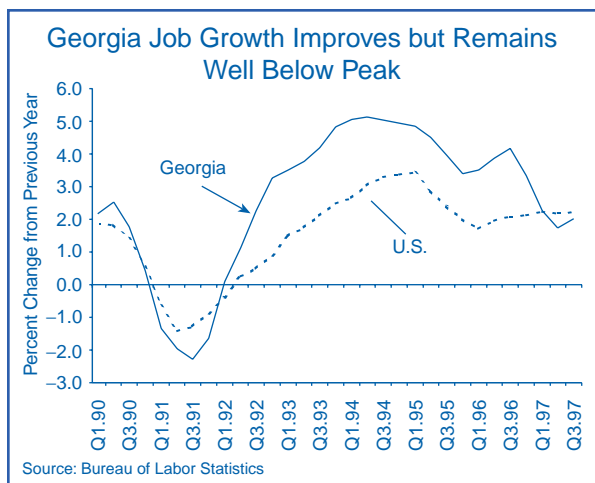
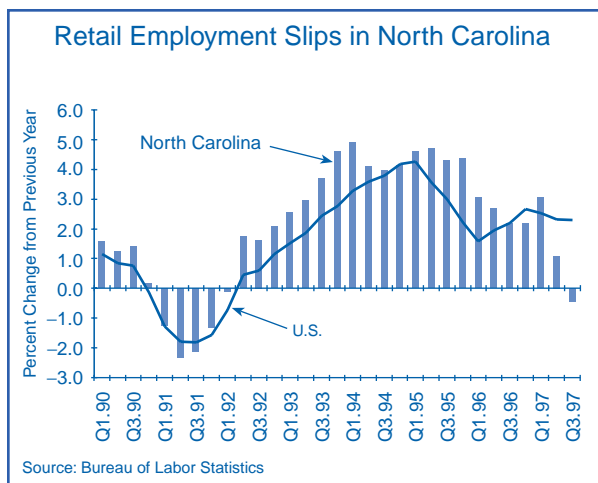


CHART 4



ment may place the economy at increased risk at a time when growth is decelerating. A dearth of potential applicants ultimately may fuel wage inflation and discourage corporate relocation to North Carolina. Already, the state may be confronting problems in the telemarketing industry, which depends on the availability of cheap local labor.

***Virginia's Golden Crescent Continues to Capture the Lion's Share of Gains***

Virginia's rate of economic growth remains above the national average, although the gap has shrunk in recent quarters. Employment in the third quarter was up 2.4 percent from a year earlier. Gains in the state's economy remain divergent with most growth located along the Golden Crescent (see *Regional Outlook*, Fourth Quarter 1997). That region is being fueled by the growth in business services and commercial real estate, particularly in northern Virginia, where recent rapid growth has depleted the area's supply of available office space. Despite sustained growth, Virginia's economy remains at risk on several fronts. In government, for example, the Department of Defense recently announced the possibility that thousands of Pentagon workers could be laid off. Moreover, the Golden Crescent's very success may become a liability eventually, as anecdotal evidence suggests that property costs, particularly in northern Virginia, are rapidly appreciating and may be fueling speculative construction activity.

***West Virginia's Growth Applies Downward Pressure to Jobless Rates***

Although West Virginia's economic performance remains below the national average, growth has been strong enough to apply downward pressure on jobless rates. The third quarter's 6.6 percent unemployment rate is the lowest in nearly 20 years.

***South Carolina's Gains Are Limited Primarily to Urban Areas***

South Carolina's economic performance continues to lag behind that of the nation, although gains have edged upward since the beginning of 1997. In the third quarter of 1997, year-over-year job growth reached 1.7 percent. Though improved since the first quarter, job growth in

the state still trails the national average by one-half percentage point, and the state's jobless rate has crept upward. Urban areas, which have benefited from gains in production of durable goods, especially automotive equipment manufacturing, continue to capture the most growth. Also, South Carolina has experienced spillover growth associated with continued gains in Charlotte, North Carolina. Growth in these areas has been strong enough to tighten local labor markets considerably. Unlike urban areas, rural counties remain constrained by ongoing declines in the textile and apparel industry and resultant high levels of joblessness.

**Implications:** Growth in the Atlanta Region has moderated and remains nearly on a par with the national average. However, the economy in some parts of the Region has started to see slowing levels of job growth and a rise in the jobless rates. A risk to the local banking community is that lending patterns continue to operate under the assumption of further rapid growth. Moreover, many rural counties have not shared fully in this recovery, and consequently credit quality could remain an issue in these areas.

***Competitive Risks Emerge in Agriculture***

Although the Region's economic exposure to agriculture, including food and tobacco processing, has declined in recent decades, the sector remains a vital component of the local economy in many rural areas. In 1994 (the latest available data), agriculture accounted for about 5 percent of the Region's gross state product. This figure was above the national average of 3.7 percent but well below some states such as Iowa, where the share was a significantly higher 12 percent.

The agricultural sector has undergone a substantial structural transformation over the past several decades, in contrast to the rest of the nation. Earlier, agriculture in the Region was dominated heavily by field crops such as cotton, tobacco, and peanuts. Over time, however, livestock, except in Florida, began to play an increasingly important role that was magnified by the emergence of the poultry and, later, hog industries. By 1990, livestock accounted for 51 percent of total farm receipts in the Region, and since then, livestock's share of the agricultural base has plateaued. The national experience has differed from





that of the Atlanta Region in that livestock traditionally has accounted for a large share of the sector's health. During the 1990s, livestock as a share of agriculture actually declined nationally.

Agriculture in the Region may be facing numerous emerging risks to its overall competitiveness that could be accentuated by the growing reliance on livestock. These competitive risks, aside from the usual vagaries of seasonal weather patterns, can be broadly classified into three types: *market*, *international*, and *legislative*.

**Market Risks:** Supply and demand are creating risks to the Atlanta Region's livestock markets. On the demand side, there is an ongoing debate as to whether U.S. consumers are becoming "chickened out." After years of rising poultry consumption, arguably due to the perceived leanness of the meat in an increasingly fat-conscious society as well as to declines in real retail prices, many analysts contend that the domestic market for poultry has emerged as a mature market with saturated demand: Per capita consumption of poultry has leveled off over the past few years (see Chart 5). Indeed, in 1995, per capita poultry consumption actually fell slightly for the first time in 20 years. Total per capita meat consumption fell in 1995 as well.

On the supply side, this slowing growth in poultry consumption has occurred at a time when broiler production has expanded steadily. According to the U.S. Department of Agriculture, national production is expected to increase by 6.6 percent in 1998. The industry has seen substantial capacity expansion in 1996 and 1997 already. Moreover, pork production is expected to

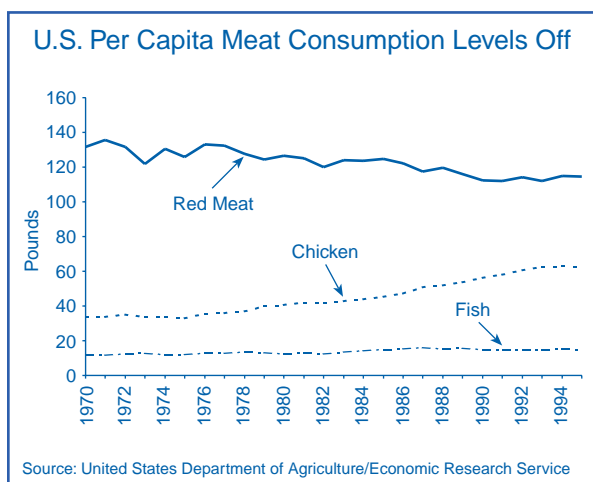
reach near-record levels in 1998 and 1999, possibly depressing the price of a "substitute" good. The Region's exposure to the poultry industry is large, particularly in areas such as northern Georgia, which accounts for nearly 40 percent of total farm receipts. Expanding poultry as well as hog supplies in the face of weakening growth in demand could heighten competitive pressures within the poultry industry. One response to these pressures, and further evidence of a maturing market, is that the broiler market is becoming increasingly differentiated as producers seek to find market niches, protect market share, and achieve growth.

**International Risks:** International trade has emerged as an increasingly important force in the Region (see *Regional Outlook*, Third Quarter 1997). This is true for the agricultural sector as well. As domestic markets for livestock mature, producers have increasingly set their sights on overseas markets. According to one analyst at the *Alaron Trading Co.*, 7.5 percent of all beef, 6.4 percent of pork, and 17 percent of broiler production was shipped to foreign markets in 1997. These shares are expected to increase in 1998. A reduction in meat exports, then, could have a significant adverse impact on domestic producers.

The poultry industry, for example, faces several risks to its exports. Russia, which absorbs almost half of the exports, recently increased tariffs on U.S. chickens, thus making French and Brazilian products cheaper: U.S. poultry exports to Russia have slipped already. Moreover, the poultry industry must contend with overseas competitors as well. China is expected to emerge eventually as a large, low-cost competitor to U.S. producers. Finally, turmoil in many Southeast Asian and East Asian financial markets may place local producers at risk from the volatility in the exchange rate. Depreciating currencies overseas make U.S. exports more expensive and could promote further growth in production in home countries.

Export markets extend beyond livestock to field crops as well. Nearly half of the nation's cotton crop is destined for overseas textile and apparel producers, most of them in Asia. Georgia is the third largest producer of the U.S. upland cotton harvest. Although the cotton industry accounted for 15 percent of Georgia's agriculture in 1996, production remains heavily concentrated in the southern portion of the state. Large foreign harvests or currency depreciation among importer countries (for example, in Asia) could place producers in the Region at risk.

CHART 5

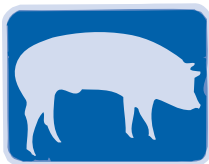


Florida's citrus crop is an example of another agricultural product at risk from international developments. Brazil dominates the world's orange markets, and according to *Dr. Philip Lesser*, a lead researcher at the *Florida Department of Citrus*, "the fate of the Florida orange grower has never been more inextricably bound to events in Brazil than today. This is owing to the fact that as of 1997, four concerns, which control some 80 percent of Brazilian processing capacity, have acquired about one-third of the capacity in Florida." Record crops in 1997 in Brazil, as well as in Florida, have depressed prices for citrus pulp.

Another type of international risk may be political. The sugar cane crop accounts for 8 percent of Florida's farm receipts and remains a protected industry under the 1996 Federal Agriculture Improvement and Reform Act. Before 1960, Cuba was a major source of the nation's sugar. An eventual change in leadership in Cuba could lead to a lifting of the trade embargo. Should this happen, there could be considerable political pressure to eliminate this industry's protection.

**Legislative Risks:** On the national front, perhaps the greatest challenge to the Region's agricultural sector is the 1996 Federal Agriculture Improvement and Reform Act (see *Regional Outlook*, First Quarter 1997, Kansas City Region and Dallas Region, for detailed discussions of potential impacts). The legislation, which eliminates acreage reduction programs and allows for planting flexibility, will likely expose individual producers to much higher levels of risk from price volatility.

Recent legislative initiatives also pose a risk to the Region's agricultural sector, particularly in North Carolina, which has emerged as the nation's second largest hog producer (after Iowa). An unfortunate by-product of the industry's rapid growth is the growing concern about its environmental impact since large spills of animal waste have occurred. This pollution, in part, prompted the state



to pass a moratorium on new or expanded hog operations effective until March 1999. Rising environmental concerns contributed to the state's decision to ban further growth in the hog industry temporarily, and the potential for greater regulation will likely raise the cost of doing business for hog farmers and reduce their com-

petitiveness. Growth in the hog industry may have been diverted out of state already, especially to Georgia, where environmental regulation is less stringent. *Purvis Farms* of Robbins, North Carolina, citing "local pork politics," has applied for permits to build a 20,000-sow project in Taylor County in southwestern Georgia. If built, the project would be the state's largest hog operation. Another 10,000-sow operation is being considered by a Georgia producer in Tattnall County. Moreover, a cooperative hopes to build a pig slaughterhouse near Albany. Despite prospects for the hog industry, there is rising environmental concern in Georgia as well.

Another legislative risk that North Carolina faces is the possibility that Congress may end a federal program that imposes quotas on tobacco production and creates floor prices for growers. Already at risk from tobacco companies' increasing use of foreign tobacco, growers would likely face a large increase in domestic competition, including perhaps the reemergence of tobacco farming in Texas, if the program were eliminated. Currently, tobacco growers can expect to net \$1,900 to \$2,200 per acre; this price compares favorably with the yield of other crops such as cotton (\$331/acre), corn (\$160/acre), and soybeans (\$76/acre). Specialty crops, such as tomatoes (\$600/acre), have higher yields. The impact of greater competition would likely depress current value of tobacco property and cut farmers' profits. Retired tobacco growers would also be placed at risk since there is a market for tobacco quotas that often subsidizes retirement income.

**Implications:** The health of different segments of the Region's agricultural sector may be shaped by any one of several existing or emerging risks. Moreover, agricultural production varies widely within the Region: tobacco and hogs in eastern North Carolina, poultry in northern Georgia, and cotton in southern Georgia, for example. As such, weakness in one agricultural segment can have a profound impact on one local economy but little effect elsewhere, even in another section of the same state. Lenders should be aware of emerging risks for local agriculture and its potential impact not only on farmers' and food processors' credit, but on the community as a whole.

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## Current Regional Banking Conditions

- Most commercial banks and thrifts posted strong results during the third quarter of 1997 even though economic growth is moderating in the Atlanta Region.
- Small commercial banks in North Carolina are reporting earnings below national and Regional averages.
- Funding strategies are changing at insured institutions, which are increasingly relying on “noncore” funds to support asset expansion.
- Farm banks in the Region are confronted with greater competitive risks, and a number are experiencing rising agricultural loan delinquencies.

### Overview

On an aggregate basis, the Region’s commercial banks and thrifts posted strong results in the third quarter of 1997 despite a moderation in economic activity (see *Growth Continues at a Moderate Pace in the Atlanta Region*). Several key performance indicators for small institutions (those with assets under \$100 million) headquartered in the Region may be seen in Charts 1 and 2. In comparison to the national averages, the Region’s small institutions have slightly higher net interest margins and much higher capital levels. However, they underperform the national averages in return on assets and carry higher levels of nonperforming assets. The 19 small banks in **North Carolina** had a negative quarterly return on assets of 0.44 percent, as performance is being influenced by seven banks that have been open less than one year. However, the return for the remaining 12 banks is 0.84 percent, which is still well below the Region’s average of 1.12 percent for small banks.

### Asset Funding Has Changed

During the 1990s, there has been a pronounced change in the funding sources of insured financial institutions (banks and thrifts). As a result of strong loan growth and lackluster core deposit growth, the aggregate loan-to-deposit (LTD) ratio for the Region has reached its highest level this decade (see Chart 3, next page, for the trends in the LTD and loan-to-asset ratio). About half the institutions in the Region had an LTD ratio above 75 percent at third quarter 1997. While the vast majority of this group is small institutions (assets under \$100 million), large institutions have the highest LTD ratios. In a recent speech to industry analysts and regulators at a conference sponsored by the Federal Financial Institutions Examination Council, **John G. Medlin, chairman of Wachovia Corp.**, said that large banks have become highly susceptible to changes in market sentiment because of high LTD ratios and the resulting dependence on Wall Street for funding. The upward

CHART 1

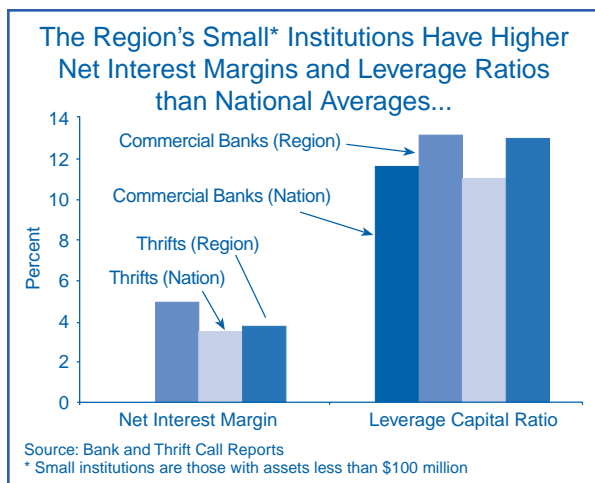


CHART 2

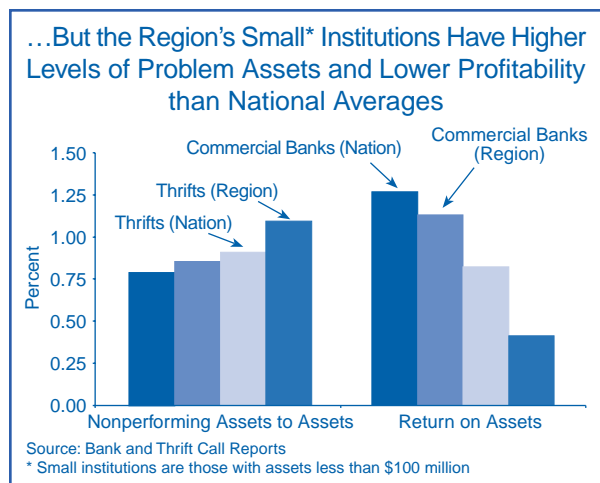
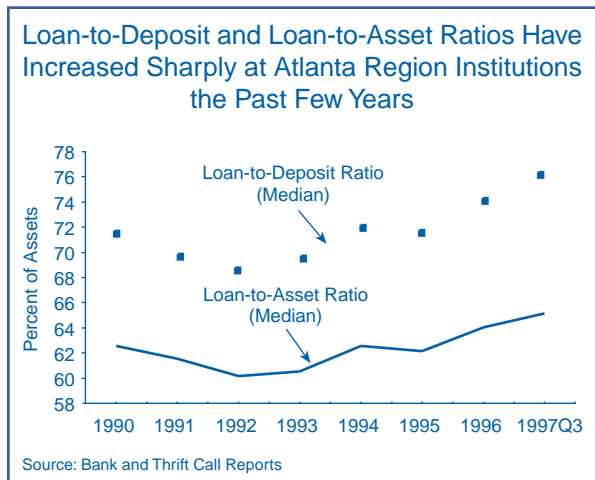


CHART 3

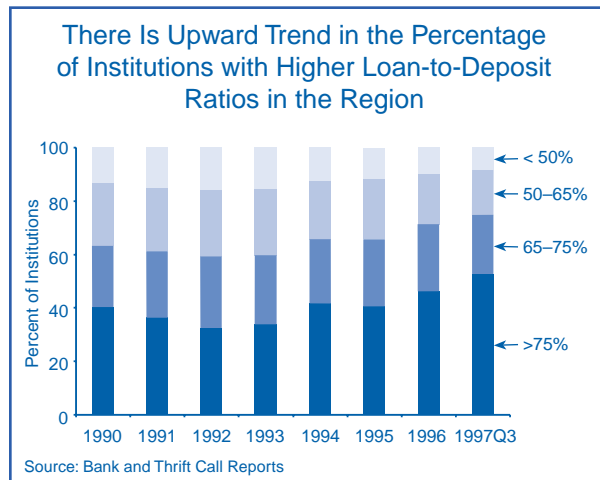


trend in the number of institutions with a high LTD ratio can be seen in Chart 4.

Structural and cyclical factors have contributed to the rise in LTD ratios. Increased competition and shifts in consumer preferences toward noninsured investment products have contributed to a disintermediation of traditional “core” funds at insured institutions. Ordinarily, core funds are viewed as small, stable demand, savings, and time deposits that have little sensitivity to price (interest rate) or credit quality. Upward pressure on the LTD ratio also has resulted from strong loan growth, which is associated with the lengthy economic expansion. Thus, insured institutions have had to find alternative “noncore” funding sources to support the growth in their loan portfolios. These noncore funding sources include large time deposits, short-term debt, and Federal Home Loan Bank (FHLB) advances. The increased use of noncore funding is displayed in Chart 5. FHLB advances are being used by a larger number of insured institutions. Regionwide, all thrifts and about 50 percent of commercial banks were members of the Federal Home Loan Bank of Atlanta. As of October 1997, commercial banks had \$12.7 billion in aggregate outstanding advances and \$35.9 million in unused letters of credit (membership data for banks in **West Virginia** are not available from the Federal Home Loan Bank of Pittsburgh).

Normally, high LTD ratios have suggested a tightening of liquidity; however, structural changes in public markets and the securities and loan portfolios of insured institutions may have reduced the effectiveness of LTD ratio as a liquidity indicator. The large increase in mortgages and related products and other consumer receiv-

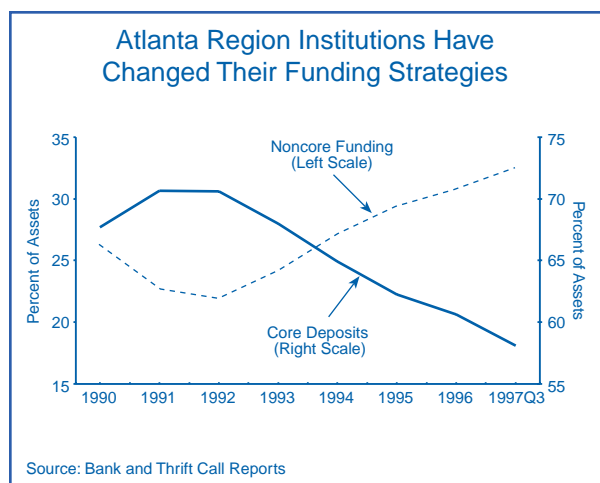
CHART 4



able instruments has led to an increase in cash flow. The amortization of these instruments may not always be predictable, but they can be a sizable liquidity source. Also, the ability to securitize assets in public markets has increasingly become easier. The changes in funding have not slowed loan originations or adversely affected liquidity in the aggregate. Finally, FDIC examiners have reported liquidity problems in only a handful of small institutions.

The increased use of noncore funding may lead to greater funding costs and liquidity concerns during periods of rapidly fluctuating interest rates. Yet some noncore funding, such as FHLB advances, can be relatively stable and less costly than other alternatives. Changes in funding sources and asset holdings may have altered traditional methods of measuring liquidity and increased the complexity of managing this aspect of

CHART 5



an institution's operations. While no significant problems have surfaced with the shifts in funding, it is important that bank and thrift managers remain cognizant of the potentially greater liquidity and interest rate risks that accompany noncore funding, particularly if a large portion of funding derives from limited sources.

**Agricultural Banking Trends in the Region**

Although agriculture's share of the Region's economy has been declining over the past five years (see *Growth Continues at a Moderate Pace in the Atlanta Region*), there has been no similar decline in the number of insured institutions that have a concentration of agricultural (ag) loans.<sup>1</sup> As shown in Table 1, since 1991 the number of agricultural institutions has been around 90, and currently 104 institutions are considered to have an agricultural lending concentration. Over this period, no thrifts have met this criterion, and 94 of the ag banks are state nonmembers. Moreover, as seen in Chart 6 (next page), two-thirds of the ag banks are located in **Georgia** (69). Most of the remaining ag banks are in **Alabama** (14) and **Florida** (11). Surprisingly, very few ag banks are headquartered in North Carolina, where agriculture accounts for the largest share of gross state product among all the states in the Region. This is probably attributable to the comparatively liberal branching laws of the state, which have fostered the growth of large statewide institutions that have more diversified loan portfolios. Lastly, most ag banks are situated in counties

where the unemployment rate is much higher and job growth is much lower than the Region's average.

As shown in Chart 6, most of the ag banks in the Region are concentrated in a belt that stretches from southeast Alabama across southern Georgia. In this area, field crops generally predominate; cotton, peanuts, corn, and rye are the leading cash crops. However, chicken broiler production—normally concentrated in northern Georgia and Alabama—has increased in this area. According to the *Georgia Farm Bureau*, Georgia grows more peanuts, pecans, and rye than any other state and ranks second only to Arkansas in broiler production. In cotton, Georgia ranks second to Texas, with more than 14,000 acres planted in 1997. The average size of the estimated 43,000 farms in Georgia is 274 acres, compared with the U.S. average of 470 acres.

Currently, the average size of an ag bank is \$63.2 million, and they range in size from \$7.9 million to \$235 million. Most are very strongly capitalized, with an average leverage capital ratio of 10.73 percent. The trends in earnings performance have been positive since 1991, but through the first three quarters of 1997, four ag banks had negative earnings. While ag loans have shown steady growth, the average concentration has remained fairly stable at about 1.5 times capital. However, 30 banks have ag loans that are more than twice their capital, with the largest concentration being 5.3 times. Of these 30 banks with large concentrations, 24 are located in Georgia, including 15 of the 16 largest portfolio concentrations.

<sup>1</sup> For this article, agricultural institutions are defined as those with agricultural loans (production and real estate loans secured by farm properties) that constitute 10 percent or more of assets.

As displayed in Table 1, ag loan performance has generally been worsening since 1993, as shown by the rising trends in noncurrent ag loans and an increase in ag

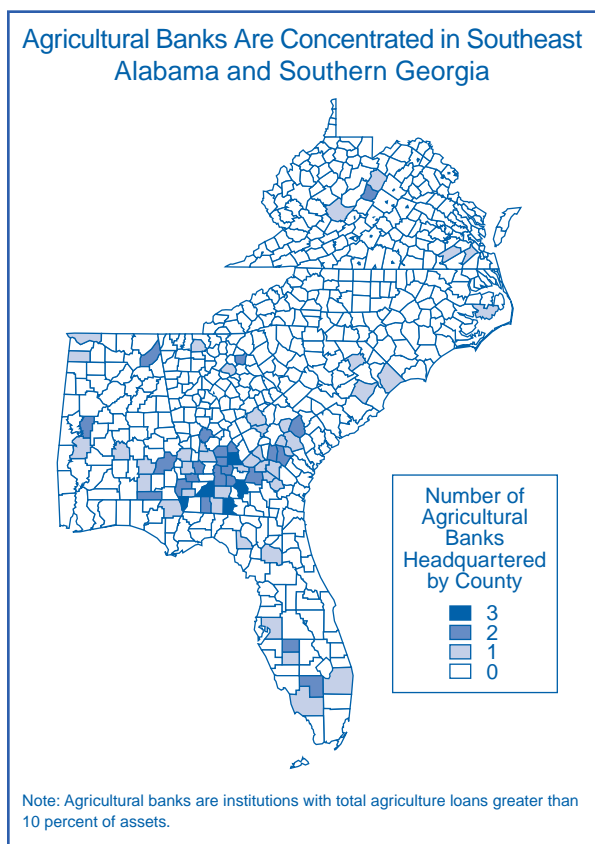
**TABLE 1**

NONCURRENT AGRICULTURAL LOANS ARE ON THE RISE											
YEAR	# OF AG BANKS	AVERAGE SIZE (MILLIONS)	CAPITAL RATIO (%)	AG LOANS TO CAPITAL (TIMES)	NON-CURRENT LOANS (%)	NON-CURRENT AG LOANS (%)	LOAN CHARGE-OFFS (%)	AG LOAN CHARGE-OFFS (%)	LOANS TO DEPOSITS (%)	AG LOAN GROWTH (%)	RETURN ON ASSETS (%)
1991	92	48.1	9.67	1.60	1.77	1.07	0.73	0.20	69.04	—	0.82
1992	94	52.0	10.04	1.53	1.51	1.48	0.60	0.35	72.10	7.08	1.11
1993	90	57.7	10.36	1.50	1.34	1.17	0.60	0.28	72.80	5.85	1.15
1994	87	50.5	10.66	1.62	1.32	1.76	0.63	0.83	71.20	17.05	1.24
1995	85	52.9	10.69	1.55	1.34	2.00	0.31	0.45	70.60	7.57	1.31
1996	88	56.6	10.53	1.56	1.70	2.30	0.42	0.40	71.40	7.75	1.27
97Q3	104	63.2	10.73	1.54	1.48	1.85	0.20	0.18	76.20	6.16	1.40

SOURCE: BANK CALL REPORTS



CHART 6



loan charge-offs since the early 1990s. Because of seasonality, the current third-quarter figures cannot be compared with the last year-end figures. However, when compared with the same period last year, noncurrent ag loans are 28 basis points higher and ag loan charge-offs are slightly higher. Normally, the year-end figures rise, as most ag loans are structured for repayment during the second half of the year to coincide with the harvesting of crops. Hence, it is likely that the deteriorating trend in ag loan performance will continue in 1997, according to the interim comparison. In 1996, noncurrent ag loans rose 73 basis points from the third quarter to the fourth quarter. A similar increase in 1997 would push the noncurrent ag loan ratio above 2.5 percent. Moreover, unfavorable weather during parts of the growing season in 1997 may affect ag loan performance. Areas of Alabama were afflicted with too much moisture (Hurricane Danny), and southern Georgia suffered from prolonged periods of dryness during the growing season.

Currently, 47 ag banks do not report any noncurrent ag loans. Fifteen ag banks have a noncurrent ag loan ratio above 5 percent, with the highest being nearly 21 percent. Among these 15 ag banks, noncurrent ag loans represent a disproportionate share of their problem loans, and 1 ag bank reports that almost 42 percent of its ag production loans are noncurrent. FDIC examiners have seen a rise in problem ag loans at some ag banks due to weather-related problems.

The upward trend in problem ag loans merits the continued attention of bankers and their supervisors, especially when one considers the competitive risks facing the agricultural sector discussed in *Growth Continues at a Moderate Pace in the Atlanta Region*. In addition, changing competitive factors, particularly the 1996 Farm Bill, could expose agricultural producers and consequently their lenders to new risks. Some agricultural analysts have predicted that this legislation will lead to increased volatility in the prices of agricultural commodities as federal price supports, quotas, and transition payments are reduced or eliminated. If so, producers and credit suppliers will need to develop and implement new risk management techniques to reduce their exposures to commodity price swings. The costs of these systems may reduce profitability for both producers and lenders. Some small producers and lenders may shy away from obtaining new risk management products because of their cost, which may lead to greater credit risk in the long term.

The importance of agriculture to the Region's banks extends beyond the set of agricultural banks identified in this article. For instance, the *University of Georgia Farm Extension Service* reports that the farm and forest production and farm inputs and machinery sectors contribute almost \$7 billion of the state's output and employ more than 90,000 people. Accordingly, the performance of all insured institutions operating in markets influenced by agriculture may be affected by events in this sector.

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