Regional Outlook

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Regional Perspectives

◆ ***The Region's economy has weakened in the aftermath of September 11*—Prior to the terrorist attacks, the Region's economy, although slowing primarily because of deterioration in the manufacturing sector, was stronger than the nation's. However, the aftermath of September 11, 2001, contributed to weakening in the financial services, airline, and tourism industries. Commercial real estate markets also have exhibited some deterioration, particularly in areas most affected by the attacks.** ***See page 3.***

◆ ***Banks are better positioned now than during the last recession, but challenges remain*—Capital and reserves to total assets have increased since the early 1990s, and credit quality measures are more favorable than a decade ago. Nevertheless, the Region's banks reported weakening credit quality in third-quarter 2001. Also, after declining to ten-year lows, net interest margins benefited from a steeper yield curve in 2001; however, margins may not improve as much as in past cycles, and record mortgage refinancing activity could challenge interest rate risk management.** ***See page 6.***

By the New York 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.***

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Regional Perspectives

- **The aftermath of the September 11 attacks contributed to weakening in key sectors of the regional economy, including financial and business services and tourism.**

- **During the current recession, the Region's rate of job loss may exceed the nation's but may not reach levels experienced during the 1990–1991 recession.**

- **The Region's insured institutions appear better positioned to weather a recession than they were a decade ago; however, credit quality weakness has become more widespread among the Region's banks and across lending lines.**

- **The Region's banks benefited from a steeper yield curve in 2001; however, changes in the level and shape of the yield curve likely will affect banks' asset/liability maturity structures and interest rate risk management strategies.**

The events of September 11, 2001, significantly altered the Region's economic outlook. Prior to the terrorist attacks, the Region's economy, although slowing primarily because of weakness in the manufacturing sector, was stronger than the nation's. However, the aftermath of September 11 contributed to weakening in key sectors of the Region's economy, including the financial services, airline, and tourism industries. Furthermore, the weakness in the national economy following the attacks undoubtedly contributed to additional job losses in the Region's manufacturing sector.

September 11 Weakens New York City and Surrounding Economies

The September 11 attacks caused unprecedented psychological and physical damage to **New York City.** The effects of the national recession and the fallout in the financial services sector, the foundation of Manhattan's economy, have stunted the near-term prospects for economic growth in the New York City metropolitan area. New York City now faces the possibility of a more prolonged economic downturn than the nation, as it begins the long process of repairing its infrastructure, including transportation and communications systems, and replacing destroyed office space. In fact, according to a recent study, the New York City area ranked first in the nation in the number of jobs potentially lost in the aftermath of September 11 and third in percentage of jobs lost.[1] Furthermore, while the median Blue Chip forecasts estimate that the nation's economy will expand by a modest 1.5 percent in 2002, the New York City Comptroller's Office forecasts that the city's economy will contract by 3.1 percent this year.[2] Longer-term ramifications of September 11 include increased security costs to be borne by the local government and the possibility that some businesses and residents will relocate permanently outside of New York City, weakening the city's economic base.

The less favorable economic outlook for New York City compared with the nation reflects weakened financial, business services, and tourism sectors, which together represent a substantial portion of the city's economy. New York City's financial services sector has been affected adversely by declining levels of employment and personal income. The city's share of employment in the securities industry is approximately ten times that of the nation. Following September 11, many financial services firms announced significant layoffs and moved some operations out of the city. Many of the layoffs included higher-paying Wall Street jobs. In addition to increased layoffs, financial services firms, which had experienced lower earnings prior to September 11 because of sluggish trading and lower underwriting revenues, announced sharply reduced bonuses. The New York State Comptroller's Office estimated that financial services sector bonuses, which can account for a significant portion of personal income, declined 35 percent from 2000 to 2001.[3] In

[1] Milken Institute, *Metropolitan Economies in the Wake of 9/11,* January 11, 2002.

[2] New York City Forecast: New York City Comptroller's Office, *The Comptroller's Comments on the December Financial Plan for Fiscal Years 2002 to 2005,* December 2001. *National Forecast: Blue Chip Economic Indicators,* February 10, 2002.

[3] New York State Comptroller's Office, *Review of the Four-Year Financial Plan for Fiscal Years 2002 Through 2005,* December 2001.

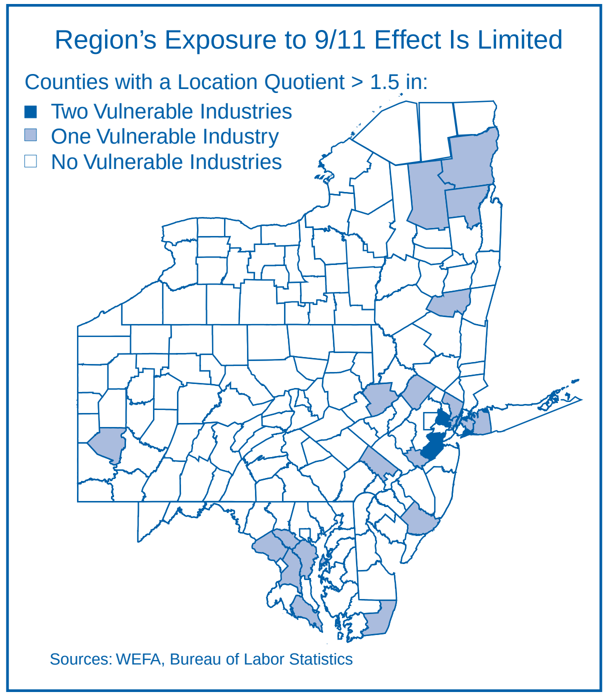
addition, Manhattan's business services sector, which includes advertising and personnel supply firms that are sensitive to declines in business activity, is vulnerable to significant declines in revenues and increased layoffs.

Public apprehension about airline safety has depressed tourism in New York City significantly. The city's hotels reported lower occupancy rates and revenues following the attacks, which compounded declines related to softening economic conditions in the first half of 2001. After declining by as much as 50 percent immediately after September 11, revenue per available room for New York City hotels was down an average of 22 percent in December 2001 compared with a year ago,[4] an indication of the continuing weakening of the city's economy during the winter season.

The Region's vulnerability to economic weakness following September 11 has not been limited to New York City. Other parts of the Region rely to varying degrees on industries affected by the attacks (see Map 1). A high concentration[5] of securities jobs increases the vulnerability of the **northern New Jersey** economy because of the significantly reduced compensation in the securities industry. Even though the number of securities jobs in that area has increased since September 11 because of relocation of firms from Manhattan, the influx of securities jobs into New Jersey may not compensate for the decline in disposable income. A negative income effect could cause ripples throughout northern and central New Jersey, an area that has been hurt by retrenchment in the telecom industry. Northern New Jersey also is vulnerable to weakness in air transportation related to Newark International Airport.

The Region's economies that rely on tourism and travel-related jobs face increased weakness, as air travel has not yet returned to pre-September 11 levels. A greater reliance on drive-in traffic, however, has buffered some areas, such as **Atlantic City** and parts of upstate **New York** and **Pennsylvania.** While Atlantic City has one of the highest concentrations of tourism-related jobs in the nation, it is significantly less dependent on air traffic than some other tourist destinations, such as

Map 1



Orlando and Las Vegas. The economies of **Washington, D.C., Baltimore,** and **Philadelphia** also have traditionally benefited from a robust tourism sector and convention activity and, as a result, are also susceptible to economic weakness following the attacks.

The Region's Office Markets Have Weakened, Particularly in Manhattan and Northern New Jersey

The Region's office market conditions have weakened along with the economy, and softening has been greatest in the areas that were most adversely affected by the September 11 attacks. Office vacancy rates rose in the Region's major cities during 2001, consistent with national trends. Despite the recent rise, office vacancy rates for many of the Region's large metropolitan areas were below or close to the national average, in part a reflection of the modest amount of new office construction in the Region. A decade ago, the Region's office market problems were supply driven. The current rise in vacancy rates, by contrast, results predominantly from a drop in demand. Layoffs and optimistic estimates of space requirements, particularly by high-tech companies that have closed their doors, resulted in an unprecedented level of leased office space returning to the market.

[4] Bear Stearns, *eBearcall,* January 4, 2002.

[5] Concentrations at the county level were measured with Location Quotients (LQs). A higher concentration than the nation is reflected by an LQ greater than one. This analysis examined counties with LQs greater than 1.5 in five vulnerable industries: securities and commodity brokers, hotels and tourism, aircraft and parts, air transportation and transportation services, and business services.

Office market conditions in New York City significantly weakened last year. After remaining well below the national average because of strong demand and limited supply, the downtown Manhattan office vacancy rate nearly tripled to 10.6 percent during 2001, compared with last year.[6] The September 11 attacks damaged 17.8 million square feet of office space and destroyed another 13.4 million square feet, roughly 16 percent of the city's downtown office market. Many analysts speculated that Manhattan's office vacancy rates would not increase because of the loss of office space. Instead, office vacancy rates sharply rose as downtown tenants flooded the market with sublet space. Over 10 million square feet of leased space was returned to market in fourth quarter 2001, nearly equivalent to the amount of space destroyed.[7] A number of factors contributed to the increase in sublet space, including the desire of companies to leave lower Manhattan, office consolidations resulting from layoffs, and fiscal tightening because of weaker economic conditions.[8]

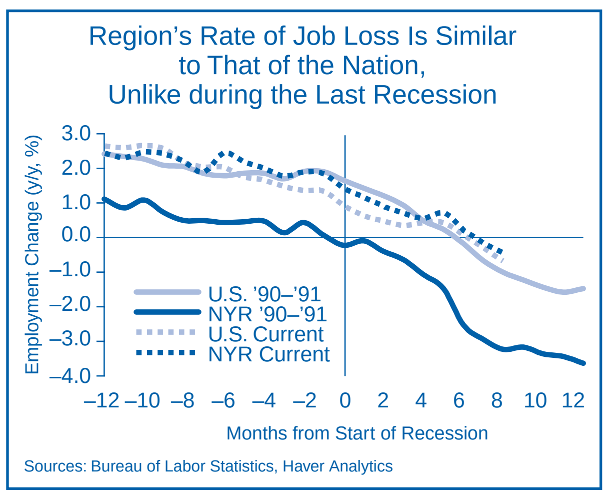
Despite the migration of businesses from lower Manhattan, vacancy rates have increased in midtown Manhattan and northern and central New Jersey office markets because of the influx of sublet space. The amount of sublet space in northern and central New Jersey office markets increased by 170 percent during the past year, representing almost 40 percent of the total available office space.[9] According to a ***Moody's Investors Service*** report, the outlook for the northern New Jersey office markets is less favorable than for the New York City market. Both office markets have experienced reduced demand reflecting economic weakness, and in the case of New York City, some relocation out of Manhattan. Unlike Manhattan, however, which has had minimal office construction in the past ten years, northern New Jersey is facing softening demand for office space at the same time that a moderate amount of new office construction is reaching completion.[10]

Path of Region's Recession during This Decade Differs from the 1990s Path

The path of the current regional economic downturn differs from that of the recession a decade ago. The Region's rate of employment growth during the current recession closely approximates the nation's (see Chart 1); this contrasts with 1990–1991, when the Region's rate of employment growth declined precipitously at the start of the recession. The difference in rate of job loss is a reflection, in part, of the fact that the banking and real estate sectors are in better condition now than they were before the last recession.

The dynamics of the post-September 11 economy, however, may result in more layoffs in the Region than in the nation, particularly in areas that depend more on industries adversely affected by the attacks. Furthermore, the Region's rate of employment growth, while keeping pace with the nation's prior to September 11, may lag the national average in the postattacks period because of the economic weight of the New York City metropolitan area. Nevertheless, while the Region's economic recovery may not match the nation's in timing or strength, neither is it likely to be as prolonged or

CHART 1



[6] C.B. Richard Ellis.

[7] Grubb & Ellis Research, *New York City's Office Market—A Post 9-11 Update,* December 2001. According to the report, 5.6 million square feet of office space damaged on September 11 had been reopened by the end of 2001.

[8] John Holusha, January 6, 2002, "In Office Market, a Time of Uncertainty," *New York Times*.

[9] Grubb & Ellis Research, *Office Market Trends: A Survey of the Nation's Office Markets,* Winter 2001. *New Jersey Office Market Trends: The Scramble for Space Following the WTC Attacks,* Third Quarter 2001.

[10] Sally Gordon, January 4, 2002, "CMBS: Red-Yellow-Green Update Fourth Quarter 2001 Quarterly Assessment of U.S. Property Markets," *Moody's Investors Service*.

painful as it was in the early 1990s. The pace and vitality of any recovery are likely to depend on several factors, including the industrial mix of local economies and the "pull" effect from the national economy.

Banks Are Better Positioned Now than During the 1990–1991 Recession, but Challenges Remain

The Region's insured institutions appear better positioned to weather this recession than they were the 1990–1991 downturn. Capital and reserves to total assets for the Region's banks approximated 10 percent by third quarter 2001, an increase of more than 150 basis points since the early 1990s, and credit quality measures are more favorable than those a decade ago.[11] Nevertheless, challenges lie ahead, as an increasing percentage of the Region's insured institutions reported credit quality deterioration in third quarter 2001. Additionally, after declining to ten-year lows, banks' net interest margins benefited from a steeper yield curve in 2001; however, margins may not increase to the same degree as during past cycles. Moreover, record mortgage refinancing activity in 2001 has implications for insured institutions' interest rate risk management strategies.

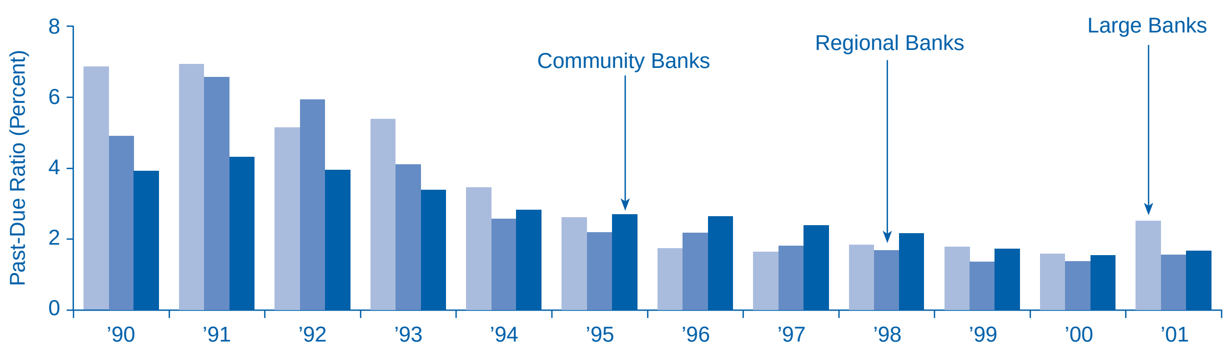
Credit Quality Weakens, Concurrent with Economic Decline

While credit quality ratios reported by the Region's insured institutions are more favorable than those a decade ago (see Chart 2), weakness is becoming more widespread among the Region's banks. In third quarter 2001, one-third of the Region's institutions reported at least a 25-basis-point increase in the past-due ratio from the prior quarter, a slightly higher percentage than was reported a year earlier. It is important to note that credit quality weakness was reported across most lending lines.

The Region's large banks (total assets over $10 billion) reported continued credit quality deterioration, primarily in commercial and industrial (C&I) loan portfolios. However, commercial credit quality weakness was not limited to bank loan portfolios, as ***Moody's Investors Service*** reported that the ratio of corporate bond downgrades to upgrades reached 2.9 in 2001, the highest ratio since 1991.[12] Large bank past-due and charge-off ratios reached an eight-year high of 2.76 percent and 1.06 percent, respectively, in third quarter 2001 but remained below levels of a decade ago, when the C&I past-due ratio reached 7.01 percent and charge-offs were 2.54 percent. Increased sales of distressed loans by insured institutions in the secondary market during this economic downturn may have partially mitigated the negative effect on large bank C&I credit quality ratios.

CHART 2

Credit Quality Indicators among Insured Institutions Remain More Favorable than a Decade Ago



Note: Excludes credit card banks, specialty banks, and institutions in operation three years or less. Large banks—total assets over $10 billion. Regional banks—total assets between $1 and $10 billion. Community banks—total assets less than $1 billion. Median figures as of September 30 displayed.
Source: Bank and Thrift Call Reports

[11] Banking analysis uses median figures as of September 30, 2001, and, unless otherwise noted, excludes specialty banks and institutions in operation for fewer than three years.
[12] Moody's Investors Service, "U.S. Corporate Credit Worth Decline in 2001 Steepest Since 1991," January 8, 2002.

According to a report, the nation's banks sold an estimated $5 billion in problem loans last year.[13] Large corporate bankruptcies, including Enron and Kmart, and credit quality problems related to Argentina could further pressure large bank loan portfolios. In fourth quarter 2001, some of the Region's large banks announced substantial charge-offs related to Enron and Argentina.[14]

The Region's community and regional-sized banks[15] also reported slightly higher delinquency ratios, which suggests that commercial credit quality weakness, to a lesser extent, has migrated to small- and middle-market businesses.[16] As is the case with the Region's large banks, however, credit quality ratios remain significantly below peaks reached during the 1990–1991 recession. Perhaps reflecting the softening economy, the amount of delinquent commercial real estate (CRE) loans reported by the Region's community and regional banks increased almost 30 percent over the past year's, pushing CRE past-due ratios moderately higher. The Region's insured institutions with the highest concentration of CRE loans tend to be located in large metropolitan areas, such as New York City and northern New Jersey, which are experiencing softening market conditions. CRE delinquency ratios reported by banks in these metropolitan areas increased moderately in 2001 but remain well below ratios of a decade ago.

Office market conditions in the Region moderately weakened in 2001, primarily reflecting reduced demand rather than excess supply (generally a more severe problem, as was the case in the 1990–1991 recession). As discussed earlier in this article, part of the problem during the past year, particularly after September 11, has been an increase in available sublet space. An increase in sublet space initially may not affect CRE loan quality because typically the tenant remains obligated to pay the lease payment. Nevertheless, more sublet space may constrain office rental rates.[17] Moreover, lenders could experience some weakening in CRE portfolios, particularly on loans made at the height of the business expansion that assume peak rental rates and occupancy levels. Markets characterized by new construction and reduced demand could face more serious problems.

Credit quality weakening in consumer portfolios was consistent with slowing growth in personal income and rising unemployment, as the delinquency rate on credit cards and residential mortgage loans slightly increased over the past year.[18] The Region's credit card banks,[19] which hold or manage over one-third of the nation's credit card loans and receivables, reported higher loan delinquency and charge-off ratios in third quarter 2001, approaching levels reached during the 1990–1991 recession. Credit card charge-off rates are forecast to rise in 2002, consistent with trends in past economic downturns.[20] Some credit card lenders reported higher margins in 2001, as increases in net interest margins (NIMs) more than offset higher credit costs. Earnings may come under more pressure this year, however, as funding costs stabilize (or perhaps increase, should interest rates rise) while charge-offs continue to climb. Subprime credit card lenders likely will experience much greater earnings pressures because charge-offs on subprime loans typically exceed levels for prime loans because of the subprime borrower's weaker credit profile. Furthermore, subprime lenders, which rely on higher fees to offset charge-offs, may not be able to increase fees to levels that will offset elevated credit costs during a slowing economy.[21]

Changes in credit quality indicators tend to lag shifts in economic conditions; as a result, further weakening in credit quality is possible, underscoring the importance of strong loan administration practices. Results of the September 2001 ***FDIC Report on Underwriting Practices*** indicate that the proportion of banks nationally that had "medium" or "high" risk associated with loan administration rose from 37 percent to 40 percent during the six-month period ending September 30, 2001. Should credit quality continue to weaken, bank management may need to allocate greater resources to the loan administration function.

[13] Goldman Sachs, "Banks: Regional/Trust & Processing United States," February 6, 2002.

[14] According to a January 16, 2001, press release, JP Morgan Chase announced $807 million in credit costs related to Enron and Argentina in fourth quarter 2001. Citigroup's press release on January 17, 2001, included a $228 million charge related to Enron and a $470 million charge related to Argentina for fourth quarter 2001.

[15] Community banks are defined as insured institutions with total assets less than $1 billion. Regional banks are defined as insured institutions with total assets between $1 billion and $10 billion.

[16] For more information on credit quality and bankruptcy trends, see Federal Deposit Insurance Corporation, *Bank Trends: Large and Small Companies Exhibit Diverging Bankruptcy Trends,* January 2002.

[17] Torto Wheaton Research, "Why Aren't Things Worse?" December 24, 2001.

[18] See the "In Focus" article for a discussion of national trends in mortgage lending and residential real estate markets.

[19] Credit card banks are institutions with credit card loans and securitized credit card receivables to total assets greater than 50 percent.

[20] Credit Suisse First Boston, "Fourth Quarter Earnings Preview," January 2, 2002.

[21] Wachovia Securities, "Credit Cards 101," November 27, 2001.

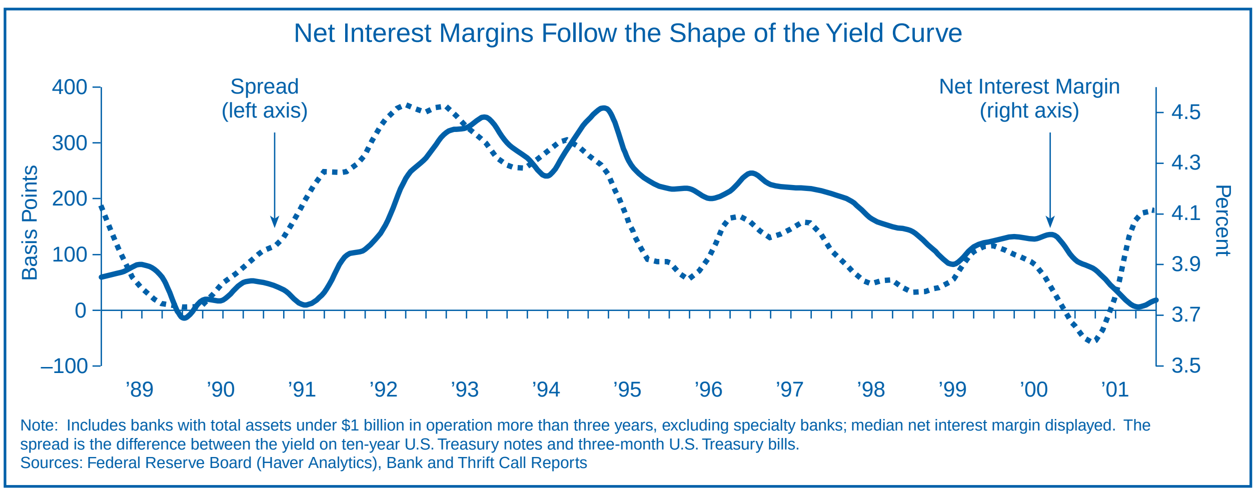
Changes in the Shape and Level of the Yield Curve Have Implications for Margins and Interest Rate Risk

Another challenge faced by the Region's insured institutions, particularly community banks, is the effect of changes in the shape and level of the yield curve on bank margins and interest rate risk management. As discussed in New York ***Regional Outlook,*** First Quarter 2001, community bank NIMs historically have followed changes in the steepness of the yield curve (see Chart 3). Community banks typically "fund short and lend long"; loans generally have longer maturities or repricing intervals than deposits. Moreover, community banks typically generate a greater portion of income from traditional banking revenue (i.e., margin revenue) than do larger, diversified insured institutions. In third quarter 2001, the Region's community banks generated 88 percent of total revenue from margin or "spread" income; margin income represented 68 percent of revenue for the Region's large banks. The greater dependency of community banks on margin revenue suggests that the profitability of these institutions may be more susceptible to changes in the level and shape of the yield curve.

The Region's community banks reported a decline in asset yield concurrent with falling long-term interest rates. Long-term Treasury rates declined steadily between May 2000 and September 2001; the average rate on a 30-year mortgage dropped 170 basis points.[22] The decline in mortgage rates spurred a refinancing wave that exceeded levels reached in 1998 as borrowers took advantage of lower interest rates and refinanced primarily into longer-term mortgages (see Chart 4). The refinancing boom has implications for interest rate risk management, particularly for banks that focus on residential mortgage lending. Lower market interest rates also contributed to a decline in the yield earned on community bank commercial loan and investment portfolios. Reflecting lower yields earned on loans and securities, the asset yield reported by the Region's community banks declined 65 basis points through the first nine months of 2001.

Funding costs for the Region's community banks also fell during 2001, although reductions were more than offset by declining yields on earning assets. During the first nine months of 2001, the federal funds target rate fell by 350 basis points, and short-term U.S. Treasury rates declined, on average, 287 basis points.[23] During the same period, the median cost of funds reported by the Region's community banks dropped 52 basis points, less than the decline in the median asset yield. Community bank funding costs did not decline commensurate with market rates, in part because of deposit maturity and repricing schedules. Rates on time deposits, which accounted for 42 percent of community bank liabilities, are poised to decline as one-quarter of community bank

CHART 3



[22] Federal Reserve Board (Haver Analytics).

[23] Short-term U.S. Treasury rates are defined as rates on three-month through two-year U.S. Treasury securities. Federal Reserve Board (Haver Analytics).

certificates of deposit (CDs) were scheduled to mature or reprice by year-end 2001, and three-quarters mature or reprice within one year.[24] The extent of the reduction in funding costs, however, will depend on the degree of pricing power retained by banks in the face of increased competition, and on consumers' preferences for CD maturities and alternative investments.

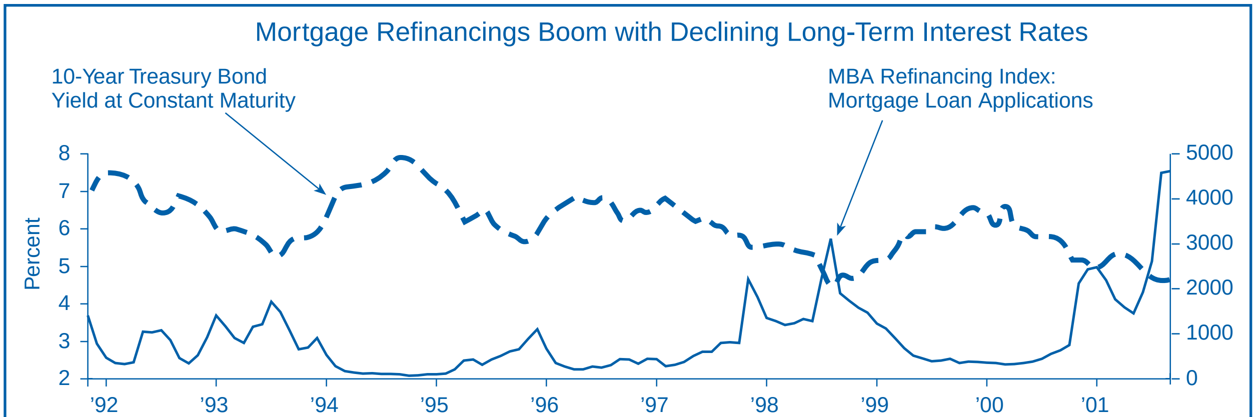
Benefits of Steeper Yield Curve May Be Muted During This Cycle

While changes in the shape of the yield curve have cyclical implications for bank margins, competition is a secular challenge faced by the banking industry. Following the 1990–1991 recession, the Region's community banks experienced increased NIMs as the yield curve steepened. During this cycle, bank margins also are likely to widen; however, increased competition for loans and deposits may constrain the degree of margin improvement. Competition for banking products has strengthened, as evidenced by the growth of nonbank financial services providers and credit union membership. For example, membership in credit unions grew from 61.4 million in 1992 to 78.7 million in 2001.[25] Moreover, deposit alternatives such as mutual funds play a much larger role than they did a decade ago. As a result, banks' pricing power likely has declined over time. Additionally, while deposit growth increased in 2001, reflecting, in part, weak stock market conditions, depositors may return to the stock market should equity prospects improve.

Refinancing Wave Heightens Importance of Interest Rate Risk Management among Residential Lenders

Elevated mortgage refinancing levels may have implications for bank interest rate risk profiles, particularly among insured institutions that specialize in residential lending and mortgage-related securities. Relative to the nation, a larger proportion of the Region's institutions may be affected by the recent refinancing boom because one-third of the Region's banks are residential lenders, compared with 10 percent for the rest of the nation.[26] The Region's residential lenders reported a slight increase in loan maturities as of September 30, 2001; however, maturities are likely to extend further because more homeowners took advantage of historically low long-term mortgage rates late last year. For example, following the 1998 refinancing wave, the median percentage of 1 to 4 family mortgage loans and mortgage-backed securities reported by the Region's residential lenders that were scheduled to mature or reprice in five or more years increased from 57 percent to 67 percent. Asset maturity extension may be greater following this refinancing wave than it was four years ago because of the record amount of mortgage originations last year; this possibility is somewhat dependent on the degree to

CHART 4



Note: Refinancing Index shown through November 2001.
Sources: Mortgage Bankers Association (MBA), Federal Reserve Board

[24] Maturity and repricing data was not available for thrift institutions.
[25] National Credit Union Administration, *Mid-Year Statistics for Federally Insured Credit Unions,* 2001.
[26] "Residential lenders" refers to institutions holding greater than 50 percent of total assets in one- to four-family mortgage loans and mortgage-backed securities.

which institutions sell mortgage loans in the secondary market. In 2001, an estimated $2.0 trillion in mortgages were originated, eclipsing the $1.5 trillion of originations in 1998; a substantial proportion is long-term fixed-rate mortgages.[27]

Investment strategies also may have implications for an insured institution's interest rate risk management. Management may try to offset lower loan yields by moving out on the yield curve and investing in longer-term securities, further lengthening asset maturities. Asset maturity extension may be mitigated by lengthening the maturity of some bank funding sources, as evidenced by a slight shift into longer-term Federal Home Loan Bank borrowings by the Region's residential lenders in third quarter 2001. Nevertheless, a higher concentration of long-term assets could increase exposure to rising interest rates among the Region's residential lenders, particularly if the economic recovery is stronger than expected.

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[27] Mortgage Bankers Association, "Mortgage Finance Forecasts," December 17, 2001.

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

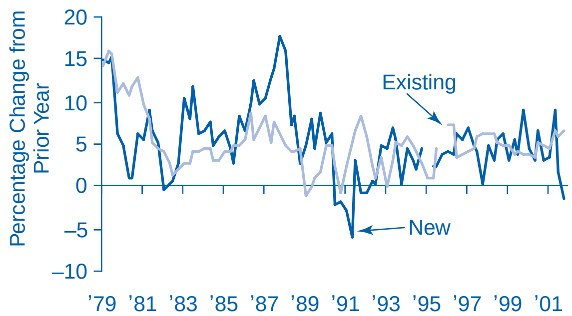
[1] Mortgage Market Forecast, www.mbaa.org/marketdata/forecasts/, January 2002.

[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

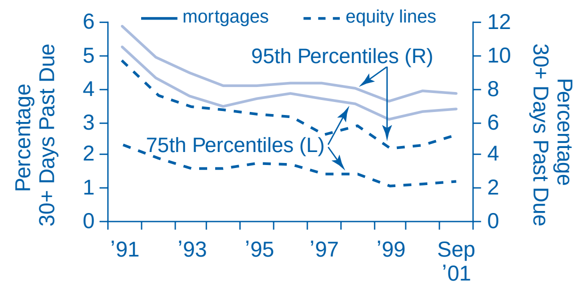
Although the Much Larger Market for Existing Homes Has Held Up, New Home Prices Are Under Pressure



Sources: Census (new), National Association of Realtors (Existing)

CHART 2

Through September 2001, Mortgage-Related Delinquencies Remained Modest



NOTE: Sample consists of banks with at least $1 million in equity lines or mortgages that are also at least 5 percent of bank's Tier 1 capital.
Source: Bank and Thrift Call Reports

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.

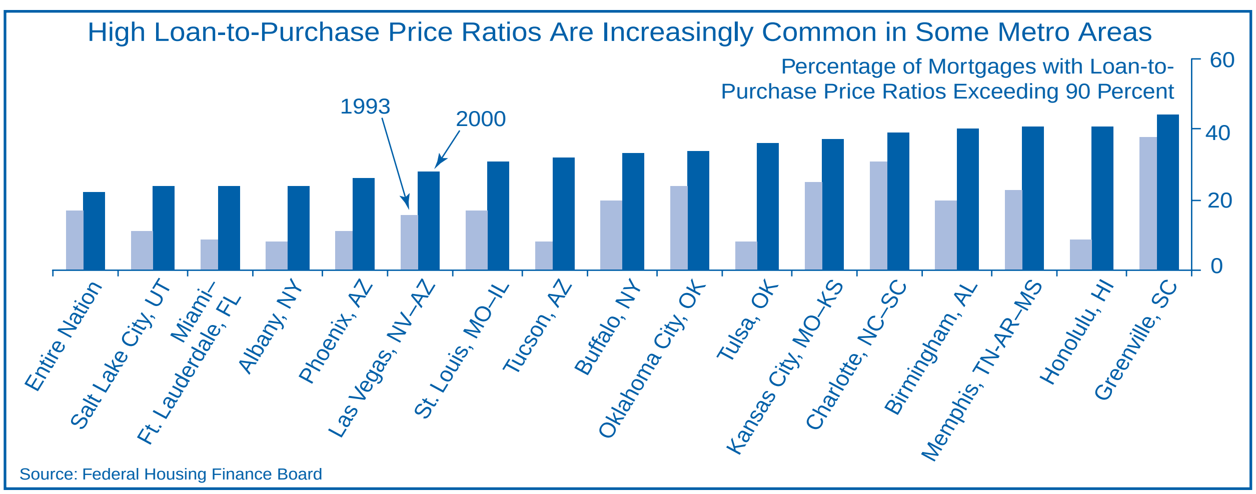
Evolving Lending Practices Have Increased the Risk Profile for Mortgage Lenders

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.

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

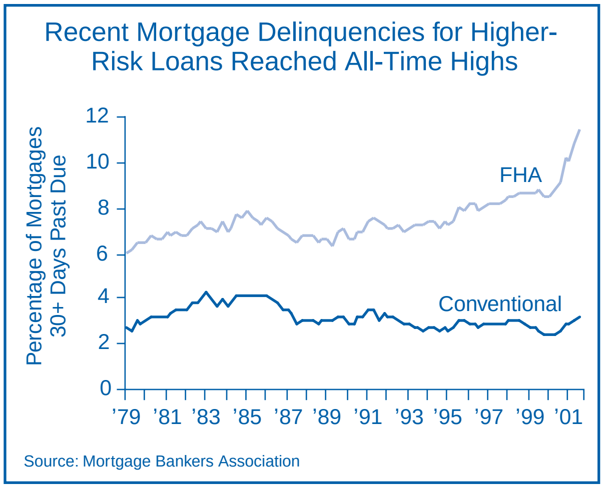
[7] Purchase money mortgages are loans extended solely for the initial purchase of a home. Statistics on loan-to-value ratios for supplemental home equity loans/lines (e.g., piggyback or "80-10-10" financing), as well as refinanced mortgages, are not readily available.

[8] "Automated Appraisals Require Caution by Lenders," *American Banker,* October 10, 2001.

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

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

Chart 4



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

A database of more than 6.5 million subprime loans tracked by ***Loan Performance Corporation*** (formerly *Mortgage Information Corporation*) reported similar trends. The nationwide third quarter 2001 ratio of seriously delinquent subprime mortgages was 7.3 percent, up from 5.5 percent one year earlier.[11] Moreover, subprime delinquencies significantly exceeded those found among prime mortgages, as just under 0.5 percent of conventional prime mortgages were seriously delinquent.[12] Also of possible concern are vintage data trends, which show how pools of primary and junior-lien subprime mortgages perform over time. Mortgages originated in 2000 are performing poorly in relation to previous years' vintages.[13] This simply could reflect the impact of the current recession. Alternatively, ***Loan Performance Corporation*** analysts have suggested that the 2001 refinancing boom might have created some adverse selection in mortgage pools originated during the relatively higher interest rate environment of late 1999 and early 2000.[14] Because 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.

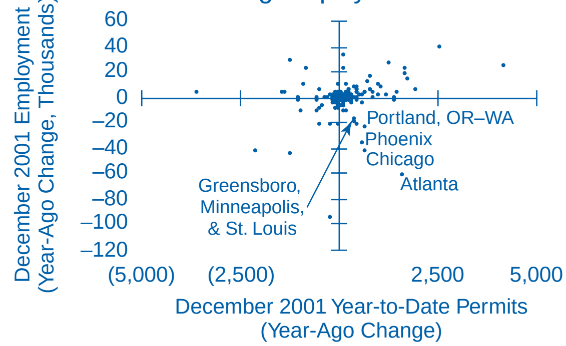
Although conceptually straightforward, measuring the balance between housing demand and supply is challenging, particularly at lower geographic levels. Shortcomings in data availability, quality, and timeliness can limit the effectiveness of this type of analysis. As already mentioned, some insight about 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

CHART 5

Some Larger MSAs Continued to See Permit Growth during 2001, despite Declining Employment



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

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

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

Cyclical Risks May Be Developing with Respect to Home Prices

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

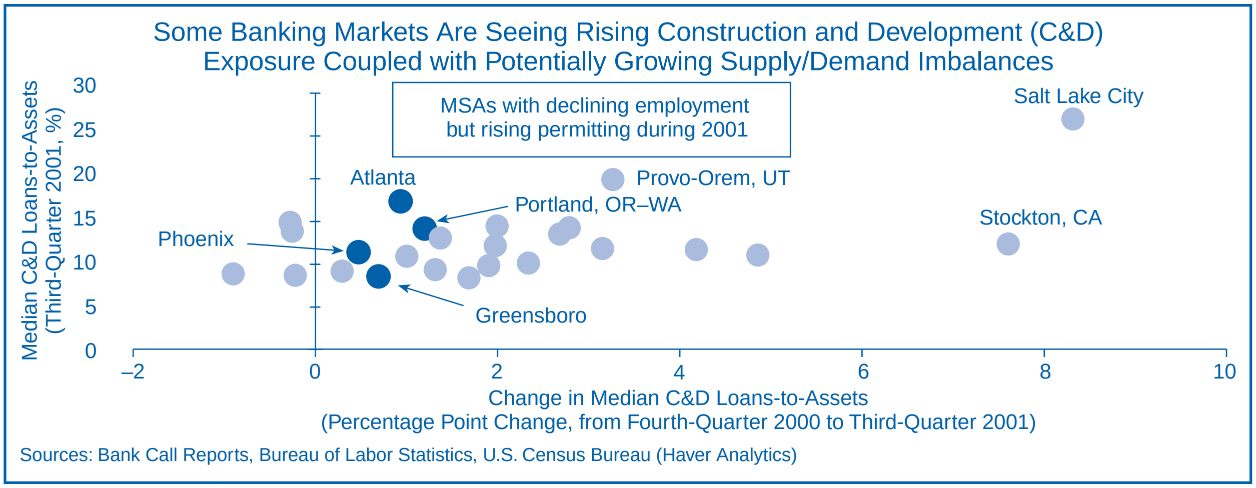
[16] For example, see www.myersgroup.com.

[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

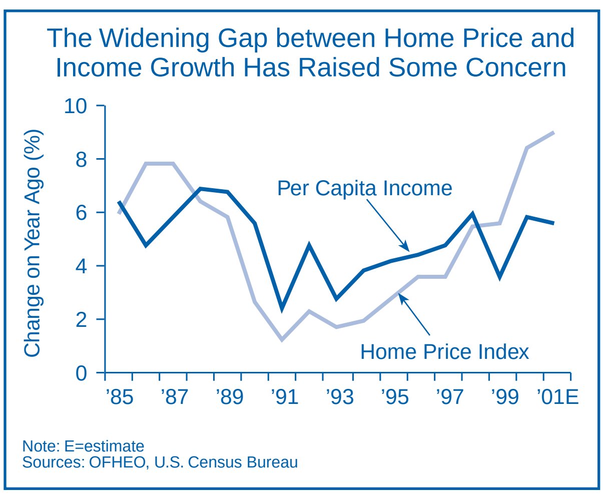


the past several years and the technology stock-fed speculative "bubble" in equity prices that persisted through early 2000. The subsequent bursting of this bubble and the resulting economic distress have raised concerns of a sequel featuring housing prices.

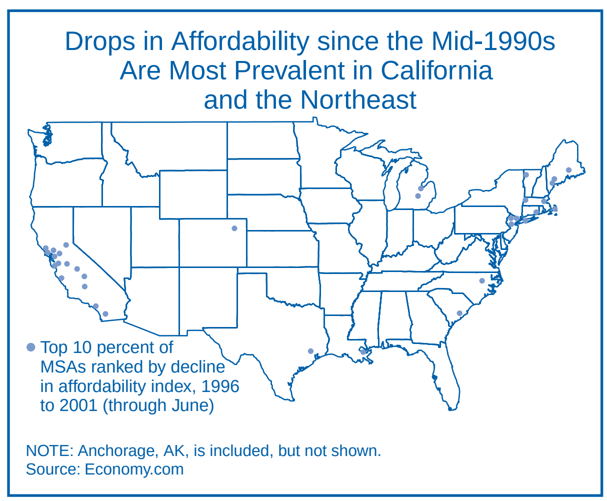
According to the OFHEO repeat sales price index, there has never been an instance of outright declines in aggregate U.S. existing home prices.[20] However, home prices do exhibit strong cyclical tendencies, with the rate of appreciation slowing during national recessions. In addition, there have been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

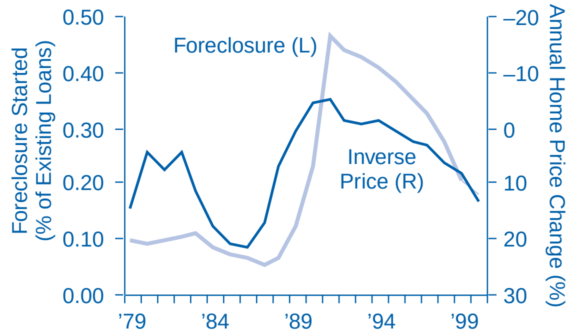
Map 1 shows markets that have seen the most significant reductions in affordability (sharp price gains) during the past several years. Not surprisingly, many of them—namely larger cities in California and the Northeast—are those that historically have seen the biggest swings in prices and a penchant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

CHART 8

Rising Foreclosure Rates Followed Falling Home Prices in New England a Decade Ago



Sources: OFHEO (prices), Mortgage Bankers Association (foreclosures)

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

MSAs Ranked by Deceleration in Home Price Index from 1Q01 to 4Q01	Annual Percent Changes: OFHEO Home Price Index 1998–2000	1Q01	2Q01	3Q01	4Q01	Nonfarm Employment 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]

[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.

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