Regional Outlook

FEDERAL DEPOSIT INSURANCE CORPORATION FIRST QUARTER 2002

FDIC
CHICAGO
REGION

Regional Perspectives

◆ *The current recession and aftermath of the September 11 attacks triggered sharp cutbacks in the Region's economic activity and employment*—**In contrast with most prior recessions, deterioration in the Region's labor markets has not been more severe than that of the nation. This situation reflects, in part, the fact that the current economic slump extends beyond the manufacturing industries that are concentrated in the Region.**

◆ *As economic weakness became more evident in 2001, the Federal Reserve lowered its target short-term interest rate by 475 basis points*—**Lower interest rates stimulated the refinancing of business and household debt and helped sustain demand in some key sectors of the Region, especially motor vehicles and residential real estate.**

◆ *Rapidly falling interest rates improved insured institution net interest margins and affected asset and liability management*—**Loan and deposit customers' preferences have changed, and bankers now face a new environment for asset and liability management. How insured institutions manage these changes will determine future exposure to rising short-term rates or a flattening of the yield curve.** *See page 3.*

By the Chicago Region Staff

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.*

By Scott Hughes, Regional Economist
Judy Plock, Senior Financial Analyst
Joan Schneider, Regional Economist
Norm Williams, Regional Economist

DIVISION OF INSURANCE

SUZANNAH L. SUSSER, REGIONAL MANAGER

JOAN D. SCHNEIDER, REGIONAL ECONOMIST

MICHAEL ANAS, SENIOR FINANCIAL ANALYST

RONALD W. SIMS II, FINANCIAL ANALYST

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Regional Perspectives

- **The current recession and the economic effects of September 11 have triggered sharp job cutbacks. In December 2001, the Region's total employment was 1 percent lower than it had been a year earlier, with manufacturing employment 5 percent lower.**

- **The Federal Reserve lowered the interest rate on federal funds by 475 basis points during 2001 as signs of economic weakness grew. Lower interest rates stimulated the refinancing of business and household debt and helped sustain demand in some sectors, especially motor vehicles and residential real estate.**

- **The speed of change in short-term interest rates and the shift to a steeply sloped yield curve have affected the asset and liability sides of many banks' balance sheets. As a result, net interest margins improved slightly in the past two quarters, but bankers face a new environment for asset and liability management.**

Region's Economic and Banking Conditions

Recession Keenly Felt in the Chicago Region

The adverse effects of the recession that began in April 2001 are being compounded by the aftermath of the events of September 11, 2001. The **Chicago** Region's unemployment rate of 5.4 percent in December 2001 was noticeably higher than the 3.8 to 4.0 percent range of 1998 through 2000. However, in contrast with some previous cyclical contractions, the recent increase in the Region's unemployment rate and the percentage drop in employment were not dramatically worse than those of the nation.

The relatively comparable performance of the Chicago Region reflects the fact that the current slump involves some industry sectors that are not heavily concentrated in the Region, such as computers, aircraft, high-technology equipment, and tourism. Even so, output of such traditionally cyclical industries as motor vehicles, industrial machinery and equipment, and metals—all heavily represented in the Region—also is declining sharply. Consequently, employers in the Region have curtailed production significantly, and year-end 2001 employment in the Region was 1 percent lower than employment a year earlier, with manufacturing employment 5 percent lower.

Net job losses in the Region amounted to 225,000 in the year ending December 2001. Employment growth of 9,000 workers in the construction industry was overwhelmed by the loss of 217,000 jobs in the manufacturing sector. These losses were concentrated among producers of transportation equipment (–38,500), primary and fabricated metals (–50,700), industrial machinery and equipment (–43,100), and electronic and electrical equipment (–26,800). Elimination of an additional 33,500 jobs by providers of business services reflects, in part, the softness in manufacturing, as these companies provide such ancillary services to manufacturers as security, data processing, payroll services, and deliveries. Likewise, the fact that there are 22,600 fewer jobs in wholesale trade in the Region likely reflects the lack of demand for these services during a period of declining manufacturing activity.

Despite widespread evidence of economic weakness through the summer of 2001, the national economic decline before September 11 was sufficiently mild that it might not have reached recessionary proportions. Indeed, production and job cutbacks needed to reduce unplanned inventory accumulation were well under way among producers of motor vehicles and parts and in some other sectors. For others, however, significant inventory overhang remained a problem.

The nature and sources of economic difficulties expanded suddenly after mid-September as travel, tourism and lodging, and many other service industries—which are typically less sensitive to economic cycles than manufacturing—weakened significantly. Thus, the harshest effects of September 11 may be felt outside the Region. However, to the extent that the aftermath of September 11 also may trigger a sharp

reduction in business and household spending for goods, manufacturers may need to trim inventories further, prompting additional cutbacks in production and jobs.

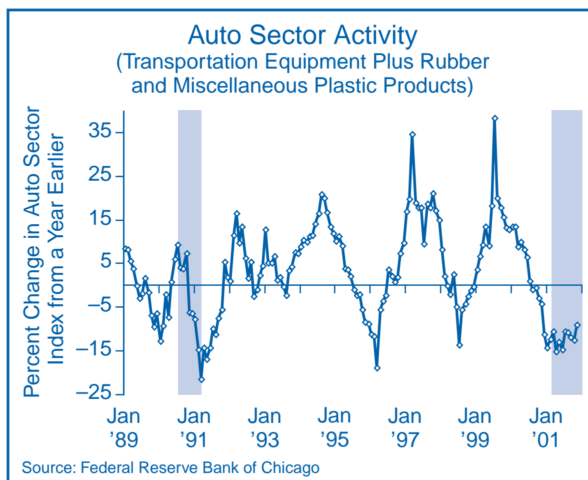
This second wave of adversity added to the severity and areas of weakness in the U.S. economy and affected the nature and timing of when the economic slump might end. Even if production cutbacks wind down in the first half of 2002, for example, the potential impact of a rebound in manufacturing activity may be tempered by continuing adjustments in the service-producing sectors. In this way, the current situation parallels conditions following the 1990–1991 recession. Then, the recovery from a traditional inventory cycle was tempered by the restructuring under way among some major industries, as vulnerable firms were no longer able to delay the downsizing needed to enhance their viability.

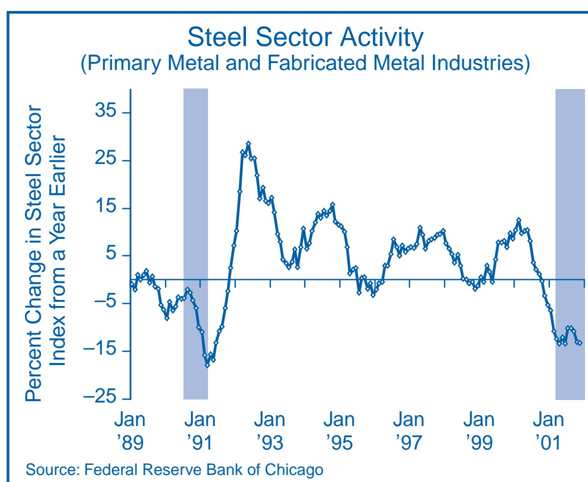
With respect to the cyclical contraction now under way, the decline in production of motor vehicles and parts approximates previous downturns in terms of severity (see top panel of Chart 1). However, the recent weakness has been more prolonged and is not showing a quick rebound. Various incentives offered by manufacturers in late 2001 pushed sales to record levels in the fourth quarter. Because these promotions dramatically lowered inventories, production of vehicles and parts rose by more than 4 percent in November and again in December, boosting year-end output to the highest level since July. Looking ahead, however, any production and employment rebound during 2002 may be muted because the recent incentives not only advanced into 2001 some purchases that would have occurred in 2002 but also reduced producers' profitability. At one firm, for example, the "cost" of incentives in 2001 amounted to 16 percent of revenues, up from 11 percent the prior year, and incentives contributed to projections of an annual net loss for the company.[1]

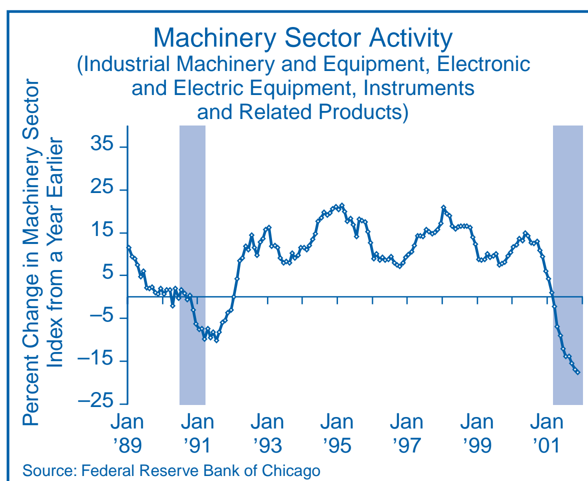
Similarly, contraction in the steel sector has been prolonged relative to the last recession (see middle panel of Chart 1). This development reflects not only the slump in domestic demand but also longer-term structural adjustments in the industry and the ready availability and competitive pricing of product from abroad.

[1] Hakim, Danny, December 17, 2001. "Automakers' Big Sales Now May Cut Business Next Year," *New York Times.*

Chart 1
Key Sectors in Region Experience Significant Declines







The viability of some domestic steel producers and fabricators was weakened several years ago when economic activity in Asia plummeted, many currencies were devalued relative to the U.S. dollar, and some product was dumped in the United States. Moreover, some steel producers in this Region are losing business to newer facilities elsewhere in the country that tend to operate with lower cost structures. More than 25 U.S. steel companies have filed for bankruptcy since 1998; about half of them are no longer in operation.

An unusual characteristic of this recession is that a slump in the business equipment and machinery sector occurred slightly before a downturn in output of consumer goods, in contrast with the typical sequence in recessions. The current contraction in this sector is more severe than in the last recession (see bottom panel of Chart 1) but not worse than in the previous two. This sector likely will remain weak until the manufacturing sector as a whole utilizes existing plant and equipment more fully than the 73 percent utilization rate of late 2001.

Outside the manufacturing sector, a parallel with the last recession is the Federal Reserve's significant lowering of short-term interest rates as signs of economic weakness intensified. In turn, favorable financing terms helped sustain relatively high demand for some interest-sensitive sectors such as homes and motor vehicles. Lower interest rates also helped lower the financing costs faced by businesses and households, enhancing borrowers' ability to remain current on existing debts despite slower growth in income or profits. Even so, corporate bankruptcies have risen noticeably in the past year, and signs of repayment problems are appearing among households as well. Should new federal farm legislation significantly reduce government payments to farmers, which are a major source of income in some agricultural communities, signs of stress also might become evident among small farmers.

Rapidly Falling Interest Rates Have Affected Net Interest Margins and Asset and Liability Management Choices

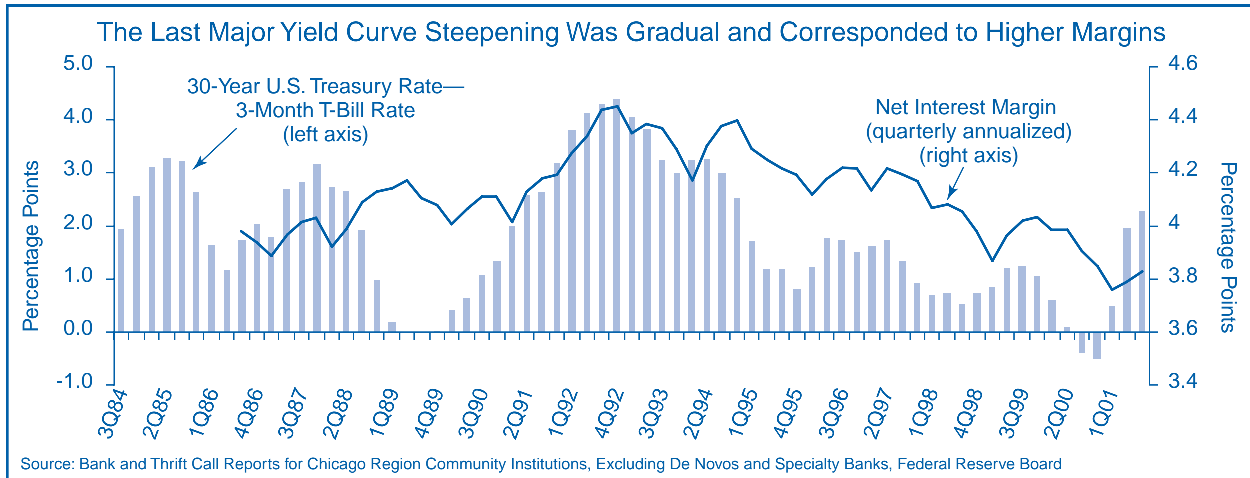
During the past ten years, insured institution net interest margins (NIMs) have been shrinking. This margin compression has been the consequence of structural changes within the banking industry, largely the result of significant competition for both loans and deposits. Throughout 2001, however, short-term interest rates fell significantly,[2] and the yield curve, previously inverted, is now steep and upward sloping. Generally, a steep yield curve is perceived as beneficial for the banking industry, as many institutions have liabilities of shorter duration than the earning assets. However, the rapid change in the yield curve in 2001 contributed to many sudden changes. Refinancing activity has surged, customers' loan and deposit preferences have changed, and bank management teams now are faced with substantially different asset and liability management decisions than those they faced a year ago. The discussion below explores recent NIM trends, the banking markets or types of institutions that have been affected most significantly, and the effect that higher short-term rates could have on insured institutions if the economy rebounds in 2002.

Margin Compression Has Abated in Recent Quarters

The last major steepening of the yield curve occurred in the early 1990s, was fairly gradual, and corresponded with rising NIMs. Similarly, significant short-term interest rate reductions in 2001 appear to have helped improve margins in recent quarters (see Chart 2, next page). However, the swift nature of recent rate reductions may lead to a muted positive impact and could prove adverse to some insured institutions that were not adequately hedged against a rapid decline in short-term rates and a steepening yield curve. Although the full effects of the 2001 changing interest rate environment have yet to be felt, a review of the driving forces of NIM already reveals changing strategies among both insured financial institutions and their customers. The restructuring that is taking place will affect insured institution interest rate risk positions and, therefore, future NIM trends.

[2] In 2001, the target federal funds rate was reduced 11 times, for a total of 475 basis points.

CHART 2



Source: Bank and Thrift Call Reports for Chicago Region Community Institutions, Excluding De Novos and Specialty Banks, Federal Reserve Board

"The Asset Side"

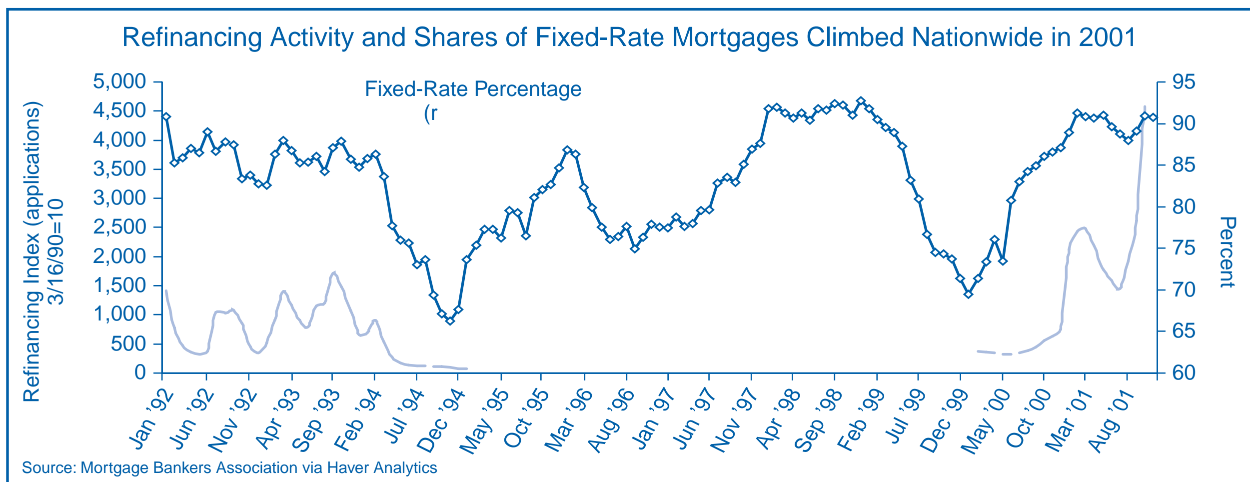
As short and intermediate rates have fallen, so have asset yields. Since 1998, median asset yields peaked in fourth-quarter 2000 at 8.15 percent and have since declined to 7.56 percent for third-quarter 2001.[3]

The softening economy has hampered loan originations because of both declining loan demand and tighter underwriting. As a result, institutions will have a more difficult time bolstering asset yields by increasing loan-to-asset ratios. In fact, Chicago Region commercial banks are reporting higher levels of federal funds sold and securities purchased under agreements to resell, indicating that recent deposit inflows have not been absorbed by loan demand. These highly liquid but low-yielding assets hit bottom in second-quarter 2000 at 1.57 percent of assets and rose to 3.21 percent as of third-quarter 2001. Modest loan demand, should it persist, could constrain recent NIM improvements.

Falling Mortgage Rates Led to a Surge in Refinancing Activity and a Borrower Preference for Fixed-Rate Mortgages

A surge in mortgage refinancing activity (see Chart 3) has been fueled by low mortgage rates and steadily increasing home values in the Midwest. The increase in mortgage origination activity has been a boon for many lenders, enabling them to generate more fee income.

CHART 3



Source: Mortgage Bankers Association via Haver Analytics

[3] Unless noted otherwise, insured institution data refer to institutions headquartered in the Chicago Region with less than $1 billion in assets, excluding de novos and specialty banks. The term "commercial banks" will be used to denote thrift data is not included.

More problematic, however, could be the rapid return of principal funds to banks and thrifts and how those funds are then reinvested. The ***Mortgage Bankers Association (MBA)*** forecasts[4] that mortgage originations will start to subside, yet refinancing activity is expected to remain high, accounting for 67 percent and 55 percent of mortgage originations in fourth-quarter 2001 and first-quarter 2002, respectively.

Because low interest rates are available, borrowers have shown, and are expected to continue to show, a preference for fixed-rate mortgages with longer duration. The MBA anticipates that adjustable-rate mortgage loans will comprise only 13 percent of mortgage loan originations in 2002, well below the 24 percent level seen in 2000.

How margins ultimately will be affected by refinancing activity will be a function of the migration of mortgages from short term to longer term, management decisions on which loans to retain or sell, and competitive pressures on pricing power. Insured institutions holding higher percentages of long-term loans may begin to see margin improvement, but possibly at the risk of margin exposure to higher short-term rates. Fortunately, liquid mortgage markets give institutions flexibility in dealing with high volumes of mortgage lending activity. Chicago Region commercial banks have not reported a significant lengthening of maturities in one- to four-family mortgage portfolios; however, those institutions more heavily focused on residential lending[5] have seen a marked increase in one- to four-family loans maturing or repricing in greater than 15 years.[6]

Mortgage Lenders Are Highly Sensitive to Interest Rate Fluctuations

A review of median NIMs across different institution types reveals that this year's interest rate cuts have not halted NIM compression for residential real estate lenders (as well as those that hold significant mortgage-backed securities portfolios). Mortgage lenders typically have lower spreads based on lower credit risk profiles; therefore, interest rate declines tend to have a more significant impact on them than on other groups. Other bank groupings also are experiencing the longer-term structural margin compression but have performed slightly better during the past two quarters.

Mortgage lenders in the Region hold the highest percentage of long-term assets, and during the past two quarters, the group's long-term asset ratio increased appreciably,[7] unlike that of non-mortgage lenders. Mortgage lenders' long-term assets increased from 37.9 percent to 40.9 percent of assets from March 31, 2001, to September 30, 2001. Under the current scenario, mortgage lenders could experience significantly mismatched asset/liability positions.

In addition to dealing with the substantial optionality inherent in mortgage lending, mortgage lenders have the highest median quarterly annualized cost of funds, at 4.29 percent. This group has experienced the most modest decline in median cost of funds during the past year, at only 33 basis points. In contrast, the Region's commercial lenders[8] saw a more substantial 65-basis-point decline in cost of funds during the same period.

[7] Long-term asset information is available only for Call Report filers.
[8] Commercial lenders are defined as holding more than 25 percent of assets in the sum of commercial and industrial and commercial real estate lending.

Commercial Loan Refinancings Have Margin and Asset Quality Implications

Commercial-oriented loans also are subject to refinancing activity. Commercial lenders in the Region have seen the biggest year-over-year and quarter-to-quarter declines in asset yields, largely because of softer commercial loan demand; however, refinancings also likely contributed to these declines. Given a soft economy, creditworthy borrowers are at a premium, and savvy borrowers are likely to seek interest rate concessions. If lenders balk, the better customers can pay off their loans early by obtaining new funds elsewhere at a lower market rate. As a result, commercial lenders are sometimes faced with the unappealing choice of accepting lower loan yields or potentially losing prime borrowers.

Securities Compose a Smaller Portion of Assets but Have Heightened Interest Rate Sensitivity

Long-term margin pressures and the increased availability of off-balance-sheet liquidity sources have led many

[4] Mortgage Bankers Association of America, *Mortgage Finance Forecasts*, November 14, 2001.
[5] Residential real estate lenders have more than 50 percent of assets in the sum of one- to four-family loans and mortgage-backed securities.
[6] As of December 31, 2000, 21 percent of one- to four-family mortgage loans matured or repriced in over 15 years, versus 25 percent as of September 30, 2001. This is approximately double the level of long-term mortgages held by community banks in the Region.

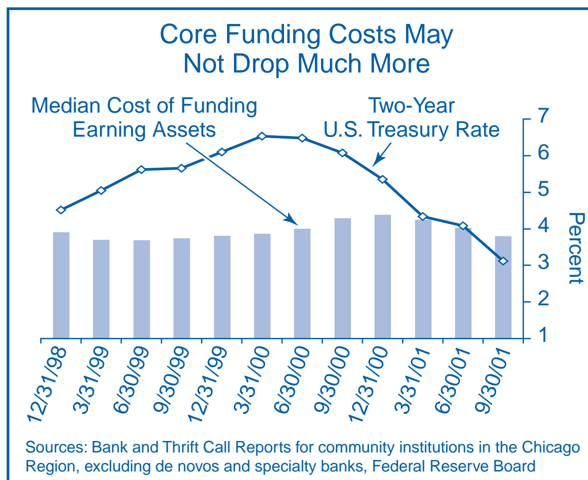
of the Region's commercial banks to hold a smaller proportion of marketable securities. At year-end 1998, the Region's commercial banks had an aggregate securities-to-assets ratio of 25.5 percent, compared with 21.5 percent as of September 30, 2001. Generally speaking, holding smaller securities portfolios and retaining more loans will serve to augment NIMs.

Within securities portfolios, Chicago Region commercial banks have been opting to hold significantly fewer U.S. Treasury securities and more U.S. agency and mortgage-backed securities. These instruments provide slightly higher yields while continuing to meet liquidity needs. Even before the recent steepening of the yield curve, the Region's banks had been opting for investments with maturities or earliest repricing dates further into the future. Mortgage pass-throughs with maturities over 15 years (compared with those with shorter maturities) have increased as a percentage of that category in the past few years, as have "other debt" securities with 5- to 15-year maturities. As of December 31, 1998, 34 percent of mortgage pass-throughs had maturities or repricing dates over 15 years, and now 49 percent do. Although these trends also are contributing to margin improvement, holding securities portfolios with extended maturity or repricing dates heightens potential market value fluctuations associated with changes in interest rates.

"The Liability Side"

The increased use of noncore funding has been one of the key trends contributing to narrowing NIMs. While there are exceptions, noncore funding sources tend to be more expensive than core funds. However, the differences in costs become less meaningful during a period of rapidly falling rates. During such times, the structure of a bank's liabilities and its management of interest rate risk become the paramount factors affecting NIM trends. Given the availability of many funding sources, such as Federal Home Loan Bank borrowings and brokered deposits, banks have a variety of options for structuring the liability side of their balance sheets. Therefore, some banks with a significant amount of short-term noncore funding may have benefited greatly from the recent drop in rates. Conversely, those that locked in rates, have more longer-term funding sources, or faced significant competitive pressure for core funds may not have experienced the same benefit to their funding costs.

CHART 4



Sources: Bank and Thrift Call Reports for community institutions in the Chicago Region, excluding de novos and specialty banks, Federal Reserve Board

Funding Cost Improvements May Be Muted

It takes time for liabilities to reprice after market rates shift; the result is a lag between rate reductions and the full effect of cost improvements (see Chart 4). Median funding costs during the past three years peaked in December 2000 at 4.39 percent and fell steadily to 3.79 percent as of September 2001, a much smaller decline than that of the two-year U.S. Treasury rate. Some funding cost "stickiness" may be expected because banks may be unwilling to jeopardize deposit relationships by lowering deposit rates even further. The total expected decline in funding costs may be relatively small, given that rates are already so low and that banks may not have much pricing power.

Institutions with pressured margins may perceive an incentive to utilize shorter-term wholesale funding if they fear deposit runoff that might occur if deposit interest rates were lowered further. Lower-cost wholesale funding could be used in the short term to augment margins. However, such a strategy may be short-sighted for institutions whose customer base is ultimately the foundation of franchise value. Jeopardizing those relationships could adversely affect the ability to generate high-yielding loans and manage deposit rates upward on a lagged basis when the economy rebounds.

Many Banks Seek Longer-Term Funding, while Many Retail Customers Migrate toward Short-Term Instruments

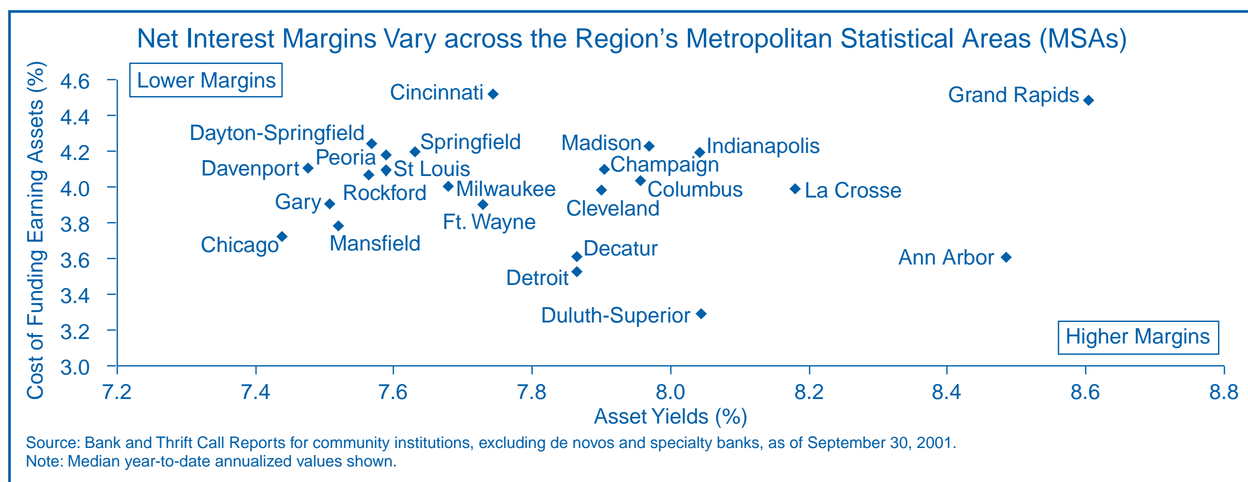
Recent changes in the Region's liability structure have implications for interest rate sensitivity going forward. Although noncore funding use continues to rise in the Region, the bulk of assets are funded with core funds. Chief among these are time deposits, such as certificates of deposit (CDs). Many depositors appear reluctant to invest in long-term time deposits in the current interest rate environment. For commercial banks, retail customer preference now seems to be toward shorter-term time deposits as well as nonmaturity money market deposit accounts (MMDA) and savings accounts. During the past year, the percentage of CDs maturing within one year has been increasing,[9] as has the amount of MMDA and savings accounts, albeit more modestly.

Where management has the most control over funding maturities, such as with brokered deposits and Federal Home Loan Bank (FHLB) borrowings, there has been a move toward longer-term maturities. The ratio of other borrowings[10] to assets has pulled back slightly this year, with aggregate FHLB borrowings to assets holding steady at 4.7 percent of assets during the past three quarters; however, the median percentage of FHLB borrowings maturing within one year has fallen to 19 percent from 25 percent over the same period.[11] The use of brokered deposits is relatively modest in the region, but aggregate maturities are increasingly longer term.

Margin Levels and Trends Vary among the Region's MSAs

Insured institutions in all but three metropolitan statistical areas (MSAs)[12] in the Region experienced declines in median year-to-date annualized NIMs during the year ended September 30, 2001. The most significant decline[13] in median NIM occurred in the **Cincinnati** banking market, where it dropped 47 basis points to 2.85 percent.[14] Banking markets in **Detroit**, **Peoria**, and **Davenport** experienced similar declines, albeit from higher levels. In Detroit, declines may not be as significant, as initial margins were much higher. Contributing to margin compression among banks in the Detroit MSA are rising nonaccrual levels, repricing of

CHART 5



Source: Bank and Thrift Call Reports for community institutions, excluding de novos and specialty banks, as of September 30, 2001.
Note: Median year-to-date annualized values shown.

[9] Short-term CDs have increased as a percentage of total time deposits, with the median level increasing from 73.7 percent as of June 30, 2000, to 77.1 percent as of September 30, 2001.

[10] The primary components of other borrowings are federal funds sold, securities sold under agreements to repurchase, demand notes issued to the U.S. Treasury and other borrowed money, and obligations under capitalized leases.

[11] Although maturity information is available for FHLB borrowings, repricing information is not, which prevents a determination on their potential impact on margins.

[12] Among MSAs with at least ten nonspecialty institutions (excluding de novos) with assets of less than $1 billion.

[13] Based on median NIMs through September 30, 2001 (year-to-date, annualized).

[14] Excludes institutions in the Cincinnati MSA but not headquartered in Ohio or Indiana.

commercial loans, and significant use of longer-term noncore funding.

Although insured institutions operating in most MSAs have lower margins than they did a year ago, much of the disparity in asset yields and funding costs exists among the Region's larger banking markets (see Chart 5, previous page). Markets such as Cincinnati, Davenport, Peoria, and **Dayton-Springfield** tend to have relatively higher funding costs and lower asset yields than other markets in the Region, which may be evidence of competitive pressures in these markets. Relatively low loan-to-asset levels and low asset yields among insured institutions in the **St. Louis** and Davenport MSAs indicate modest loan demand, perhaps leading to pricing pressures.

The Sharp Decline in Interest Rates in 2001 May Have Left Some Institutions Exposed to Rising Rates

Some groups of institutions are not seeing and may not see the enhancement to NIMs that lower interest rates traditionally are thought to cause. Institutions seeking to maximize current margins by increasing long-term, fixed-rate assets and shifting toward earlier repricing and shorter-term liabilities may be vulnerable during a rising interest rate environment. For instance, banks that had shifted toward shorter-term wholesale funding are reaping benefits now. However, should loan demand pick up and interest rates rise, many of these institutions may be particularly hard hit by higher funding costs and an inability to capitalize on increasing loan demand by tapping into deposit relationships.

Although many of the determinants of NIM trends in the aggregate have been explored, prudent interest rate risk decisions can be made only by reviewing the totality of an individual institution's rate-sensitive assets and liabilities. To that end, bank management teams now can review how well interest rate risk management systems performed during a period of substantial interest rate changes. Management also has the opportunity to ensure that institutions are well positioned for possibly higher interest rates or significant, nonparallel shifts in interest rates, such as those seen in 2001. Now is the time for management to prepare for a rising rate environment.

By the Chicago Region Staff

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

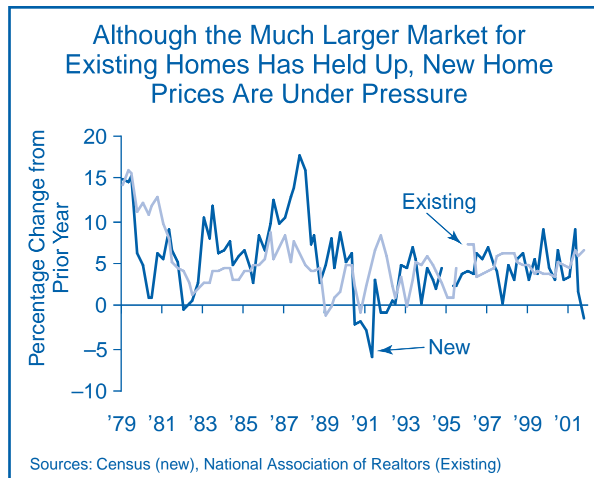
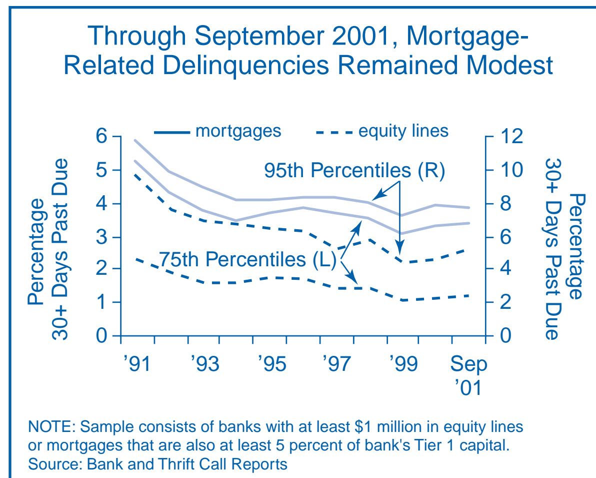


CHART 2



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 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

[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.

[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.

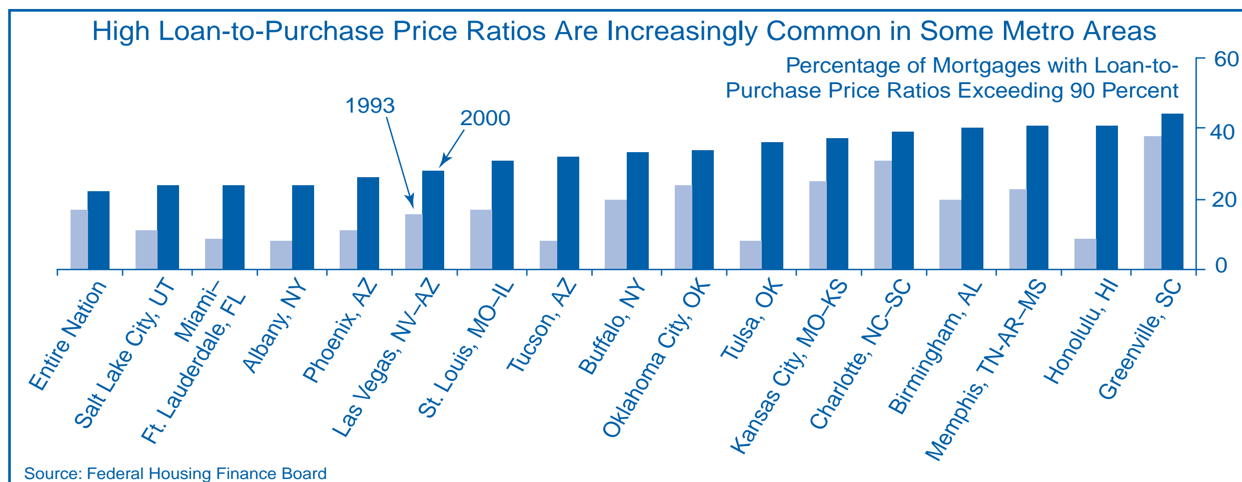
Evolving Lending Practices Have Increased the Risk Profile for Mortgage Lenders

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 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.

[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.

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]

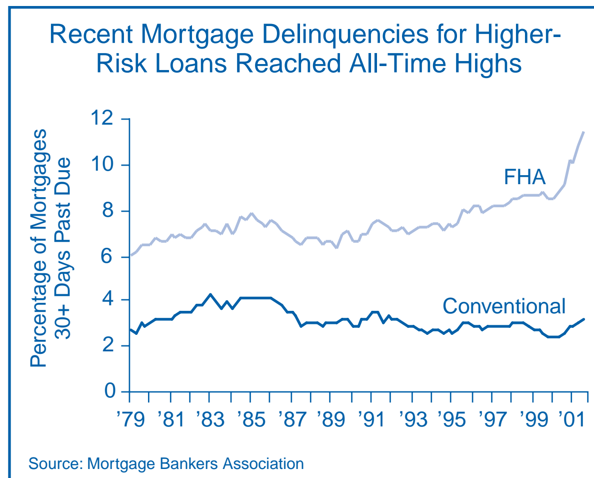
Subprime mortgage loan performance appears to have deteriorated notably during 2001. One source of support for this observation comes from delinquency trends on Federal Housing Agency (FHA)-insured mortgages, which are often granted to first-time homebuyers with troubled credit histories and borrowers 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



Source: Mortgage Bankers Association

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 higher-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

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

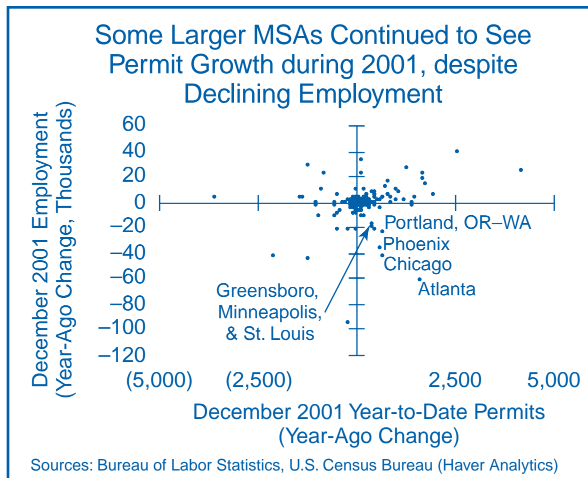
conditions, including interest rates. New supply of homes in local housing markets is produced in response to perceived or estimated future demand. Correct interpretation of market and economic signals is critical to the success of builders in metropolitan areas; however, this activity is complicated 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 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 5



Sources: Bureau of Labor Statistics, U.S. Census Bureau (Haver Analytics)

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

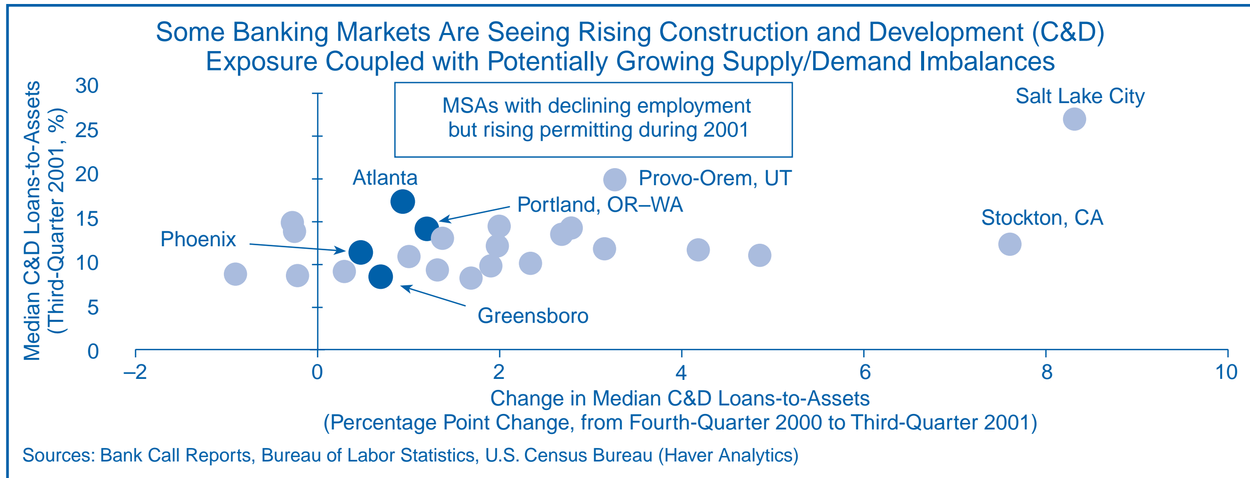
[16] For example, see www.myersgroup.com.

[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.

[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

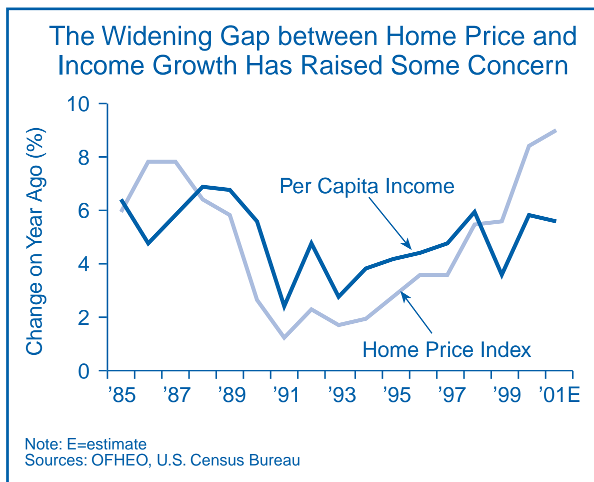


the past several years and the technology stock-fed speculative "bubble" in equity prices that persisted through early 2000. The subsequent bursting of this bubble and the resulting economic distress have raised concerns of a sequel featuring housing prices.

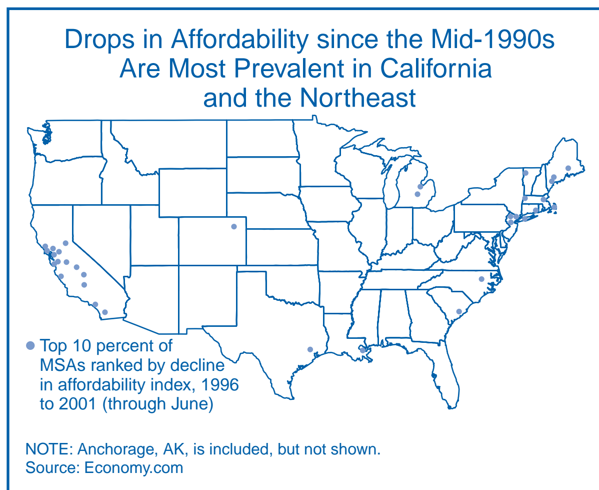
According to the OFHEO repeat sales price index, there has never been an instance of outright declines in aggregate U.S. existing home prices.[20] However, home prices do exhibit strong cyclical tendencies, with the rate of appreciation slowing during national recessions. In addition, there have been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

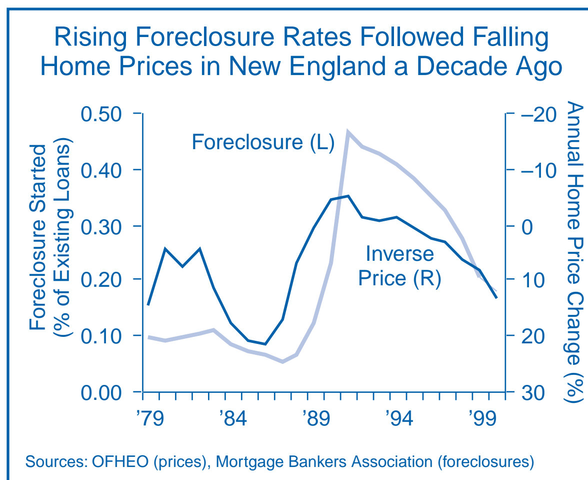
resulted in significant negative fallout for these areas' economies and insured institutions, it is useful to look at these historical examples as a potential "worst-case" scenario (with very low probability) for residential real estate markets during the current recession. It is unlikely that significant, 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 subprime 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

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

[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.

[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							
	ANNUAL PERCENT CHANGES						
MSAs RANKED BY DECELERATION IN HOME PRICE INDEX FROM 1Q01 TO 4Q01	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 Area[25] 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 **Northeast** 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]

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[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 credits 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.

Scott Hughes, Regional Economist
Judy Plock, Senior Financial Analyst
Joan Schneider, Regional Economist
Norm Williams, Regional Economist

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