
◆ Regional Outlook ◆

FEDERAL DEPOSIT INSURANCE CORPORATION

FIRST QUARTER 2002

FDIC KANSAS CITY REGION



Regional Perspectives

◆ In the aftermath of the September 11, 2001, attacks, layoffs in the aircraft manufacturing industry, the major employer in the Wichita metropolitan area, have seriously hurt the local economy.

◆ In the aggregate, during the past three years insured institutions headquartered in the Wichita area have increased concentrations in construction and development, non-residential commercial property, and business lending, traditionally higher-risk loan types.

◆ Commercial real estate submarkets—office, industrial, retail, multifamily, and hotel—are showing signs of weakening in the Region’s three major metropolitan areas, Minneapolis-St. Paul, St. Louis, and Kansas City. As this weakening has occurred, however, insured institutions have continued to increase commercial real estate concentrations. *See page 3.*

By Richard D. Cofer, Jr., Senior Financial Analyst

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In Focus This Quarter

◆ *Housing Market Has Held Up Well in This Recession, but Some Issues Raise Concern*—Recent trends in mortgage underwriting are of particular interest, as an estimated \$2 trillion in mortgage debt, approximately one-third of the total outstanding, was underwritten during 2001. Nonconstruction residential mortgages traditionally have represented one of the better-performing loan classes during prior downturns. The level of credit risk, however, may be higher this time around because the mortgage lending business has changed since the last downturn. This article examines these changes, including increased involvement by insured institutions in the higher-risk subprime credit market, the acceptance of higher initial leverage on home purchases, and greater use of automated underwriting and collateral valuation processes, which have not been recession-tested.

◆ Home price softening could have an adverse effect on residential construction and development (C&D) and mortgage portfolios. In the aggregate, the level of risk appears modest. However, insured institutions with significant C&D loan exposures in markets that experienced ongoing residential construction during 2001, despite slowing local economies, are at higher risk. Weakening home prices could hurt loan quality in selected markets. The San Francisco Bay area stands out as a place to watch in this regard. *See page 11.*

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- The Wichita, Kansas, economy relies heavily on the aircraft manufacturing sector. Its economy is expected to be more adversely affected than other areas of the Region by the aftermath of the September 11, 2001, attacks, as declining demand for domestic air travel has contributed to significant layoffs.
- The Region's three largest metropolitan areas, Kansas City, Minneapolis-St. Paul, and St. Louis, are experiencing some weakening in the commercial real estate sector because of the slowing regional economy. At the same time, insured institutions in these three markets have significantly increased concentrations in commercial real estate lending.

The Kansas City Region Has Been Adversely Affected by the September 11, 2001, Attacks and the Slowing Economy

The nation's economy slowed significantly in 2001, as considerable retrenchment in business capital and information technology spending contributed to weakness in the manufacturing sector. In addition, the attacks on September 11, 2001, negatively affected consumer confidence and willingness to purchase goods and services. Officially, the nation's economy entered a recession in March 2001,¹ and most analysts do not expect recovery until spring or summer 2002.

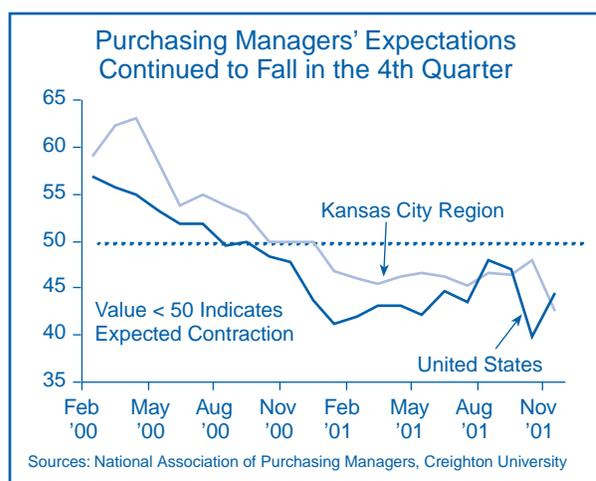
The Region's economy has not been immune to these problems; the economies of **Missouri** and **Minnesota** are in recession, and the economies of the other five states are near recessionary levels.² However, in some cases the effects have been less severe than for the nation as a whole. For example, heavy layoffs in 2001, particularly in the manufacturing sector, have contributed to a significant increase in unemployment levels. Unemployment nationwide rose from 4.0 percent at year-end 2000 to 5.8 percent by December 2001. Increases in the Region's unemployment rate have been more muted, which is not surprising considering that the labor markets in the Region's seven states were among the tightest in the nation heading into the economic slowdown. As of December 2001, unemployment rates in the Region ranged from **North Dakota's** still-low 2.8 percent to Missouri's 4.4 percent.

However, the effects of the manufacturing slowdown have begun to manifest themselves in the Region (see Chart 1). This chart shows the results of a monthly

survey of purchasing managers by the *Institute for Supply Management*. The Purchasing Managers Index is an important gauge of future manufacturing activity because it reflects purchasing managers' intentions over the next six months. If the index exceeds 50, the manufacturing sector is expected to expand; if it falls below 50, a contraction in the sector is expected. Chart 1 shows that the nation's economy experienced manufacturing problems before the Region's did; however, as of November 2001, the Region's index, at 42.6, is slightly worse than the nation's, at 44.5.

This article examines two areas that are showing particular weakness. The first is the **Wichita** economy, which has been affected directly by the aftermath of the terrorist attacks. The second is commercial real estate, which has been affected adversely by the slumping national economy but not necessarily by the events of September 11.

CHART 1



¹ According to the National Bureau of Economic Research (NBER).

² Economy.com, in a conference call to subscribers, December 12, 2001.

Wichita Could Be Most Affected by the Aftermath of the Terrorist Attacks

After posting gains between 4 percent and 8 percent during much of 1999 and 2000, demand for domestic air travel declined significantly through the first half of 2001 as businesses cut travel expenses to cope with declining profitability.³ Immediately following September 11, demand for airline travel dropped more than 30 percent from the year-ago period and remained about 25 percent below year-ago levels through the last week of October 2001.⁴ The travel industry—and companies that manufacture components, such as aircraft, for the industry—has been hardest hit by the slowdown.

The Wichita economy is driven primarily by the aircraft manufacturing industry. Manufacturing represents 26 percent of the metropolitan area's employment, and 70 percent of the payroll in this sector is in the aerospace industry.⁵ In fact, Wichita's top four employers, in number of employees, are aerospace companies: Boeing (17,300), Cessna Aircraft (11,165), Raytheon Aircraft (9,200), and Bombardier Aerospace (3,900).⁶ The health of Wichita's economy is tied strongly to the aircraft manufacturing sector because of the concentration of employment in this industry.

Following the terrorist attacks, a sudden downturn in demand resulted in excess capacity, and the airlines immediately curtailed orders for new commercial jets. As a result, the top four aircraft manufacturing employers in Wichita have announced significant layoffs or other employment changes. Boeing has announced plans to cut up to 30,000 jobs in 2001 and 2002 nationwide in its commercial jet division, including approximately 5,000 layoffs at its plant in Wichita (Boeing Wichita⁷). Raytheon and Bombardier together plan to eliminate more than 2,000 jobs in Wichita by the end of 2001. Cessna, while not yet laying off employees, is delaying plans to add 550 new jobs at its Wichita facilities. Wichita's unemployment rate could rise by as much as 1.6 percent in 2002 from the aircraft manufacturers'

³ Figures are based on the year-over-year percentage change of the three-month moving average of domestic airline passenger revenue miles. Economy.com, Inc., *Metro 2001*, www.economy.com, October 2001.

⁴ Economy.com, Inc., Industry Outlook conference call presented by Dr. Mark Zandi and Economy.com research staff, November 14, 2001.

⁵ Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University, *Wichita's Economic Outlook 2001 Review and 2002 Forecast, 2001*.

⁶ Economy.com, Inc., *Metro 2001*, October 2001.

⁷ The Boeing Company, Boeing Commercial Airplanes Group, Wichita, Kansas.

layoffs, and the overall impact could be much more severe as the effects of lost salaries ripple through the economy.⁸

The announced job cuts could contribute to a slowing in personal income growth and rising unemployment in the Wichita area, as was the case with past layoffs. Boeing Wichita trimmed about 12 percent of its workforce in 1999 and early 2000 because of soft international demand and internal reorganization;⁹ however, at that time, the area's economy was strong. Riding a crest of increasing gross domestic product, the Wichita economy entered 1999 with an unemployment rate of 3.3 percent and ended 1998 with 7.1 percent growth in personal income (personal income growth had exceeded 5 percent annually since 1995).¹⁰ Following the layoffs at the Boeing Wichita plant, personal income growth declined to 2.4 percent in 1999, and Wichita's unemployment rate reached 4.2 percent in 2000. The repercussions, however, could have been worse had other employers—other aircraft manufacturers, industrial manufacturers, construction companies, and services companies—not been able to absorb many of Boeing's displaced workers.

The outlook is not as favorable in the aftermath of September 11. Given its significant reliance on the aircraft manufacturing industry, the timing of Wichita's rebound will track the aircraft manufacturing sector's rebound, which could take several years. Current estimates do not show any new orders for Boeing until at least 2004, and aircraft deliveries are expected to decline 40 percent between 2001 and 2004.¹¹ Additionally, unlike in 1999, the other major aircraft manufacturers are also stressed, in large part because of the fallout from the terrorist attacks. Instead of representing a source of strength, these and other companies are also laying off workers.

In addition to increasing unemployment and declining personal income growth as a result of the September 11 attacks, housing markets could suffer if workers are not willing or able to purchase or upgrade their housing. During Boeing's last labor force contraction, in 1999 and 2000, the decline in employment and personal income growth soon affected Wichita's housing sector. The median sales price of existing homes had increased annually, from \$62,400 in 1990 to \$91,500 in 1999. In 2000 the fallout from the Boeing layoffs contributed to

⁸ See footnote 5.

⁹ See footnote 5.

¹⁰ See footnote 6.

¹¹ See footnote 4.

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a drop in the median sales price for the first time in a decade—to \$90,800.

Wichita's economic woes can be expected to affect insured institution loan portfolios in the area. Reported aggregate loan data as of September 30, 2001, show that banks and thrifts increased loan portfolios by 4.7 percent from year-ago levels after posting 7.8 and 7.4 percent growth rates the preceding two years.¹² The majority of this growth is centered in construction and development, nonresidential commercial property, and business lending, traditionally higher-risk forms of lending. As a result, these loan segments now represent 35 percent of aggregate total assets, up from 31.4 percent two years ago. With the unfavorable economic outlook facing Wichita in the near term, business customers could experience strained cash flows that could contribute to rising delinquency rates. In addition, should vacancy rates rise, loan portfolios secured by commercial real estate could experience some weakening in credit quality.

Fortunately, Wichita's insured institutions currently are reporting solid financial conditions. The aggregate leverage capital ratio was 8.4 percent at September 30, 2001, the highest reported third-quarter figure in five years. Additionally, asset quality indicators such as delinquency, noncurrent loan ratios, and net charge-off rates remain low compared with historical figures. Moreover, the number of problem banks and those with troubled asset portfolios is small by historical standards.

Although the economic scenario for Wichita looks poor in the short term, the U.S. war on terrorism could ultimately benefit the city. For example, the Department of Defense Appropriations Act, 2002, signed into law on January 10, 2002, includes funds for a program that permits the Air Force to lease 100 modified Boeing 767 commercial jets over the next ten years for an estimated \$20 billion. Much of the modification work likely would be performed at the Boeing Wichita facility.

The Region's Commercial Real Estate Markets Are Experiencing the Brunt of the Recession

Coinciding with the nation's first recession in ten years, metropolitan markets across the nation are seeing softening commercial real estate (CRE) markets.

¹² FDIC-insured financial institutions with total assets under \$1 billion. Reported data are merger adjusted.

Data suggest that all CRE segments—office, industrial, retail, multifamily, and hotel—are experiencing problems to varying degrees across a wide range of metropolitan areas. The results of a *Moody's* analysis indicate national weakness in all these markets (see Table 1).¹³

The Kansas City Region's three major metropolitan areas—**Minneapolis-St. Paul** (Minneapolis), **St. Louis**, and **Kansas City**—have also been affected, to varying degrees, by softening in the CRE sector. According to

TABLE 1

COMMERCIAL REAL ESTATE MARKETS WEAKENED IN 2001			
MOODY'S PROPERTY MARKET EQUILIBRIUM STOPLIGHT			
STOPLIGHT COLOR MEANING:	GREEN NOT STRESSED	YELLOW FRAGILE	RED STRESSED
OFFICE		→ NATION → KC STL	→ MNP
INDUSTRIAL	KC STL	→ NATION → MNP	
RETAIL	KC	→ NATION ←	→ MNP
MULTI-FAMILY	MNP	→ NATION KC → STL	
HOTEL*			→ NATION → MNP → STL

KC-KANSAS CITY, MNP-MINNEAPOLIS-ST. PAUL, STL-ST. LOUIS

ENTRIES SHOW THE MARKET'S PLACEMENT IN THE FOURTH QUARTER 2001 REPORT. ARROWS SHOW THE MARKET'S FOURTH QUARTER 2000 PLACEMENT IF DIFFERENT FROM CURRENT PLACEMENT.

*NO DATA PROVIDED ON THE KANSAS CITY MARKET.

SOURCE: SALLY GORDON, "CMBS: RED-YELLOW-GREEN UPDATE, FOURTH QUARTER 2001 QUARTERLY ASSESSMENT OF U.S. PROPERTY MARKETS," WWW.MOODY'S.COM, MOODY'S INVESTORS SERVICE, JANUARY 12, 2001, AND JANUARY 4, 2002.

¹³ Gordon, Sally, *CMBS: Red-Yellow-Green Update, Fourth Quarter 2000 and Fourth Quarter 2001 Quarterly Assessment of U.S. Property Markets*. Moody's Investors Service, January 12, 2001, and January 4, 2002.

Moody's (see Table 1, page 5), at least one CRE segment in each of these metropolitan markets is showing fragility or weakness. In addition, at least one segment of the CRE market in each of these metropolitan statistical areas (MSAs) has been downgraded by Moody's since fourth-quarter 2000.

As documented in *History of the Eighties*, CRE market deterioration historically has been a significant source of distress and has contributed to failures of FDIC-insured institutions.¹⁴ The following section examines all segments of the CRE market in each of the Region's major MSAs and assesses the level of vulnerability in each segment.

Office Markets

The weakening economy has affected the office market profoundly, particularly in areas with substantial concentrations of high-tech employment. According to *Torto Wheaton Research (TWR)*, 51 of 53 major metropolitan office markets experienced increasing vacancy rates in the first three quarters of 2001. The national vacancy rate increased from a 19-year year-end low of 8.3 percent in December 2000 to 12.3 percent at year-end 2001 (see Chart 2). *Property & Portfolio Research, Inc. (PP&R)*, a real estate sector research firm, projects that the national vacancy rate will peak at 13.9 percent in 2002.

The situation is similar for the Region's three major metropolitan markets. TWR data show that the office vacancy rate for Kansas City has exceeded the national rate significantly since year-end 2000. Vacancy rates for the Minneapolis and St. Louis markets are now in line with the national rate (see Chart 2). The results of the Moody's analysis (see Table 1, page 5) corroborate these figures; all three markets are designated as falling in the "yellow" (fragile) or "red" (stressed) categories.

When analyzing office markets, it is important to examine the differences between prime Class A space and Class B and C space and to distinguish between suburban and downtown markets in a metropolitan area. As illustrated in Table 2, the Kansas City, Minneapolis, and St. Louis office markets are somewhat dissimilar. All office markets in the Minneapolis MSA—both suburban and downtown areas—are exhibiting similar vacancy rates. The same can be said in St. Louis, although Class B/C space is showing higher delinquency levels than Class A space.

However, the Kansas City office market shows wide variations in vacancies between the downtown and suburban submarkets and Class A and B/C space. These distinctions are important, especially for lenders, as CRE loan portfolios may exhibit strengths or substantial weaknesses based on the location of the loans.

CHART 2

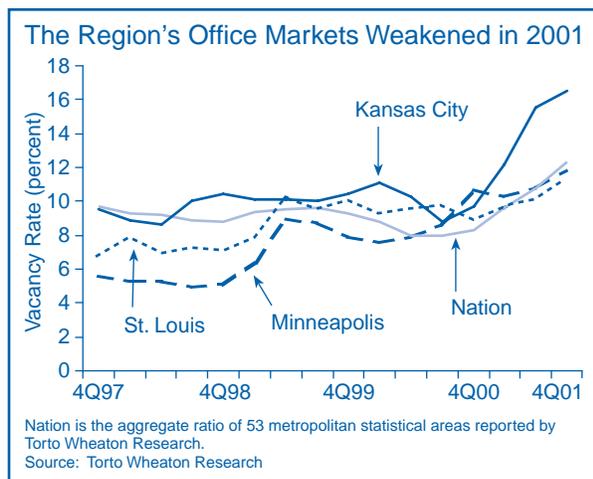


TABLE 2

A MARKET'S AGGREGATE OFFICE VACANCY RATE CAN VARY GREATLY FROM ITS METROPOLITAN SUBMARKETS			
VACANCY RATES OF CLASS A AND CLASS B/C SPACE			
METROPOLITAN MARKET	METROPOLITAN STATISTICAL AREA		
	KANSAS CITY	MINNEAPOLIS	ST. LOUIS
DOWNTOWN MARKET			
CLASS A	3.3%	8.8%	11.0%
CLASS B/C	24.4%	10.3%	15.9%
SUBURBAN MARKET			
CLASS A	20.7%	9.8%	9.3%
CLASS B/C	14.1%	13.1%	7.8%

SOURCE: TORTO WHEATON RESEARCH, SECOND QUARTER 2001 DATA

¹⁴ Federal Deposit Insurance Corporation. 1997. *History of the Eighties—Lessons for the Future. Vol. I: An Examination of the Banking Crises of the 1980s and Early 1990s*, Chapters 9 and 10 (<http://www.fdic.gov/bank/historical/history/index.html>).

Industrial Space

As business output slowed in 2000 and 2001, demand for industrial space for manufacturing, warehousing and distribution, and research and development (R&D) also declined. Chart 3 shows that the national industrial-space vacancy rate increased significantly from a long-term low of 6.7 percent in fourth-quarter 2000 to 9.0 percent at year-end 2001.¹⁵ This increase can be attributed to the fact that demand was relatively low, as indicated by negative absorption rates in the first three quarters of 2001. In addition, new construction is estimated to top 220 million square feet in 2001, the highest level in more than a decade.¹⁶

Although Chart 3 shows the Minneapolis, Kansas City, and St. Louis industrial markets currently faring better than the national average, these markets continue to experience rising vacancy rates because of contraction in the manufacturing sector. Minneapolis appears to be the most vulnerable of the three markets, largely because of the higher concentration in R&D industrial space during a period of contraction in the high-tech sector. R&D space accounts for 11 percent of the Minneapolis industrial market, compared with 2 percent for Kansas City and 1 percent for St. Louis.¹⁷ The Kansas City industrial vacancy rate is low by historical standards and compared with national trends and is not expected to increase much beyond the current level. The results of the Moody's analysis indicates the same find-

ings, with Minneapolis receiving a "yellow" rating and Kansas City and St. Louis receiving "green" ratings.

Retail Space

Vacancy rates for retail space have risen in Kansas City, Minneapolis, and St. Louis since posting historically low rates of 5.9, 5.5, and 8.6 percent, respectively, in first-quarter 2000. However, while vacancy rates in these markets are expected to continue to rise through much of 2002 (see Chart 4), rates are not expected to reach levels that may cause concern. Moody's "red" rating for Minneapolis (see Table 1) reflects strong supply in the pipeline at the same time retail sales growth is declining, a situation that could result in oversupply.

Multifamily Housing

The Minneapolis apartment market remains extremely tight (see Chart 5, next page). Vacancies are rising slightly; however, the long-term outlook for the area remains favorable because of strong population growth and household income trends. By contrast, the multifamily housing market in St. Louis and Kansas City is not faring well. Moody's cautionary "yellow" ratings for St. Louis and Kansas City retail are attributed to significant new supply coupled with sagging demand because of weak employment and income growth. This situation is most pronounced in Kansas City, where numerous apartment construction projects are in progress, exacerbating the current supply/demand imbalance.

CHART 3

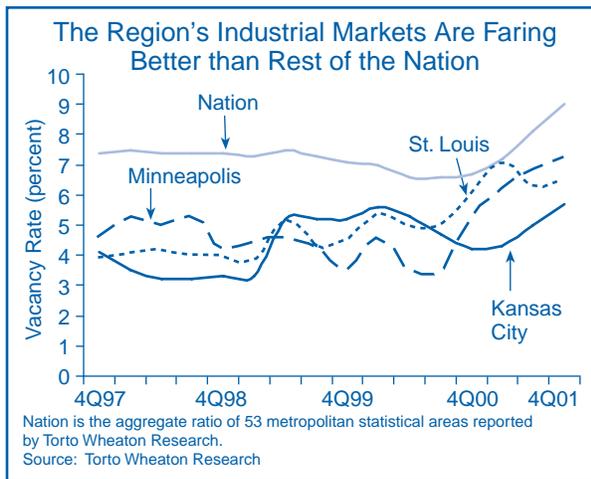
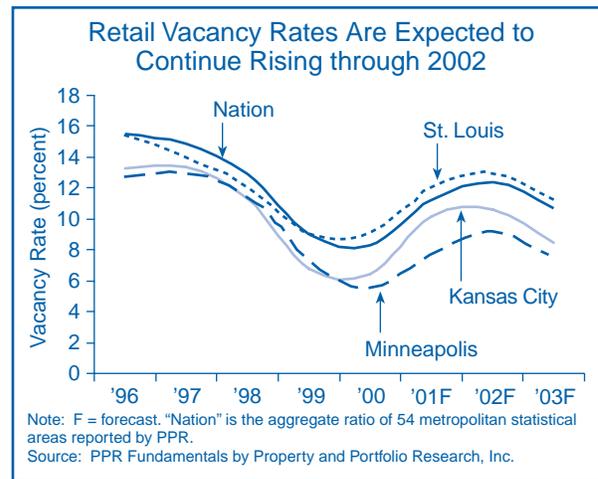


CHART 4



¹⁵ Torto Wheaton Research.

¹⁶ See "Slowing Economy Reduces Demand for U.S. Office Space," *Regional Outlook*, Third Quarter 2001.

¹⁷ Torto Wheaton Research.

Hotels

The hotel situation changed dramatically after September 11. Hotel room occupancy had been declining before the terrorist attacks as businesses cut travel budgets and consumers scaled back travel plans in response to the slowing economy (see Chart 6). However, according to Moody's, the hotel room occupancy rate in Minneapolis and St. Louis remained strong (the Moody's hotel sector analysis did not include Kansas City). The dramatic reduction of travel that followed the attacks resulted in Moody's downgrading most markets.

CHART 5

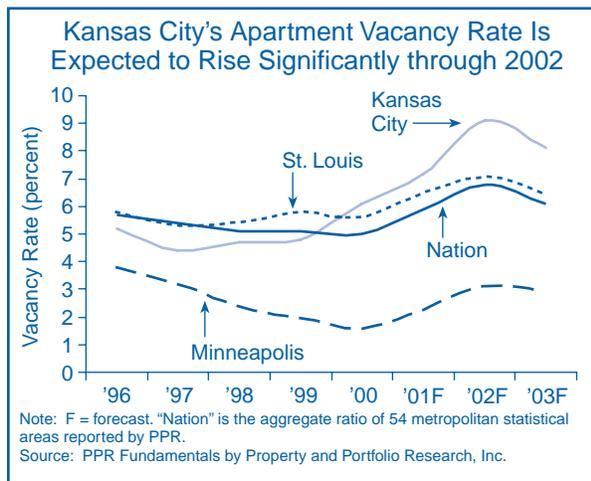
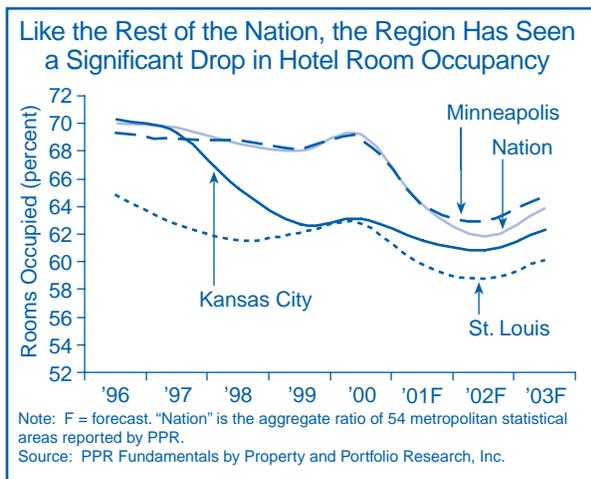


CHART 6



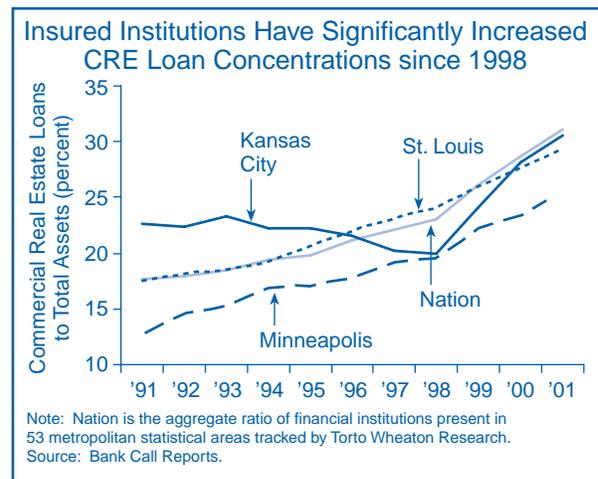
Moody's rates St. Louis, Minneapolis, and the nation as "red," indicating significant weakness (see Table 1). All three had been "green" one year earlier.

Insured Institution Exposure to Commercial Real Estate in the Kansas City Region Stands at the Highest Level in a Decade

While CRE markets are showing varying degrees of deterioration in the Region's three major MSAs, insured institutions are reporting relatively high exposures to CRE.¹⁸ As shown in Chart 7, emphasis on CRE lending has increased significantly among insured institutions in these three markets and the nation since 1998.¹⁹ In the past year (October 1, 2000, through September 30, 2001), insured institutions in the Kansas City, Minneapolis, and St. Louis MSAs increased CRE loans as a share of total assets by 2.4, 2.1, and 1.6 percent, respectively. This growth occurred as the property markets in these MSAs began to weaken and suggests that insured institutions are now holding a higher level of new, or "unseasoned," CRE loans than at any other time in the past decade. Unseasoned loans typically perform worse than seasoned loans during times of economic stress.

CRE lending by insured institutions in the Kansas City market was flat during the first half of the 1990s, as many institutions unraveled CRE loan problems that surfaced early in the decade. The ratio of aggregate

CHART 7



¹⁸ "Insured institutions" in this section refers to banks and thrifts that hold assets of less than \$1 billion and greater than 10 percent of total assets in CRE loans.

¹⁹ CRE lending includes real estate construction and development loans, loans secured by multifamily properties, and loans secured by other nonresidential properties.

CRE loans to total assets hovered between 22.2 and 23.3 percent from 1990 to 1995. However, after dipping slightly to a decade-low 19.9 percent in 1998, the ratio surged to a Region-high 30.6 percent in 2001.

Insured institutions lending in the Kansas City market also exhibit a significantly higher concentration in construction and development (C&D) lending than the other markets; C&D lending as a proportion of total assets has consistently been higher than the national average. Insured institutions in the St. Louis and Minneapolis markets hold C&D loan portfolios that mirror national levels. C&D loans are typically more vulnerable than other loan categories to changes in property market conditions. As a result, the higher exposure to C&D loans among insured institutions in the Kansas City market suggests that the level of credit risk could exceed that for institutions lending in the Minneapolis and St. Louis markets.

Although insured institutions lending in the St. Louis market have fewer assets invested in CRE than institutions lending in the Kansas City and Minneapolis markets, their capital bases are also lower. As of September 30, 2001, CRE loans among insured institutions operating in the St. Louis market represented 349 percent of Tier 1 capital, compared with 312 percent in Kansas City and 300 percent in Minneapolis.

Overall, insured institutions lending in the Minneapolis market exhibit a less risky CRE loan profile. Banks and thrifts in this area experienced the most sizable change in CRE loan volume relative to total assets during the past decade, more than doubling from a low 12.4 percent of total assets in 1991 to 25.2 percent in 2001. However, because the CRE loan-to-asset ratio was well below that of institutions lending in the Kansas City and St. Louis markets ten years ago, the 25.2 percent ratio remains lower than that of the other

markets. Additionally, banks and thrifts in Minneapolis reported the least amount of C&D lending of the three markets, posting relatively low and flat C&D loan volume relative to assets.

Although insured institutions in the Region's major markets recently have increased CRE loan exposures significantly, current levels remain at or below the aggregate national level shown in Chart 7. Additionally, although the CRE markets in Kansas City, Minneapolis, and St. Louis have weakened somewhat, they are not among the weakest in the country. Therefore, while insured institutions in the three MSAs now face greater challenges from the CRE sector than they did two years ago, banks and thrifts in other metropolitan areas are experiencing greater deterioration in CRE portfolios.

In addition, reported asset quality remains strong. As of September 30, 2001, St. Louis's insured institutions reported the highest delinquent and noncurrent loan ratio of the three MSAs, at 2.1 percent, and institutions in Kansas City reported the highest net charge-off rate, at 0.2 percent, although both ratios are low compared with national levels and historical levels. It is important to note that there are no other indications of significant, widespread credit quality deterioration among insured institutions in these markets, and the number of problem institutions and those with troubled asset portfolios remains low by historical standards.

Insured institutions are faced with weakening in certain of the Region's CRE markets for the first time in a decade. Bankers should ensure that credit risk management practices and procedures are in place to ride out a more challenging economic environment.

Richard D. Cofer, Jr.
Senior Financial Analyst

Housing Market Has Held Up Well in This Recession, but Some Issues Raise Concern

Trends in housing markets are important performance drivers for many FDIC-insured institutions. The health of residential markets can affect the credit quality of residential mortgage loans, home equity loans, and loans to finance residential construction and is linked indirectly to the performance of other types of consumer and small-business debt. Further, an estimated \$2 trillion in mortgage debt, approximately one-third of the mortgage market, was underwritten during 2001, with 56 percent of this activity in refinancing transactions.¹ This activity makes recent trends in underwriting of particular interest. An ancillary issue for many mortgage lenders, interest rate risk, is not addressed in this article.²

The U.S. economy entered a recession in March 2001, and the question arises as to how consumer creditworthiness, housing values, and recent mortgage-lending practices will fare during this downturn. Developments contributing to increased credit risk include higher consumer debt burdens, looser mortgage loan underwriting standards, and the emergence of subprime mortgage lending as a significant line of business for some banks. Mitigating this risk has been the steady appreciation of home prices, which have shown signs of softening in some markets but not to the extent seen at a comparable stage in previous recessions.

Home price weakness may be more pronounced in 2002 as the effects of the recession take hold, but in the authors' judgment, systemic weakness in home prices is unlikely, absent a deep and long recession. Adverse mortgage lending trends are not expected to threaten the capital or earnings of the vast majority of insured institutions. Nonconstruction residential mortgages, even during the most pronounced periods of stress in the 1980s and early 1990s, remained the best-performing loan class, especially for lenders specializing in residential real estate; and, historically, these mortgages have been

one of the lowest credit-risk loan types for all manner of insured institutions.³

That said, however, there *are* pockets of risk for insured institutions. There is evidence that borrowers with weak credit may be experiencing greater repayment difficulties, elevating the risks faced by subprime mortgage lenders. Further, a slump in residential real estate markets could be especially detrimental to insured institutions with significant exposures to housing construction because projects might not sell at projected asking prices or as quickly as anticipated. Finally, in specific markets where housing prices may have achieved unsustainable levels, some increase in housing-related credit quality problems can be expected, and in this regard, the San Francisco Bay area stands out as a place to watch.

The Recession Thus Far Has Had a Minimal Impact on Mortgage Delinquencies at Insured Institutions

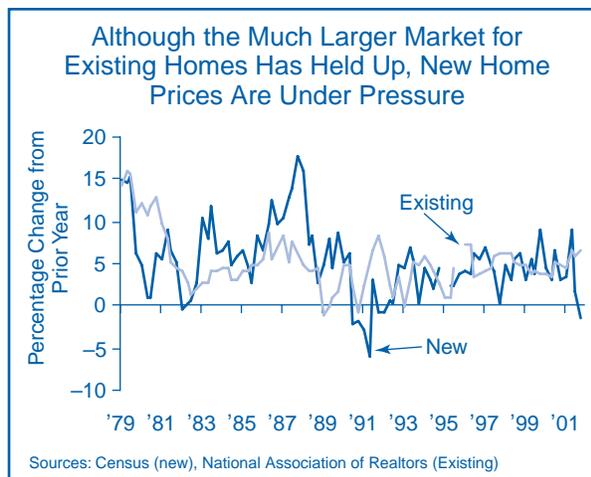
Despite three quarters of recession, most housing indicators remained quite healthy this past year relative to trends seen in past recessions. For example, new and existing home sales both set records during the year, while new home construction failed to decline, an occurrence not seen in the past six recessions. Another indicator, year-over-year growth in existing home prices—as measured by either the *Office of Federal Housing Enterprise Oversight (OFHEO)* repeat sales price index or the *National Association of Realtors (NAR)* median single-family price statistic—showed deceleration but remained well above trends seen at similar points in past recessions. This behavior partly reflected the early robustness of household income in the face of recession and relatively low fixed mortgage rates during 2001, which helped to counter some of the

¹ Mortgage Market Forecast, www.mbaa.org/marketdata/forecasts/, January 2002.

² For a discussion of this issue, see "Regional Perspectives," Boston and Chicago Regions, *Regional Outlook*, First Quarter 2002.

³ See "Region's Insured Institutions Exhibit Lower Risk Profile than the Nation's, Appendix: Risk-Weighting Methodology," Table A in Boston Region, *Regional Outlook*, First-Quarter 2000.

CHART 1



initial adverse effects of the recession on housing demand.

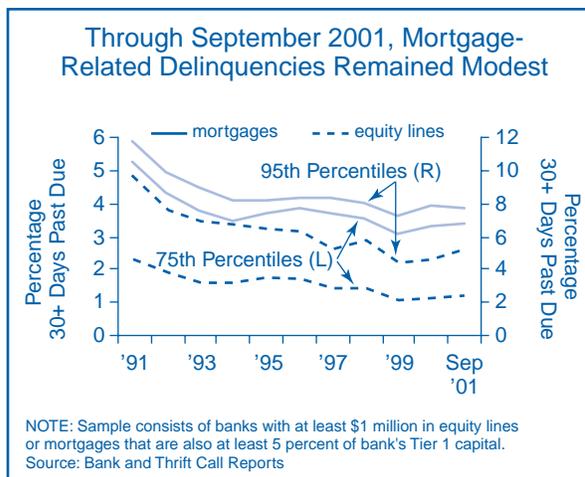
One sign of potential weakness appeared late in 2001 in the modest year-over-year decline in median prices of new single-family homes (see Chart 1). Because existing home sales outnumber new home sales roughly fivefold, price trends in the latter are generally not predictive of prices for the much larger existing home market.⁴ However, as discussed later in this article, adverse pricing trends in the new home segment do raise concerns for residential developers and insured institutions that finance residential construction.

The steady increase in prices of existing homes depicted in Chart 1 masks considerable regional variation. As detailed later in this article, home price growth began to weaken in 2001 in a number of metropolitan statistical areas (MSAs). While there is no clear common denominator among the markets in which this occurred, a number of these markets had both extremely rapid home price growth in the recent past and significant slowdowns in employment growth or outright contractions in employment last year.

Credit quality indicators for insured institutions' mortgage loans have shown only preliminary signs of weakness thus far. Through the first nine months of 2001, insured institutions showed negligible advances in median past-due ratios for mortgages and equity

⁴ Existing home prices are also more reflective than new home prices of trends in broader economic indicators, such as aggregate per capita personal income.

CHART 2



lines of credit, although continued strong mortgage origination activity in 2001 may have masked (in the aggregate) developing credit problems for more seasoned mortgage loans. For institutions that held at least \$1 million in residential mortgages or home equity lines of credit *and* whose exposures comprised at least 5 percent of Tier 1 capital, some modest deterioration is evident in the worst-performing mortgages and home equity lines since 1999, as seen in Chart 2.⁵ Even if this recession lingers, worsens, or both, residential mortgage lending (nonconstruction and development-related) likely poses only modest risk to most insured institutions' earnings and capital, since it has held up better in prior recessions than other loan types.

What Are the Risks Facing Housing Lenders in 2002 and Beyond?

In an environment of significantly slower economic growth than prevailed during the 1990s, can the strength of housing prices and the relatively benign credit quality environment for housing lenders be expected to continue? The answer will depend on the interplay of economic conditions and lenders' risk profiles. In the remainder of this article, we discuss the gradual increase in the risk profile for insured mortgage lenders that appears to have occurred during the

⁵ It is interesting to examine the (adverse) tail of the credit quality distribution when looking at residential mortgage trends, as average and median past-due ratios move little and are typically very low—thus, only the highest 25th and 5th percentiles of past-due ratios are presented in Chart 2.

1990s, as well as some cyclical risks to their performance that may exist as the recession plays out.

Evolving Lending Practices Have Increased the Risk Profile for Mortgage Lenders

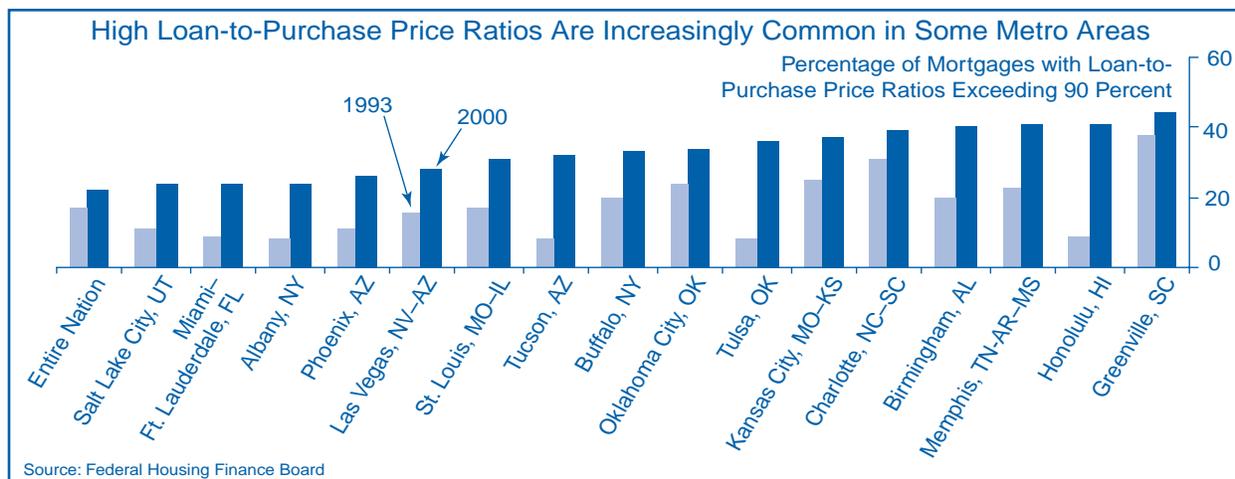
Although history suggests that residential mortgage defaults will be relatively low even in a recession, changes in the mortgage market since the 1990–1991 recession could affect mortgage performance during the present downturn. Many underwriting changes over the past decade have been driven in part by the growing importance of the secondary market for mortgage debt, and of Fannie Mae and Freddie Mac in particular. In 1980, federal and related agencies had direct or indirect interests in approximately 17 percent of all mortgage debt.⁶ By 2000, their share of the mortgage market had increased to roughly 41 percent. Insured bank and thrift mortgage exposures grew over the same period, but, as a share of direct mortgage debt, bank and thrift mortgage holdings decreased from 59 to 35 percent. These trends notwithstanding, insured institutions still provide substantial funding, directly or indirectly, to the housing market: as of September 30, 2001, 1 to 4 family mortgage loans and mortgage-backed securities held by insured institutions aggregated \$2.3 trillion, up 37 percent from five years earlier.

Although an active secondary mortgage market has broadened homeownership, improved mortgage loan liquidity, and allowed insured institutions to allay credit risk, it has also heightened market competition and transformed the lending process. In presecondary market

days, lenders largely had to retain originated mortgages in their own portfolios. Consequently, only lenders with ready funding sources (such as banks, thrifts, and insurance and finance companies) were able to compete in the mortgage markets. The advent of the secondary market enlarged the pool of available funding and permitted both insured institutions and other originators to transfer their mortgage business readily into entities such as mortgage pools and trusts. Consequently, many new players, including on-line and brick-and-mortar mortgage brokers, have entered the mortgage origination market.

The resulting robust mortgage loan competition, combined with Internet-based consumer research tools, has led to considerable commodification of the mortgage market. Rather than competing on the basis of traditional relationships, lenders' market shares are increasingly driven by price. For smaller savings institutions that focus heavily on residential mortgage underwriting, this issue has likely elevated business risk. Heightened competition has caused some loosening of mortgage underwriting standards and pushed lenders to use technology to expedite and streamline the underwriting process. Consequently, credit-scoring mechanisms and automated valuation techniques currently in place have not been tested through a full credit cycle. Because pricing competition has pressured margins, some mortgage lenders have pursued subprime or high loan-to-value (HLTV) mortgages. The ability of insured institutions to mitigate subprime losses through an economic downturn is untested to a large extent as well—finance companies dominated the high-risk mortgage market in past recessions.

CHART 3



⁶ These interests include residential, commercial, and farm real estate debts held directly by, or held in mortgage pools or trusts issued by, federal and related agencies. Source: Table 1186, Statistical Abstract of the United States: 2001, page 733.

In general, mortgage underwriting standards have loosened industrywide over the past decade. For instance, lenders have increasingly accepted higher loan-to-purchase price (LTPP) ratios for purchase money mortgages.⁷ According to the *Federal Housing Finance Board*, LTPP ratios are high and have risen in several metropolitan areas over the past seven years (see Chart 3). Between 1993 and 2000, the **Honolulu, Tulsa, and Tucson** markets exhibited the largest increases in mortgages with LTPP ratios exceeding 90 percent.

Although lenders often mitigate the risk of loss associated with low downpayments by requiring private mortgage insurance (PMI), recently the mortgage industry has allowed borrowers to avoid purchasing PMI. In particular, “piggyback” financing has made homeownership increasingly possible for households that cannot afford the traditional 20 percent down payment or do not wish to pay for PMI. With piggyback financing, the borrower often arranges a conforming 80 percent LTPP first mortgage and finances a portion of the remaining 20 percent with a concurrent second mortgage on the property (e.g., “80-10-10”). This type of transaction has become popular because interest paid on the (albeit more expensive) second mortgage is tax-deductible, whereas PMI premiums are not. Thus, piggyback financing is probably most attractive to individuals in higher-cost/tax areas or higher tax brackets, such as those in the **Northeast and California**. This trend effectively shifts the first loss position on all low down payment loans to the lender that retains the junior position. These institutions are, of course, compensated for some of this risk with the higher interest rates charged on the piggyback portion of these mortgages.

Competitive factors have prompted the industry to enhance underwriting automation. As part of the push, credit scoring has become a routine part of the credit analysis process, and, increasingly, lenders are using automated valuation models (AVMs) to determine collateral coverage. However, credit scoring and collateral valuation models have been in popular use only since the 1990–1991 recession; consequently, their predictive ability in a downturn is uncertain. Although some have touted AVMs as the answer to appraisal fraud, the ability of statistical models to simulate the qualitative judgments considered critical to traditional appraisals is unknown. Paper appraisals reportedly

⁷ Purchase money mortgages are loans extended solely for the initial purchase of a home. Statistics on loan-to-value ratios for supplemental home equity loans/lines (e.g., piggyback or “80-10-10” financing), as well as refinanced mortgages, are not readily available.

continue to dominate the industry; however, recently, the two largest government-sponsored enterprises have begun accepting AVMs in lieu of standard appraisals for loans under \$275,000.⁸ For lenders that specialize in HLTV mortgages, there is less room for error with AVMs.

Cyclical Weakness Is Already Apparent in Subprime Mortgage Lending

Historically, certain insured institutions have made mortgage loans with narrow collateral margins or to borrowers with limited or blemished credit histories. However, significant entry by FDIC-insured institutions into mortgage lending to borrowers with weak or marginal credit, *as a targeted line of business*, generally has occurred only since the early 1990s. These “subprime” mortgages are neither defined nor reported on Bank Call Reports. As a result, gauging the extent of bank involvement in subprime lending at any point in time is difficult. However, the FDIC estimates that fewer than 1 percent of all insured institutions have significant subprime residential mortgage exposures. Nevertheless, according to some measures, subprime mortgages as a share of total mortgage originations peaked at 13 percent in early 2000, before moderating somewhat during the first three quarters of last year.⁹ Thus, a much larger number of institutions probably have some limited involvement in subprime mortgage lending. A survey by the *Minneapolis Federal Reserve Bank* found that 29 percent of banks in the **Minneapolis District** offered loans to low-credit quality consumer borrowers in 1999.¹⁰

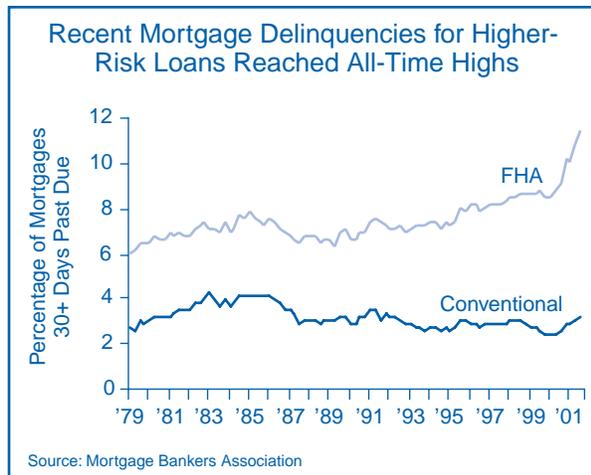
Subprime mortgage loan performance appears to have deteriorated notably during 2001. One source of support for this observation comes from delinquency trends on Federal Housing Agency (FHA)-insured mortgages, which are often granted to first-time homebuyers with troubled credit histories and borrowers with low down payments. The *Mortgage Bankers Association* reports that while the national delinquency rate on conventional mortgages rose 58 basis points in the year ending third-quarter 2001, the delinquency rate on FHA mortgages shot up by 234 basis points, to 11.4 percent (see Chart 4). This growing gap between

⁸ “Automated Appraisals Require Caution by Lenders,” *American Banker*, October 10, 2001.

⁹ Based on dollar volumes, data from Inside Mortgage Finance Publications, Bethesda, MD.

¹⁰ Ron Feldman and Jason Schmidt, “Why All Concerns About Subprime Lending Are Not Created Equal,” *Fedgazette*, Minneapolis Federal Reserve, July 1999.

CHART 4



delinquency rates on conventional and government-insured mortgages suggests that marginal and subprime borrowers are facing growing repayment difficulties.

A database of more than 6.5 million subprime loans tracked by *Loan Performance Corporation* (formerly *Mortgage Information Corporation*) reported similar trends. The nationwide third quarter 2001 ratio of seriously delinquent subprime mortgages was 7.3 percent, up from 5.5 percent one year earlier.¹¹ Moreover, subprime delinquencies significantly exceeded those found among prime mortgages, as just under 0.5 percent of conventional prime mortgages were seriously delinquent.¹² Also of possible concern are vintage data trends, which show how pools of primary and junior-lien subprime mortgages perform over time. Mortgages originated in 2000 are performing poorly in relation to previous years' vintages.¹³ This simply could reflect the impact of the current recession. Alternatively, *Loan Performance Corporation* analysts have suggested that the 2001 refinancing boom might have created some adverse selection in mortgage pools originated during the relatively higher interest rate environment of late 1999 and early 2000.¹⁴ Because high-

¹¹ *The Market Pulse*, Loan Performance Corporation (formerly Mortgage Information Corporation), Winter 2001 and Fall 2001.

¹² *The Market Pulse*, Loan Performance Corporation, Fall 2001.

¹³ Per Loan Performance Corporation delinquency data, subprime primary mortgages originated in 2000 displayed higher delinquency ratios for their age compared with similarly seasoned subprime loans originated in 1996, 1997, 1998, or 1999. Moody's second-quarter 2001 *Home Equity Index Update* found the same to be true of subprime home equity loans.

¹⁴ "Another Look at the 2000 Book," *The Market Pulse*, Loan Performance Corporation (formerly Mortgage Information Corporation), Winter 2001.

er-coupon and variable-rate loans comprised a significant share of mortgage originations during that period, overall prepayment rates on the 2000 vintage might have been unusually high during 2001. Consequently, the best-quality loans in the 2000 pool might have refinanced, leaving loans of lesser credit quality behind and elevating the residual delinquency experience in that pool.

Given these trends, an important issue for subprime lenders is their ability to anticipate and plan for the impact of an economic slump on their operations. Some institutions clearly adopt subprime lending as part of an overall business strategy, setting up monitoring and collection departments geared to dealing with such loans. Among large, national lenders, for example, one institution that makes 5 to 10 percent of its loans to subprime borrowers recently provided additional resources to its loan services and default management departments. This action followed a period when one-third of its increase in nonperforming single-family mortgage loans was associated with loans to subprime borrowers.¹⁵

C&D Lending Risks May Be Elevated in MSAs with Potential Supply/Demand Imbalances

Historically, lending to finance housing construction is riskier than mortgage lending on existing structures. Insured institutions report construction and development (C&D) lending in a single category that includes both commercial and residential construction. While it is thus impossible to ascertain from quarterly call reports the extent of bank involvement in financing housing construction, anecdotal evidence suggests that, although smaller insured institutions engage to some degree in commercial property development, their C&D lending largely finances single-family construction. If markets with an oversupply of housing see weaker economic performance, insured institutions engaged in financing residential real estate development may be at risk. This could result in an increase in C&D loan delinquencies, losses, and other-real-estate-owned (OREO).

Demand for housing can be affected by two distinct trends: secular, or longer term; and cyclical, or shorter term. Over the long term, demographic trends, such as population growth rates and concentrations of households by age cohort, can affect overall demand for housing, as well as the types of homes demanded. Demand in local housing markets also can be affected by more cyclical factors such as recent changes in economic

¹⁵ Calmetta Coleman, "Default Worries on Home Loans Escalate as Lenders Report Delinquency," *Wall Street Journal*, October 29, 2001.

conditions, including interest rates. New supply of homes in local housing markets is produced in response to perceived or estimated future demand. Correct interpretation of market and economic signals is critical to the success of builders in metropolitan areas; however, this activity is complicated by the lags associated with developing, permitting, and constructing properties. The effect of overestimating future demand could be multiplied if several builders inaccurately gauge changes in demand. Consequently, a construction market with numerous smaller developers, such as **Atlanta**, may see amplified swings in construction activity and may experience excess supply during certain periods.

Although conceptually straightforward, measuring the balance between housing demand and supply is challenging, particularly at lower geographic levels. Shortcomings in data availability, quality, and timeliness can limit the effectiveness of this type of analysis. As already mentioned, some insight about current housing market conditions in specific metropolitan areas may be gained by analyzing both secular and cyclical trends. However, given the onset of recession last year, the role of cyclical factors is of prime concern at this time.

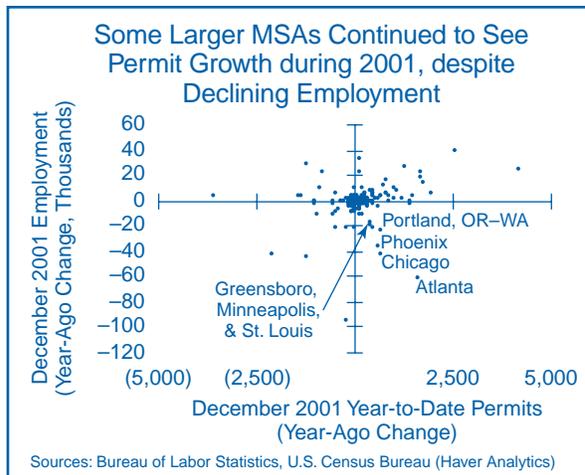
To measure the cyclical aspect of the relationship between a market's supply and demand, some analysts rely heavily on the concept of employment-driven demand.¹⁶ Such analysis involves tracking a demand/supply ratio based on employment growth and permit issuance. Areas where permitting activity continues to accelerate while employment levels decrease may produce an increasing imbalance in the local housing market.¹⁷

Using a simplified version of employment-driven demand, we identified a number of metropolitan areas as being at risk for a rising imbalance in their housing markets (see Chart 5), the largest of which are **Chicago, Greensboro (NC), Minneapolis, Phoenix, Portland (OR-WA), St. Louis**, and, most notably, **Atlanta**. These markets are displaying signs that residential

¹⁶ For example, see www.myersgroup.com.

¹⁷ This approach, although more reflective of recent economic events than perhaps more secular measures, is not without its drawbacks. For example, employment data from the Bureau of Labor Statistics' establishment survey are frequently revised, and, consequently, employment-driven demand may need to be reexamined.

CHART 5



construction activity may not be responding in kind to local economies that have started to contract during this recession. Further, Phoenix, Portland, and Atlanta were identified previously as banking markets exhibiting elevated risk profiles.¹⁸

Chart 6 displays the level (y axis) and trend (x axis) in C&D lending exposures for the top 25 MSAs by median C&D concentration as a share of assets.¹⁹ It is apparent that some markets identified in Chart 5 as having significant banking exposure to C&D lending also may have a cyclical imbalance in home building. Atlanta, for example, demonstrates one of the highest exposures, with a ratio of median C&D to total assets of 17 percent in third-quarter 2001, a roughly 100-basis-point increase from year-end 2000. In other words, while employment-driven demand has softened in the metropolitan area, single-family construction activity has continued, and community bank lenders may have increased their level of residential financing commitments.

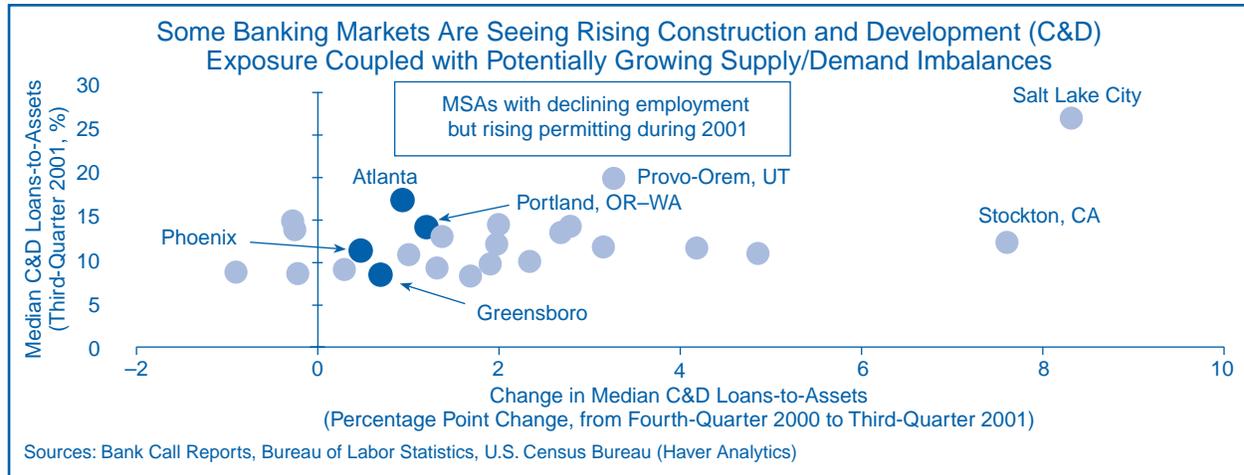
Cyclical Risks May Be Developing with Respect to Home Prices

Popular comparisons have been made recently between the healthy run-up in housing prices during

¹⁸ See "In Focus This Quarter," *Regional Outlook*, Fourth-Quarter 2001.

¹⁹ We considered only MSAs that had at least six locally headquartered community banks that engaged in C&D lending activity and then charted the top 25 MSAs ranked by September 2001 median C&D/assets.

CHART 6



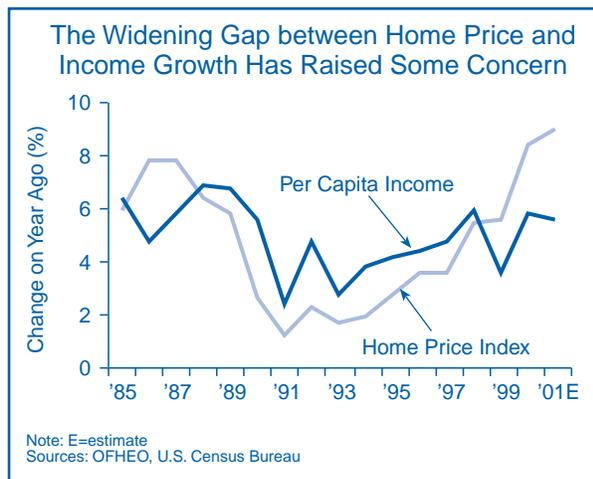
the past several years and the technology stock-fed speculative “bubble” in equity prices that persisted through early 2000. The subsequent bursting of this bubble and the resulting economic distress have raised concerns of a sequel featuring housing prices.

According to the OFHEO repeat sales price index, there has never been an instance of outright declines in aggregate U.S. existing home prices.²⁰ However, home prices do exhibit strong cyclical tendencies, with the rate of appreciation slowing during national recessions. In addition, there have been some decidedly

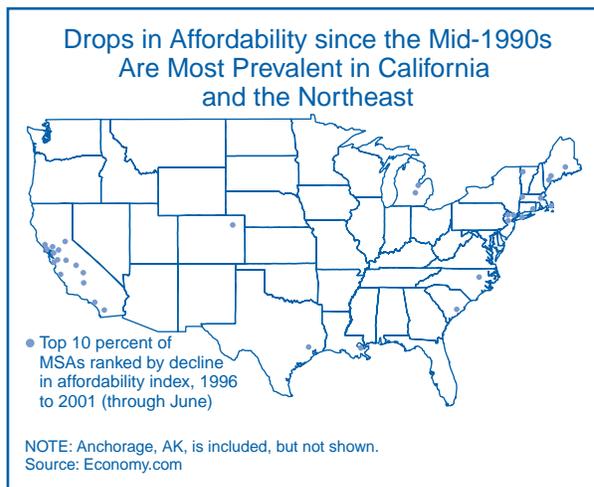
negative episodes during the past few decades in various metropolitan markets. At the national level, existing-home price growth historically has followed trends in population-adjusted personal income growth,²¹ and some have pointed to a growing imbalance between the two as a sign that home prices may weaken as the effects of the recession take hold (see Chart 7).

Given that home price bubbles have occurred in the past, most notably in **Texas**, California, and the Northeast during the 1980s, and that their ultimate deflation

CHART 7



MAP 1



²⁰ According to the National Association of Realtors’ U.S. median price, a few episodes of price declines (on a quarterly, year-ago basis) are present in the time series—specifically first- and second-quarter 1989; fourth-quarter 1990; and first-quarter 1993—only the 1990 episode occurred during a recession. Also, as shown in Chart 1, U.S. median *new* home prices have experienced meaningful declines.

²¹ This relationship is generally true at the metropolitan level as well.

resulted in significant negative fallout for these areas' economies and insured institutions, it is useful to look at these historical examples as a potential "worst-case" scenario (with very low probability) for residential real estate markets during the current recession. It is unlikely that significant, systemic risks from home price bubbles have arisen yet for residential lenders. Of course, this situation could change if the current recession deepens or is protracted, or if growth during the subsequent recovery is anemic. Further, national trends can obscure dramatic variations in local markets, and a handful of MSAs today are coming off several years of rapid home price growth and falling affordability. These markets, and the residential lenders targeting them, may be more at risk as local economic growth falters.

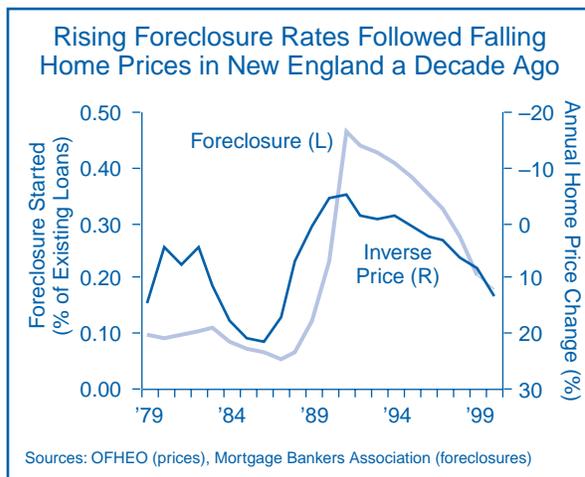
Map 1 shows markets that have seen the most significant reductions in affordability (sharp price gains) during the past several years. Not surprisingly, many of them—namely larger cities in California and the Northeast—are those that historically have seen the biggest swings in prices and a penchant for speculative excess.

In markets with rapidly declining affordability, credit risk arises from the increasing likelihood that new borrowers will commit a greater share of household financial resources to meet monthly payments. Credit problems could become more readily apparent given any subsequent disruptions to employment or income in these markets—especially among households with limited wealth or that require multiple job holders to meet mortgage payments. These risks may be amplified by the increased underwriting of HLTV and sub-prime mortgages during the past decade.

Disruptions to aggregate household liquidity from lost employment or decreased income can result in rising mortgage *delinquencies*. With respect to *foreclosures*, however, some research has suggested that the decline in prices relative to the balance owed on the mortgage (rising loan-to-value ratio) is the most significant factor.²² Even in instances of prolonged job/income loss, owners with positive equity are likely able to sell their

²² For instance, "Mortgage Default Risk and Real Estate Prices: The Use of Index-Based Futures and Options in Real Estate," Case, Shiller, & Weiss, NBER Working Paper #5078, NBER, April 1995, finds this to be the case, while citing past work that identified the link between rising LTVs and foreclosure rates.

CHART 8



homes profitably, thus avoiding foreclosure. Chart 8 shows the strong relationship between declining home prices and increasing foreclosure rates in **New England** a decade ago (the chart plots the inverse price change in order to emphasize the relationship).²³

The data available through late 2001 were mixed with respect to home resale price trends at the MSA level. On the one hand, while existing home prices as measured by the OFHEO home price index showed no markets with year-over-year price declines in fourth-quarter 2001, NAR's median resale price metric did show about a dozen markets with year-over-year declines, none exceeding four percent. A *deceleration* in year-over-year home price growth was evident for many markets (and the nation) using either measure. It should be noted that the OFHEO data do not include sales of high-priced homes and are less influenced by changes in the mix of homes sold than are average and median prices;²⁴ this issue is more meaningful in the nation's most expensive markets, such as MSAs in the

²³ In states where dominant metro areas have seen large price declines in past years, such as Massachusetts, this relationship is more pronounced than in larger states or the nation as a whole. For example, the two-decade correlation between foreclosures started and price change is -78 percent in Massachusetts versus roughly -60 percent in both California and the nation.

²⁴ Data are obtained from aggregating repeat sales or refinancings of the same properties over time and using statistical methods to calculate an overall rate of home price appreciation for each market. Sampled properties are confined to those whose mortgages are "conventional" and do not exceed a conforming loan limit (set at \$275,000 in 2001) required for securitization through Fannie Mae and Freddie Mac. For more information, see www.ofheo.gov/house/.

TABLE 1

AS RECESSION EVOLVED, HOME PRICE APPRECIATION WANED THROUGH 2001 ...FURTHER DECELERATION IN GROWTH (OR DECLINES) MAY BE POSSIBLE IN 2002							
MSAs RANKED BY DECELERATION IN HOME PRICE INDEX FROM 1Q01 TO 4Q01	ANNUAL PERCENT CHANGES						
	OFHEO HOME PRICE INDEX					NONFARM EMPLOYMENT	
	1998- 2000	1Q01	2Q01	3Q01	4Q01	1998- 2000	2001
UNITED STATES	6.3	9.6	9.1	8.8	6.9	2.4	0.3
SAN JOSE CA PMSA	17.7	24.4	16.9	8.4	0.6	3.4	-0.4
SANTA CRUZ-WATSONVILLE CA PMSA	16.8	25.7	17.3	11.9	5.9	N/A	N/A
SAN FRANCISCO CA PMSA	16.5	19.4	13.9	9.1	3.5	3.3	1.3
SALINAS CA MSA	13.7	24.3	22.4	19.0	9.4	3.3	0.9
SANTA ROSA CA PMSA	14.8	22.7	19.6	13.6	8.6	4.1	1.6
OAKLAND CA PMSA	14.7	22.3	18.0	14.1	8.2	3.4	2.0
AUSTIN-SAN MARCOS TX MSA	9.4	15.2	12.1	7.7	5.0	5.9	2.1
MERCED CA MSA	6.4	24.6	21.8	17.3	15.7	N/A	N/A
JAMESTOWN NY MSA	4.9	9.9	0.8	7.4	1.6	N/A	N/A
STOCKTON-LODI CA MSA	9.0	22.8	25.2	20.6	14.9	3.7	3.0
WHEELING WV-OH MSA	4.1	10.8	7.7	11.7	3.7	1.1	-0.5
GOLDSBORO NC MSA	4.0	7.9	3.2	1.6	0.9	N/A	N/A
CUMBERLAND MD-WV MSA	2.7	8.6	8.4	8.1	1.8	N/A	N/A
LEWISTON-AUBURN ME NECMA	4.2	14.0	8.6	10.1	7.1	4.4	-0.4
BANGOR ME NECMA	3.7	13.2	7.4	9.3	6.5	N/A	N/A
FARGO-MOORHEAD ND-MN MSA	4.0	11.1	6.5	5.4	4.6	2.1	-0.3
BARNSTABLE-YARMOUTH MA NECMA	12.8	17.6	14.5	14.6	12.5	3.9	1.3
PINE BLUFF AR MSA	2.2	6.6	9.7	5.0	0.3	0.8	-1.7
DUBUQUE IA MSA	3.9	8.8	6.0	6.9	2.5	1.1	-0.6
BOULDER-LONGMONT CO PMSA	10.9	14.6	11.7	11.7	8.3	5.1	3.2
DENVER CO PMSA	11.1	13.7	11.8	10.9	7.9	3.8	2.3
UTICA-ROME NY MSA	3.5	14.6	9.5	8.4	9.1	2.4	0.1
VALLEJO-FAIRFIELD-NAPA CA PMSA	11.8	20.0	19.1	16.6	14.7	4.7	2.8
BRYAN-COLLEGE STATION TX MSA	4.8	11.1	2.1	5.6	5.8	4.0	0.7
SAN DIEGO CA MSA	11.8	15.6	13.8	12.9	10.4	4.3	2.7
SAN LUIS OBISPO-ATASCADERO- PASO ROBLES CA MSA	11.4	19.2	18.0	17.8	14.2	N/A	N/A
TUCSON AZ MSA	3.3	8.6	8.0	6.8	3.6	3.5	0.8
JERSEY CITY NJ PMSA	8.0	11.1	17.6	13.7	6.2	2.1	2.7
CLARKSVILLE-HOPKINSVILLE TN- KY MSA	3.3	9.1	4.2	6.5	4.2	N/A	N/A
RAPID CITY SD MSA	6.2	8.9	9.3	7.7	4.1	3.1	0.1
LA CROSSE WI-MN MSA	5.7	7.4	5.8	5.1	2.6	2.3	1.0
ST. CLOUD MN MSA	6.9	10.4	8.5	9.4	5.7	3.8	1.4

SOURCES: OFFICE OF FEDERAL HOUSING ENTERPRISE OVERSIGHT (OFHEO), BUREAU OF LABOR STATISTICS

San Francisco Bay Area²⁵ and parts of the Northeast, since prices for high-end homes (typically financed by jumbo mortgages) may be more volatile over the economic cycle.

Table 1 lists markets whose 2001 deceleration in home price growth was in the top 10 percent of the more than 300 metro areas for which the OFHEO statistic is available. The table also provides (where available) each MSA's recent employment trend as an indicator of overall economic conditions. These markets may yet see even more pronounced deceleration in home price growth or even declines in home prices this year (as may others not shown). This possibility will be determined for the most part by the performance of each market's local economy.



The metro areas in the table are ordered by the magnitude of their deceleration in home price growth over the initial quarters of this recession. As a result, the marked deceleration in year-over-year price growth in the recently overheated

San Francisco Bay Area puts many of its MSAs near the top of the list. In the table, **San Jose**, **San Francisco**, **Oakland**, **Denver**, and **San Diego** also previously were identified as banking markets with elevated risk profiles.²⁶ For some of the smaller MSAs in Table 1 with more volatile appreciation rates, such as **Utica** and **Fargo**, comparisons of recent price trends are more appropriate using the 1998–2000 average as a benchmark, as these markets experienced pronounced spikes in year-ago price growth during first-quarter 2001.

It is hard to generalize about which markets will see the most pronounced home price weakness as the recession continues. However, certain markets have shown a tendency in the past to be driven to a greater degree by speculative, rather than fundamental, factors. These markets are more likely to see significant downward corrections in price when economic activity falls for a prolonged period or by a sufficient magnitude. One study from the mid-1990s found, in comparing 14 cities in the **North-east** and **West** with 16 inland cities, that while both groups tended to respond similarly to local and national

economic forces (fundamental, or “equilibrium,” price drivers), prices in the former group tended to be influenced to a greater degree by speculative, or “disequilibrium,” variables, including recent trends in price appreciation.²⁷ Cities along the nation's coasts also have tended to see the most significant price swings over the past 20 years.

History also provides some insights into the nature and extent of any price declines in markets where economic conditions deteriorate. A study of two significant examples, Boston and Los Angeles in the 1980s and early 1990s, concluded that declines differed by property type (i.e., condos versus single-family) and price class (i.e., high-end versus entry-level).²⁸ This dispersion in price declines arose from differing rates of appreciation (properties that experienced the greatest inflation during the boom saw the largest deflation) and from the nature of each city's economic decline, which differed according to concentrations of job losses by industry and wage type, underlying demographic factors, and housing supply trends.

Looking at recent developments, it seems that the greatest near-term risk of a significant downward adjustment in housing prices is in the San Francisco Bay area. In recent years, this area witnessed double-digit home price appreciation that exceeded growth in per capita income by a wide margin. A recent analysis from the *University of California-Berkeley's Haas School of Business* forecast that prices in the Bay Area housing market will decline by 15 percent overall (and by 30 percent for luxury homes) by the time the local economy's recession ends late this year.²⁹ Meanwhile, the larger MSAs in **Southern California** have not seen as significant a disparity between home price appreciation and personal income growth during this cycle as during the 1980s. Also in contrast to the 1980s, New England (and the Northeast generally) has seen little speculative purchase or construction activity in recent years, which should help to mitigate any price weakness through the current recession in these markets.³⁰

²⁵ As considered here, this includes the following MSAs: San Jose, Santa Cruz-Watsonville, San Francisco, Santa Rosa, Oakland, Salinas, and Vallejo-Fairfield-Napa.

²⁶ See “In Focus This Quarter,” *Regional Outlook*, Fourth Quarter 2001.

²⁷ Jesse M. Abraham and Patric H. Hendershott, “Bubbles in Metropolitan Housing Markets,” Working Paper #4774, NBER, June 1994.

²⁸ Karl E. Case and Robert J. Shiller, “A Decade of Boom and Bust in the Prices of Single-Family Homes: Boston and Los Angeles, 1983 to 1993,” *New England Economic Review*, March/April 1994.

²⁹ David Goll, “Bay Area Housing Market Will Remain Slow,” *East Bay Business Times*, January 23, 2002.

³⁰ “Regional Perspectives,” Boston Region, *Regional Outlook*, First Quarter 2002.

Conclusion

Home prices are holding up in most markets, and, generally, permanent residential mortgages have fared well in prior recessions. However, history might understate credit risks for insured institutions during this cycle because the mortgage lending business has changed since the last recession. Chief among these changes are robust mortgage market competition, which has contributed to narrower collateral margins; increased reliance on underwriting automation; and expanded involvement in the subprime credit market. In addition, residential C&D lenders in certain markets might be particularly vulnerable, since C&D cred-

its typically undergo higher loss rates and some areas are experiencing continued construction despite a cyclical slowdown (as measured by employment trends). Permanent mortgage lenders in certain areas, such as the San Francisco Bay area, could also face higher loss rates and foreclosures going forward, as the current economic weakness places downward pressure on home prices and dampens the ability of households to meet mortgage payments.

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