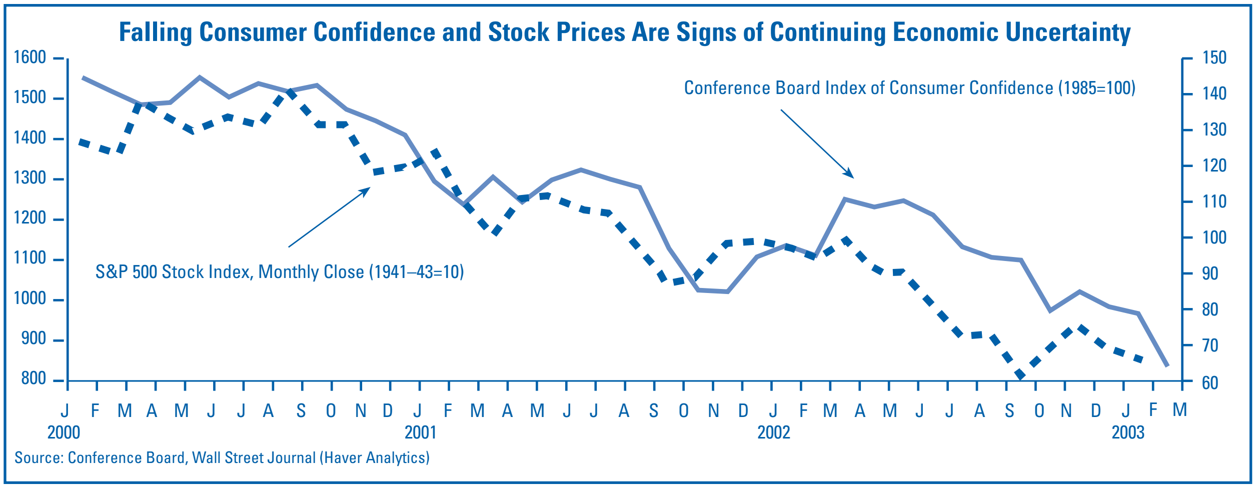
Chart 6



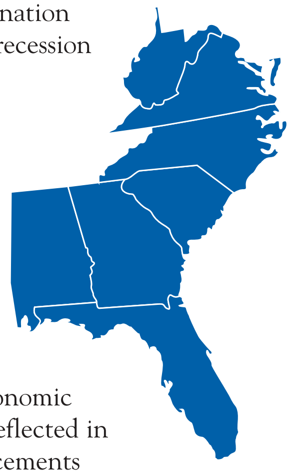
and other issues. While observers continue to debate the relative merits of these rules and the need for additional reforms, these developments mark significant milestones in moving beyond the governance scandals of 2001 and 2002 and restoring investor trust in U.S. corporations.

With regard to a possible conflict with Iraq, from an economic perspective it would clearly be preferable to resolve the surrounding uncertainty sooner rather than later. A reduction in the general level of uncertainty could provide a significant boost to the U.S. economy. In this regard, the best historical precedent would be the 1991 Gulf War, when a range of economic indicators moved sharply in the positive direction after the successful conclusion of the war. For example, the Conference Board reported that the expectations component of the consumer confidence index rose from a cyclical low of 55 in January 1991, as the air war in Iraq was beginning, to 101 in March 1991, after the successful conclusion of the war. While the precise outcome of the current crisis is difficult to predict, there are good reasons to believe that this particular source of economic uncertainty could be resolved in the first half of 2003.

Staff of the Risk Analysis Branch

Atlanta Regional Perspectives

Certain Key Industries Remain under Stress

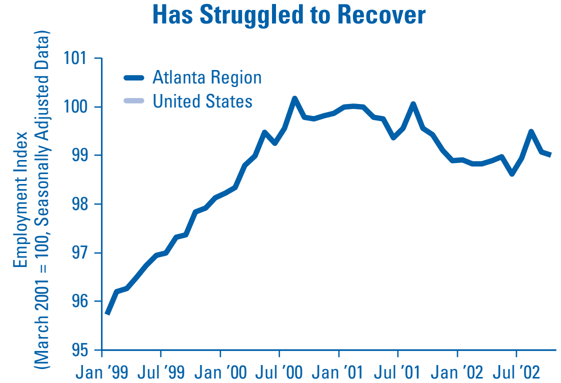


The Atlanta Region and the nation struggled to emerge from the recession during 2002 as initial modest employment gains earlier in the year gave way to renewed economic fragility (see Chart 1). The comparative weakness of the Region's economy was compounded by the fact that the recovery early in the year bypassed some local markets. The softening in economic conditions late in 2002 was reflected in the number of layoff announcements (see Chart 2), an indication that several industries remained under stress. This article looks at the Region's stressed industries, examines their relative importance and geographic location, and assesses the implications for community banks headquartered in these areas.

To provide a framework for our examination of the Region's stressed industries, we grouped the ten industries that reported the greatest number of layoffs during October and November 2002 into four categories: manufacturing and high-tech, transportation, financial services, and government (see Table 1).

Chart 1

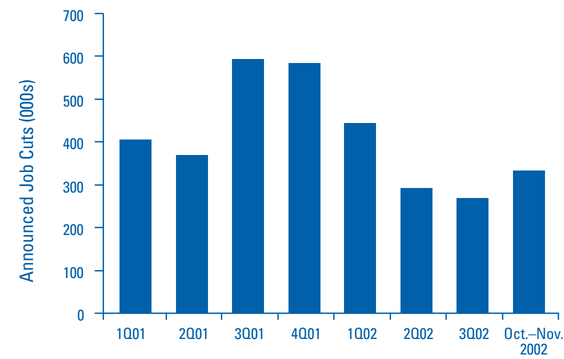
Employment in the Atlanta Region Has Struggled to Recover



Source: Bureau of Labor Statistics/Haver Analytics

Chart 2

Job Cuts across the Nation Increased Late in 2002 Following Declines in the Previous Four Quarters



Source: Challenger, Gray, and Christmas, Inc./Haver Analytics

Exposure to Stressed Industries Varies Widely in the Atlanta Region

The exposure is greatest in the manufacturing and high-tech industries, which employed more than 2.3 million workers in the Region in 2001. The government and transportation sectors each employed more than 800,000, while the financial services sector employed 645,000. However, the *actual* impact of continued industry weakness in these categories on the Atlanta Region economy likely would vary by location and an individual company's financial health. To determine the *potential* exposure in a local economy, we calculated location quotients[1] by county for each of the weak industries. We can then see where industries are concentrated in the Region.

[1] A location quotient measures an industry's share of local employment relative to the corresponding national share. Algebraically, the calculation is shown as:

Industry Location Quotient (LQ) =
[Local Industry Employment/Total Local Employment]/
[National Industry Employment/Total National Employment].

If the calculated ratio is greater than one, an industry is more concentrated locally than nationally. As an example, we can calculate the telecommunications industry location quotient for Gwinnett County, Georgia, as follows:

$\text{Telecom LQ}_{\text{Gwinnett}}$ =
$[\text{Telecom Employment}_{\text{Gwinnett}}/\text{Total Employment}_{\text{Gwinnett}}]/$
$[\text{Telecom Employment}_{\text{US}}/\text{Total Employment}_{\text{US}}]$
Or
[6,892/315,252]/[2,044,034/146,361,949]

$\text{Telecom LQ}_{\text{Gwinnett}}$ = 152 or the telecom industry is 52 percent more highly concentrated in Gwinnett County than at the national level. Employment data source: Global Insight, Inc.

Table 1

Job Cuts Occurred in Several Key Industries in the Atlanta Region Late in 2002			
	October–November 2002 Announced Job Cuts	Share of Total Cuts (%)	Share Rank
Total Announced Job Cuts	333,518		
Manufacturing and High-Tech			
Telecommunications	50,710	15	1
Computers	42,734	13	2
Aerospace	23,884	7	6
Electronics	19,974	6	7
Industrial goods	17,719	5	8
Automotive	15,591	5	9
Consumer goods	13,566	4	10
Financial	30,419	9	3
Transportation	29,536	9	4
Government	28,131	8	5

Source: Challenger, Christmas, and Gray, Inc./Haver Analytics

High-Tech and Manufacturing Sectors Displayed Renewed Weakness Late in 2002

The Atlanta Region's manufacturing sector began to show signs of recovery early in 2002; however, by summer's end, industrial payrolls had begun to fall again. Weakness in the manufacturing industry was evidenced by the fact that the ***Institute for Supply Management*** manufacturing index has fallen below 50, although it only rebounded to slightly above 50 in December 2002.[2] Affected industries ranged from high-tech manufacturing sectors, such as telecommunications and computers, to traditional industries, such as apparel.

High-Tech: Telecommunications, Aerospace, Electronics, and Computers

High-tech industries generally have not recovered from the significant decline in the NASDAQ and the effects of the recent recession, as evidenced by their comparatively poor stock performance. During the first two months of fourth quarter 2002, the Region's high-tech sector lost more than 135,000 jobs, more than 40 percent of job cuts announced nationwide. Industry location quotients for several counties in large metropolitan areas in the Atlanta Region exceed one, an indication of an industry concentration above the national average. During the past year, continuing layoffs in high-tech industries throughout the Region have adversely affected the **South Florida**, **Melbourne**, **Raleigh**, and **Atlanta** metropolitan statistical areas (MSAs). Further layoffs in these industries could constrain the economic recovery in these areas, especially as the effects of these layoffs are felt throughout the local economies.[3]

Manufacturing: Consumer Goods, Industrial, Automotive

Employment in the consumer goods, industrial, and automotive sectors is more highly concentrated in rural and smaller metropolitan areas of the Atlanta Region than employment in high-tech industries. Consumer goods include the production of furniture, a sector that has traditionally been a mainstay of the western **North Carolina** economy. This industry experienced sharp losses during the recent recession. Textiles, a component of industrial goods production, historically have dominated many of the Region's rural economies. Automotive production, however, is a comparatively recent addition to the Atlanta Region industrial mix.

Job cuts continue to occur at relatively high levels in these industries. It is important to note that layoffs in these sectors did not increase during late 2002, as they did in the high-tech sector. However, consumer debt levels remain high and job income growth is weak, increasing the potential for consumer spending to falter, further weakening these industries. Evidence of weakness may have appeared in the automotive sector

[2] An index of 50 or above indicates that the manufacturing sector is expanding; an index below 50 indicates that the sector is contracting.

[3] The banking industry has experienced the effects of exposure to weakening in the high-tech industry. During 2002, the quality of large syndicated credits in the telecommunications and cable industries declined sharply; 27 percent of these loans were classified, up from just under 4 percent a year earlier.

as sales of light-weight vehicles fell substantially in November 2002, despite continued low interest rates and dealer incentives. Also, in October 2002 retail sales fell on a year-over-year basis for the first time since the 1990–91 recession.

Transportation Services Continue to Be Hurt by the Effects of September 11

The transportation industry, especially air services, continues to suffer from the aftermath of September 11 and the recent recession. For example, the transportation industry announced nearly 30,000 job cuts during October and November 2002. The Atlanta Region, home to several airline hubs, is highly exposed to the industry's financial difficulties, as reflected by relatively high location quotients in several counties. The US Airways Chapter 11 bankruptcy filing in August 2002 contributed to layoffs at the **Charlotte** hub and reservations centers in **Orlando** and **Winston-Salem**. Delta Airlines has trimmed payrolls substantially in the Atlanta metro area, where it is the largest employer, and recently announced plans to cut at least 7,000 more jobs by mid-2003. Northwest Airlines also plans to scale back its presence in Atlanta. Further transportation industry layoffs in the Region likely will continue to constrain the recovery.

The Recent Recession Has Affected Government Budgets Adversely

The recent recession has hurt state tax revenues. During 2002, state tax revenues declined from year-ago levels in all Atlanta Region states except **Florida** and **West Virginia**. Nationwide, combined state budget gaps are expected to reach $60 billion in 2003. Should the recovery take hold, budget problems could persist, perhaps resulting in reduced expenditures, increased taxes, or both. Downsizing state governments would be expected to affect employment more significantly in capital cities, where location quotients are well above one.

Many Developments Have Contributed to Layoffs in the Financial Services Sector

Accounting scandals, weak equity market performance, high costs to the insurance industry because of losses on September 11, and cost-cutting following merger and acquisition activity in the banking industry contributed to job cuts in the financial services sector early in 2002. Although layoffs were at relatively high levels, they have moderated during the year. Industry exposures in the Atlanta Region, reflected by comparatively high location quotients, tend to be concentrated in regional banking centers, such as Winston-Salem, Charlotte, Atlanta, **Birmingham**, and South Florida. Additional cost-cutting and layoffs related to consolidation in the banking industry could weaken the recovery.

Large Banks Have Performed Well in the Atlanta Region

Commercial banks headquartered in the Atlanta Region with assets over $10 billion (excluding credit card banks) reported solid performance in third quarter 2001. Year-over-year, the median return on assets ratio improved to 1.28 percent by September 30, 2002, up from 1.07 percent two years earlier. Gains in net interest income were primarily responsible, as the median net interest margin rose to 3.96 percent as of third quarter 2002, 28 basis points higher than a year earlier. In addition, lower provision expenses and increased efficiencies at these banks helped to bolster profitability.

After slowing in 2001, loan growth rebounded as of September 30, 2002. The loan-to-asset ratio improved to just over 66 percent, a 140 basis point increase from a year before. Spurred by low interest rates and consumer spending, significant growth occurred in the 1- to 4-family and consumer loan categories. Credit quality among large insured institutions has remained sound; the median noncurrent loan level for all loan types was stable at 0.86 percent as of September 30, 2002.

However, the commercial and industrial (C&I) loan portfolio continued to show signs of weakness. The median past-due and nonaccrual C&I loan ratio rose 50 basis points to 3.5 percent at year-end September 30, 2002, but remained below the national median of 4.2 percent. Although the Region's median past-due and nonaccrual C&I loan ratio has more than tripled during the past five years, the bulk of these past-due loans were less than 90 days old at the end of third quarter 2002.

Large banks headquartered in the Region have reported significant increases in core deposits during the recent period of stock market volatility. Should interest rates rise and funds begin to return to the equity markets, concern about liquidity and interest rate risk could increase.

Table 2

Atlanta Region Metro Areas with High Exposures* to Multiple Stressed Industries Could Face the Greatest Challenges (MSAs ranked by year-over-year percentage point change in noncurrents)

Name	1- to 4-Family Noncurrents (%)	Year-over-Year Percentage Point Change in Noncurrents	Job Growth (%) October 2002 Year-over-Year	Exposure to Stressed Industries										
				Aerospace	Automotive	Computers	Consumer Goods	Electronics	Financial	Government	Industrial Goods	Telecom	Transportation	Count of Industries
West Palm Beach, FL	2.15	1.72	0.74	x					x			x		3
Raleigh, NC	1.12	0.64	0.87			x	x	x		x	x	x		6
Charlotte, NC	0.55	0.41	1.55		x	x	x	x	x		x	x	x	8
Washington, DC	0.61	0.36	–0.69		x	x	x		x	x	x	x	x	8
Greensboro, NC	0.73	0.33	–0.35		x		x	x	x		x		x	6
Tampa, FL	0.68	0.30	0.07	x		x		x	x			x		5
Macon, GA	0.83	0.29	–0.27	x	x	x		x	x			x	x	7
Savannah, GA	0.49	0.09	–0.36	x					x	x	x	x	x	6
Atlanta, GA	0.70	0.08	–2.82	x	x	x	x	x	x	x	x	x	x	10
Norfolk, VA	0.31	0.06	0.20		x	x				x		x	x	5

* If an MSA has a location quotient above one in at least one of its component's counties, this exposure is designated by an "x" in the corresponding industry under "Exposure to Stressed Industries."

Sources: Bank and Thrift Call Reports, September 30, 2002; Global Insight, Inc.; Bureau of Labor Statistics/Haver Analytics

Implications for Insured Institutions

Although the Atlanta Region economy has experienced modest improvement in employment growth, continued weakness in stressed industries could constrain the pace of the recovery. Consumer loan delinquencies typically have increased during times of rising unemployment rates and weak job growth.[4] Community banks[5] headquartered in several of the Region's metro areas have reported some weakening in asset quality over the year ending third quarter 2002, which likely is related to industry layoffs. Such deterioration could be further exacerbated in markets such as the Atlanta MSA, where job losses have been severe in several key industries (see Table 2). Any additional slowing in local economies stemming from continued industry layoffs could further pressure asset quality and contribute to a decline in loan growth. Consequently, management of insured institutions that hold relatively high exposures to these stressed industries should continue to monitor economic developments as the nation moves toward recovery.

[4] Russ Wiles, "Growing Consumer Debt Brings Out the Collectors," *The Arizona Republic*, October 25, 2002.

[5] "Community banks" are defined in this article as insured institutions that hold assets less than $1 billion. This definition does not include de novo or specialty institutions.

Conclusion

If the recovery remains weak, local economies in the Atlanta Region with exposures to industries that have been slow to emerge from the downturn could be most vulnerable. Insured institutions could experience some weakening in consumer credit quality, as personal bankruptcy filings and mortgage foreclosure rates have continued to climb across the Region. Increased job cuts would further pressure consumer credit quality. Downturns in specific industries also could affect commercial real estate and construction adversely, resulting in continued weak absorption rates. Key sectors of the economy to watch going forward are nondefense-related manufacturing, transportation, state and local government, and, to a lesser extent, financial services. Local economies with relatively high exposure to more than one of these sectors may be most vulnerable.

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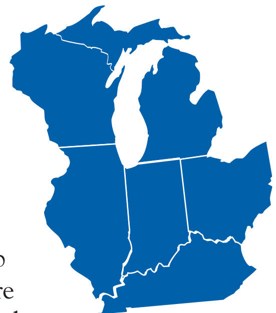
Chicago Regional Perspectives

The Region Experiences Improving Economic Conditions and Generally Healthy Banking Conditions

The Region's economic conditions improved in the year ending third quarter 2002, but progress was modest and uneven. Growth remains tepid following the 2001 recession and as restructuring continues in some troubled industries.



Employment during third quarter 2002 in the Region and the nation was about 0.8 percent below year-earlier levels (see Table 1). The recent pace of job loss in the Region was less severe than during the year ending third quarter 2001. In contrast, the nation shifted from marginal job growth to a mild decline. The Region's relatively better performance partly reflects its low exposure to high-tech firms, airplane production, and some other sectors undergoing sharp contractions. Even so, exposure to telecommunications, airline services, steel, and other troubled industries dampens growth in the Region.

Table 1

Employment Trends Reflect Varying Rates of Improvement among States in the Region

	Percent Change from Four Quarters Earlier	
	3Q01	3Q02
Total Payroll Employment:		
Nation	0.1	–0.8
Chicago Region	–1.3	–0.7
Illinois	–0.9	–1.3
Indiana	–2.1	–1.2
Kentucky	–0.2	1.0
Michigan	–2.2	–0.8
Ohio	–1.3	–0.9
Wisconsin	–0.5	0.4
Manufacturing Employment:		
Nation	–5.2	–4.8
Chicago Region	–5.9	–2.0
Illinois	–4.8	–2.1
Indiana	–7.2	–2.7
Kentucky	–5.6	–1.7
Michigan	–6.2	–1.6
Ohio	–6.0	–1.8
Wisconsin	–5.5	–2.2

Source: Bureau of Labor Statistics

The contrast between the Region and the nation is more noticeable in the manufacturing sector, where the Region's rate of job loss slowed noticeably in 2002, but the nation's did not. This disparity partly reflects the fact that employment among the types of manufacturers found in the Region declined sooner than in other manufacturing sectors (before the cyclical peak) and improved sooner when the recovery took hold. Similarly, the varying industrial composition of the Region's states is contributing to uneven degrees of improvement. States with high exposure to the motor vehicle-and-parts industry,[1] for example, fared relatively well, as strong vehicle sales spurred third-quarter production of vehicles and parts to a level 11 percent higher than a year earlier. Although motor vehicle production may advance only modestly in coming quarters, the strengthening in manufacturers' new orders during 2002, following six quarters of decline, bodes well for continued improvement in other parts of the Region's manufacturing sector.

Activity in residential housing markets was surprisingly robust in the past year. Nationwide, measures reflecting the affordability of homeownership for first-time buyers and repeat buyers were higher in 2002 than in 2000, despite the recession and job losses in the interim. As was the case with vehicle sales, unusually low interest rates contributed to strong home sales in the Region during 2002.

In this economic environment, the Region's banks and thrifts report healthy profitability and generally sound conditions. Their profitability as a group rose sharply, with third quarter, year-to-date annualized return on assets of 1.33 percent, which compares favorably with 1.02 percent a year earlier. This improvement is largely attributable to higher net interest margins.

Aggregate data show 2.69 percent of total loans as past due[2] in the third quarter (see Table 2). This percentage is below the 2.86 percent a year earlier, yet above the 2.12 percent two years earlier, before the recession began. Among the Region's community

[1] The share of employment in the motor vehicles-and-parts sector is at least 65 percent higher in Michigan, Indiana, Kentucky, and Ohio than in the nation.

[2] The term "past due" includes loans delinquent by 30 days or more plus loans on nonaccrual status.

Table 2

The Region's Insured Institutions Report Varying Past-Due Rates

	Percentage of Loans Past Due			
	3Q99	3Q00	3Q01	3Q02
All Loans	2.02	2.12	2.86	2.69
Commercial and Industrial	2.22	2.37	3.74	3.69
Commercial Real Estate				
Nonresidential Real Estate	1.73	1.64	2.31	2.24
Multifamily Residential	1.13	1.05	1.24	1.21
Construction and Development	2.43	2.38	2.76	2.95
Residential Real Estate*	1.82	1.99	2.67	2.77
Loans to Individuals (excluding real estate loans)	2.78	2.98	3.13	2.54
Addendum:				
Residential Real Estate*				
Large Banks (assets of $1 billion or more)	1.86	2.08	2.82	2.94
Community Banks (assets under $1 billion)	1.76	1.80	2.24	2.22

* Includes first and subordinate liens on 1- to 4-family residential properties.
Source: Call Report Data, aggregated across all institutions in the Region

institutions,[3] the percentage of loans 30 to 89 days delinquent declined 21 basis points in the year ending September 30, 2002, suggesting that an improvement in nonperforming loans (those delinquent by 90 days or more plus those on nonaccrual status) may follow.

Growth in aggregate nonperforming loans caused community institutions' reserve coverage of these loans to fall to 105 percent in third quarter 2002 from 147 percent at year-end 2000. This decline suggests that some institutions may need to reevaluate reserve levels; however, increases in capital and the ratio of reserves to total loans during the past two years provide some cushion. In addition, profitability of the Region's insured institutions appears sufficient to support somewhat higher provision expenses, should they become necessary.

Banking and Economic Indicators Suggest Changing Dynamics for Residential Lenders

Bankers and regulators often consider residential real estate loans[4] to be a low-risk lending activity because such loans historically experience relatively low delinquency and loss rates. In fact, recent loss rates on residential loans held by community institutions headquartered in the Region are the lowest among major loan types, and net charge-offs remain very low, at only 8 basis points per annum.

However, the gap between past-due rates on residential and all other loans held by the Region's community institutions narrowed in the mid-1990s and did not expand during the 2001 recession, as occurred around the 1990–91 recession (see Chart 1). Indeed, while the past-due rate on residential loans remains below that of other loans, it consistently moved in line with the past-due rate for all other loans in recent years.

To provide perspective for this discussion, residential real estate loans are the largest asset class held by the Region's community institutions. Even so, their 40 percent share of total loans in third quarter 2002 was down from 44 percent a decade earlier. Over the same period, the share of revolving, open-end loans within residential loan portfolios rose to 11 percent from 7 percent. **Ohio** is home to four of the Region's five metropolitan statistical areas (MSAs) in which community institutions hold median exposure to residential loans exceeding 55 percent of total loans.[5] This high share reflects the fact that 39 percent of Ohio's community institutions have thrift charters, and thus

[3] "Community institutions" are defined in this article as insured banks and thrifts that hold assets of $1 billion or less and are not de novo or specialized (e.g., credit card) entities.
[4] Residential real estate loans include first and subordinate liens on 1- to 4-family properties.

[5] Only MSAs that are headquarters to at least ten community institutions are considered.

Chart 1

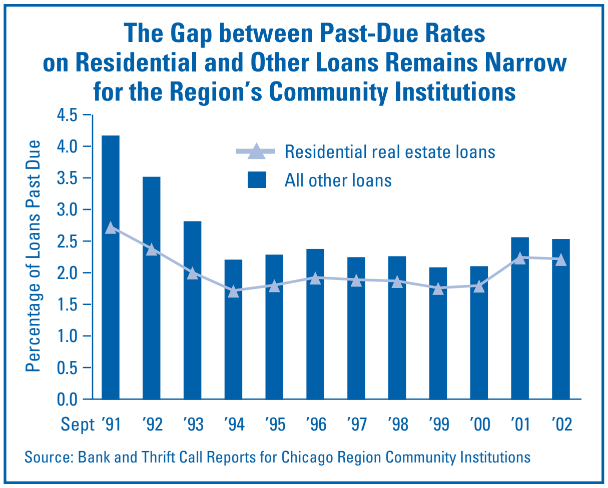
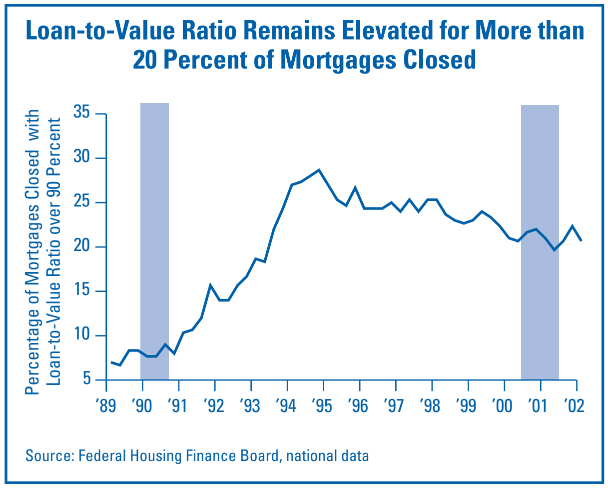


Chart 2



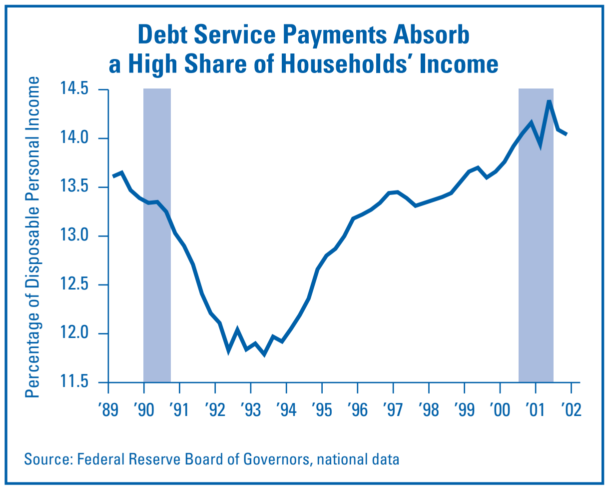
a focus on residential lending, in contrast with 15 percent elsewhere in the Region.

Banking Considerations

As the Region's economic recovery unfolded through third quarter 2002, the performance of residential and nonresidential loan portfolios was better than immediately after the prior recession (see 1991 and 1992 in Chart 1). Even so, the shift to higher loan-to-value ratios on mortgages since 1994 (see Chart 2) and households' rising debt service burdens (see Chart 3) leave lenders exposed to borrowers' financial setbacks, such as layoffs, stock market losses, or high leverage. The high level of subprime mortgages in foreclosure and delinquent by at least 90 days[6] suggests that at least one subset of borrowers has encountered significant debt-servicing problems.

The share of past-due residential loans held by insured institutions in the Chicago Region as of September 30, 2002, surpassed past-due rates for nonresidential loans to individuals and several components of commercial real estate portfolios (Table 2). Only residential loans and construction and development loans posted higher past-due rates than a year earlier, while other loan types showed modest improvement. The most pronounced deterioration in residential credit quality since late 2000 occurred among large institutions with assets of $1 billion or more, as indicated in the addendum to Table 2.

Chart 3



Economic Considerations

The 2001 recession and moderate recovery to date undoubtedly contributed to the rise in past-due rates on residential loans. In addition, pockets of local economic weakness likely heightened strains on residential loan quality in particular areas. For example, employment in **Decatur, Illinois,** has declined significantly since late 2000, and local lenders there report one of the highest median past-due rates on residential loans among MSAs in the Region.[7]

Declines in mortgage interest rates since mid-2000 and a rise in refinancing activity probably helped temper the recent increase in mortgage delinquencies. In the

[6] Based on September 2002 data reported by www.loanperformance.com in *The Market Pulse*, 2002, Vol. VIII, Issue 5.

[7] In Decatur and elsewhere, the past-due rate reflects not only the impact of economic conditions but also individual institutions' business plans and risk tolerances.

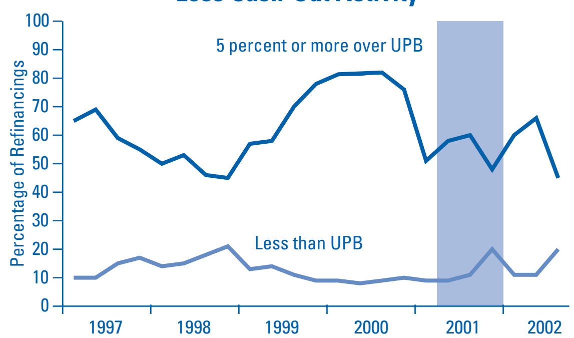
aggregate, however, declining employment and slower income growth overwhelmed the benefits to borrowers of lower mortgage rates and restructured balance sheets.

Shifts in the nature of recent refinancings likely reflect household caution and reduced net worth as well as tighter underwriting criteria. Twenty percent of refinanced mortgages in third quarter 2002 were for less than the unpaid principal balance (UPB) of the original loan (see Chart 4). Such refinancings, often termed "cash flow" refinancings, typically lower borrowers' debt burdens. At the same time, a declining share of refinancings—but still high, at 45 percent—were "cash-out" actions, in which new mortgages add 5 percent or more to the UPB of the original loan.

To the extent that refinancings allow households to restructure their balance sheets, they enhance borrowers' ability to handle current and future debt loads.

Chart 4

National Refinancing Trends Show Less Cash-Out Activity



Note: UPB = unpaid principal balance of the original loan.
Source: Freddie Mac

Moreover, a rising share of recent mortgage originations involves fixed-rate loans, which reduce borrowers' vulnerability to future increases in interest rates. Indeed, fixed-rate mortgages represented about 85 percent of conventional mortgages closed nationwide in fourth quarter 2002, according to the ***Federal Housing Finance Board***.

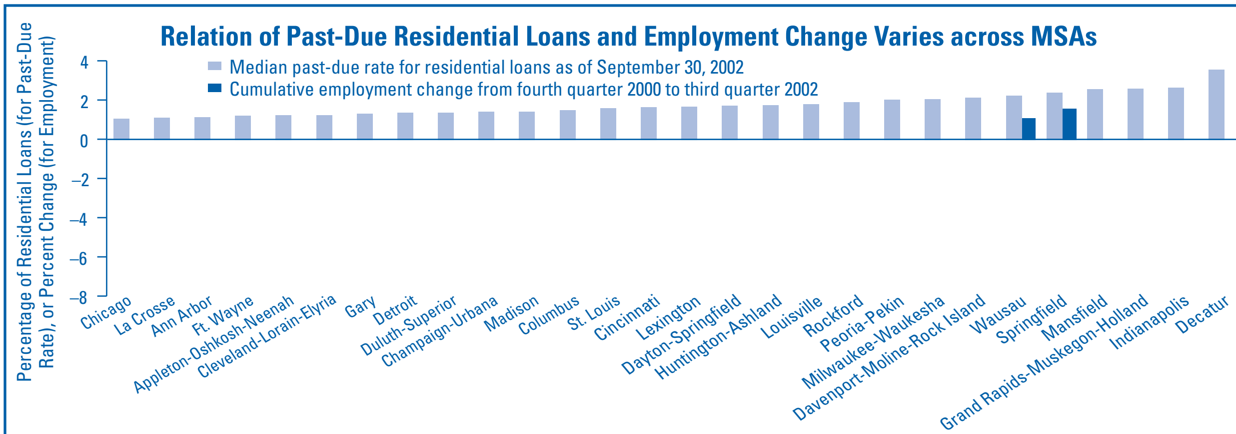
At the MSA level, housing markets in the Region are not characterized as "overheated" or facing housing price bubbles. Behind the aggregate data, however, are some submarkets where demand is weak relative to supply, triggering longer periods before a sale is made, falling home prices, or both. In any market characterized by sustained declines in home prices and weak economic conditions, the probability of payment default increases and the ability of homeowners to sell properties at prices sufficient to pay off mortgages diminishes. In such situations, the accuracy of appraisals, underwriting standards, and oversight by lenders assume heightened importance.

Successful Residential Lending Depends on Many Factors

It is not possible to specify that weak economic conditions account for a certain percentage of the recent (or any future) rise in residential past-due rates, while changes in mortgage underwriting standards, marketing strategies and lending practices account for the remainder. As important as employment and income are to households' ability to service debt obligations, a market's aggregate job losses or gains are not the only factor influencing the performance of residential portfolios, as illustrated in Chart 5. Other important

Chart 5

Relation of Past-Due Residential Loans and Employment Change Varies across MSAs



Note: The past-due rates are for metropolitan statistical areas that are headquarters to ten or more community institutions.
Sources: Bank and Thrift Call Reports for Community Institutions; Bureau of Labor Statistics

factors include variations in loan-to-value ratios, lenders' pricing power, competition for prime (and perhaps subprime) credits, underwriting standards, the pace of economic growth, households' debt-service burdens, the extent of refinancing activity, and home price appreciation (or stagnation).

Currently, strong profitability and healthy conditions enable mortgage lenders to address problem credits and adjust risk management systems where necessary. Nonetheless, management should evaluate the changing nature and relative risks of this business line to determine how to operate profitably and safely in the current environment. For example, waves of refinancing, which were unheard of a decade ago, can quickly change the duration of lenders' residential loan portfolios. Meanwhile, insured institutions facing competition from not only other local lenders but also nationwide institutions may respond to reduced pricing power by relaxing standards for loan-to-value ratios or borrower leverage limits. Others have focused on originating and selling mortgages in the secondary market, which involves a different set of potential risks and rewards than traditional make-and-hold lending.[8] All told, residential mortgage lending is no longer a homogeneous business line, with one strategy and one set of risks facing most participants. As the environment for residential lending continues to evolve, lenders may need to reevaluate their traditional view about the relative risks of residential lending.

Chicago Staff

[8] For further discussion of evolving lending practices and associated risks for mortgage lenders, see "Housing Market Has Held Up Well in This Recession, but Some Issues Raise Concern," in *Regional Outlook, National Edition*, first quarter 2002.

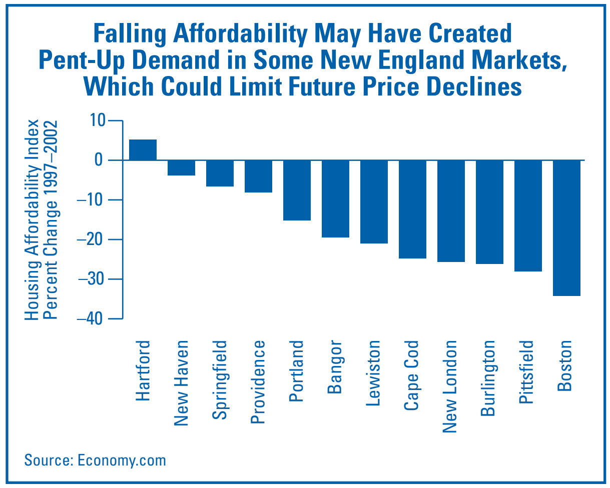
What Are the Implications for Insured Institutions?

As of September 30, 2002, insured institutions in New England continued to report low aggregate delinquency and loss rates on residential mortgages and home equity lines of credit (in line with national trends). However, if home prices begin to falter in combination with continued weakness in the economy and a persistent rise in unemployment rates, residential real estate credit quality could deteriorate.

Mortgage lending also may be more challenging today because of innovations in this business line since the last bicoastal real estate crisis in the early 1990s. These new practices include widespread adoption of automated appraisal systems, subprime lending, and higher leverage on purchase mortgages.[5]

Residential lenders should be aware of the altered risk environment today compared to a decade ago, especially since many of these innovations have not weathered a severe real estate downturn. However,

Chart 4



despite these changes, it appears likely that mortgage lending will retain a lower *relative* credit risk than credit card, non-real estate secured personal, and commercial lending.

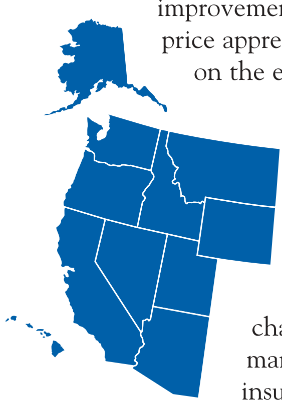
Norman Williams, Regional Economist
Cameron Tabor, Senior Financial Analyst

[5] See "In Focus This Quarter," *Regional Outlook*, first quarter 2002.

San Francisco Regional Perspectives

Continued Economic Sluggishness, Shifts in Residential Mortgage Exposures, and Changes in Underwriting Practices Could Challenge the Region's Mortgage Lenders

Repeated refinancing waves during 2001 and 2002 eased the effects of the recession on consumers in many of the Region's local economies. Low interest rates and escalating home values in the Region during the past several years enabled borrowers to refinance and, by some estimates, cash out over $80 billion in home equity.[1] This money has been used to pay off loans, purchase consumer goods, and make home improvements. Going forward, slowing home price appreciation may have negative effects on the economy as refinancing and cash-out opportunities dry up. This article identifies the residential markets that could be vulnerable to price pressures as a result of adverse trends in employment, migration, or affordability. It also examines changes in the residential lending market that might increase risks to insured institutions.



Employment Downturns Could Prompt Out-Migration in Some Markets

Sluggishness in the high-tech and civilian aerospace sectors continued to affect nonfarm employment adversely in several metropolitan statistical areas (MSAs) throughout the Region. The most notable year-over-year declines as of November 2002 occurred in the **San Jose**, **Seattle**, **San Francisco**, **Provo**, **Salt Lake City**, **Spokane**, **Boise**, and **Portland** MSAs.

The Region's employment trends could affect migration and housing prices adversely. A ***Census Bureau*** study suggests that 31 percent of households that relocated across county lines between 1999 and 2000 did so for job-related reasons.[2] During the early 1990s recession, when job availability in **California** declined, people moved out of the state.[3] **Nevada**, **Oregon**, **Washington**, **Arizona**, and **Utah** were destinations for net migration out of California between 1990 and 1994.[4,5] As a result, home prices fell in California (primarily in Southern California) and home values increased in the surrounding states, most notably in Utah (see Chart 1).

Domestic out-migration is already evident from some areas of the Region that suffered significant job losses following the 2001–02 recession. During 2002, United Van Lines identified net outbound household relocations for Utah, Washington, and California.[6] Net out-migration has also occurred in the Bay Area and Seattle as a result of the technology industry problems and, more recently, Boeing layoffs in Seattle.[7,8]

The Confluence of Weak Employment and Affordability Could Pressure Home Prices

In addition to job losses and out-migration, prolonged periods of low affordability (a situation in which home price appreciation outpaces personal income growth) can affect housing prices. Because personal income is a key driver of home prices, "prolonged and rapid increases in the price to income ratio may be a sign

[1] "The Economic Contribution of the Mortgage Refinancing Boom," a joint research project of Economy.com and the Homeownership Alliance, December 2002, p. 7 (http://www.economy.com/store/samples/refinancing1202.pdf).

[2] Jason Schachter, *Why People Move: Exploring the March 2000 Current Population Survey*, Census Bureau Special Study, May 2001, p. 3.

[3] Stuart Gabriel, Joe Mattey, and William Wascher, "The Demise of California Reconsidered: Interstate Migration over the Economic Cycle," Federal Reserve Bank of San Francisco *Economic Review*, Number 2, 1995, p. 30.

[4] Hans P. Johnson and Richard Lovelady, *Migration Between California and Other States: 1985 to 1994*, a joint research project of the California State Library and the California Department of Finance, November 1995, p. 33.

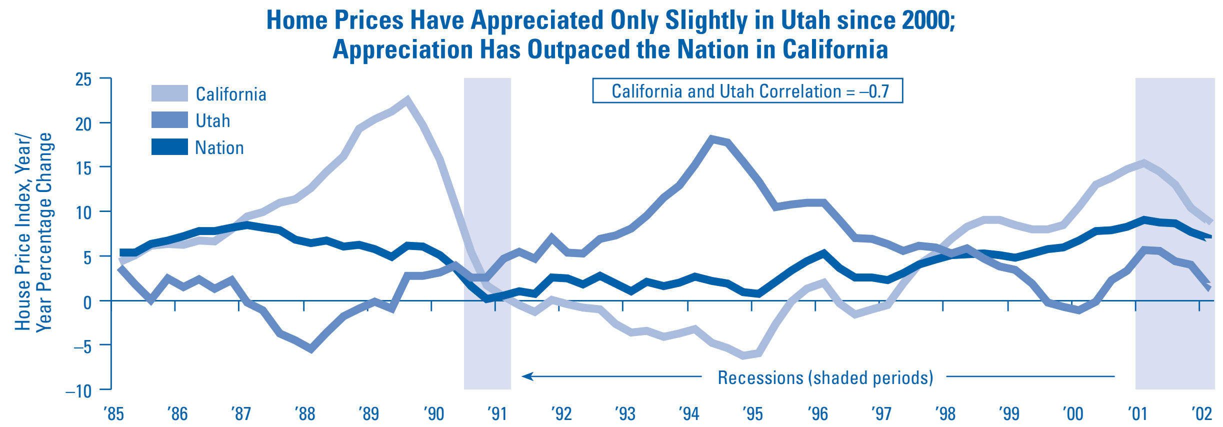
[5] *Utah Data Guide*, Utah State Data Center, Governor's Office of Planning and Budget, Demographic and Economic Analysis, Autumn 2001, p. 9, (http://www.governor.state.ut.us/dea/publications/dataguide/01udg10.pdf).

[6] "Southern States Gaining Appeal, North Sees More Leaving, According to Latest United Van Lines Study," United Van Lines Press Release, January 7, 2003.

[7] Amanda Bronstad, "Moving—Southward Migration: Bay Area Troubles Sending Workers In L.A.'s Direction," *Los Angeles Business Journal*, July 23, 2001.

[8] Bradley Meacham and Dave Woodfill, "Seattle Sees More People Moving Out of City Than In," *Seattle Times*, January 7, 2003.

Chart 1



Sources: Office of Federal Housing Enterprise Oversight and National Bureau of Economic Analysis

of an overshooting cycle or a bubble,"[9] as they may signal that speculative rather than fundamental factors are driving house prices. Over the long term, market forces are expected to correct any imbalances.

Several studies have compared personal income levels with home prices and identified various areas in the San Francisco Region that may be vulnerable to housing price declines. Research studies published by ***PMI*** and ***LoanPerformance*** suggest that the confluence of employment and affordability issues in the **Oakland**, **Phoenix**, Portland, Salt Lake City, **San Diego**, San Francisco, San Jose, **Santa Barbara**, and Seattle markets could increase their vulnerability to home price declines (see Table 1).[10,11] Of these markets, ***SmartMoney*** also identified the San Diego and Oakland housing markets as being overvalued by at least 29 percent.[12] In addition, data from ***Economy.com*** reveal that the affordability index in the Santa Barbara, San Francisco, San Diego, and San Jose MSAs was nearly half the national average as of third quarter 2002. In addition to concerns about affordability, rising interest rates could increase new homebuyers' mortgage costs as well as the cost of variable rate mortgages and further pressure home prices.

Foreclosures Have Risen in Some Areas, but Insured Institutions Continue to Report Low Mortgage Delinquency Ratios

Low interest rates and home price gains generally mitigated the effects of the recent recession. However, high and rising foreclosure rates and above-average personal bankruptcy rates in Utah, Nevada, and **Idaho** through third quarter 2002 suggest that some homeowners are having difficulty meeting mortgage debt payments (see Chart 2, next page). In addition, foreclosure rates in Oregon, Washington, and **Montana** exceed levels reported during the early 1990s. Foreclosure rates for California have declined during the past year; however, an increase in the number of Notice of Default filings in several Bay Area counties suggests that a growing number of households in the area are experiencing financial difficulties.[13]

Despite the rise in foreclosures, insured institutions headquartered in 13 of the Region's 19 major MSAs reported year-over-year flat or declining median single-family mortgage delinquency rates.[14] Of the six major markets

[9] Office of Federal Housing Enterprise Oversight, *House Price Index, Fourth Quarter 2000*, March 1, 2001, pp. 7-8.
[10] "Economic & Real Estate Trends," PMI Mortgage Insurance Co., September 2002 (http://www.pmigroup.com/media/pmi_eret02v3s.pdf).
[11] Michael D. Youngblood, "Is There a Bubble in Housing? New Evidence from 123 Housing Markets," *The Market Pulse*, Vol. VIII, Issue 4, 2002 (Loan Performance Corporation).
[12] Chris Taylor, "Your Home's Value: Will It Rise or Fall?" Smartmoney.com, November 15, 2002 (http://www.smartmoney.com/mag/index.cfm?story=dec02-homes).
[13] "California Foreclosures Decline," *DataQuick Real Estate News*, October 30, 2002 (http://www.dqnews.com/RRFor1002.shtm).
[14] Based on a comparison of MSAs in which more than five insured institutions with total assets of less than $5 billion were headquartered. Insured institutions chartered as industrial loan companies, those with consumer loan-to-Tier 1 capital ratios exceeding 200 percent, and those with single-family mortgage-to-Tier 1 capital plus loan loss reserve ratios of less than 25 percent were excluded to minimize the effects of insured institutions with broad lending markets or very small mortgage portfolios. The analysis also excluded insured institutions less than three years old, as these institutions often do not hold seasoned loan portfolios.

Table 1

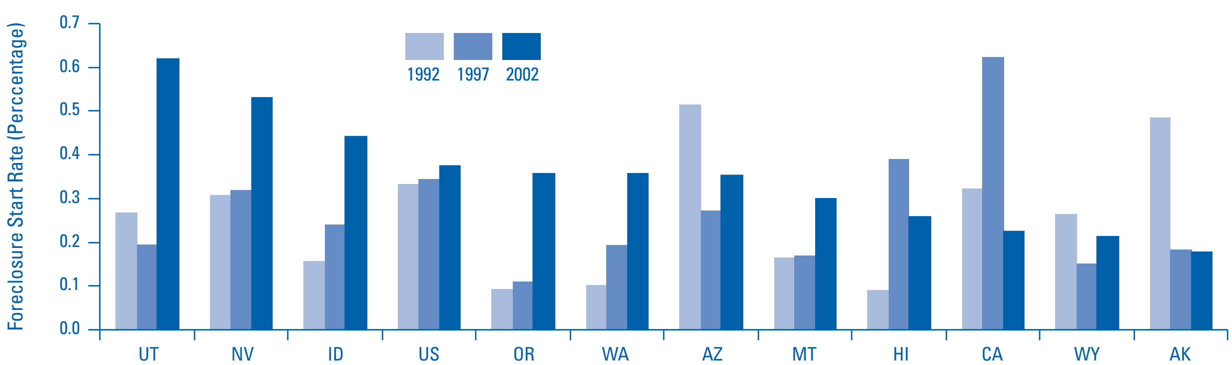
Nine Housing Markets in the Region May Be Vulnerable to a Home Price Decline Because of Economic Issues								
Metropolitan Statistical Area (MSA)	PMI Study Sept. 02	Loan-Performance Nonparametric Test 2002	SmartMoney Home Price (*percent overvalued*) Nov. 02	Economy.com Housing Affordability (*index*) 3Q02	House Price (*compound annual growth rate*) 3Q97/3Q02	Nonfarm Employment (*year/year % change*) Nov. 02	Unemployment Rate Nov. 02	Unemployment Rate (*annual % change*) Nov. 02
Oakland	High risk	Bubble	29%	83	12.5%	–0.1%	5.9%	0.8%
Phoenix	High risk		10%	151	6.4%	0.4%	5.2%	0.1%
Portland	High risk	Bubble	23%	110	4.1%	–0.7%	7.0%	–0.4%
Salt Lake City	High risk		12%	135	2.9%	–1.8%	4.9%	0.3%
San Diego		Bubble	41%	60	12.4%	1.8%	4.1%	0.4%
San Francisco	High risk	Bubble	17%	59	12.3%	–2.2%	5.2%	0.1%
San Jose	High risk	Bubble	0%	62	12.1%	–2.9%	7.8%	0.9%
Santa Barbara	N/A	Bubble	17%	55	12.8%	–0.3%	4.6%	0.6%
Seattle	High risk		19%	78	7.5%	–2.5%	6.2%	–0.1%
Nation				111	6.7%	–0.1%	5.7%	0.4%

Notes: The Economy.com Affordability Index gauges, for each MSA, what percentage of a mortgage a household earning a median income and buying a median-priced home can afford. Some studies did not include all the MSAs in the Region. The unemployment rate was not seasonally adjusted.

Sources: PMI Mortgage Insurance Co.; LoanPerformance; SmartMoney.com; Economy.com; Office of Federal Housing Enterprise Oversight; and Bureau of Labor Statistics

Chart 2

Foreclosure Rates Are High in Utah, Nevada, and Idaho



Note: Data reflect four-quarter moving averages through third quarter of each year.
Source: Mortgage Bankers Association of America via Haver Analytics

with rising mortgage delinquency rates, median past-due ratios exceeded 1 percent only in the Provo and San Jose MSAs. Furthermore, insured institutions headquartered in the San Francisco Region generally reported healthy earnings, relatively high capital, and manageable proportions of problem assets through third quarter 2002.[15]

[15] As of September 30, 2002, 89 percent of the Region's insured institutions were profitable, up from 82 percent in third quarter 1992. Similarly, the median Tier 1 leverage capital ratio reported in the Region was 9.1 percent, up appreciably from 8.1 percent a decade earlier. The third quarter 2002 median past-due loan ratio declined year-over-year from 1.49 percent to 1.28 percent and was down substantially from a median ratio of 3.25 percent in 1992.

Structural Changes in the Residential Lending Market Could Challenge Insured Institution Risk Management

Shifts in mortgage portfolio composition, changes in underwriting processes and standards, and heightened exposures to construction lending could pose new challenges in some markets.

Changes in Mortgage Portfolio Composition Could Affect Future Delinquency Trends

Residential property markets are of prime importance to lenders that specialize in single-family mortgages, specifically the Region's 94 savings institutions. Commercial banks are generally less exposed to residential mortgages and hold smaller concentrations now than a decade ago. Nevertheless, changes in local residential real estate values remain important to banks, given the current composition of bank residential mortgage exposures. Home equity loans and lines of credit constitute a larger share of community bank[16] exposures now than ten years ago, while standard residential mortgages comprise a smaller proportion of direct mortgage exposures.

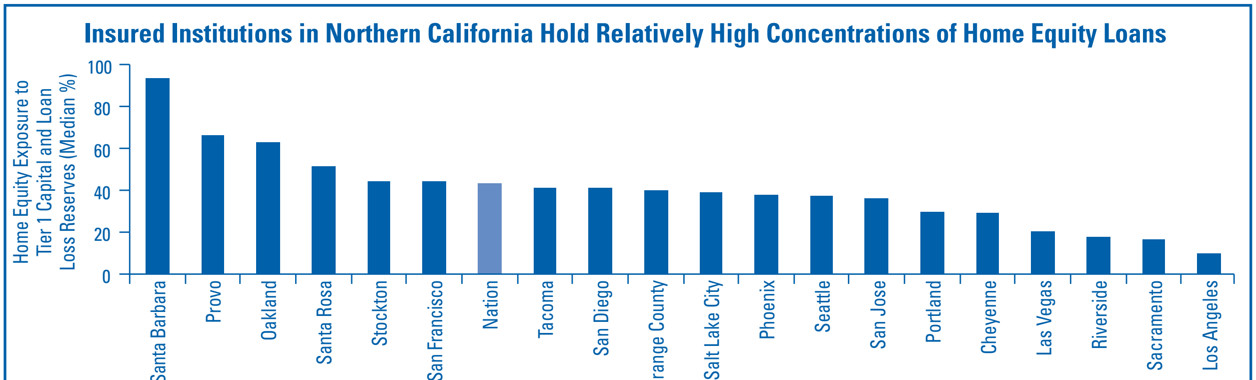
Home equity-based loans may challenge lenders because these loans are often secured by junior liens on homes or carry adjustable interest rates. A decline in home value can quickly erode the collateral protection of a junior lien, and increases in interest rates can strain the ability of certain households to remain current on their debts. Commercial banks headquartered in the Santa Barbara, Provo, Oakland, **Santa Rosa**, **Stockton**, and San Francisco MSAs reported relatively high home equity credit-to-Tier 1 capital and reserve ratios as of third quarter 2002 (see Chart 3).

Changes in Underwriting Standards and Processes Could Introduce New Risks

Mortgage loan underwriting has changed somewhat during the past decade. Subprime lending has gained in popularity, and the underwriting process in general has become more automated. According to ***Inside B&C Lending***, subprime mortgages represent about 8 percent of all mortgage debt nationally, and the outstanding volume of subprime mortgages grew 8 percent during the first nine months of 2002.[17] The introduction of credit scoring and automated valuation models (AVMs) also has changed the way many residential lenders evaluate a borrower's creditworthiness. The benefits of automation include speed and cost of execution and the removal of potential human biases. However, on the downside, the property is often not inspected and the model may not select appropriate comparable transactions. In addition, scoring models and AVMs have not been tested through a full real estate cycle.

Federal Housing Finance Board surveys suggest that lenders in certain markets have also eased collateral protection requirements. During 2001, the loan-to-purchase price (LTPP) ratio of at least one-quarter of purchase-money mortgages[18] that originated in the **Honolulu**, Phoenix, **Tucson**, **Las Vegas**, **Fresno**, and Salt Lake City MSAs exceeded 90 percent

Chart 3



Note: Medians are based on insured commercial banks with less than $5 billion in total assets that are not industrial loan companies and that do not have consumer loan-to-Tier 1 capital ratios exceeding 200 percent. Only metropolitan statistical areas (MSAs) with more than five qualifying insured banks are shown. "Nation" includes similar types of insured banks headquartered in MSAs outside the San Francisco Region.
Source: Bank and Thrift Call Reports (September 30, 2002)

[16] Community banks are defined in this article as insured commercial banks that hold less than $5 billion in total assets. Industrial loan companies and specialty consumer lenders often meet this definition but hold large concentrations of out-of-area loans. Therefore, they are excluded from this analysis.

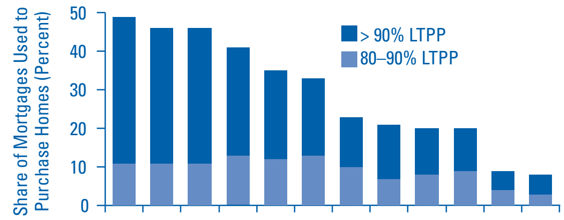
[17] "Record Loan Volume Fuels Strong Servicing Growth Through Third Q," *Inside B&C Lending*, Vol. 7, Issue 24, December 2, 2002.

[18] Purchase-money mortgages include conventional loans used to finance the purchase of a single-family residence.

(see Chart 4), up substantially from the early 1990s. Nationally, roughly 21 percent of mortgages had similarly high LTPP ratios, more than double the ratio reported in the late 1980s and early 1990s. According to the ***Federal Housing Finance Board***, commercial banks, rather than thrifts or mortgage companies, originated a disproportionately high share of these mortgages during 2002. Private mortgage insurance may mitigate losses in the event of foreclosure. However, higher LTPP ratios suggest that default rates on single-family mortgages could increase should job declines, migration trends, or rising interest rates adversely affect borrower cash flows or property values.

Chart 4

Collateral Margins Are Often Narrow in Hawaii, Arizona, and Nevada



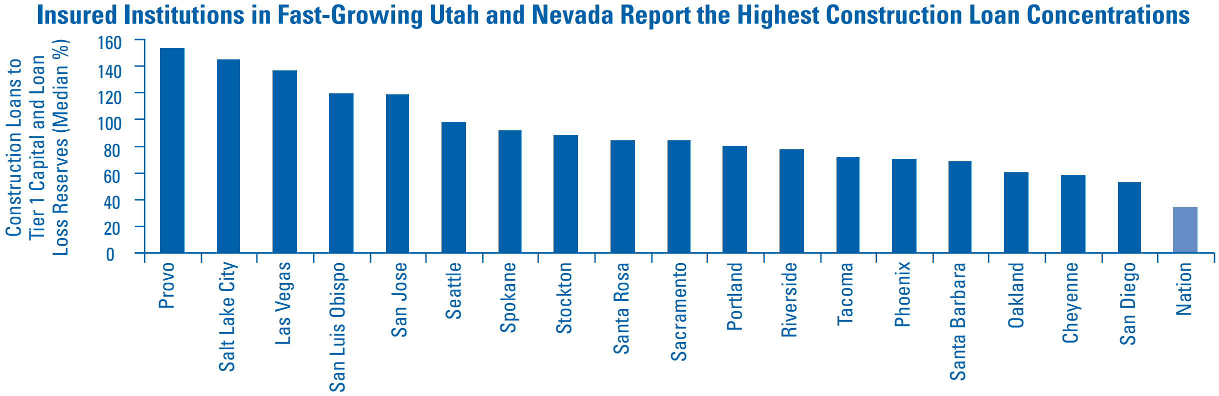
LTPP = loan-to-purchase-price ratio.
Note: "*" denotes consolidated metropolitan statistical area. Figures are based on terms for purchase money mortgages originated during 2001.
Source: Federal Housing Financing Board

Residential Construction Loans Are Also Vulnerable to Declining Home Prices

Construction expenditure data and anecdotal evidence suggest that construction and development (C&D) loan exposures are composed, in part, of single-family development loans.[19] Community institutions headquartered in the Provo, Salt Lake City, Las Vegas, **San Luis Obispo**, and San Jose MSAs hold relatively high concentrations of C&D loans (see Chart 5). Median C&D loan delinquency ratios remained low among institutions headquartered in these areas as of third quarter 2002. However, high concentrations are a concern because institutions with elevated C&D loan exposures were more likely to fail during the banking crisis of the late 1980s and early 1990s.[20] Deterioration in the construction loan portfolio during that period was attributed to softening market conditions and weak underwriting, especially among insured institutions headquartered in California. Since that time, underwriting standards have reportedly tightened.[21] However, 29 percent of Federal Deposit Insurance Corporation examiners responding to a recently conducted underwriting survey stated that institutions

Chart 5

Insured Institutions in Fast-Growing Utah and Nevada Report the Highest Construction Loan Concentrations



Note: Medians are based on insured institutions with less than $5 billion in total assets that are not industrial loan companies and that do not have consumer loan-to-Tier 1 capital ratios exceeding 200 percent. "Nation" includes similar types of insured banks headquartered in MSAs outside the San Francisco Region.
Source: Bank and Thrift Call Reports (September 30, 2002)

[19] The actual proportion of C&D credits used to finance residential construction is unknown because of Call Report limitations. Only Thrift Financial Report filers must distinguish between residential and commercial construction loans. Examiners do report that the size of most community banks precludes them from participating in larger-scale office, industrial, and retail projects.

[20] Federal Deposit Insurance Corporation, *History of the Eighties—Lessons for the Future, Vol. 1: An Examination of the Banking Crises of the 1980s and Early 1990s*, Chapter 3, Washington, DC: Federal Deposit Insurance Corporation, 1997.

[21] Steve Burton, "Recent Trends in Construction Loan Underwriting," *Bank Trends*, Federal Deposit Insurance Corporation, July 1999.

"frequently" or "commonly" made residential C&D loans on a speculative basis.[22]

Challenges to Mortgage Loan Quality May Be Greatest in a Few Key Markets

Weak employment and low affordability increase the vulnerability of the San Francisco Bay Area and, to a lesser degree, the Seattle and Portland MSAs to slowing home price appreciation. In addition, the Provo, Salt Lake City, Las Vegas, Phoenix, and Boise MSAs recently have experienced relatively high foreclosure rates and personal bankruptcy activity. Insured institutions in most of these five markets hold high levels of C&D loans and also appear to hold elevated exposures to high loan-to-purchase price mortgages. A confluence of these risks could pressure the quality of mortgage portfolios going forward, particularly if job markets remain weak and interest rates rise.

San Francisco Staff

[22] Federal Deposit Insurance Corporation, *Report on Underwriting Practices*, September 2002 (http://www.fdic.gov/bank/analytical/report/2002sept/uw0209.pdf).

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