# Regional Outlook

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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*—Job growth in the Region remained robust in 1997...leading job-generating industries were business and health services...tighter labor markets will constrain job growth in 1998...housing should maintain its current strength buoyed by a healthy economy and low mortgage rates...fallout from the Asian currency and financial crisis will result in a reduction in Regional exports and a subtraction from growth. *See page 16.* 

By Adrian R. Sanchez

◆ *Regional Banking*—Banks and thrifts in the Dallas Region continue to keep pace with national trends...banks with high asset growth rates display higher risk profiles...three Dallas Region metropolitan statistical areas (MSAs) are among the top 20 in REIT ownership. *See page 21*.

By Jeffrey A. Ayres, Alan C. Bush

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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

<sup>&</sup>lt;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 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 computerintensive 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.

<sup>&</sup>lt;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.

### 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

<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.

### 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**.

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 supervisory 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 regibelow.  | ulatory agencies at the websites shown   |  |  |  |
| Federal Deposit Insurance Corporation (FDIC)<br>Federal Financial Institutions Examination Council (FFIEC)<br>U.S. Federal Reserve Board of Governors<br>National Credit Union Administration (NCUA)<br>Office of the Comptroller of the Currency (OCC)<br>Office of Thrift Supervision (OTS)   | www.fdic.gov<br>www.ffiec.gov<br>www.bog.frb.fed.us<br>www.ncua.gov<br>www.occ.treas.gov<br>www.ots.treas.gov                            |  |  |  |
| The following websites contain additional information concerning the Y2 not serve as an endorsement by the FDIC of any information contained the  | *  |  |  |  |
| Market Partners Inc.—Year 2000 Resources for Banks<br>Gartner Group—Technology Consultant<br>Software Productivity Research (SPR)—Technology Consultant<br>De Jager LLC (Peter de Jager)—Technology Consultant<br>Giga Information Group—Technology Consultant<br>Y2K LLC (Williams, Mullen, Christian & Dobbins)—Attorneys<br>Economics Network (Dr. Edward Yardeni)—Economist | www.marketpartners.com<br>www.gartner.com<br>www.spr.com<br>www.year2000.com<br>www.gigaweb.com<br>www.Y2K.com<br>www.webcom.com/yardeni |  |  |  |

### 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 leadCHART 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 tenyear 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





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

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

borrowers. These experts point out that today's loan-tovalue (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

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 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





<sup>&</sup>lt;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.

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)

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 warn-



ing 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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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 market-place; 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.

<sup>&</sup>lt;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. 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 soonto-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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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 sevenyear security yielding 8.83 percent that is callable after three years. At the same time, Bank B buys a noncallable 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 peerlike 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-

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

#### TABLE 1

| Composition of Betzold Berg Index<br>December 31, 1996   |                     |  |  |
|--|---------------------|--|--|
| SECURITY TYPE  | Percent<br>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



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

### Job Growth in the Dallas Region to Slow in 1998

- Job growth in the Dallas Region decelerated slightly in 1997 and is expected to slow even further in 1998.
- Housing activity in the Region enjoyed another solid year in 1997, a performance that may be difficult to duplicate in 1998.
- Turmoil in Asia's financial markets may result in reduced exports and job growth in the Region this year.

Job growth in the Dallas Region continued its gradual deceleration last year, approaching 2.4 percent in October 1997. A year earlier, the figure was 2.9 percent. A cooling off and lackluster performance in the economies of **Colorado** and **New Mexico** account for much of the recent slowing. Nevertheless, all four states in the Region were on pace to finish 1997 with slightly lower rates of job growth than they had in 1996.

### Services Lead the Way

The Dallas Region generated almost 300,000 new jobs for the 12-month period ended October 1997. Nearly two-thirds of the new jobs were concentrated in the trade and services sector (see Table 1), similar to the distribution for the nation as a whole. The increase in jobs was broad based, with every major industry sector in the Region contributing. Job growth in the Region has advanced at an annual average growth rate of 2.8 percent since the trough of the last U.S. recession (March 1991), compared with 1.9 percent for the nation.

The industries of business services, eating and drinking establishments, and health services (see Chart 1) accounted for nearly two-fifths of all the new jobs in the Region. Only one-quarter of all new U.S. jobs, by comparison, were created by these three industries. Greater use of outsourcing by large businesses, an aging population, and solid gains in real disposable income contributed to job growth in these industries.

Unemployment rates in the Region were mixed. Tight labor markets and moderate to strong job growth resulted in unemployment rates of 3.3 percent in Colorado and 3.7 percent in **Oklahoma** (through October 1997)—well below the U.S. average of 5.0 percent. Meanwhile, rapid labor force growth as a result of strong in-migration kept **Texas**'s unemployment rate at

| SERVICES AND TRADE PROVIDE THE BULK OF NEW JOBS IN THE DALLAS REGION<br>REGIONAL EMPLOYMENT BREAKDOWN FOR THE 12-MONTH PERIOD ENDING OCTOBER 1997 |                       |                    |                      |                                   |
|---|-----------------------|--------------------|----------------------|-----------------------------------|
| Job Category  | Number of<br>New Jobs | GROWTH<br>RATE (%) | Share of<br>Jobs (%) | Contribution to<br>Job Growth (%) |
| Total Nonfarm   | 298,600               | 2.4                | 100                  | N/A                               |
| SERVICES  | 127,600               | 3.8                | 27.5                 | 1.0                               |
| CONSTRUCTION  | 23,600                | 3.6                | 5.3                  | 0.2                               |
| MINING  | 6,800                 | 3.1                | 1.8                  | O.1                               |
| TRADE   | 64,300                | 2.2                | 24.0                 | 0.5                               |
| FIRE  | 14,600                | 2.2                | 5.4                  | O.1                               |
| TPU   | 13,500                | 1.9                | 5.8                  | O.1                               |
| MANUFACTURING   | 23,700                | 1.6                | 12.0                 | 0.2                               |
| GOVERNMENT  | 24,500                | 1.1                | 18.2                 | 0.2                               |

### TABLE 1

Sources: Haver Analytics, Bureau of Labor Statistics

### CHART 1



5.5 percent, while a sluggish economy accounted for New Mexico's jobless rate of 6.3 percent.

### Slowdown to Carry Over into 1998

Economic analysts are forecasting slower output and employment growth for the Dallas Region in 1998. An important factor in their assessment is the belief that the U.S. economy will slow substantially this year. Forecasters are predicting growth in the U.S. real gross domestic product (GDP) growth of 2.0 to 2.5 percent in 1998, a substantial reduction from an estimated 3.7 percent in 1997.

In addition to the overall slowing of the U.S. economy, growing concerns over higher labor, housing, and commercial costs are also blamed for the Region's expected slower growth. Finally, tight labor markets—particularly in high-skill industries—will constrain job growth. Employment growth is expected to decelerate from 2.5 to 3.0 percent in 1997 to 2.0 to 2.5 percent in 1998.

Chart 2 depicts the convergence in job growth between the United States and the Dallas Region that has taken place in recent months. A resurgent U.S. economy and a slight tapering off in economic growth in the Region are responsible for the convergence. Nevertheless, job growth in the Region is forecast to finish faster than that in the nation in 1998 for the tenth consecutive year.

**Implications:** The Region's banks are still among the healthiest in the nation despite a slower-growing economy. Profitability, as measured by return on assets, is above 1.20 percent for insured commercial banks in the

Region as of the end of third quarter 1997. Asset quality is better than that of the nation, with net charge-offs and noncurrent assets in the Region below their comparable U.S. numbers. Furthermore, banks in the Region remain highly capitalized, have a higher percentage of core deposits, and are less "loaned up" than those of the nation overall. In the absence of a recession this year, and with continued moderate economic growth as a backdrop, banks in the Dallas Region should continue to perform well in 1998.

### A Record-Breaking Year for Existing Home Sales in the Dallas Region

As a result of continued economic growth and low mortgage interest rates, the Dallas Region in 1997 was poised to achieve its best year ever in existing home sales (almost half a million) since the National Association of Realtors began keeping state records in 1981. The inverse relationship between existing home sales in the Dallas Region and contract rates on conventional 30-year mortgages since 1991 is shown in Chart 3 (next page). Although factors such as housing prices, jobs, incomes, and population growth also play an important role, both the cost and availability of credit explain much of the recent movement in existing home sales. With mortgage rates falling below 7.5 percent in the second half of 1997 and job growth still moderately strong, existing home sales should maintain their current strength through the first half of 1998.

Another indication of how strong existing home sales have been in the Dallas Region has been the rise in median sales prices in some of the Region's larger metropol-





### CHART 3



itan areas. Table 2 shows annual average growth rates in median sales prices for the United States and selected metropolitan areas in the Dallas Region since third quarter 1993. Those areas reporting median sales prices growing faster than the U.S. average exhibited faster employment growth than the United States as well.

*Existing home sales outlook for 1998.* Existing home sales in the Dallas Region appeared headed for the seventh annual increase in eight years in 1997. Whether the Region's housing market achieves another

### TABLE 2

solid year in 1998 will depend on the strength of its economy and the level of mortgage interest rates. The two may not necessarily move in the same direction this year.

For reasons cited earlier, both the U.S. and the Region's economies are expected to experience a moderation in economic growth in 1998. At the same time, in-migration from other states is expected to taper off as well. Many states are already near full employment and experiencing labor shortages. With so many states enjoying favorable economic conditions, the incentive for workers to leave for employment elsewhere diminishes. Consequently, slower employment growth and lower levels of in-migration may result in softer demand for housing.

Still, a softer economy may also result in lower mortgage interest rates. Mortgage rates have declined since spring 1997, with the contract rate on conventional 30-year mortgages averaging 7.21 percent in November 1997. Some analysts believe that mortgage rates could drop even further in 1998, possibly to their lowest level since they briefly fell below 7 percent in September and October 1993. In addition to being a stimulus to home sales (and residential construction), lower mortgage rates could also result in another wave of mortgage refinancings, putting a significant amount of cash into the hands of consumers to spend.

| GROWTH IN THE MEDIAN SALES PRICES OF HOMES IN SELECTED METROPOLITAN<br>AREAS IN THE DALLAS REGION |                                    |          |      |  |  |
|---|------------------------------------|----------|------|--|--|
|   | Median SA<br>Third Quarter<br>1997 |          |      |  |  |
| Colorado Springs, CO  | \$131,800                          | \$95,000 | 8.5% |  |  |
| Denver, CO  | 144,600                            | 105,000  | 8.3  |  |  |
| Austin-San Marcos, TX   | 117,700                            | 92,100   | 6.3  |  |  |
| Albuquerque, NM   | 128,400                            | 102,600  | 5.8  |  |  |
| Oklahoma City, OK   | 80,000                             | 65,700   | 5.0  |  |  |
| Dallas, TX  | 114,200                            | 95,700   | 4.5  |  |  |
| Tulsa, OK   | 87,100                             | 73,500   | 4.3  |  |  |
| UNITED STATES   | 126,600                            | 108,100  | 4.0  |  |  |
| HOUSTON, TX   | 93,100                             | 81,800   | 3.3  |  |  |
| Fort Worth, TX  | 93,400                             | 84,200   | 2.6  |  |  |
| San Antonio, TX   | 87,300                             | 79,400   | 2.4  |  |  |
| SOURCES: NATIONAL ASSOCIATION OF REA  | LTORS, HAVER ANALYTICS             | 1        |      |  |  |

Dallas Regional Outlook

**Implications:** Housing will continue to be one of the Region's strongest sectors in 1998. If mortgage rates maintain their relatively low levels in 1998, residential lending will remain strong for another year. Moreover, lenders may be swamped with mortgage refinancing applications if mortgage rates stay below 7 percent for long.

# Asia's Financial Crisis and What It Means for the Dallas Region

The financial crisis that began in Southeast Asia during the summer of 1997 hurt the performance of stock markets throughout Asia, the United States, Europe, and Latin America. Since then, global stock markets continue to be roiled by the ongoing financial instability in Southeast Asia. This section will discuss not the causes of the crisis but its possible effects on the Dallas Region.

A reduction in exports... The immediate effect of the crisis is a reduction in Regional exports resulting from the devaluation of certain Asian currencies (see Chart 4). Currency devaluation causes the prices of exports to rise, thus curbing their demand. Exports have been an important growth engine for the Region throughout this expansion, growing at a double-digit rate (11 percent annual average) for the past ten years (1987 to 1996). The twin effects of the Asian currency crisis—higher export prices and a slackening in Asian domestic demand—should result in a rise in imports from Asia to the Region and a decline in exports from the Region to Asia.

### CHART 4



The *Federal Reserve's December survey of regional economic conditions* for October and November noted a reduced demand for exports of manufactured and agricultural goods as a result of Asia's "financial turmoil and currency weakness." In particular, telecommunications and petrochemical companies in the Dallas Region reported reducing their expectations for growth in Asian markets. Other industries that may be affected negatively are makers of capital equipment, including semiconductors, computers, and industrial machinery. Cheaper imports from Asian countries may affect apparel and textile manufacturers and producers of consumer electronics and toys. In addition, the Asian financial crisis should soften foreign demand for such key commodities as cattle, wheat, and cotton.

...And slower economic growth. The combination of declining U.S. exports and rising U.S. imports should result in a ballooning U.S. trade deficit, subtracting economic growth from the U.S. economy. U.S. net exports of goods and services (seasonally adjusted annual rate) climbed to a deficit of \$163 billion in the third quarter of 1997-the highest level since 1986. Many economists have already scaled back their original forecasts for U.S. real economic growth in 1998 and 1999 as a result of the Asian crisis. To what extent the Dallas Region will be affected by a slower-growing U.S. economy is difficult to estimate. Less demand for U.S. goods, however, will probably result in less demand for Regional goods, meaning less hiring (possibly layoffs), weaker demand for housing and commercial real estate, a reduction in corporate earnings and profits, slower business for local suppliers, and less tax revenues for state and local governments.

*Mexico's peso devaluation: a case study.* The Dallas Region is familiar with the effects of currency devaluation. During Mexico's most recent currency crisis, in late 1994, the Mexican peso lost 50 percent of its value against the U.S. dollar in three months. Exports from the Dallas Region to Mexico consequently fell 11.5 percent in 1995. The reduction in regional exports that is expected as a result of the current Asian crisis may not be as severe, however.

The total volume of exports from the Dallas Region to the Asian nations of Thailand, Malaysia, Indonesia, South Korea, and the Philippines represents less than 9 percent of the Region's total dollar exports in 1996. That is far less than the dollar volume of Regional exports to

Dallas Regional Outlook

Mexico (27 percent) that same year. Nevertheless, some reduction in exports to these countries is to be expected, along with a slight decrease in economic growth.

There are benefits to devaluation as well. Perhaps the greatest benefit resulting from the devaluations of Southeast Asian currencies is their dampening effect on U.S. inflation. Cheaper imports will force domestic firms to reduce their prices or lose market share. Lower inflation may lead to lower interest rates, helping stimulate credit-sensitive industries such as housing and automobiles. Finally, some U.S. companies—those with substantial assembling operations in Asia—may reap significant savings in cheaper labor and production costs as a result of the devaluations. **Implications:** The Asian crisis will reduce export growth in the Region. Industries most affected should be high-technology industries like PC makers and semiconductor producers. Although direct bank lending to these companies is not substantial, slower earnings growth resulting from weaker conditions in Asia could have an indirect impact on banks. Reduced profits could mean production cutbacks and layoffs at home while delaying expansion plans such as the Intel plant in Fort Worth. Moreover, increased competition from Asian imports—made cheaper by the currency devaluation may also hurt domestic firms with existing lines of bank credit.

Adrian R. Sanchez, Regional Economist

### **Regional Banking Conditions**

- Banks and thrifts in the Dallas Region continue to keep pace with national trends.
- Banks with high asset growth rates display a higher risk profile.
- Three Dallas Region metropolitan statistical areas (MSAs) are among the top 20 in the nation in real estate investment trust (REIT) ownership.
- Banks and thrifts in these areas are displaying strong real estate loan growth despite escalating REIT activity, but underwriting standards could be under some pressure.

### Overview

The Region's insured institutions continue to keep pace with national profitability averages (see Chart 1). During the third quarter of 1997:

- Commercial banks in the Region averaged a return on assets (ROA) of 1.24 percent, versus 1.30 percent for the nation. Commercial banks account for 94 percent of the banks in the Region and 84 percent of the total assets.
- The average net interest margin for all banks in the Dallas Region remained steady at 4.28 percent, 25 basis points above the average for all U.S. banks.
- Total past-due loans in the Region declined slightly to 2.20 percent of total loans and leases, below the national average of 2.23 percent.





### Fast-Growing Banks Display Higher Risk Profiles

Rapid growth is traditionally viewed as a risk indicator. This section focuses on the Dallas Region's most rapidly growing financial institutions. Asset growth can generate high profits in good times but may increase an institution's exposure to an economic downturn. Table 1 (next page) summarizes a few financial indicators for banks in the Dallas Region, grouped according to yearover-year asset growth rates as of third quarter 1997.

In summary, faster growing banks tend to be more aggressive. As Table 1 depicts, these banks have less equity, higher yields, and are more "loaned up" than other banks. Faster growing banks tend to be larger banks, as indicated by the average asset numbers. But as indicated by the median asset figures, many small banks are growing rapidly as well.

Naturally there is a close link between the rapid loan growth displayed by these institutions and their higher profitability. Banks typically achieve the greatest profit margin by making loans rather than holding securities. Since it takes time for new loans to become seasoned, it follows that during a period of loan growth nonperforming loans would decline as a percentage of total assets (in comparison with other banks). Consequently, the fastest growing banks in the Dallas Region have the lowest level of nonperforming assets. Moreover, there is a significant difference between the slowest growing half and the fastest growing half in terms of valuation reserve coverage of the loan portfolio (see Table 1). Rapidly growing banks tend to have a higher percentage of new, unseasoned loans that have not demonstrated problems and typically receive lower reserve allocations.

| ASSET GROWTH RATES                   |         |         |         |            |
|--------------------------------------|---------|---------|---------|------------|
| FINANCIAL INDICATORS                 | Тор 25% | 2ND 25% | 3rd 25% | Воттом 25% |
| GROWTH RANGE                         | 37+     | 17%-37% | 6%-17%  | -6%        |
| Core Capital                         | 7.1     | 7.6     | 8.5     | 9.3        |
| RETURN ON ASSETS                     | 1.3     | 1.1     | 1.2     | 0.9        |
| NET LOANS/DEPOSITS                   | 82.2    | 71.5    | 62.8    | 56.0       |
| LOAN RESERVES/TOTAL LOANS            | 1.3     | 1.2     | 1.6     | 1.6        |
| NONPERFORMING LOANS/ASSETS           | 0.6     | 0.7     | 0.8     | 0.7        |
| Average Assets (\$ millions)         | 408     | 261     | 175     | 114        |
| MEDIAN ASSETS (\$ MILLIONS)          | 87      | 58      | 54      | 44         |
| SOURCE: BANK AND THRIFT CALL REPORTS |         |         |         |            |

### TABLE 1

For all these reasons, in favorable economic environments, banks that are growing tend to experience better than average ROAs. However, an aggressive strategy can easily rebound unfavorably in an economic downturn, as problem loans become more manifest. In light of the extremely rapid growth of some institutions in the Region, careful attention to underwriting standards and internal controls is warranted, both by the management of these institutions and by their supervisors.

### **REIT Impact in the Dallas Region**

Much has been reported about the growth of REITs throughout the country, but what does this mean to banks in the Dallas Region?

Over the past five years, REITs have experienced explosive growth. According to the *National Association of Real Estate Investment Trusts (NAREIT)*, REITs set an all-time midyear record for equity offerings, raising more than \$15.1 billion for the first six months of 1997. According to *CB Commercial*, REITs currently account for over \$157 billion of property nationwide. While REITs can acquire virtually all types of property, retail, apartments, and office buildings account for the biggest shares, with 32 percent, 24 percent, and 21 percent, respectively. For the third quarter of 1997, the office segment was the fastest growing, with 33 percent of all new acquisitions for that quarter.

According to the *CB Commercial National Real Estate Index*, three MSAs in the Dallas Region are among the top 20 in the nation in REIT ownership. **Dallas–Fort Worth** is rated third and currently reports more than \$8 billion in REIT ownership. **Houston** ranks sixth, with over \$5 billion, and **Denver** is number 20, with almost \$2 billion. **Austin** was nineteenth as of June 30, 1997, but has recently fallen out of the top 20 despite anecdotal evidence of a hot REIT market. Houston was rated first in the top 10 most active REIT acquisition metropolitan areas during the third quarter of 1997 and accounted for almost 8 percent of all acquisitions for that quarter.

To put this situation in perspective, we looked at bank lending in several key markets versus REIT acquisitions. Since Houston was the fastest growing REIT market in the country for the third quarter of 1997, it is useful to examine that market.

As of September 30, 1997, total real estate loans outstanding at insured institutions (excluding agriculture and single-family residential) headquartered in the Houston MSA totaled \$7.3 billion. REIT ownership in





Houston was slightly over \$5 billion (see Chart 2). This comparison may overstate the relative importance of REITs for two reasons. First, bank loans cover only a percentage of total real estate value, while REIT ownership is 100 percent. Second, the \$7.3 billion does not include loans made by out-of-area banks. Nevertheless, these figures clearly show the degree to which REITs have become major players in today's real estate investment environment.

# Why Have REITs Become Major Players in the Real Estate Market?

As in the nation as a whole, office vacancy rates are on the decline in major markets in the Dallas Region, as long-standing excess office space continues to be trimmed (see Table 2). As a reflection of the strong economic conditions in the Region's major markets, office vacancy rates have fallen to their lowest levels in well over ten years in Austin, Dallas, Fort Worth, Denver, Houston, and **Oklahoma City**. Office vacancy rates in Austin and Denver are now in the single digits.

As vacancy rates have fallen, rents have risen, improving cash flows and property valuations based on the income approach. Combined with the strong underlying economy, these factors explain the abundance of capital in the commercial real estate market. The ownership structure of REITs, their aggressive growth strategies, and the current availability of capital are increasing transactional liquidity.

Public ownership of REITs may provide greater market discipline, but the risk is that increased competition for properties among all types of commercial real estate investors (and their lenders) could lead underwriting

| OFFICE VACANCY RATES (%)                     |              |    |  |  |  |  |
|--|--------------|----|--|--|--|--|
|  | JUN 97 DEC 9 |    |  |  |  |  |
| DALLAS REGION                                | 11           | 19 |  |  |  |  |
| AUSTIN                                       | 8            | 18 |  |  |  |  |
| Dallas                                       | 15           | 27 |  |  |  |  |
| Fort Worth                                   | 13           | 20 |  |  |  |  |
| Denver                                       | 9            | 19 |  |  |  |  |
| HOUSTON 16 22                                |              |    |  |  |  |  |
| Oklahoma City                                | 15           | 25 |  |  |  |  |
| SOURCE: CB COMMERCIAL/TORTO WHEATON RESEARCH |              |    |  |  |  |  |

### TABLE 2

standards to deteriorate. Underwriting surveys conducted by the FDIC and the other federal bank regulatory agencies bear out these concerns. Further detail is provided in *Trends in Commercial Real Estate Loan Pricing and Underwriting*.

### Markets That Have High REIT Activity Are Seeing Increasing Real Estate Concentrations in Banks as Well

We looked at each of the three MSAs in the top REIT ownership list and examined bank performance in these markets. Several trends appear:

- Over the past five years, banks in Dallas, Houston, and Denver have gravitated toward an increase in commercial real estate (CRE) lending (see Table 3, next page). The most dramatic example was Houston, which saw "CRE banks" (commercial banks that have 25 percent or more of their loan portfolios in CRE loans) increase from 53 percent of its total commercial banks at December 1992 to 69 percent at September 30, 1997.
- CRE banks tend to be more profitable than other banks. The difference is most pronounced in the Dallas market, where CRE banks enjoyed an ROA 62 basis points higher than that for non-CRE banks at third quarter 1997 (annualized quarterly). Higher returns are generally earned only at the expense of higher risks. Accordingly, bankers and their supervisors need to remain vigilant for the effect that strong competition from REITs may have on underwriting standards and adherence to internal controls.
- CRE banks tend to be slightly better capitalized, as indicated by the leverage ratio (see Table 3). For example, CRE banks in the Denver MSA average 8.9 percent leverage, compared with 6.6 percent for non-CRE banks. The Houston market is an exception in that CRE and non-CRE banks have essentially the same leverage.

# What Are Some of the Implications for the Dallas Region Banking Environment?

Real estate markets in these MSAs have more equity and liquidity than they would without REITs, since most REITs are financed with equity. This is a positive

|                      | DE   | DEC 92  |      | 3Q97    |  |
|----------------------|------|---------|------|---------|--|
|                      | CRE  | Non-CRE | CRE  | Non-CRE |  |
| DALLAS               |      |         |      |         |  |
| RETURN ON ASSETS     | 1.45 | 1.15    | 1.95 | 1.33    |  |
| Leverage Ratio       | 5.55 | 5.64    | 9.28 | 7.08    |  |
| Nonperf/Total Assets | 3.93 | 0.81    | 2.25 | 0.39    |  |
| % BANKS              | 54   | 46      | 57   | 43      |  |
| Denver               |      |         |      |         |  |
| RETURN ON ASSETS     | 1.17 | 0.51    | 1.53 | 1.19    |  |
| Leverage Ratio       | 7.62 | 7.21    | 8.94 | 6.64    |  |
| Nonperf/Total Assets | 1.30 | 1.20    | 0.46 | 0.16    |  |
| % BANKS              | 51   | 49      | 57   | 43      |  |
| Houston              |      |         |      |         |  |
| RETURN ON ASSETS     | 0.90 | 1.21    | 1.14 | 1.01    |  |
| Leverage Ratio       | 7.19 | 6.36    | 7.32 | 7.36    |  |
| Nonperf/Total Assets | 3.88 | 2.25    | 0.52 | 0.65    |  |
| % Banks              | 53   | 47      | 69   | 31      |  |

#### TABLE 3

NOTE: BANKS ARE CLASSIFIED AS CRE IF CONSTRUCTION/DEVELOPMENT, NONFARM/RESIDENTIAL, AND MULTIFAMILY REAL ESTATE LOANS EXCEED 25 PERCENT OF TOTAL LOANS.

aspect of REIT investment. Banks also appeared to have been able to require more equity in real estate projects that they financed during much of the 1990s than during the 1980s. The increased volume of equity currently in real estate provides more protection against declining real estate values than existed ten years ago.

What debt REITs do employ is most likely not local bank financing. REITs typically have large credit facilities with money-center banks and insurance companies. Consequently, real estate loan underwriting guidelines for large banks may weaken as competition forces banks to stretch for deals.

In summary, at the same time that REITs have grown substantially, banks in the surrounding areas have moved, and may continue to move, toward more real estate lending. While these banks have enjoyed greater profits as a result, they could be moving into a dangerous area of concentration. As larger banks feel the increasing competition from REITs they may eventually target smaller markets, increasing competition in the Region or at the local level.

By Jeffrey A. Ayres, Alan C. Bush

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