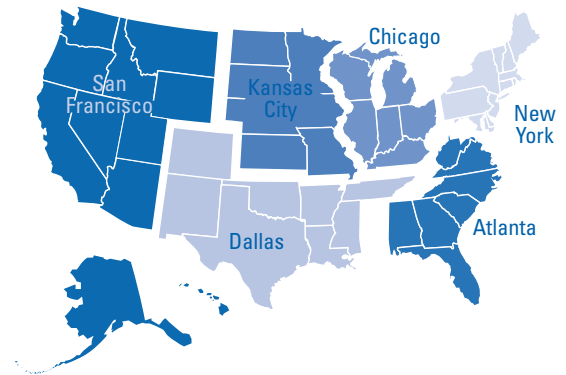


In Focus This Quarter

Housing Bubble Concerns and the Outlook for Mortgage Credit Quality—U.S. home prices have risen briskly over the past several years, outpacing growth in disposable income. In terms of sales volumes, the housing sector had another banner year in 2003. This housing boom has raised concerns among some analysts about the possibility of a home price bubble and the specter of home prices suddenly collapsing. At the same time, rising levels of consumer and mortgage debt, and a decline in the quality of that debt, also merit attention. What connects these areas of concern is the possibility that household credit quality could decline further if home prices were to decline precipitously. This article reviews current evidence and expert opinion on the possibility of a national home price bubble and considers the overall outlook for mortgage credit quality for the remainder of 2004. *See page 3.*

By Cynthia Angell, Senior Financial Economist



The FDIC's Economic and Banking Outlook in Charts—This new feature provides a graphic executive summary of the FDIC's analytical perspective on current economic and banking issues, but it is not meant to be an exhaustive analysis of these issues. Please refer to the **FDIC Outlook** articles and other FDIC publications for more in-depth analysis (www.fdic.gov). We are constantly striving to improve the **FDIC Outlook** and other publications. Please contact Associate Director Rae-Ann Miller at rmiller@fdic.gov with your comments about this new feature or any of our publications. *See page 11.*

By Risk Analysis Staff and Regional Operations Staff

Regional Perspectives

Atlanta—Structural and cyclical forces will affect the performance of the manufacturing sector. Areas with significant employment in traditional industries that remain under structural pressure may recover more slowly, and insured institution credit quality could weaken further. *See page 13.*

Chicago—The regional economy is improving, albeit unevenly among industries and across states. Should interest rates rise further, insured institutions will face continued challenges to increase revenue while maintaining favorable asset quality. *See page 17.*

Dallas—Branching activity in the Dallas Region, driven by economic and demographic factors, has significantly exceeded that of the nation during the past decade. The performance of insured institutions varies in response to specific branching strategies. *See page 21.*

Kansas City—Hydrological drought conditions may begin to affect farmers' ability to irrigate crops, which could hurt yields and contribute to greater weakness in agricultural bank credit quality. *See page 25.*

New York—The housing sector has continued to perform strongly in the Northeast. However, higher interest rates and moderating appreciation in home prices could challenge many of the Region's insured institutions. *See page 29.*

San Francisco—Despite weak office market fundamentals, insured institutions in several metro areas report exposures to commercial real estate lending that exceed the national median. Credit quality remains sound overall; however, continued economic weakness could contribute to deterioration in asset quality. *See page 33.*

By Regional Operations Staff

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Housing Bubble Concerns and the Outlook for Mortgage Credit Quality

U.S. home prices have risen briskly over the past several years, outpacing growth in disposable income. In terms of sales volumes, the housing sector had another banner year in 2003.¹ This housing boom has raised concerns among some analysts about the possibility of a home price bubble and the specter of home prices suddenly collapsing. Rising levels of consumer and mortgage debt, and a decline in the quality of that debt, also merit attention. What connects these areas of concern is the possibility that household credit quality could decline further if home prices were to fall precipitously. This article reviews current evidence and expert opinion on the possibility of a national home price bubble and considers the overall outlook for mortgage credit quality for the remainder of 2004.

Some Market Watchers Perceive a U.S. Housing Bubble...

Karl Case and Robert Shiller define a bubble as “a situation in which excessive public expectations for future price increases cause prices to be temporarily elevated.”² Under this definition, an asset bubble can be said to exist when prices have risen faster than the underlying supply and demand fundamentals would suggest. The speculative element is a key feature of any asset bubble, as expectations of further price gains, rather than fundamental factors, begin to drive appreciation. Typically, these episodes are identified only in hindsight, when panic selling bursts the bubble. This sequence of events has been observed in many historical episodes with assets such as equities, land, and even tulip bulbs. There is an important distinction, therefore, between a “boom,” when prices increase at a historically rapid pace, and a “bubble,” when unsustainable factors lead to a boom/bust price path. A boom is required for a bubble to form, but a boom does not necessarily mean that a collapse in prices is imminent.

¹ Sales of existing homes rose to record levels in 2003, surpassing previous records set in 2002. Sales of new single-family homes topped 1 million units, establishing a new record high for the third consecutive year. In addition, according to the National Association of Home Builders, new home starts rose in 2003 to 1.85 million, the highest number of housing starts since 1978.

² Karl E. Case and Robert J. Shiller, *Is There a Bubble in the Housing Market? An Analysis*, Washington, DC: Brookings Institution, 2003.

Concerns about a nationwide housing bubble arise from the very robust activity in the housing sector and mortgage markets in recent years. Mortgage borrowing has boomed as low interest rates, together with strong demographics, have spurred homeownership and refinancing by existing homeowners looking to liquidate home equity gains. In fact, the homeownership rate reached an all-time high of 68.6 percent by the fourth quarter of 2003. The mortgage market has grown at double-digit rates since early 2002, bringing total U.S. home mortgage debt to \$6.6 trillion by third quarter 2003. In just the two years ending September 2003, total mortgage debt outstanding rose by \$1.4 trillion, or 26 percent.³ Strong demand for housing, facilitated by low interest rates, has pushed home prices to their highest rates of appreciation in more than a decade. But this sturdy price appreciation has not been accompanied by equally strong personal income growth. Since 2000, annual home price appreciation has averaged roughly 7 percent, while disposable per capita personal income gained 4 percent per year, on average (see Chart 1, next page). As a result, many observers, still smarting from the high-tech stock bubble of 2000, are uneasy over the longevity of this housing upturn and its seeming disconnect from fundamentals such as income. They fear an abrupt end to what they perceive as a bubble in the value of U.S. homes.

...But Housing May Be More Resistant to Bubbles than Other Assets

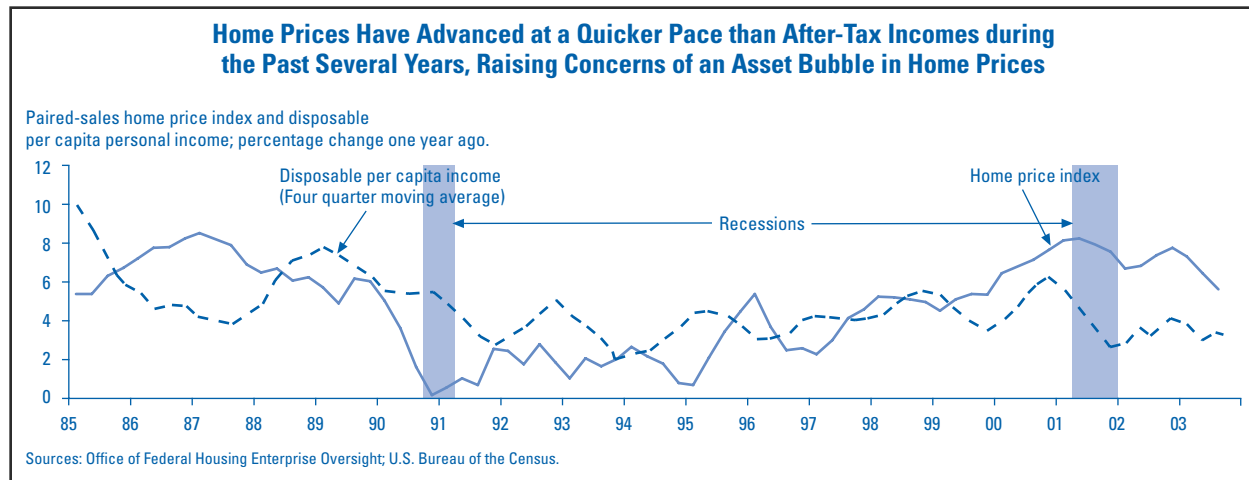
On the surface, the performance of the housing market in recent years appears to be consistent with a burgeoning asset bubble. And because housing typically is a leveraged asset, purchasing, or “investing,” in housing can be viewed as comparable to buying stocks on margin, with similar risk, in that a homeowner can potentially go “underwater,” owing more on the asset than it might fetch if resold at the prevailing market price.

However, the analogy to stocks ends there. There are several reasons why housing, particularly owner-occupied housing, is less prone to price bubbles than

³ Federal Reserve Board, Flow of Funds data.

In Focus This Quarter

Chart 1



stocks. For example, homeowners cannot short their housing asset readily, nor is there a margin call demanding additional funds when prices drop below the outstanding mortgage balance. Also, the trading volume in the housing market is much less than in

the financial asset markets, since housing turns over far less frequently.

Further underscoring differences in these assets are unique characteristics and structural attributes that

Table 1

| Attributes of the Housing "Asset" That Mitigate Against Price Collapse following a Boom, in Contrast to Stocks | |
|---|--|
| Attribute | Mitigating Effect |
| Utility | Housing provides shelter as well as privacy, choice, and comfort. Homeowners live in their "asset." Stockowners do not. |
| High Transaction Costs | The costs required to secure and vacate a house are huge with respect to time, fees, effort, and household disruption. The high transaction costs for housing generally discourage rapid, repeat buying and selling, unlike equity markets, where discount brokerages have pushed trading fees to very low levels in recent years. |
| Tax Advantages | Homeowners enjoy the tax benefit of mortgage interest deductibility, and buyers can usually deduct loan points and origination fees. Alternative living arrangements, such as renting or living with one's parents, do not convey similar tax relief. Also, unlike stock sales, gains from home sales are tax advantaged in some instances. |
| Breadth of Ownership | There is no "nationwide" market for housing as there is for other assets, and a large majority of single-family homes are owner-occupied. ^a Stock ownership is more likely than housing to reflect trader/investor holdings, which are maintained only as long as they are profitable or provide some benefit, such as diversification. Stock prices reflect millions of decisions brought together in a single collective marketplace. Stock investors' buy-sell decisions in response to reported earnings can immediately and significantly influence stock price movements. In contrast, housing prices are driven by local factors, as most homeowners do not live in homes that are geographically far removed from their jobs or family. |
| Intangible Benefits | Homeownership is thought to convey other important benefits aside from investment returns and shelter, contributing to neighborhood stability and social involvement. In addition, there is some evidence that homeownership contributes to more positive outcomes for children. ^b |

^a Of total occupied single-family units, 84.6 percent are owner-occupied according to the U.S. Bureau of the Census, American Housing Survey for the United States, 2001.

^b Richard K. Green and Michelle J. White, "Measuring the Benefits of Homeowning: Effects on Children," *Journal of Urban Economics*, 41, 1996, pp. 441-461.

Source: FDIC.

In Focus This Quarter

make housing less vulnerable than any other asset to severe boom and bust price swings (see Table 1). Housing's unique characteristics of utility, transaction mechanisms, and financial treatment are not comparable to those of assets such as equities. The confluence of these factors mitigates speculative tendencies and allays the potential for a price collapse.

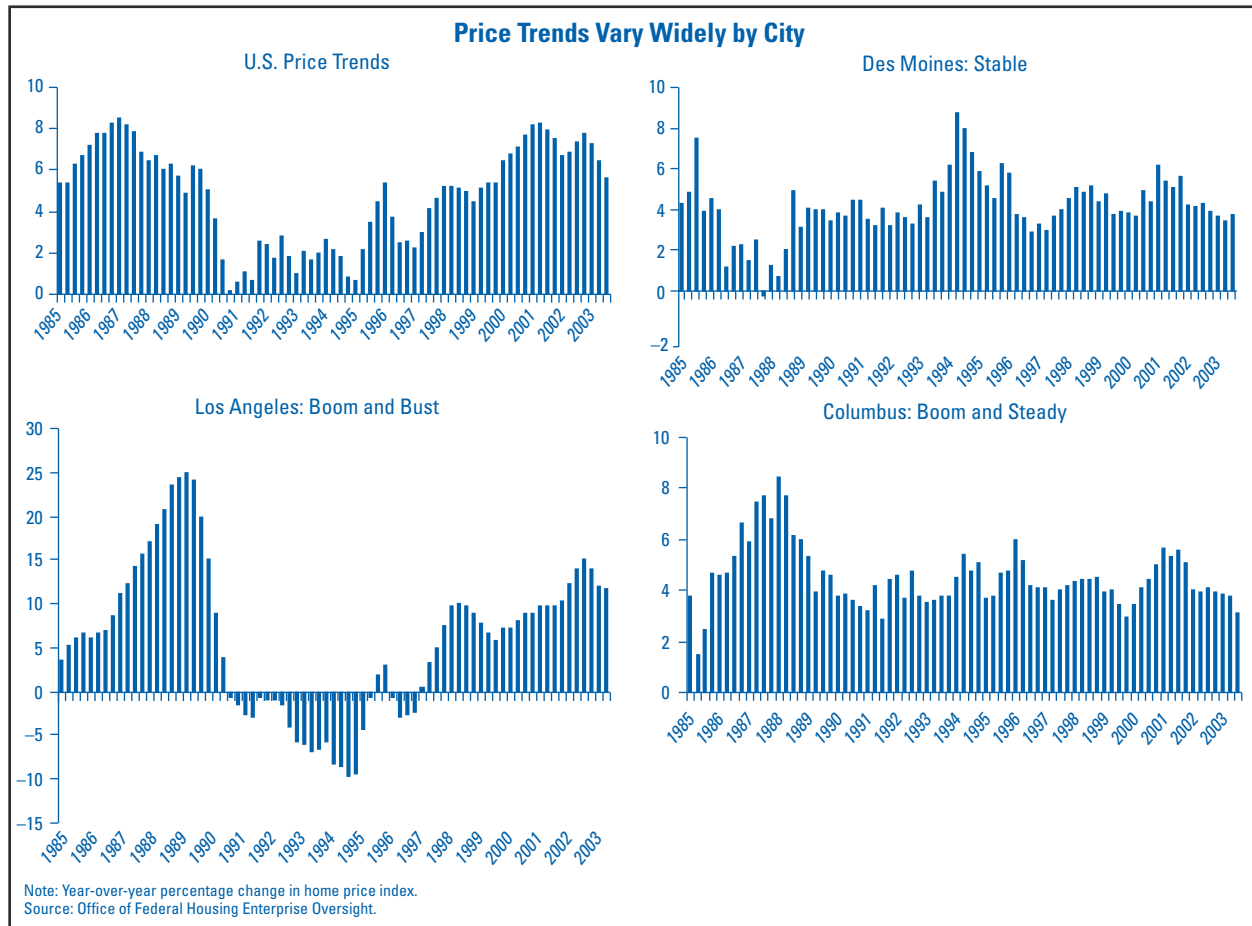
There Is No U.S. Housing Bubble, but Local Volatility Has Occurred

Although reliable price histories do not exist, it is recognized that home prices fell precipitously in many areas of the nation during the Great Depression. This drop could be likened to a national boom/bust or bubble in housing. However, the structure of mortgage finance, which played an important role in that episode, has changed profoundly since that time. Before the 1930s, mortgage

credit typically took the form of short-term, callable, nonamortizing loans. As home prices fell, homeowners often could not refinance when their loans came due or were called by the bank. The result was a wave of real estate liquidation that drove prices downward. In response, federal mortgage programs established in the aftermath of the Depression took the form of long-term, noncallable, amortizing notes that created the standard of modern U.S. mortgage finance. These institutional changes eliminated a major avenue for any systemic price collapse in U.S. housing markets resulting from a severe nationwide economic shock.

While some systemic factors, such as mortgage interest rates, influence home prices across the country, most influences on home prices are local. They include supply-side factors, such as the availability of developable land and local construction costs, and demand-side factors, including changes in employment, real

Chart 2



In Focus This Quarter

incomes, population, and taxes.⁴ Differences in these local factors tend to drive differences in home price performance across the country (see Chart 2). Markets where home price boom/busts have occurred in the past few decades have tended to exhibit two common features: (1) significant episodes of economic boom and bust, affecting demand through large employment and population changes, and (2) limited space for new development, constraining adjustment in the supply of new housing.

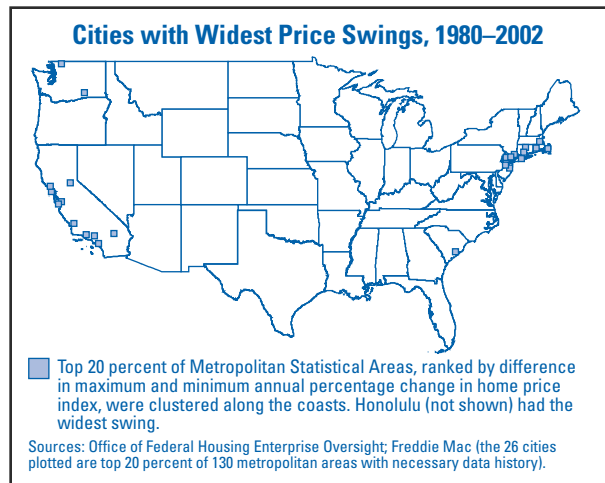
Many areas of the “oil patch” of **Texas, Louisiana, and Oklahoma** experienced large percentage declines in home prices during the last half of the 1980s. Major markets in **New England** and **California** experienced smaller price declines between 1989 and 1995. These regions shared some of the problems associated with the “rolling regional recession” of the 1980s, when boom times were followed by job losses, bank failures, and, often, significant outmigration. On a national scale, however, the U.S. repeat-sales home price index, published by the **Office of Federal Housing Enterprise Oversight (OFHEO)**, has never shown an annual decline in its 27-year history.

Price declines such as those associated with the rolling regional recession of the 1980s typically can be attributed to demand-side factors. However, supply-side issues also come into play. While markets typically clear by adjustments in price and quantity, markets where supply is constrained must clear more through price change. Coastal markets or those with strict zoning, such as in California and the Northeast, historically have shown wider swings in home price appreciation, attributable in part to the difficulty of expanding supply during a boom (see Map 1).

Thus, owing to the combination of demand- and supply-side factors, markets with both volatile demand and constrained supply are likely to see more pronounced price swings than markets experiencing just one or the other. While a nationwide housing bubble appears unlikely at this time, some markets are experiencing significant price swings, reflecting changing local economic, demographic, or affordability conditions.

⁴ Stephen Malpezzi, “Housing Prices, Externalities, and Regulation in U.S. Metropolitan Areas,” *Journal of Housing Research*, Vol. 7, Issue 2, 1996, pp. 209–241.

Map 1



The most recent OFHEO data (see Table 2, next page) show that markets registering the weakest home price growth are, for the most part, cities that have seen significant recent economic deterioration as a result of the loss of dot-com or telecom jobs or, in the case of **Salt Lake City and Provo, Utah**, a post-Olympics slump. The markets with the strongest home price growth are mostly cities in California and the Northeast that typically have shown a tendency toward wide price swings because of supply constraints. These markets generally did not experience a disproportionate level of economic distress during and after the 2001 recession.

The history of U.S. home prices suggests a clear potential for home prices to decline in individual markets, particularly in cities that have shown wide price swings in the past and where prices recently have risen dramatically. However, this same history also strongly suggests that it is highly *unlikely* that home prices will fall precipitously across the entire country—even if rising interest rates raise the cost of mortgage borrowing and reduce housing affordability. Further, a significant price decline does not inevitably follow a sharp rise in local home prices. In many cases, the aftermath of a housing boom has been characterized by slower sales and price stabilization until the underlying fundamentals have a chance to catch up with market prices.

Understanding the behavior of both buyers and sellers is key to understanding home price dynamics. Were prices to fall in certain markets, history and academic research suggest that potential sellers would tend to withdraw from the marketplace rather than proceed with panic sales. In fact, studies show that “household mobility

Table 2

| Variations in Home Price Appreciation (annual percentage change in home prices, third quarter 2003) | | | |
|---|--------|--------------------|--------|
| 10 Fastest Markets | | 10 Slowest Markets | |
| Fresno, CA | 16.05% | Austin, TX | -0.31% |
| Fort Pierce, FL | 14.70% | San Jose, CA | 0.43% |
| Redding, CA | 14.44% | Boulder, CO | 1.07% |
| Chico, CA | 13.79% | Denver, CO | 1.35% |
| Riverside, CA | 13.34% | Springfield, IL | 1.57% |
| Providence, RI | 12.03% | Provo, UT | 1.62% |
| Bakersfield, CA | 12.01% | Lafayette, IN | 1.69% |
| San Diego, CA | 11.90% | Salt Lake City, UT | 1.73% |
| Ventura, CA | 11.81% | Fort Collins, CO | 1.73% |
| Santa Barbara, CA | 11.62% | Greensboro, NC | 1.89% |

Source: Office of Federal Housing Enterprise Oversight.

[selling] is significantly influenced by nominal loss aversion,” or a willingness to continue to hold the asset and take further losses in the hope that the price will go up one day.⁵ Because of homeowners’ loss aversion, homes tend to stay on the market longer with asking prices set well above selling prices, and many sellers withdraw their homes without sale.⁶ This behavior is typical in all but the most economically distressed markets. Unless the number of homeowners who must sell because of job or income loss is a significant portion of sellers in a market, weakness in a local real estate market is more likely to result in a slowdown in transactions than a plunge in home prices. Although owners may be more inclined to sell in a down market if the property is not their primary residence, high transaction costs weigh against quick “trades” by investors.

Credit Quality Concerns May Pose Greater Risks

The previous discussion indicates that concerns over an imminent, widespread collapse in home prices are somewhat misplaced. Of greater and broader concern are rising levels of consumer and mortgage debt and the decline in the quality of that debt. The recent

⁵ Gary V. Engelhardt, *Nominal Loss Aversion, Housing Equity Constraints, and Household Mobility: Evidence from the United States*, CPR Working Paper Series # 42, Syracuse, NY: Center for Policy Research, Syracuse University, 2001.

⁶ D. Genesove and C.J. Mayer, “Nominal Loss Aversion and Seller Behavior: Evidence from the Housing Markets,” *Quarterly Journal of Economics*, 116, 2001, pp. 1233–1260.

period of historically low mortgage rates has left the economy in uncharted territory with respect to household indebtedness. Among the new homeowners who have pushed the nation’s ownership rate to record levels are those with high leverage, volatile incomes, or limited wealth. Many of these buyers realized the American dream of home ownership only through low-down-payment, variable-rate mortgages obtained during a time of historically low interest rates. As interest rates rise, these homeowners may see their incomes strained by rising debt service costs, while slower home price appreciation limits their ability to build equity and lower their leverage. The remainder of this article explores these household credit quality concerns.

Mortgage credit quality indicators exhibited some weakness during the 2001 recession and, in the ensuing period, have shown slight improvement. Since peaking in the third quarter of 2001 at 4.83 percent, delinquencies on all residential mortgage loans have declined to 4.28 percent.⁷ Similarly, credit quality problems in construction and development (C&D) loans have moderated somewhat. The ratio of delinquent C&D loans to total C&D loans has fallen to 1.8 percent as of September 2003 from its recent peak of 2.6 percent two years ago.⁸ However, volatility in home prices could contribute to consumer credit quality concerns. According to data from *LoanPerformance Corporation*, more than three-quarters of currently outstanding mortgage debt has been originated in the past three years, thanks primarily to robust home purchase and refinance activity facilitated by record low mortgage rates. With these loans underwritten on the basis of recent high collateral values, a decline in home values in some markets could lead to default activity and losses to residential lenders. In particular, high-risk borrowers may default in increasing numbers should interest rates rise and home prices fall. The number of speculative homebuilders also may elevate construction lending risk in some markets.

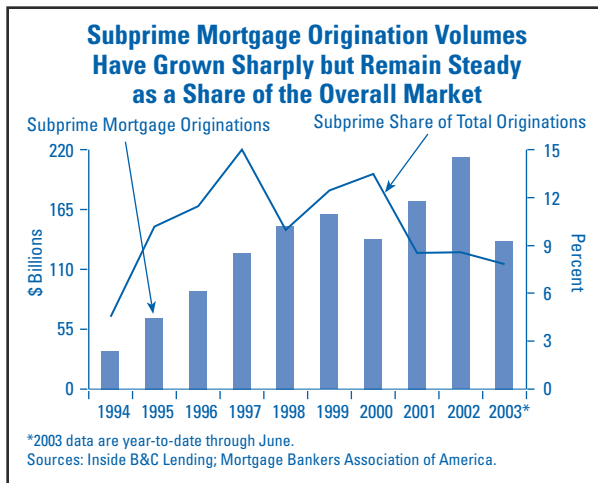
Mortgage Debt and Consumer Credit Present Risks

During and after the 2001 recession, persistently low interest rates prompted households to add consumer debt rather than deleverage. During the year ending September 2003, U.S. households added nearly

⁷ Mortgage Bankers Association/Haver Analytics.

⁸ FDIC Call Report data, September 30, 2003.

Chart 3



\$925 billion in debt to their balance sheets, an increase of more than 11 percent.⁹ Households have not assumed debt so quickly since the late 1980s. The sustained increase in the aggregate financial obligations of homeowners is attributable to both higher leverage and a higher rate of homeownership, especially among borrowers with fewer financial resources. The amount of household credit debt is not worrisome in itself, but its concentration among high-credit-risk households may pose additional risk to residential lenders. Nonmortgage consumer lenders also may bear some risk if liquidity issues result in a reprioritization of debt repayment. Households may

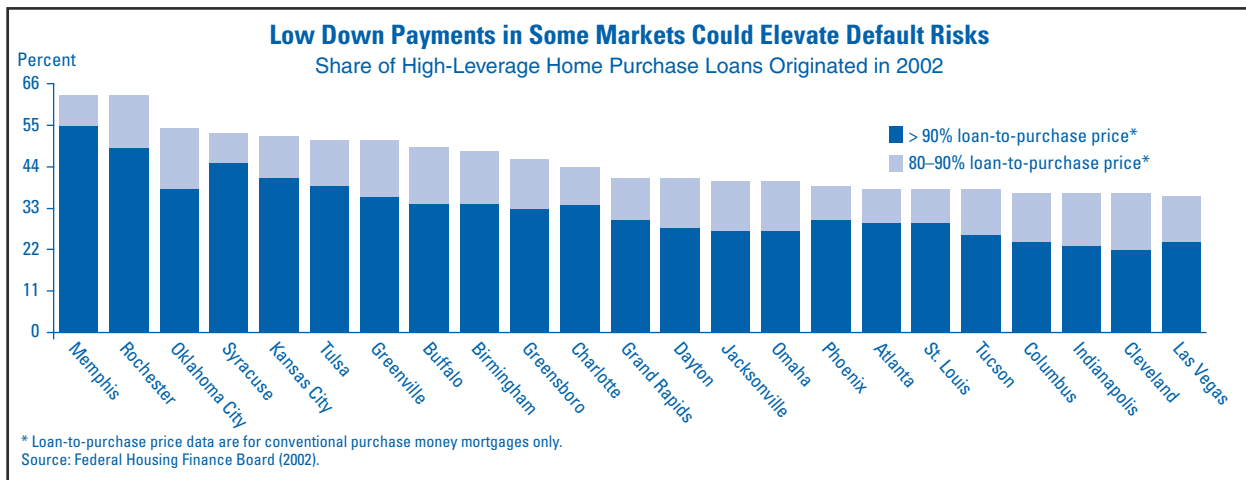
make repaying mortgages a higher priority than repaying unsecured consumer credit, such as credit cards.

Over the past decade, changes in lending standards and the introduction of subprime and high loan-to-value (HLTV) mortgages have allowed new homeowners to qualify for mortgages despite higher overall debt levels and lower down payments. Between 1993 and 2001, the subprime share of all home purchase mortgage originations in metropolitan areas climbed from 1.3 percent to 6.5 percent, while the subprime share of refinance loans jumped from 2.1 percent to 10.1 percent (see Chart 3).¹⁰

The popularity of subprime loans carries risk, as subprime loans historically have exhibited default rates on the order of ten times greater than prime loans extended to borrowers with solid credit records.¹¹ HLTV mortgages also have shown higher default rates. In 2002, loans exceeding 80 percent of the home purchase price accounted for more than 35 percent of all purchase mortgages underwritten in 40 percent of the nation's metropolitan areas. In some cities, loans exceeding 80 percent of the home purchase price accounted for over 50 percent of originations during 2002 (see Chart 4).¹²

Higher interest rates also could have implications for mortgage credit risk. According to the *Mortgage Bankers Association*, during 2003, 20 percent of

Chart 4



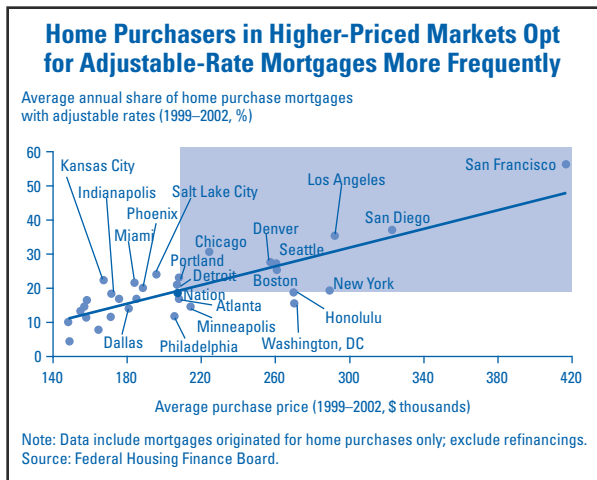
⁹ Susan Burhouse, *FYI: Evaluating the Consumer Lending Revolution*, Washington, DC: Federal Deposit Insurance Corporation, September 17, 2003.

¹⁰ Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing*, Cambridge, MA, 2003.

¹¹ Ibid.

¹² Federal Housing Finance Board. Monthly Interest Rate Survey, 2002.

Chart 5



conventional mortgages were originated using adjustable rate mortgages (ARMs), despite a historically low fixed-rate environment. After equalizing for differences in the credit quality of borrowers, ARMs offer lower rates than fixed-rate loans during any part of the interest-rate cycle. Thus, they improve affordability and allow buyers to purchase more expensive homes for any given monthly payment. However, these loans also expose homeowners to rising interest rates, since the debt service cost on ARMs is tied to short-term interest rate movements. This feature can increase credit risks for lenders when interest rates and monthly mortgage payments rise.

Although the 20 percent figure cited previously seems modest, it masks a rising trend during 2003. The share of ARMs rose from roughly 14 percent of all conventional mortgages underwritten in January to 32 percent by December, even though conventional 30-year fixed mortgage rates fell during the year. This trend suggests that at least some homebuyers were stretching to keep their monthly payments manageable in the face of rising home prices. Affordability is a persistent issue in the highest-priced U.S. housing markets, such as **San Francisco, San Diego, Los Angeles, New York, Boston, Seattle, and Denver**. As a result, borrowers in these markets use ARMs more frequently than borrowers elsewhere (see Chart 5).¹³ Not only do high home prices require more borrowers to seek ARMs, but many of these cities historically have posted some of the widest home price swings (see Map 1). As a result,

¹³ Allen Puwalski and Norman Williams, *FYI: Economic Conditions and Emerging Risks in Banking*, Washington, DC: Federal Deposit Insurance Corporation, November 4, 2003.

homeowners in these markets are potentially exposed to both rising monthly mortgage payments and falling house prices if interest rates rise.

Subprime borrowers are another group of homeowners with a disproportionate exposure to rising interest rates. Based on our estimates, subprime mortgage borrowers seemed about twice as likely to hold ARMs as conventional borrowers during 2003.¹⁴ The exposure of these households to rising interest rates compounds the credit risk associated with subprime consumer portfolios.

Home equity lines of credit (HELOCs) may carry even greater credit risk than ARMs when interest rates rise or home prices decline. HELOCs, set up as lines of credit from which homeowners can draw up to a maximum loan amount based on the equity in the home, may extend homeowner leverage well beyond 100 percent. In addition, with a variable interest rate that fluctuates over the life of the loan, HELOCs involve greater interest rate risks for homeowners. In contrast to primary lien ARMs, most HELOCs do not have an adjustment cap to limit the size of any payment increase. Furthermore, changes in the prime rate affect the rates of HELOCs immediately.¹⁵ With HELOC debt currently at \$254 billion and representing a commitment tied to home equity, credit quality in this segment could decline when interest rates rise.¹⁶

Although private mortgage insurance (PMI) mitigates the risk of collateral losses to lenders, it does not cover all risks, specifically those from “piggyback” loans. By convention, borrowers are required to supply at least 20 percent down to avoid paying for PMI. But certain loans, typically called 80-10-10 loans, are structured

¹⁴ Our estimates are based on the following: As of the third quarter 2003, 56 percent of the total mortgage loans (on a dollar basis) in the LoanPerformance subprime database were “non-fixed” (ARMs and hybrids). Given that over three-quarters of all mortgage loans were underwritten in the past three years, we used the share of conventional ARMs underwritten (data from the Mortgage Bankers Association weekly survey, on a dollar basis) during those years as a rough approximation for the total outstanding share of conventional mortgages in ARMs. These MBA data indicate that ARMs accounted for roughly one-fourth of the value of conventional mortgages underwritten between 2001 and third quarter 2003, or roughly one-half the LoanPerformance subprime figure.

¹⁵ Certain HELOCs have guaranteed fixed introductory rates, but these rates typically are binding for only a few months.

¹⁶ The amount of debt tied to HELOCs, as measured by revolving home equity loans at domestically chartered commercial banks, jumped from \$106 billion in the first quarter of 2000 to \$254 billion in the third quarter of 2003, averaging an almost 35 percent annual increase. Source: Federal Reserve Board.

to avoid paying for PMI, and thus no insurance is obtained. Under an 80-10-10, a homebuyer with a 10 percent down payment obtains a loan for 80 percent of the home's purchase price at a standard interest rate and then gets a second, or piggyback, loan at 10 percent of the purchase price, but at a higher interest rate. This type of financing adds leverage over the traditional 20 percent down payment loan at the same time it avoids PMI, a safeguard for lenders. While lending programs such as piggybacks, subprime mortgages, and ARMs have allowed greater opportunities for homeownership, they also may present increased credit risks to lenders, particularly should interest rates rise or home prices fall.

Residential Construction Lending Is an Additional Concern

Another key component of credit risk associated with residential real estate is C&D lending. High levels of speculative residential construction would be of particular concern in a softening housing market, as residential developers and their lenders could face losses when actual sale prices differed from values assumed at the time loans were made. In addition, a recent *Federal Deposit Insurance Corporation* report¹⁷ noted that thinly capitalized builders and newer institutions seeking to expand market share also represent concerns in residential construction lending.

¹⁷ Allen Puwalski and Norman Williams, *FYI: Economic Conditions and Emerging Risks in Banking*, Washington, DC: Federal Deposit Insurance Corporation, November 4, 2003.

Conclusion

In summary, because home prices have appreciated briskly over the past several years and outpaced income growth, concerns have been voiced about the possibility of a nationwide home price bubble. However, it is unlikely that home prices are poised to plunge nationwide, even when mortgage rates rise. Housing markets by nature are local, and significant price declines historically have been observed only in markets experiencing serious economic distress. Furthermore, housing markets have characteristics not inherent in other assets that temper speculative tendencies and generally mitigate against price collapse. Because most of the factors affecting home prices are local in nature, it is highly unlikely that home prices would decline simultaneously and uniformly in different cities as a result of some shift such as a rise in interest rates.

The greater risk to insured institutions is the potential for increased credit delinquencies and losses among highly leveraged, subprime, and ARM borrowers. These high-risk segments of mortgage lending may drive overall mortgage loss rates higher if home prices decline or interest rates rise. Credit losses may, in turn, spill over to nonmortgage consumer credit products if households prioritize debt repayment to give preference to mortgage payment. Residential construction lending in markets where there is significant speculative building, as well as an abundance of thinly capitalized builders, also may be of concern, especially when the current housing boom inevitably cools.

Cynthia Angell, Senior Financial Economist

The Region's Large Banks Report Solid Financial Performance

Profitability remained solid among large banks headquartered in the Atlanta Region. Median return on assets (ROA) grew for a second straight year and finished September 30, 2003, at 1.22 percent, up 6 basis points from a year earlier. A drop in net interest income was offset by lower provision expenses and securities gains, which led to the higher ROA figure. After rising in third quarter 2002, the median net interest margin (NIM) slid during the most recent 12-month period, falling 36 basis points to 3.60 percent by September 30, 2003. Nevertheless, a steeper yield curve during third quarter 2003 may result in an easing of margin pressures going forward, but a substantial improvement in the NIM is not likely to occur until commercial loan growth improves.

However, since third quarter 1999, commercial loans as a percentage of total loans have fallen

11.5 percentage points to 19 percent at September 30, 2003. Large banks have shifted portfolio emphasis from this traditionally higher-yielding asset class into lower-yielding one-to-four family mortgages, which have increased 8 percentage points during the same period to 33 percent of total loans. A healthy housing market and an unprecedented level of refinancing activity in 2003 combined with strong consumer demand helped offset weakness in the commercial sector.

Asset quality has continued to improve among the Region's large banks. The ratio of median past-due and nonaccrual loans as a percentage of total loans fell for a second straight 12-month period to finish September 30, 2003, at 1.44 percent, down 42 basis points from September 30, 2002. However, strong loan growth, especially in the one-to-four family mortgage portfolio, may be amplifying the level of improvement.

quality has improved; the average noncurrent loan level reported by community banks in the Region declined during the year ending September 30, 2003. However, community banks based in states characterized by significant exposure to traditional industries reported an increase. For example, insured institutions based in Virginia, North and South Carolina, and Georgia reported an average increase in noncurrent loans of 11 basis points between September 30, 2002, and September 30, 2003. Community banks based in other states in the Region, or in states characterized by multiple exposures to emerging industries and where employment in emerging industries is greater than in traditional sectors, reported an average decline in

noncurrent loan levels of 15 basis points during the same period (see Chart 1, previous page).

Obviously, a variety of factors affect the performance of institutions in these states, and many of these factors take time to work through the financial statements of individual institutions. It is reasonable to expect that weaknesses in traditional industries are among the factors leading to differences in noncurrent ratios among institutions in states with concentrations in traditional industries versus emerging industries. These differences could widen if weakness in the manufacturing sector continue.

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⁷ Community banks are defined as commercial banks that hold assets less than \$1 billion and exclude specialty institutions.

Chicago Regional Perspectives

Signs of Economic Improvement Are Uneven among Industry Sectors and States in the Chicago Region

Certain key developments indicate that the Region's economy is performing better than at any time since before the 2001 recession. For example, the Midwest Manufacturing Index (MMI) rose in third quarter 2003, the first gain in four quarters and the largest since early 2000. This upturn accompanied improvement in the Region's labor market, as third-quarter job losses slowed to less than an annual rate of 0.5 percent (see Chart 1). The October MMI reading suggests that, even should no additional advance occur in November and December, this gauge of manufacturing activity in the Chicago Region will post an annual rate of increase of at least 2.5 percent in fourth quarter 2003.



To date, however, growth in output has not led to net gains in employment in the Region. Several sectors, such as leisure and hospitality, education and health, and professional and business services, hired additional workers even as large layoffs occurred in manufacturing and government during third quarter 2003. Employment conditions among states also are uneven. **Wisconsin**, for example, is the only state in the Region to report an increase in employment during each of the first three quarters of 2003, while

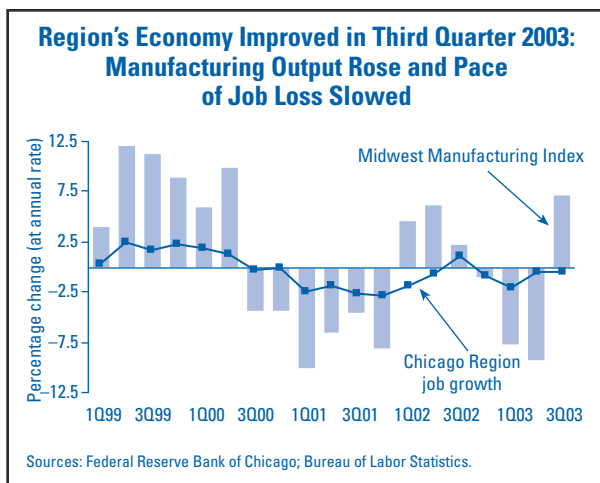
employment in **Michigan** fell by 1.3 percent during the same time frame.

Nationally, the length of the workweek and number of overtime hours have been rising among factory workers, according to the **Bureau of Labor Statistics**. Longer workweeks and additional overtime help boost wages and salaries for this group, but manufacturers are not likely to hire additional workers until they use their existing workforce more fully. Gains in manufacturers' orders in recent quarters suggest that factory output should continue increasing as 2004 unfolds, boosting capacity utilization rates, reducing job layoffs, and perhaps triggering hiring.

However, until total employment in the Region shows sustained and broad-based gains, financial strains among some households and repercussions such as high personal bankruptcy and mortgage foreclosure rates likely will persist. In addition, some retired workers—such as those who worked for steel companies that filed for bankruptcy—are experiencing financial setbacks because of dramatic reductions in their pension and health benefits. When the Pension Benefit Guaranty Corporation assumes the defined-benefit pension obligations of firms that file for bankruptcy, pensioners' monthly benefits are subject to a maximum amount that may be far less than they had been receiving or anticipated.¹

Not unexpectedly, signs of consumer repayment problems have emerged, and loan performance has deteriorated fairly quickly among one-to-four family mortgages. On September 30, 2003, the percentage of past-due or nonaccrual (PDNA) residential mortgages held by community institutions in the Region was relatively high, at 2.45 percent, and matched the rate for consumer loans.² Putting this figure into perspective, during 1997 through 2001, third-quarter PDNA rates for one-to-four family mortgages ranged 45 to 60 basis

Chart 1



¹ Details about the Pension Benefit Guaranty Corporation (PBGC) and maximum monthly guarantee levels can be found at www.pbgc.gov. For information on defined-benefit pension plans and the PBGC, refer to "Could a Bull Market Be a Panacea for Defined Benefit Pension Plans?" *FYI: An Update on Emerging Issues in Banking*, January 13, 2004, at www.fdic.gov/bank/analytical/fyi/2004/011304fyi.html.

² Community institutions are nonspecialty banks and thrifts that have been in existence at least three years and hold assets less than \$1 billion.

Regional Perspectives

points lower than for consumer loans; in 1992 through 1996, the difference was at least 90 basis points. Compared with other segments of the loan portfolio, the September 2003 PDNA rate for mortgages was exceeded only by commercial and industrial (C&I) loans (3.24 percent) and construction and development loans (2.73 percent). To date, however, the charge-off rate for mortgage loans remains relatively low.

In contrast, the third-quarter PDNA ratio on one-to-four family mortgages held by the Region's largest institutions (those holding assets of at least \$20 billion) was 3.32 percent, higher than for C&I loans (3.12 percent) and for other major loan groups. This relatively high PDNA ratio for mortgages could reflect a number of factors, including these institutions' strategic policies and greater risk tolerance; geographic exposure beyond their local area; greater exposure to subprime, jumbo, and nonconforming loans; and use of third-party brokers or appraisers. As past-due mortgage rates rose, so did the average charge-off rate for mortgage loans among large institutions based in the Chicago Region. Third-quarter charge-off rates for one-to-four family mortgages have been 0.30 percent or higher since 2001, about triple the rate in the previous few years.

In recent years, many homeowners refinanced their debt and locked in fixed-rate mortgages at low rates, an act that should help shelter them from rising debt burdens as interest rates rise. However, refinancing activity slumped in recent months as mortgage rates rose and the pace of home appreciation in the Region slowed. As a result, some households may be less able to support spending by taking equity out of their homes and lowering debt payment burdens.

Rising Interest Rates Are Likely to Affect Earnings in a Variety of Ways

Economic growth is improving and becoming more broad based across the nation; as a result, interest rates are expected to rise. Indeed, although the Federal Open Market Committee maintained the target fed funds rate at 1 percent at its December 2003 meeting, market forces have pushed up yields on intermediate- and longer-term Treasury securities since midyear. For example, the yield on the five-year constant-maturity Treasury note in December was 100 basis points above the June low of 2.27 percent. With the exception of a brief interval from late 2001 into early 2002, the rise in

rates during the second half of 2003 for securities with a maturity of one year or more reversed the three-year trend of falling rates that began early in 2000.

Looking ahead, the *Blue Chip Economic Indicators* consensus forecast calls for the yield curve to show a parallel upward shift during 2004, as yields on three-month Treasury bills and ten-year Treasury notes are expected to rise by 80 basis points.³ A subgroup of this forecast's participants expects not only greater increases in interest rates but also a flattening of the yield curve; they forecast a 140-basis-point increase during 2004 in the three-month Treasury bill rate and a 110-basis-point increase for the ten-year note.

Improving economic conditions and a shift from a sustained period of low interest rates to one of rising rates are expected to affect insured institutions based in the Chicago Region in a variety of ways. Some of the impact to date is illustrated by the following interest-sensitive components of the return on assets (ROA) ratio, which posted a modest decline in third quarter 2003 relative to a year earlier (see Table 1).

Securities gains: Unrealized gains on securities held for sale peaked in third quarter 2002. The decline since then reflects the fact that insured institutions not only realized some gains by selling securities but also lowered securities portfolio valuations as interest rates rose after midyear (see Chart 2). In third quarter 2003, realized gains from securities sales boosted ROA by 3 basis points among insured institutions in the Chicago Region, noticeably less than the 23-basis-point contribution a year earlier. Given the general expectation that interest rates will rise over the next year, the contribution to ROA from unrealized securities gains likely will shrink or turn negative in coming quarters.

Net interest income: From September 30, 2002, to September 30, 2003, insured institutions headquartered in the Chicago Region reported an 18-basis-point decline in net interest income as a percentage of average assets. During this period, the yield on earning assets fell 83 basis points, while the cost of funding earning assets declined to a lesser degree.

Whether a rising yield curve will enhance net interest income in coming quarters depends on insured institu-

³ Aspen Publishers, Inc., *Blue Chip Economic Indicators*, Vol. 28, No. 12, December 10, 2003.

Regional Perspectives

Table 1

| Net Income of Chicago Region's Institutions Changed Little in Past Year | | | |
|---|-----------------------------|-------------|--------------------|
| Income statement contribution (as a percentage of average assets) | | | |
| | Three months ended Sept. 30 | | Basis point change |
| | 2002 | 2003 | |
| Net interest income | 3.33 | 3.15 | -0.18 |
| Total noninterest income | 1.87 | 1.93 | 0.06 |
| Noninterest expense | -2.97 | -2.88 | 0.09 |
| Provision expense | -0.55 | -0.43 | 0.12 |
| Security gains (or losses) | 0.23 | 0.03 | -0.20 |
| Income taxes | -0.62 | -0.56 | 0.06 |
| Net income (return on assets) | 1.29 | 1.24 | -0.05 |

Source: Bank and Thrift Call Reports for all institutions in the Chicago Region.

tions' interest-rate risk management strategies. A few institutions seemingly were caught by surprise when interest rates started rising recently, as several took charges to unwind funding vehicles with option features that started incurring losses as rates rose.

Banks and thrifts that rely heavily on deposits as a source of funding may benefit if the spread between the yield on earning assets and deposit rates widens. Compression of this spread in recent years likely reflected, at least in part, the reluctance of institutions to lower rates on deposits in tandem with rates on assets, especially after deposit rates fell below the psychologically sensitive level of 1 percent.

Fee income: The upturn in interest rates also is expected to dampen fee income, notably among insured institutions with significant mortgage origination and refinancing activity. Refinancing of residen-

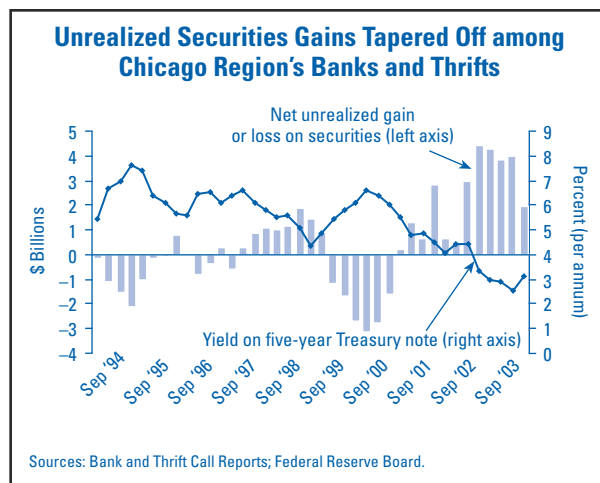
tial mortgages has plunged since midyear, and growth in home purchase applications has slowed considerably. Indeed, such large national mortgage lenders as Washington Mutual recently announced planned layoffs of thousands of employees in response to the drop in mortgage underwriting activity.⁴ Other institutions are taking similar actions, and nationwide employment by credit intermediaries, which includes mortgage banking, fell by 22,000 in fourth quarter 2003, following gains of about a quarter-million over the prior three years that largely reflected increased mortgage refinancing activity.

The Brighter Side of Rising Interest Rates

As insured institutions adjust to some short-term or adverse impacts from rising interest rates, rising rates may help widen the spread between deposit rates paid and yields on earning assets. In addition, other aspects of insured institutions' operations would be expected to benefit from improving economic conditions.

Lower provision expenses already contributed positively to ROA among the Region's community banks in the third quarter. Even though the past-due rate on one-to-four family mortgages is relatively high compared with other loan types, the 30- to 89-day past-due rate on September 30, 2003, for all loans held by community institutions was 51 basis points lower than two years earlier. The improvement in the 30- to 89-day past-due rate for all loans suggests that the percentage of loans seriously delinquent (i.e., past

Chart 2



⁴ Bradley Meacham, "WAMU Cuts Jobs, Profit Outlook as Mortgage Business Slows," *The Seattle Times*, December 10, 2003.

Regional Perspectives

due by 90 or more days or on nonaccrual basis) may ease in coming quarters. Although the Region's economic recovery has not been vibrant and areas of concern remain, the fact that general economic conditions are stabilizing suggests that loan quality may not deteriorate further.

In addition, growth in demand for loans typically lags upturns in economic growth. Consequently, in coming quarters banks and thrifts may be able to expand loan portfolios without easing underwriting standards. The **Federal Reserve's** recent survey of senior loan officers indicated that demand for consumer loans strengthened in the third and fourth quarters, although demand for home mortgage loans declined. In the same period, a smaller net percentage of banks reported weaker demand for C&I loans. In contrast, demand for commercial real estate loans weakened at about the same pace as in the third quarter.⁵

⁵ Federal Reserve Board, *Senior Loan Officer Opinion Survey on Bank Lending Practices*, October 2003.

Looking Ahead

Although economic growth across the Region at year-end 2003 was neither vigorous nor widespread, certain conditions and leading indicators suggested that momentum was building that could sustain more robust and balanced growth in future quarters. In this environment, insured institutions will continue to face challenges, such as pressure on net interest margins and credit quality concerns. Meanwhile, business and household demand for nonmortgage loans may strengthen, but fee income from mortgage origination activity and the contribution to income from securities gains may fade quickly. A shift to a sustained period of rising interest rates also will contrast with conditions of recent years, reinforcing the need for insured institutions to monitor and manage interest rate risk continually.

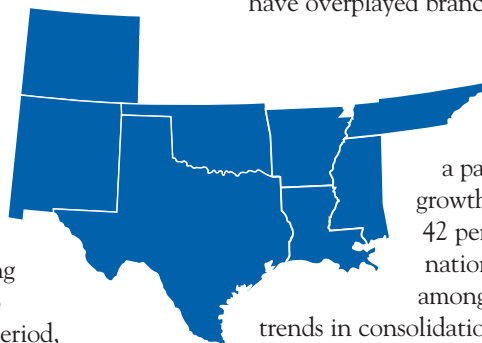
Chicago Staff

Dallas Regional Perspectives

Banking Industry Consolidation May Mask Competitive Effects of Increased Branching Activity

Consolidation in the banking industry has been dramatic, with the total number of Federal Deposit Insurance Corporation (FDIC)-insured institutions declining 29 percent during the past decade, from nearly 13,000 to approximately 9,200. Over the same period, however, the number of physical branch offices increased 15 percent nationwide.¹ The growth in the number of physical branches is all the more striking in that it occurred during a period of rapid technological advances, including the rise of the Internet and increasing broadband capacity, which enabled customers to bank on-line.

Consumers have been the engine of economic growth through the recent recession and period of gradual recovery. The branch has become the most prominent delivery channel in the competition for consumer business; as a result, the number of de novo branches has increased. However, some observers now believe that banks may



have overplayed branch expansion, particularly if the consumer sector cools.²

Banking industry consolidation in the Dallas Region has been on a par with that of the nation, but growth in the number of branches, at 42 percent, is nearly triple that of the nation, although it varies significantly among states. This article discusses trends in consolidation and branching in the Dallas Region. It also examines differences in overall performance and risk profiles based on the nature of branching activities to determine the effects of certain branching strategies.

Economic and Demographic Conditions Are Driving New Branch Activity

Branching activity has varied among states in the Region (see Table 1). Colorado leads the group, as the number of branches has more than doubled in that state. Branch growth rates in Texas, Oklahoma, and Arkansas also significantly outpaced those of the nation, while Mississippi lagged the nation with only 8 percent growth.

Table 1

| Despite Steady State-Level Declines in the Number of Institutions, the Number of Branches Has Increased | | | | | | |
|---|---------------------------|-----------------------------|-----------------|-------------------|------------------------------|------------------------|
| State | 2Q03 Insured Institutions | Change in Insured from 2Q94 | National % Rank | 2Q03 Branch Count | Change of Branches from 2Q94 | National Rank % Change |
| Arkansas | 174 | -37% | 7 | 1,128 | 55% | 6 |
| Colorado | 178 | -41% | 4 | 1,167 | 111% | 2 |
| Louisiana | 171 | -32% | 16 | 1,340 | 17% | 24 |
| Mississippi | 105 | -22% | 37 | 1,008 | 8% | 31 |
| New Mexico | 60 | -35% | 10 | 426 | 20% | 23 |
| Oklahoma | 278 | -25% | 32 | 945 | 52% | 7 |
| Tennessee | 209 | -26% | 29 | 1,820 | 20% | 22 |
| Texas | 707 | -33% | 13 | 4,438 | 60% | 4 |
| Region | 1,882 | -32% | | 12,272 | 42% | |
| Nation | 9,232 | -29% | | 77,712 | 15% | |

Source: Bureau of Labor Statistics, Summary of Deposits.

¹ The Federal Deposit Insurance Corporation collects deposit data at the branch level as of June 30 every year. Data from June 1994 through June 2003 were used for this article.

² Greta Sundaramoorthy, "Deposit Drop Looks Like More Than a Blip: Some See Effect on Industry's Branch-building Binge," *The American Banker*, December 22, 2003.

Regional Perspectives

As shown in Table 2, the variations in branching activity by state are generally well correlated with economic and demographic trends. Colorado's heavy branching activity occurred at a time when the state led the Dallas Region in level of and growth in per capita personal income; the state also experienced relatively high population and employment growth rates. Robust economic and demographic factors over the past decade also explain the relatively high level of branching activity in Texas. Conversely, states with branching activity close to or less than the national average (Louisiana, New Mexico, Tennessee, and Mississippi) have been characterized by less favorable economic or demographic factors during the past decade.

Economic and demographic factors are not the only explanations for the level of branching activity. Less concentrated markets also have experienced growth as competitors opened branches to gain market share. For example, as shown in the last column of Table 2, the Arkansas market was highly fragmented in 1994, with the top five institutions controlling only 18 percent of the deposit market. Despite poor economic

fundamentals, including low levels of per capita personal income and weak employment growth, the number of branches in the state increased 55 percent, with the top five institutions controlling 30 percent of the market at the end of the decade.

Some of the increase in branching activity can be attributed to changes in state and federal laws, which eased restrictions on branching within and across state lines. Empirical studies have analyzed the effects of an easing in branching restrictions; the results suggest that deregulation contributes to greater profit efficiency (during a time when costs have increased and spreads have declined) and an increase in the number of offices per capita.³ As a result, during the past ten years, it is reasonable to assume that branching would have been greater in states with previously restrictive laws, such as Oklahoma, Texas, and Colorado.

It is instructive to review branching activity below the state level, because branching decisions are typically market specific—often at the county level, or in urban areas at the ZIP code level or below. For the purposes of this article, it is not practical to review the condi-

Table 2

| The Variation in State-Level Economic and Demographic Conditions Helps to Explain Differences in Branching Levels | | | | | | | | | | |
|---|---------------------------------|---------------------|----------------------------------|----------------------|----------------------------------|----------------------|----------------------------------|----------------------|---|---------|
| | Per Capita Personal Income | | | | Population | | Employment | | Top 5 Institutions' Control of Market Share | |
| State | Average Annual Level, 1993–2002 | National Level Rank | Average Annual Change, 1993–2002 | National Change Rank | Average Annual Change, 1993–2002 | National Change Rank | Average Annual Growth, 1993–2002 | National Growth Rank | 2Q 1994 | 2Q 2003 |
| Arkansas | 20,065 | 48 | 3.7% | 45 | 3.4% | 2 | 1.8% | 26 | 18% | 30% |
| Colorado | 28,095 | 8 | 4.6% | 4 | 2.6% | 3 | 3.2% | 4 | 40% | 44% |
| Louisiana | 21,352 | 44 | 4.2% | 13 | 0.4% | 45 | 1.6% | 35 | 37% | 57% |
| Mississippi | 18,976 | 50 | 4.3% | 7 | 0.9% | 23 | 1.6% | 34 | 48% | 50% |
| New Mexico | 20,187 | 47 | 3.9% | 31 | 1.5% | 12 | 2.5% | 9 | 39% | 54% |
| Oklahoma | 21,478 | 42 | 3.7% | 43 | 0.8% | 29 | 2.0% | 17 | 26% | 34% |
| Tennessee | 23,584 | 34 | 3.9% | 34 | 1.4% | 14 | 1.7% | 28 | 41% | 51% |
| Texas | 24,362 | 29 | 4.1% | 19 | 2.1% | 7 | 2.6% | 8 | 42% | 44% |
| Region | 24,546 | | 4.1% | | 1.6% | | 2.3% | | 17% | 26% |
| Nation | 26,259 | | 3.9% | | 1.2% | | 1.8% | | | |

Source: Bureau of Labor Statistics, Summary of Deposits.

³ A.A. Dick, *Nationwide Branching and Its Impact on Market Structure, Quality and Bank Performance*, Finance and Economics Discussion Series, Washington, DC: Federal Reserve Board, 2003, and R.B. Avery et al., "Changes in the Distribution of Banking Offices," *Federal Reserve Bulletin*, September 1997, pp. 707–725.

Regional Perspectives

The banking analyses conducted for this article are limited to the county level. Analysts researching branching issues and trends in banking industry competition can access the FDIC's website at www.fdic.gov for data at the ZIP code level, as well as state, metro, and county levels. The Industry Analysis section provides links to bank data (Institution Directory, Summary of Deposits) and statistics (Regional Economic Conditions) with helpful user guides.

tions and trends for all 738 counties and 3,509 ZIP codes that are home to branches in the Dallas Region.

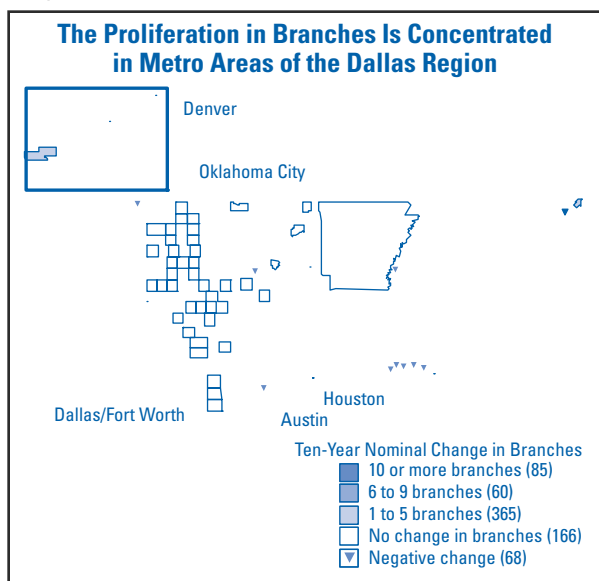
However, a comparison of trends in a sample of counties that exhibited the most rapid and slowest rates of branching activity provides helpful insights. The rapid growth group excludes counties that were home to fewer than ten branches as of June 30, 2003, and comprises 76 counties that ranked in the top decile for growth in the number of branches. The slow growth group consists of 76 counties that ranked in the bottom decile for growth in the number of branches. It is important to note that the number of branches actually declined in 68 counties in the latter group during the past ten years.

Not surprisingly, the rapid growth counties overwhelmingly are in metropolitan areas that experienced generally favorable economic and demographic trends during the past decade. Indeed, **Austin, Dallas, Denver, Fort Worth, Houston, and Oklahoma City** each added more than 100 branches and together accounted for more than a third of all new branches in the Region. In contrast, the vast majority of the slow growth counties are in rural areas that have been characterized by decidedly less favorable trends (see Map 1). The median per capita personal income level in the rapid growth counties was almost 116 percent of that in the slow growth counties during the past decade. In addition, median annual population and employment growth levels in the rapid growth counties were 5.2 and 4.2 times greater, respectively, than in the slow growth counties.

Performance Varies Markedly Depending on Branching Strategy

There are significant differences in performance and risk characteristics based on the existence and nature

Map 1



of branching activities among the 1,943 banks operating in the Dallas Region as of June 30, 2003.⁴ For analytical purposes, insured institutions were categorized in four groups:

- Group 1 operated branches exclusively in metropolitan statistical areas (MSAs).
- Group 2 operated branches exclusively outside MSAs.
- Group 3 operated a combination of MSA- and non-MSA-based branches.
- Group 4 had no branches.

Our analysis also identified Subgroup A, which consists of banks with headquarters in non-MSAs that have attempted to improve performance by branching into MSAs. Banks in Subgroup A also fall into Group 1 or Group 3.

Overall, insured institutions that operate branches displayed significantly stronger growth rates, higher rates of lending, and higher operating profits than those without branches (see Table 3, next page). Banks that operate branches also reported lower average ratios of Tier 1 risk-based capital to risk-weighted assets, indicating that they have greater opportunities to leverage risk.

⁴ Included in the 1,943 are 61 banks that operate branches in the Dallas Region but are headquartered outside the Region.

Table 3

| Financial Trends Vary among Those with Branches and Contrast Significantly with Those without Branches | | | | | | | | | |
|--|--------------------------------|----------------------------|--|---|---------------------------------|----------------------------|-------------------------------------|---|---|
| Group Name | Number of Insured Institutions | Deposit Growth (median, %) | Core Funding to Total Assets (median, %) | Time Deposits to Total Assets (median, %) | Loan-to-Asset Ratio (median, %) | Past-Due Ratio (median, %) | Return on Assets Pretax (median, %) | Quarterly Net Interest Margin (median, %) | Tier 1 Risk-Based Capital to Risk Weighted Assets |
| Group 1 | 558 | 9.3 | 36.4 | 33.5 | 62.8 | 1.9 | 1.45 | 4.36 | 12.85 |
| Group 2 | 494 | 5.0 | 27.8 | 41.0 | 57.4 | 2.8 | 1.50 | 4.25 | 15.27 |
| Group 3 | 353 | 7.3 | 35.4 | 35.6 | 64.5 | 2.0 | 1.63 | 4.32 | 12.22 |
| Group 4 | 538 | 3.7 | 27.8 | 40.4 | 51.9 | 2.7 | 1.38 | 4.05 | 19.04 |
| Subgroup A | 196 | 7.0 | 31.7 | 40.1 | 64.1 | 2.3 | 1.54 | 4.39 | 12.85 |

¹Subgroup A banks also appear in Groups 1 and 3.
²Core funding includes demand deposit accounts, money market deposit accounts, and savings accounts.
³Time deposits include certificates of deposits and time open accounts held in domestic offices.
Source: Bank and Thrift Call Reports, Summary of Deposits.

Among those with branches, the groups operating at least one branch in an MSA reported the highest median asset and deposit growth rates, roughly 2.5 times those of institutions without branches. A similar observation applies to median pretax return on assets, with the banks in Group 1 and Group 3 realizing an advantage of more than 25 basis points compared with banks without branches. The ability of banks operating in MSAs to invest significantly greater shares of assets in loans likely explains much of their edge in earnings performance. Earnings also may benefit from greater levels of core funding (demand, savings, and money market deposit accounts) and the lower costs typically associated with these funding sources. Finally, banks that operate branches in MSAs have reported significantly lower median past-due ratios than those without branches or those that branch only in rural areas. These performance data seem to suggest that banks in Subgroup A (banks with headquarters outside MSAs) have benefited from branching into more robust markets.

Looking Ahead—Will the Pace of Branch Growth Continue?

The decision to open or acquire a branch or maintain an existing branch is based on a determination that doing so will provide a net benefit/profit. Only bank management can make this determination, as it is specific to markets, branch types, and the institution's strategy and business mix. Although growth undoubtedly will continue in various markets, one simple measure of feasibility—the number of people per branch—suggests

that overall branch growth may moderate. In fact, the number of customers available to support a branch in the Dallas Region declined by approximately 20 percent during the past decade, falling to an average of 2,422 in non-MSAs and 4,562 in MSAs.

Other trends in retail business conditions also have implications for a particular bank's branching strategy. Nationwide, deposit growth varied during the ten years ending June 30, 2003 (averaging 5.5 percent), with the strongest gains coming after 2000, a trend attributable at least in part to the decline in the equity markets. However, with the recent rebound in the stock market, the third quarter 2003 *FDIC Quarterly Banking Profile* reported the first quarter-over-quarter decline in deposits since first quarter 1999. Moreover, while the consumer sector has remained strong, management must ask whether retail banking will retain its attraction when other types of businesses rebound or when interest rates rise.

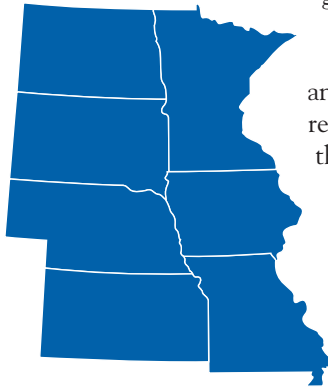
Clearly, bank management must consider a number of factors related to current business conditions when making branching decisions—the increased competition arising from a greater number of branches, higher land and building costs, the decline in the number of people per branch, and challenges facing the retail banking business. All these factors together could indicate that the time required for a new branch to become profitable may increase, if it has not done so already in some markets—a key calculation that must be factored into an overall branching strategy.

Memphis Staff

Kansas City Regional Perspectives

Hydrological Drought Conditions Are Expected to Affect Farmers and Their Lenders

In the Winter 2003 *FDIC Outlook*, the Kansas City Regional Perspectives article described how drought conditions have existed in the Kansas City Region since 2000. Nebraska, western Kansas, and southern South Dakota have been the hardest hit, experiencing at least moderate levels of “agricultural” drought during three of the past four years. This article discusses another type of drought that is affecting much of the Region and is being aggravated by agricultural drought conditions: “hydrological” drought.



all have declined during the past decade.¹ The greatest decrease in flow has been in the Arkansas River because of drought and upstream water diversion for irrigation and recreational purposes. In Nebraska, reservoir levels show the greatest impact of the drought. The water level in the state’s two largest reservoirs, Lake McConaughy and Lake Harlan, declined 24 percent and 29 percent, respectively, between October 30, 2002, and September 30, 2003. As of September 30, 2003, these lakes stood at 25 percent and 36 percent of their normal capacities, the lowest levels since they were originally filled.²

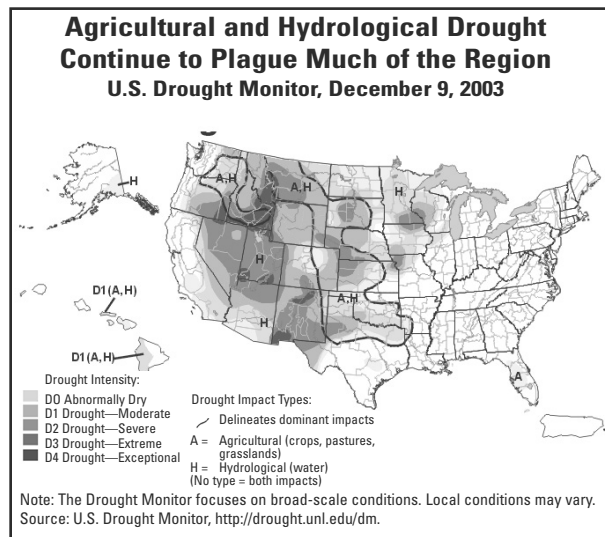
Hydrological Drought Conditions Are Significant and Increasing

Agricultural drought refers to topsoil moisture levels that are important for proper crop development. Hydrological drought focuses on the longer-term availability of water for all uses, including farming, urban uses, manufacturing, and recreation. Specifically, hydrological drought refers to shortages in surface or subsurface water supplies, such as reservoirs, rivers, and aquifers. According to the *Drought Mitigation Center*, a research institute at the University of Nebraska, precipitation shortfalls typically contribute the most to hydrological drought conditions, but factors such as increased land development, landscape, and construction of dams may also have a significant effect. Precipitation deficiencies can cause agricultural drought to manifest very quickly, but they take longer to cause hydrological drought. Hydrological drought can be observed in declining lake and reservoir levels, reduced stream and river flows, and depleted aquifer levels.

In the Kansas City Region, the effects of hydrological drought on surface water levels have increased in severity as a result of lower than normal rainfall and snowfall levels during the past few years. As shown in Map 1, Kansas and Nebraska are experiencing the most severe drought. In Kansas, the river system is running quite low; the flows of the Arkansas, Cimarron, Republican, and North and South Platte Rivers

As disturbing as surface water levels are, the worst may not be over. Climatologists such as Al Dutcher with the University of Nebraska predict that it will take several years of much higher than normal precipitation, typically in the form of snowfall, to recharge these water levels.³ However, a multifederal agency study that combines various climatological models predicts that the Kansas City Region will continue to see abnormally

Map 1



¹ Kansas Geological Survey, Kansas Geological Survey Open File Report 2003-41, p. 12.

² Nebraska Department of Natural Resources, Surface Water Information, 2003, <http://waterdata.usgs.gov/ne/nwis/current>.

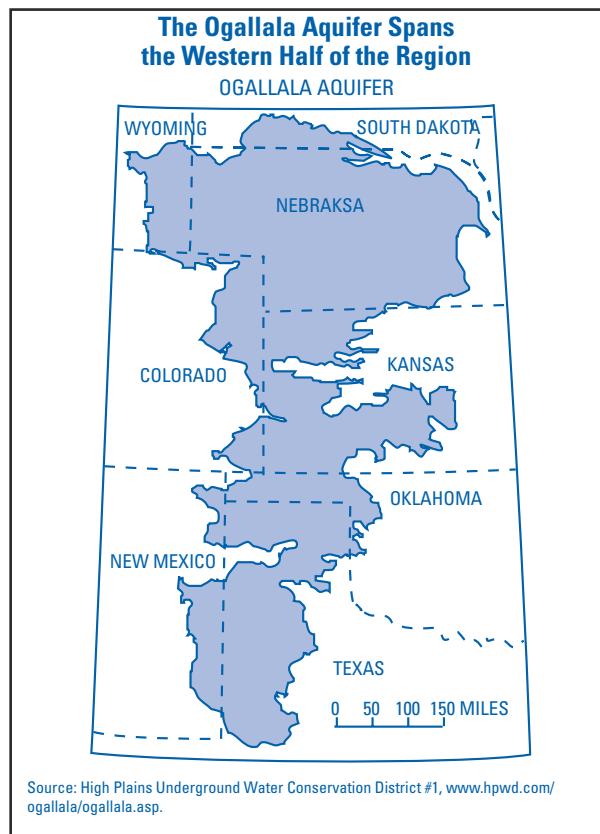
³ Agweb.com, February 11, 2003, www.agweb.com/news_show_news_article.asp?file=AgNewsArticle_20032111447_5412&articleid=95259&newscat=GN.

Regional Perspectives

dry to moderate drought conditions over the next five years, which does not bode well for replenishment of water supplies.⁴

Although the low reservoir and river levels are troubling, they are only a readily apparent, visual indication of a much larger problem. The hydrological drought has had a profound effect on the Region's underground water system, the largest part of which is the Ogallala Aquifer, a vast geologic formation that sprawls below eight states from South Dakota to Texas (see Map 2).⁵

Map 2



⁴ Climate Prediction Center, National Climatic Data Center, and National Oceanic and Atmospheric Administration, December 13, 2003, www.cpc.ncep.noaa.gov/products/predictions/experimental/edb/lbfinal.gif.

⁵ Sometimes the terms "Ogallala Aquifer" and "High Plains Aquifer" are used interchangeably; while they are related, they are two separate water tables. The High Plains Aquifer is a large (approximately 33,500 square miles of surface area) body of sands, gravels, silts, and clays. In western Kansas it is generally identical with the Ogallala formation, and the aquifer system was originally known as the Ogallala Aquifer. However, the part of the aquifer extending into south-central Kansas (east of Ford County) is now recognized as a hydrologically similar but geologically different formation, and the combined aquifer system is referred to as the High Plains Aquifer. Kansas Geological Survey Open File Report 2000-29, Lawrence: University of Kansas.

Nebraska, Kansas, and South Dakota are positioned over 77 percent of this massive aquifer's available water. Under Nebraska alone, the aquifer contains approximately 2,130 million acre-feet of water, and under Kansas it contains 320 million acre-feet. For comparison, the cumulative level of the top 17 reservoirs in Kansas, even if filled to capacity, is just 6.7 million acre-feet of water. The agricultural drought has affected the Ogallala Aquifer in two ways: less precipitation has caused the replenishment rate to be far below average, and it has also caused farmers to draw more water from the system for crop irrigation. In some of the most severely affected areas, the water table levels have declined by as much as ten feet per year. As a result, farmers have incurred higher costs to drill deeper wells and have had to pay more in extraction costs to bring water up from lower pumping levels.

Long-term factors also have affected the aquifer system adversely. Crop irrigation, which began in earnest in the 1940s, has gradually reduced the volume of water in the Ogallala Aquifer. According to the *University of Nebraska Water Center*, the aquifer lost 56 million acre-feet of water between 1987 and 2002. The greatest water level changes occurred in southwest Kansas and the southwestern part of the Texas Panhandle, where up to 50 percent of the water has been depleted, compared with pre-irrigation levels.⁶

The Ability to Irrigate Is the Key to Many Farmers' Fortunes

An estimated 95 percent of the water extracted from the Ogallala Aquifer each year is used to irrigate crops. In the Region's western half, some crops, such as corn, require more water to produce profitable crop yields than precipitation alone can provide. Crops that require less water, such as wheat and soybeans, are planted in areas where irrigation is not available or cannot be utilized fully. However, the returns to farmers are typically far less than if they grew irrigated corn, which produces much higher yields. During the growing season, the average corn crop requires 25 inches of water—from rainfall or irrigation—to reach maximum yield potential. In normal precipitation years, rainfall accounts for about 13 inches, and farm operators apply

⁶ *Water-level Changes in the High Plains Aquifer, Predevelopment to 2001, 1999 to 2000, and 2000 to 2001*, Lincoln: University of Nebraska Water Center, 2003, http://watercenter.unl.edu/whatsnew/water_levels.htm.

Regional Perspectives

about 12 inches of irrigation water. By contrast, in severe drought years, such as the Region experienced in 2002 and 2003, many farm operators had to apply as much as 20 inches of water.

Water shortages have led many water districts in Nebraska, Kansas, and South Dakota to limit the amount of water that farmers can use for crop irrigation. In these areas, water meters have been installed on wells, and water allocations typically are provided over a five-year period. Because of the severe drought that has affected the western half of the Region, examiners note that some farmers used more than their yearly water allocations to grow irrigated corn in 2002 and 2003, effectively “borrowing” water from future years. If higher than normal rainfall does not occur in upcoming growing seasons, these farmers will be forced to make tough decisions. They could reduce water application rates, which will result in lower corn yields, or they could substitute lower-earning crops such as wheat or soybeans. Either way, farmers’ cash flows are vulnerable in the short term. Even farmers who have adequate water allocations remaining could face higher pumping expenses to bring water up from declining water tables.

Even more significant than short-term considerations are the long-term effects of water shortages. Communities use water supplies not only for crop irrigation but also for related agricultural operations, hydroelectric power, recreation, and barge traffic. Usage is determined politically; urban population growth, a changing economic mix (less oil and gas extraction, more light industry), and increased environmental concern have contributed to a change in priorities in drought-affected states. Crop irrigation has represented the primary use of water supplies to date, but now priority has begun to be assigned to wildlife habitats, recreation, and water quality.⁷ Governors in Nebraska and Kansas have initiated task forces to study the effects of water shortages and recommend actions to prevent disruptions. Many foreseeable scenarios involve increased restrictions on crop irrigation; in fact, in Nebraska the recent settlement of a lawsuit with Kansas regarding use of the Republican River has resulted in the installation of water meters (to be completed by year-end 2004) and a moratorium on new irrigation wells.⁸ The next logical step will be water allocations where none had previously existed.

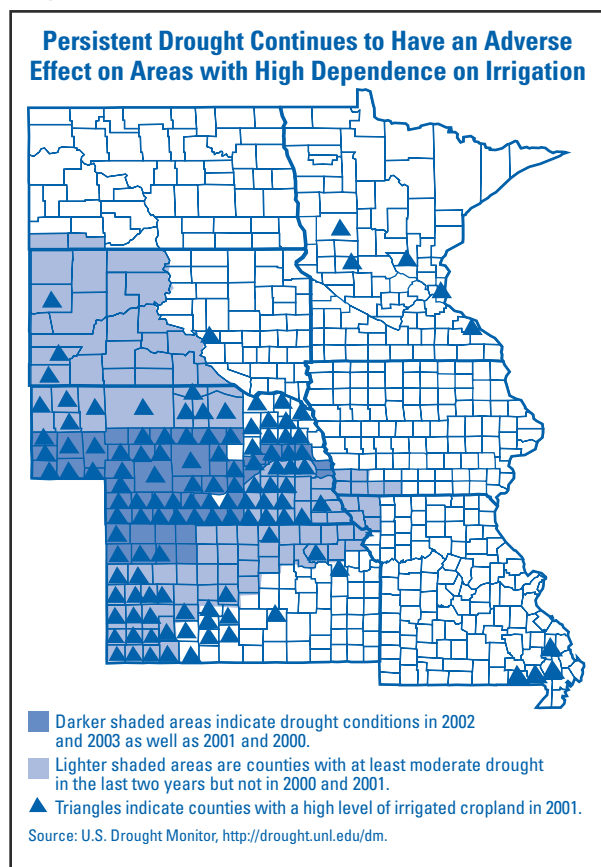
⁷ *Managing Water: Policies and Problems*, Lincoln: Drought Mitigation Center, University of Nebraska, 2003, www.drought.unl.edu/plan/managewater.htm.

⁸ Information regarding the lawsuit and the settlement can be found at www.accesskansas.org/kda/dwr/Interstate/Republican_River.htm.

Banks in the Region May Feel the Effects

Hydrological drought could eventually have serious consequences for many of the Region’s insured financial institutions. Approximately 22 percent of all counties in the Region are irrigated significantly and have been affected adversely by drought conditions (see Map 3).⁹ Most of these counties are in Nebraska and Kansas. If hydrological drought conditions result in irrigation problems, farmers will face the prospect of lower cash flows, as well as the potential for declining land values.¹⁰ Banks in these counties would be the most vulnerable to any resulting weakness in farm income. Eighty percent of the 299 banks headquartered in these counties are considered farm banks because of their

Map 3



⁹ Irrigated is defined as greater than 10 percent of cropland in the county is irrigated; the median for the Region is approximately 8 percent.

¹⁰ For example, in Kansas in 2003 an acre of irrigated farmland sold for an average of \$1,100, while an acre of nonirrigated farmland sold for about \$650. *Agricultural Land Values*, p. 1, Kansas Agricultural Statistical Service, 2003. Permanent reductions in water allocations would likely cause farmland values to drop to somewhere within that range.

Regional Perspectives

relatively high agricultural lending concentrations.¹¹ The current agricultural drought conditions already have stressed credit quality among these farm banks. At September 30, 2003, about one-quarter of the farm banks based in these counties reported past-due or nonaccrual loans that exceed 5 percent of total loans, up from 15 percent of banks a year ago. By contrast, only 10 percent of the Region's farm banks in areas that have not experienced multiple years of drought reported this level of problem loans.

¹¹ The Federal Deposit Insurance Corporation defines farm banks as institutions with at least 25 percent of loan portfolios in farm operating loans or loans secured by farm real estate.

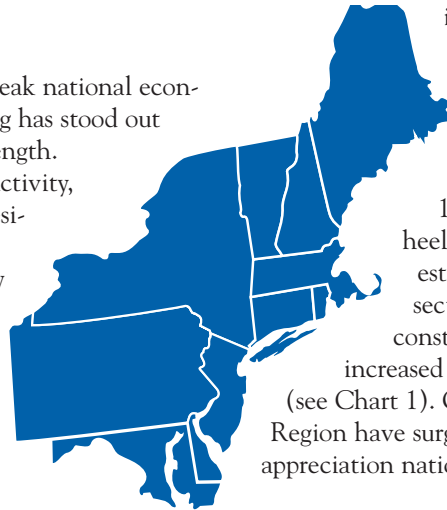
In conclusion, the hydrological drought could have significant adverse effects on farmers and their lenders. In the short term, farmers face cash flow difficulties from a variety of sources—from reduced crop yields for farmers who have used more than their annual water allocations to higher water-pumping costs. Over the long term, changes in water policy during the next few years likely will be incremental, barring the return of extreme agricultural drought conditions. However, any restrictions on the use of water beyond the status quo would hurt farmers and their lenders.

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New York Regional Perspectives

Housing in the Northeast

Against the backdrop of an overall weak national economy—at least until recently—housing has stood out as a principal source of economic strength. Whether evaluated by construction activity, rate of home price appreciation, or residential mortgage credit quality, the housing sector has performed strongly nationwide, including in the Northeast. Nonetheless, concerns about future performance of the housing industry and sustainability of current rates of home price appreciation have increased. This article examines housing market conditions in the Region and the implications of rising interest rates and a more tepid housing market on insured institutions.



ing boom in the Northeast coincided with an economic revival in the Region. That boom and the accompanying revival did not last. The economic recovery began to falter by the end of the 1980s, and rising interest rates on the heels of speculative overbuilding of real estate sealed the fate of the housing sector. In recent years, new home construction in the Northeast has increased but has not reached previous peaks (see Chart 1). Consequently, housing prices in the Region have surged, far outstripping home price appreciation nationwide.

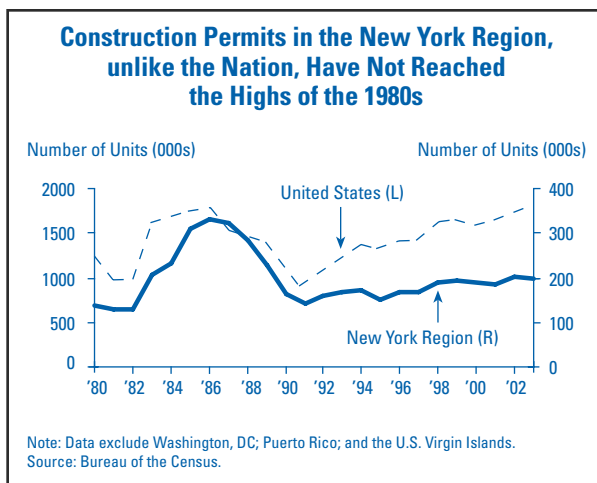
The Region's Residential Construction Activity Has Increased in Recent Years, but Growth Is Less than the Nation's

While the number of housing permits in the nation has increased significantly in recent years, the increase in the Northeast has been more modest. This situation is due largely to factors such as lower birth rates, unfavorable migration patterns, and less land on which to build. However, economic developments also have played a part. For example, during the 1980s, the hous-

Many of the Nation's Top Housing Markets Are in the New York Region

The rate of home price appreciation had begun to ease in most of the Region's metropolitan statistical areas (MSAs) through third quarter 2003, although some markets continued to report strong price growth. Of the 50 housing markets with the highest rate of price appreciation as of third quarter 2003, 20 are in the New York Region.¹ Areas that warrant monitoring because of rapid and potentially unsustainable rates of home price appreciation generally are clustered around the Region's larger, higher-priced housing markets, which include **Providence, RI; New Bedford, MA; and Monmouth-Ocean, Atlantic-Cape May, and Jersey City, NJ.** Housing markets in many parts of **New Jersey** have benefited from favorable employment and immigration trends and constraints on the supply of single-family housing. The Providence and New Bedford markets recently have become attractive as alternatives to the very expensive **Boston** market. The housing markets that have experienced more significant easing in the rate of home price appreciation in third

Chart 1



¹ Source: Office of Federal Housing Enterprise Oversight. Home price appreciation rate measured as the difference in the home price index between third quarter 2002 and 2003. These markets include New Bedford, MA; Jersey City, NJ; Providence-Fall River-Warwick, RI; Atlantic City-Cape May, NJ; Brockton, MA; Monmouth-Ocean, NJ; Newburgh, NY; Fitchburg-Leominster, MA; Barnstable-Yarmouth, MA; New London-Norwich, CT; Nassau-Suffolk, NY; Albany-Schenectady-Troy, NY; New Haven, CT; Baltimore, MD; Glens Falls, NY; Washington, DC; Bridgeport, CT; Portland, ME; Vineland-Millville-Bridgeton, NJ; and Hagerstown, MD.

Regional Perspectives

quarter 2003 include Lowell, Lawrence, and Boston, MA; Nashua, NH; and New York, NY, reflecting, in part, localized softening in these economies following rapid increases in housing prices.²

Home prices have not appreciated to the same extent in all of the Region's markets. Communities throughout much of Pennsylvania, upstate New York, and parts of New England that have weaker, typically manufacturing-based economies have lower rates of home price appreciation than those of the nation. Unlike some of the Region's more vibrant housing markets, population in some of these areas has declined, constraining the demand for housing. Nonetheless, according to third quarter 2003 data from the *Office of Federal Housing Enterprise Oversight*, although rates of home price appreciation generally have eased, none of the Region's housing markets experienced a decline in the median home price during the past year.

Rates of Home Price Appreciation: Too Much Too Fast?

Strong home price appreciation in some of the Region's housing markets has prompted concern about sustainability. Professors Karl Case and Robert Schiller addressed this possibility in a paper prepared for the *Brookings Institution*.³ For the most part, the paper supports a soft, rather than hard, landing for housing prices. It cites favorable levels of affordability owing to historically low mortgage rates as a key positive factor.

Other data also support the potential for a soft landing. Unlike during the 1980s, new housing supply has moved with, not ahead of, rising demand. Inventories of unsold existing homes compared with sales during this past year were only slightly elevated, unlike the record lows of previous years. Also, the share of sales of completed houses compared with sales of houses not started or under construction has been near the lowest recorded level and well below levels in the 1970s and 1980s.⁴ This proxy for supply-demand for single-family housing suggests that speculative construction and lending activity remain in check.

² The rate of home price appreciation between third quarters 2002 and 2003 was compared with the average annual rate of appreciation between third quarters 1998 and 2002.

³ Karl Case and Robert Schiller, *Is There a Bubble in the Housing Market? An Analysis*, Washington, DC: Brookings Institution, 2003.

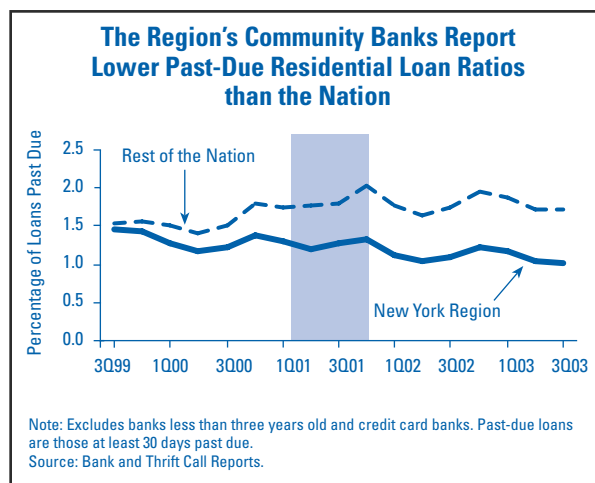
⁴ Bureau of the Census, *Housing Vacancy Survey and New Homes Sold and for Sale by Stage of Construction*, Washington, DC.

The Region's Community Banks Report Favorable Credit Quality and Strong Growth in Housing-Related Assets

Overall, insured institutions in the New York Region and nationwide have reported favorable residential loan quality in recent years. While parts of the Region, predominantly metropolitan areas in upstate New York and western Pennsylvania, report residential delinquency rates above the national measure, the Region's median residential mortgage loan past-due rate declined steadily throughout the most recent recession, and at 1.0 percent is considerably below the 1.7 percent level in the rest of the nation (see Chart 2).

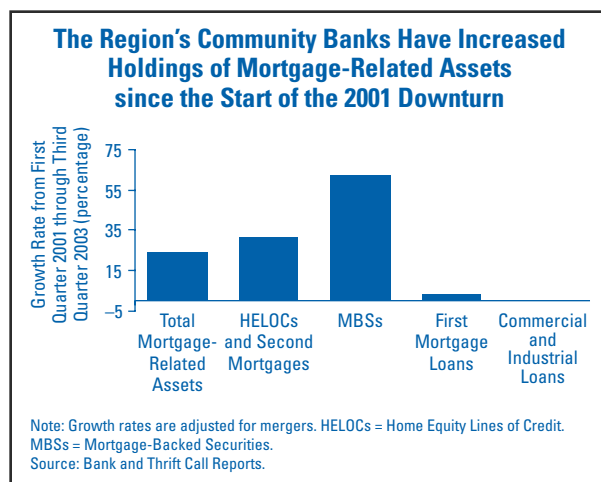
The Region's community banks are active in residential real estate lending; approximately one-third specialize in residential lending, compared with 10 percent for the rest of the nation.⁵ In addition, weak commercial and industrial (C&I) loan demand during this economic downturn likely has contributed to strong growth in mortgage-related assets among the Region's community banks (see box for detail on the Region's large banks). Since the beginning of the 2001 recession, community bank portfolios of residential mortgages, home equity lines of credit (HELOCs), and mortgage-backed securities (MBSs) have grown from \$229 billion to \$285 billion, a 24 percent increase, compared with a modest decline in C&I loans (see Chart 3, next page). The

Chart 2



⁵ Community banks are defined as insured institutions holding less than \$10 billion in assets. Residential specialists are community banks that hold at least 50 percent of assets in one-to-four family residential loans or mortgage-backed securities. These definitions exclude institutions less than three years old.

Chart 3



comparatively high growth rate in MBSs is largely the result of the increased size of, and banks' participation in, the secondary mortgage market. The significant growth in HELOCs is primarily the result of the increased popularity of these loans among consumers, a trend that has been aided by appreciating home values. Contributing to the more modest growth rate of first mortgage loans is the large size of the portfolio of first mortgages (making high percentage growth rates more difficult to attain), banks' selling of first mortgages in the secondary market, and the fact that a large proportion of first mortgage underwriting activity has been refinancing of existing debt.

What Lies Ahead?

An expanding economy would be expected to enhance insured institution performance. However, rising interest rates and potentially lower demand for residential mortgages have less favorable implications. First, fees from record volumes of mortgage originations and refinancings have been an important source of income during this housing boom. A scaled-back level of mortgage activity likely would translate into a decline in mortgage-related fee income. According to estimates by the *Mortgage Bankers Association*, the dollar amount of mortgage origination volume is forecast to decline by approximately 47 percent in 2004, from a record \$3.8 trillion in 2003.⁶

⁶ Mortgage Bankers Association, *Macroeconomic and Housing Finance Outlook for 2004–2006*, Washington, DC: 2004.

Second, during the 2003 refinancing wave many homeowners opted for long-term, fixed-rate mortgages. Such mortgages could expose banks that hold these loans to extension risk should rates continue to rise, thereby heightening the importance of interest rate risk management.⁷

Finally, rising interest rates may increase debt service requirements for some borrowers. Growth in home equity loans, which typically carry adjustable rates, has been strong in recent years, and interest rates on HELOCs likely would reprice upward if interest rates rise. In addition, demand for adjustable rate mortgages (ARMs) increased nationwide in the second half of 2003 as rates on fixed-rate mortgages rose.⁸ The Region's community banks held a much lower proportion of residential mortgage loan portfolios in ARMs (25 percent) than in fixed-rate mortgages (75 percent) through third quarter 2003, and a lower percentage than community banks nationally. Going forward, however, the ARM percentage may increase if consumer demand continues to shift to ARMs. The typically lower initial rate on ARMs compared with fixed-rate loans may temporarily facilitate lower debt service payments for borrowers. However, rising interest rates likely would cause ARMs to reprice upward and debt service payments to climb, potentially straining borrowers' repayment capacity.

While experts are not calling for a decline in home prices in the Region similar to that of the 1980s, rates of appreciation are likely to continue to slow. In addition, consumers' level of mortgage debt has grown in recent years, and the potential for rising interest rates to pressure borrowers' debt service capability has increased. These trends highlight the importance of taking into account the potential effect of rising interest rates on loan portfolio quality.

⁷ For more information on extension risk among the Region's insured institutions, see *New York Regional Perspectives*, Winter 2003.

⁸ Month-end averages for the percentage of loans originated as ARMs increased from 26 percent in July 2003 to 42 percent in December 2003, according to the Mortgage Bankers Association and Haver Analytics.

The Region's Large Banks Report Strong Residential Mortgage Demand and Favorable Credit Quality, but Margins Continue to Compress

The Region's large institutions have experienced strong demand for residential mortgages against the backdrop of overall healthy housing markets and the unprecedented refinancing wave of 2003.⁹ Strong demand from the consumer sector has offset weak demand for C&I loans. The Region's large banks reported growth in one-to-four family mortgage loans of 22 percent during the past 12 months, compared with a decline in C&I loans of 9 percent.

However, the drop in long-term interest rates to 50-year lows in June 2003 has pushed asset yields down and contributed to decline in net interest margins

⁹ Large institutions are defined as insured institutions that hold \$10 billion or more in assets. This definition does not include credit card banks.

(NIMs). The Region's large banks reported a fifth consecutive quarterly decline in the median NIM in third quarter 2003. In the face of shrinking NIMs, profitability for most of the Region's large banks was boosted in third quarter 2003 by declines in provisions for loan losses, a rebound in capital markets activities, and securities gains. However, securities gains were lower than in the prior quarter, largely because of the dramatic rise in interest rates in the third quarter. While securities gains likely will continue to moderate, margins may widen following the steepening of the yield curve in the second half of 2003.

Most of the Region's large banks reported favorable credit quality in third quarter 2003; 64 percent reported a lower past-due ratio than in the same period a year ago. The C&I loan delinquency and charge-off rates declined in the quarter, and residential mortgage loan quality remained favorable. Although the median past-due residential loan delinquency rate for the Region's large banks is low at 1.1 percent, the increase in interest rates in the second half of 2003 may affect borrowers' debt service performance negatively.

New York Staff

San Francisco Regional Perspectives



The Recovery of Office Markets Lags in Certain High-Tech-Dependent MSAs

The significant loss of office-occupying employment following the high-tech downturn and subsequent “jobless” recovery from the 2001 recession has kept office absorption rates low, causing vacancy rates to escalate in several previously

“hot” office commercial real estate (CRE) markets in the San Francisco Region.¹ This article identifies the metropolitan statistical areas (MSAs) in the Region that are characterized by some of the highest levels of job losses since the recession and analyzes the fundamentals of office properties in these markets.² The article also evaluates levels of community bank exposure to CRE lending in these markets to identify areas where prolonged weak economic growth could result in asset-quality deterioration.

High-Tech Job Losses Challenge CRE Conditions in Some of the Region’s Markets

Although the San Francisco Region narrowly outperformed the nation with a 0.1 percent year-over-year employment growth rate in November 2003, several high-tech-dependent MSAs continued to experience annual job losses. Between February 2001 and November 2003, net job losses in the **San Jose** and **San Francisco** MSAs topped 20 percent, far exceeding job losses across the Region or elsewhere in the nation. Other major MSAs with office-related employment below prerecession levels are the **Portland, Oakland, Seattle, and Salt Lake City** MSAs, where employment was 3.5 to 5.6 percent lower in November 2003 than in February 2001.

The high-tech-dependent MSAs that experienced significant job losses and added substantial office space generally experienced the most significant jump in vacancy rates. Among the 16 major markets in the Region, increases in the office vacancy rate since 2000 were notable in the San Jose, San Francisco, Oakland, Portland, Seattle, and Salt Lake City MSAs (see Table 1).³ By third quarter 2003, vacancy rates in each

Table 1

| Declines in Office-Occupying Jobs Pushed Up Vacancy Rates in Several of the Region’s Office Markets | | | | | | |
|---|---|-----------------------------|---|----------------------------------|---------|-----------|
| Metropolitan Statistical Area | Change in Office-Occupying Employment (%) | | Third Quarter 2003 Office Vacancy Rates (%) | | | |
| | Year-over-Year ¹ | Post-Recession ² | Total | Increase since 2000 ³ | Class A | Class B/C |
| San Jose | -3.7 | -27.9 | 18.9 | 17.7 | 23.5 | 15.2 |
| San Francisco | -2.9 | -20.6 | 20.3 | 16.9 | 20.6 | 19.6 |
| Oakland | -0.9 | -5.4 | 16.1 | 13.5 | 17.2 | 14.3 |
| Portland | -0.9 | -5.6 | 18.9 | 11.8 | 17.3 | 20.8 |
| Salt Lake City | -0.8 | -3.5 | 21.1 | 11.1 | 21.5 | 20.9 |
| Seattle | 1.7 | -3.9 | 15.3 | 11.9 | 16.0 | 14.4 |
| Nation ⁴ | 0.1 | -2.0 | 16.9 | 8.7 | 17.0 | 16.8 |

¹Year-over-year employment change compares November 2003 to November 2002.
²Post-recession employment change from February 2001 to November 2003.
³Increase since 2000 measures the percentage point change in total office vacancy rate from third quarter 2000 to third quarter 2003.
⁴National vacancy figures are based on a survey of 54 metropolitan markets in the United States.
 Sources: Torto Wheaton Research; Bureau of Labor Statistics.

¹ Office-occupying employment includes jobs in the information, financial activities, and professional and business services sectors.

² Office fundamentals include absorption, completion, rental, and vacancy rates.

³ This analysis was limited to the 16 office markets in the Region that are tracked by Torto Wheaton Research, the source of office market data used throughout this article.

Regional Perspectives

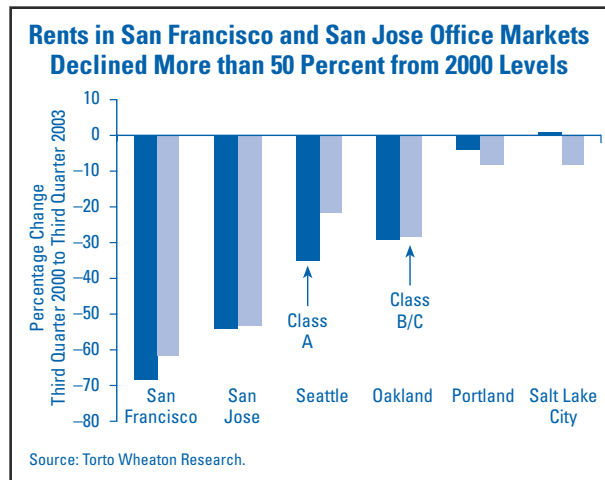
of these markets topped 15 percent. The rise in vacancy rates was also driven by construction, which increased 21 percent during the five years ending third quarter 2003. Class A buildings represented 81 percent of new office space across the Region. While there is no standard definition for Class A space, its office properties, compared with B/C-class spaces, are larger, more expensive, and characterized by more recent construction, more attractive locations, and more efficient tenant layouts.⁴

Unique economic characteristics in each of the six MSAs drive the performance of office CRE. However, it is useful to track the performance of the office space classes, as they perform differently in business cycles. Class A properties typically react sharply to declining market conditions but rebound swiftly as the economy recovers.⁵ Class B/C properties generally exhibit slower deterioration in vacancy and rental rates but also recover more slowly as market fundamentals improve. The slow recovery rate results, in part, from Class A property owners offering rental or other concessions during periods of high vacancy to fill empty space, often luring existing Class B/C office tenants away from those properties. Therefore, while Class A space tends to recover more quickly, the recovery usually comes at the expense of lower rental income driven by the influx of B/C renters.

Highlights of CRE Fundamentals in Six of the Region's Markets

San Francisco, San Jose, and Oakland MSAs (Bay Area): Job losses in these MSAs following the recession were some of the highest in the nation. Office vacancy rates in the Bay Area climbed to near ten-year highs as of September 2003. Rents plummeted after climbing to record levels three years before (see Chart 1). Vacancy rates were affected adversely by a 17 percent increase in new office space in the five years ending September 2003. This new construction was spurred by the robust high-tech job market in the late 1990s; Class A space represented more than 85 percent of the total construction. Despite

Chart 1



the recent recovery in some high-tech fundamentals, analysts contend it will take years of employment gains to fuel substantial absorption and drop vacancy rates into the single digits.⁶

Portland MSA: A prolonged weakness in the area's key microchip industry, combined with a 20 percent increase in office space, contributed to a tripling of the office vacancy rate during the five years ended third quarter 2003. Vacancy rates among Class B/C properties continued to increase through third quarter 2003, surpassing the Class A vacancy rate for the second quarter in a row. Weak demand has resulted in a dampening of rental rates and has caused tenants to leave Class B/C space for Class A space.

Salt Lake City MSA: Office vacancy rates in the Salt Lake City MSA were the highest in the Region during third quarter 2003 at almost 21 percent for both Class A and B/C properties, double the level three years ago. Higher vacancy rates are attributed primarily to a 25 percent increase in new office completions during the five years ending September 2003, which significantly outpaced demand. Although the **Torto Wheaton Research** (TWR) 2003 forecast for the Salt Lake City MSA projects negative net absorption in B/C properties, TWR also estimates a slight improvement in vacancy rates in 2004, because of minimal additions to stock.

⁴ For more information about the characteristics of different classes of office space, see www.tortowheatonresearch.com/pdfs/TWR%20Office%20Methodology.pdf, p. 3.

⁵ Sally Gordon, "CMBS: The Dynamics of Class A and B Office Markets—Class B Plays the Tortoise, and Class A, the Hare," *Moody's Investors Service*, June 2001.

⁶ Colliers International, *Third Quarter 2003 Snapshot*, Colliers International Office Market Report, San Francisco, September 2003. [www.colliersmn.com/prod/ccgrd.nsf/f68f8adce56d721e8825666b0071ba37/0db70548a776f8f788256dc6006294d0/\\$FILE/Q3_2003.pdf](http://www.colliersmn.com/prod/ccgrd.nsf/f68f8adce56d721e8825666b0071ba37/0db70548a776f8f788256dc6006294d0/$FILE/Q3_2003.pdf).

Regional Perspectives

Seattle: Office vacancy rates in the Seattle MSA more than quadrupled during the three years ending September 2003, as employment contracted in response to the downturn in the high-tech sector and Boeing laid off workers. At the same time, new office space was added to the market. During the five years ended third quarter 2003, office supply, most of which was in Class A properties, increased more than 30 percent. As a result, Class A vacancy rates increased significantly, and rental rates declined 35 percent. Although the pace of new office supply is expected to slow in 2004, TWR does not project single-digit vacancy rates until 2007.

Continued Weakness in the Office Market May Challenge Asset Quality

CRE lenders across the Region performed fairly well through this cycle. However, insured institutions based in these six MSAs reported somewhat elevated exposures to CRE credits in third quarter 2003, which could heighten their vulnerability to sustained office market weakness. The median CRE-to-Tier 1 capital ratio among established community institutions headquartered in these markets exceeded 200 percent as of third quarter 2003, higher than the 174 percent median reported by MSA-based community banks elsewhere in the nation.⁷

Despite persistent weakness in these office markets, established community institutions based in five of the

⁷ Established community institutions include insured institutions in operation at least three years that report less than \$5 billion in total assets, consumer loan-to-Tier 1 loan ratios of less than 300 percent, total assets in excess of unfunded commitments, and average loan-to-average asset ratios of at least 25 percent. The definition also excludes industrial loan companies. These data restrictions were used to minimize distortions caused by high proportions of specialty or large institutions that may not make loans primarily within the headquarters' MSA.

six markets reported past-due CRE ratios below the nation's 0.59 percent as of third quarter 2003.⁸ Although declining somewhat, the median past-due ratio remains high (1.84 percent) among banks based in the Salt Lake City market. This situation can be attributed, at least in part, to the fact that office vacancy rates in this MSA have been increasing during the past six years, a longer period of stress than the Region's other high-tech-dependent markets experienced. A prolonged period of low interest rates, underwriting improvements brought about by regulatory changes and lessons learned from the CRE problems of the 1980s and early 1990s, and increased transparency and public ownership of CRE transactions may have mitigated the effects of deteriorating market conditions on asset quality among insured institutions in these six markets. In particular, lower rates may have reduced debt service burdens among borrowers enough to offset lower cash flows resulting from declining rents.

Office market fundamentals in the six MSAs could remain weak for some time. Torto Wheaton Research forecasts that office vacancy rates in these areas will remain above 10 percent until at least 2007. The Federal Deposit Insurance Corporation (FDIC) monitors market conditions closely and periodically covers them and CRE risks in FDIC publications. It also considers these conditions and risks during the supervisory process. Currently, the FDIC's San Francisco Regional Office is conducting offsite reviews that evaluate bank policies and board reporting of portfolio-wide CRE concentration risk. These reviews will strengthen examination processes and facilitate the identification of best practices for risk management systems.

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⁸ For purposes of this article, commercial real estate loans refer exclusively to nonfarm, nonresidential credits.

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