

ON THE RADAR SCREEN



A Publication on Current Risks Faced by Western Banking Institutions

Federal Reserve Bank of San Francisco
Division of Banking Supervision & Regulation

September 2003

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About this Publication

This is the second edition of *On the Radar Screen*, a publication of the Division of Banking Supervision & Regulation at the Federal Reserve Bank of San Francisco. In this publication, we discuss some of the top concerns identified by the Division's Risk Assessment Council, a group that meets periodically to discuss

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SPECIAL DISCUSSION TOPIC

What If Interest Rates Rise?

The Federal Reserve's stance on interest rates as of this publication's date is that policy accommodation can be maintained for a considerable period. Nonetheless, given the historically low rate levels at present, most expect that, at some point, events will occur that lead to a rising rate environment. In fact, long-term rates have already jumped over 100 basis points since June.

Bank supervisors often engage in "what if" exercises to consider the ramifications of various potential events to banks. During a recent interagency meeting, a group

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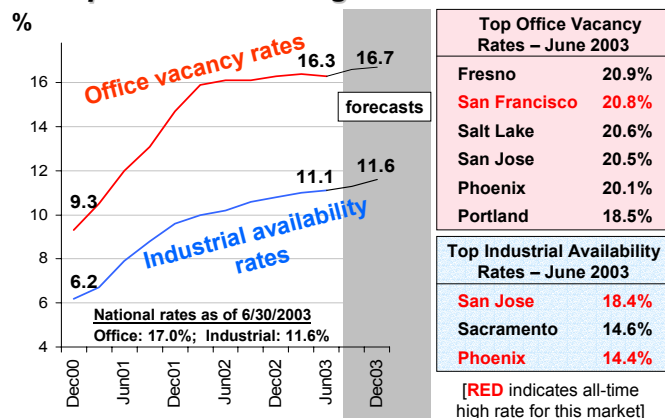
CURRENT RADAR SCREEN BLIPS

Construction/Commercial Real Estate Lending

When will commercial real estate (CRE) markets finally begin to recover? Many observers anticipated that vacancy rates would peak some six months

ago and would be on the decline by now. However, new numbers as June 2003 disclose that the turnaround is not likely to start until next year. Both office and industrial vacancy rates continue to inch up, and the latest forecasts indicate further weakening through year-end 2003. The average Twelfth District office vacancy rate is high at 16.3%; however, this is still well short of the 22.4% average recorded in 1986. The average District industrial availability rate of 11.1% also continues to trend upwards and is nearing the 1991 peak of 11.9%.

District vacancy rates edge upwards after unprecedented surge (avg. of 17 12th District metro areas)



Source: Torto Wheaton Research - Fall 2003 Outlook

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banking risks and supervisory strategies.

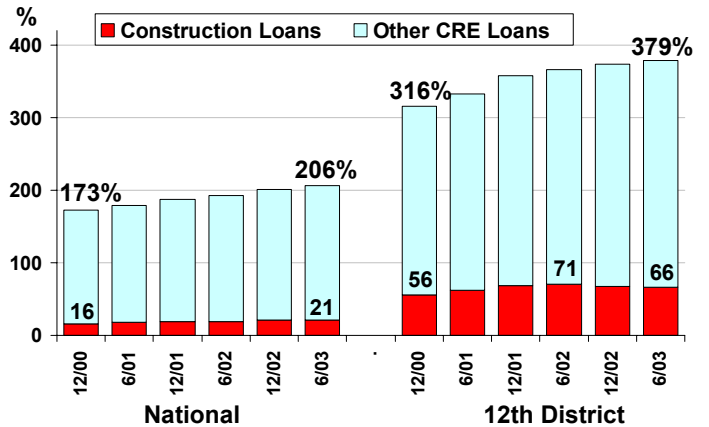
Twelfth District banks, in general, are in sound financial condition and most are not experiencing problems in the areas discussed in this publication. This report is designed to be forward-looking, addressing the areas that **may** become issues over the next few years, depending on the economy and other factors. A topic is covered based on an evaluation of: 1) the likelihood of an adverse event, and 2) the estimated damage to District financial institutions if the event were to occur. This approach is similar to financial risk models that estimate the probability of default (PD) and loss given default (LGD). In our case, we consider general events that could cause a variety of bank problems and the macro damage that might result. "Damage" is thought of in terms of potential financial losses, regulatory rating downgrades, or institution failures.

We hope this publication is useful to readers in providing some insight into the current concerns of banking supervisors.

The biggest concern to CRE lenders is the impact of declining rents on property cash flows and values. Thus far, there has been little damage largely due to conservative underwriting of CRE loans in recent years. Past due CRE loans remain at low levels throughout the west. However, declining rents have a lagging impact that may not yet be fully felt. Forecasts from Torto Wheaton Research indicate that cash flows and values on office and industrial properties could weaken considerably over the next 2-3 years in tech-heavy markets such as San Jose, San Francisco, Seattle and Portland. This could result in potential problems for CRE lenders.

Despite the weak market conditions, bank CRE lending continues to expand. As a percentage of capital, the median CRE loan concentration ratio climbed to a record high 379% of capital within the Twelfth District as of 6/30/03, remaining well above the median of any other District. This reflects a significant degree of vulnerability in a business area known for historical "boom and bust" cycles and severe effects on lenders during the busts.

CRE loan concentrations still rising; construction loan concentrations have stabilized



Median ratios as percent of Tier 1 capital + ALLL -- commercial banks only; Source: Regulatory "Call" reports

With banking products becoming increasingly commoditized, it is difficult for many banks to expand in other lending areas to improve diversification. With this in mind, regulators generally do not prevent banks from maintaining high CRE lending concentrations; however they expect such banks to have particularly strong processes to "measure, monitor, and control" risks, including considering such concentrations in decisions on reserve and capital levels. "Stress testing" for adverse market changes also is considered a prudent practice for high CRE concentration banks.

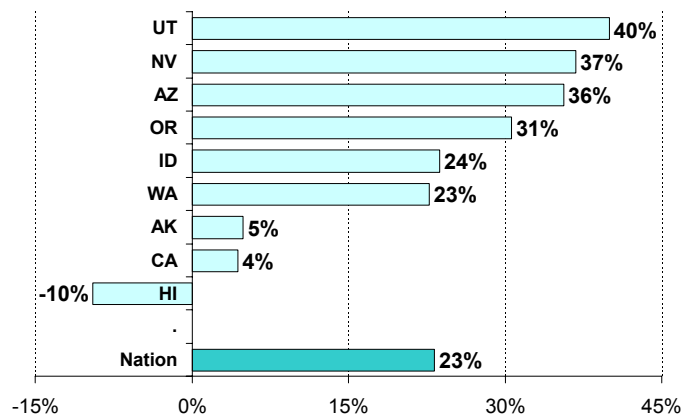
Lending concentrations and weak market conditions make construction and CRE lending an area of significant concern to FRBSF, and we would not be surprised if some lenders experience problems in the next few years. However, many things are different from the early 1990s when large numbers of CRE lenders went out of business (e.g. more conservative underwriting standards, better appraisal practices, better use of project feasibility studies, improved market information and early-warning systems, maturing securitization markets, and stronger bank capital levels). These differences should ensure that any problems that do develop will not approach the magnitude of the past.



Consumer Lending

Sluggish economic and employment growth, coupled with high personal debt levels and record bankruptcies, contribute to consumer lending risks in the District. At 14% of disposable income, household debt service burden remains near historical highs as consumers have increased debt to take advantage of low interest rates. Despite the low rates, personal bankruptcies remain at record highs, with District-wide filings up sharply since 2000. Three District states in particular have experienced significant consumer weakening (see chart), and remain among the top 10 nationally in bankruptcies per household: Utah (1st), Nevada (3rd), and Idaho (9th).

Growth of Personal Bankruptcy Filings from 2001 – 2003 *



* 4-quarter period ending March 31 of both years. Source: abiworld.org

An increase in interest rates could adversely affect the consumer's ability to cover debt service requirements, which in turn could impact bank asset quality through higher loan delinquencies and charge-offs.

Problems also could surface for lenders in selected housing markets, especially given the sizeable volume of high loan-to-value loans. While residential markets remain strong throughout the west, some areas are vulnerable to price declines. Based on unusually high home price appreciation over a period when rents have declined (Price-Rent Ratios), the most vulnerable residential markets in the District appear to be Oakland, San Francisco, San Jose, and Seattle.¹

Consumer loans, including those secured by residential real estate, account for a relatively small portion of most District bank portfolios. Accordingly, the impact of a potential rise in consumer loan defaults would be fairly moderate across the District. While some of the larger District banks have sizeable mortgage and credit card portfolios, indicating greater consumer-sector risk, much of this exposure is geographically diversified, reducing overall risk.

Based on unusually high home price appreciation over a period when rents have declined...the most vulnerable residential markets in the District appear to be Oakland, San Francisco, San Jose, and Seattle

Interest Rate Risk

Interest rate risk remains on the radar screen in this low rate environment, especially given the recent volatility in long term interest rates and the steepness of the yield curve. Twelfth District banks, particularly those in California, have experienced notable margin compression since the fourth quarter of 2000 and remain under pressure to maintain earnings.

The steepness of the yield curve provides the temptation for banks to "reach for yield" through investing in longer duration assets, locking in longer-term assets at a cyclical low point in interest rates, or investing in riskier investments with lower credit quality. Balance sheet complexity is increasing as banks purchase mortgage-backed securities and other investments with embedded options. Funding also is becoming more complex as some banks

¹ Based on internal study of prices and rent trends through 3/31/03; sources: NREI and OFHEO



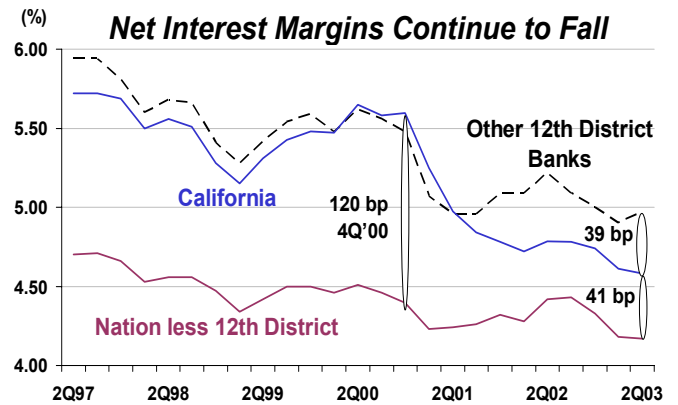
The steepness of the yield curve provides the temptation for banks to “reach for yield”

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turn to alternative funding sources that also have embedded options, such as some types of FHLB advances.

Reaching for yield may result in 1) increased interest rate risk, 2) higher credit risk through shifts to higher yielding, lower quality, assets, and 3) increased liquidity risk from the reluctance to sell depreciated securities or credit impaired investments.

In addition to recent findings of increased balance sheet complexity, examiners have noted weaknesses in interest rate risk measurement systems and in board and management oversight at some banks.



Source: Call Report Data; Median quarterly NIMs

Network and Information Security

The spread of new Internet-based worms in July and August renewed attention on the importance of network and information security. While virus and worm attacks are occurring with increasing frequency¹, they usually are not financially severe. However, severity is often hard to quantify. For example, if non-public customer information is stolen and used fraudulently, will the bank be sued (legal risk) or cited by a banking regulator? If a disgruntled former employee defaces or crashes his former bank’s home page, will existing and potential customers go elsewhere (reputational risk)?

The cost of a network breach can vary widely, and the consequences differ according to the scope of the intrusion, but bottom-line profits are usually affected in the following ways:

- ◆ loss of business revenue and wages paid during a downtime event;
- ◆ time and resources necessary to rebuild or protect compromised systems;
- ◆ cost of recapturing lost information;
- ◆ regulatory and legal consequences; and,
- ◆ lost customer confidence leading to lost business.

Although bank regulators have continuously focused on bank security over the past 100 years, the vault and its contents have become increasingly digital. Cash is primarily transferred and stored digitally, and bank records are usually stored on magnetic tape. Recognition of this transformation is critical so that bank management can develop, implement, and enforce a comprehensive information security plan. The bad news is that banks present an enticing target to technocriminals and hackers. The good news is that, up to now, banks have had a relatively strong track record of minimizing the damage.

¹ According to the CERT Coordination Center, the volume of reported “security incidents” has skyrocketed in recent years from under 4,000 per year prior to 1999 to over 76,000 in the first half of 2003 alone.

Virus and worm attacks are occurring with increasing frequency

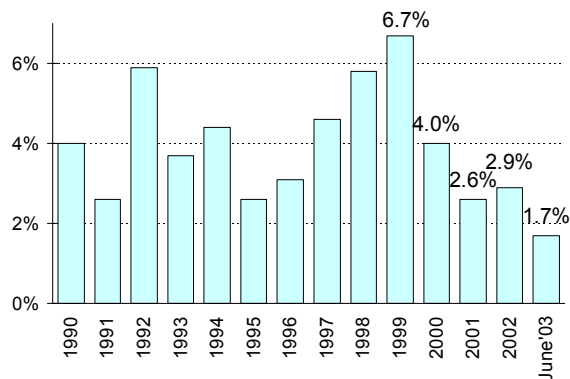


Retail Industry Lending

The retail sector historically has had default rates. Coupled with ongoing economic weakness, and questions about the strength of the consumer sector if interest rates rise, this translates to continuing retail industry risk for District financial institutions.

While retail sales growth remains positive, the rate of growth has continued to slow, reaching a 1.7% annual rate for the first six months of 2003. Smaller retailers (those more likely to have loans from regional banks) have generally performed worse than larger retailers, according to the Bank of Tokyo–Mitsubishi small stores sales index. Recently, sales have benefited from a higher percentage of clearance items and promotional activity, which likely will impact profit margins over time. Although the retail sector has held up well so far, it will become increasingly difficult for retailers to service loans if profits and cash flow slip.

Retail Sales Growth Rates Positive but Weak



Source: Bank of Tokyo-Mitsubishi Chain Same-Store Index (Annual growth rates)
June '03 reflects the growth of year-to-date sales compared to same period in '02

Sarbanes–Oxley Act Implementation

The Sarbanes-Oxley Act of 2002 was enacted in response to several well-publicized corporate scandals including Enron and Worldcom. The law was designed to improve corporate governance, enhance external auditor independence, and increase corporate responsibility.

In general, Twelfth District banking organizations that are subject to Sarbanes-Oxley have acted promptly to ensure compliance. Most CEOs and CFOs have performed the required financial statement certifications. Many banking organizations have stopped using the same firm to perform both external audits and other “non-audit services”, such as internal audit. Additionally, some District institutions have formed Disclosure Committees to review financial statements prior to filing with the Securities and Exchange Commission. While Sarbanes-Oxley compliance is required of publicly traded and other large banking organizations, *all other banks* are encouraged to review the Act’s provisions and adopt those that would enhance corporate governance.

Sarbanes-Oxley should result in more prudent governance processes at District banks, and therefore, decreased likelihood of unexpected problems; yet some provisions may prove challenging or costly to implement. Companies subject to the Act are required to assess the internal control structure over financial reporting (with CEO and CFO certifications) and have the company’s external auditor attest to management’s assessment. Organizations that have not been required to comply with section 112 of FDICIA in the past will need to develop an infrastructure to meet the new requirement. Another area of potential challenge relates to whether District organizations will be able to identify an “audit committee financial expert” from the firm’s current roster of directors. According to one view, a “supply crunch” is emerging for such individuals, potentially affecting a board’s ability to find a

Sarbanes-Oxley should result in more prudent governance processes...yet, some provisions of the law may prove challenging or costly to implement



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qualified external candidate.¹ Should an audit committee financial expert not be named, an organization must disclose the reasons behind this in its annual statements, a disclosure that could hurt investor confidence.

While the challenges for some organizations may be significant, most banks appear well on their way to meeting the Sarbanes-Oxley requirements and to establishing stronger control mechanisms. For those few who do not meet this challenge, legal and reputational risk will likely rise significantly.

Securitization / Residuals

Properly structured, asset securitization can benefit an organization by improving liquidity and diversifying risks.

However, securitization remains on our radar screen due to the complex risks involved in such transactions and because institutions have experienced losses or have failed as a result of securitization activities. Historically, the major problems have stemmed from faulty valuation of retained interests (residuals) or the inadequate recognition of recourse obligations that may be created by securitization transactions. A financial institution may realize securitization-related losses as a result of defaults, prepayments, valuation errors, and legal or operational problems, and each of these can present serious reputational risks. Banks need to recognize and address these risks in their organizational risk management and control systems.

As of March 31, 2003, District bank holding companies (BHCs) reported aggregate outstanding principal balances of over \$570 billion in assets securitized and outstanding with servicing rights or recourse or credit enhancements retained, up 30% from one year earlier. Single family mortgages and home equity loans account for over 98% of the outstanding totals. The aggregate recourse exposure for District BHCs totaled \$1.5 billion, up 33% from the prior year. Although the vast majority of securitization activity in the Twelfth District is concentrated at two large BHCs, ten other institutions also report some activity. In the future, the number of institutions involved in securitization may increase as securitization becomes more common among District institutions.

Transaction Risk

The recent mortgage refinance boom has placed transaction risk in the spotlight. Transaction risk is a form of operational risk that is associated with the Basel II terms “process risk” (breakdowns in established processes, failure to follow processes, or inadequate process mapping within business lines) and “people risk” (management failure, organizational structure, and other HR failures). According to FNMA, \$1.9 trillion in mortgage originations occurred during the first half of 2003, nearly 80% higher than the volume over the same period last year. This surge in volume places tremendous pressure on mortgage originators. Unless a lender’s business model is sufficiently scalable (people risk), error rates could rise (process risk), processing times could lengthen and overall operational risk could increase. Mitigating this somewhat are some notable technological

*A financial institution
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¹ From “Corporate Reform: The First Year: Cleaner Living, No Easy Riches”, Wall Street Journal, 7/22/03

improvements that have helped to decrease transaction risk. Specifically, automated underwriting and pipeline tracking software have reduced time, cost, and work steps in otherwise complex transactions (e.g. credit check, title search, income verification, appraisal).

Transaction risk and the mortgage banking business are particularly important for this Reserve Bank as the top three mortgage banks, in terms of both origination and servicing, are located in the Twelfth District.

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SPECIAL DISCUSSION TOPIC

Calif. Bank Asset Quality: A Tale of Two Regions

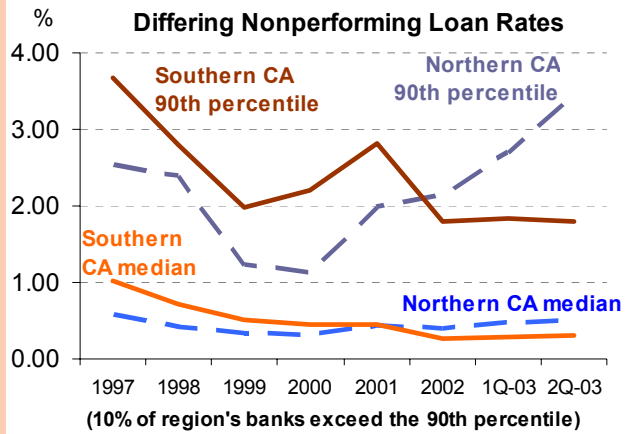
Banking industry financial performance has held up well despite the recent recession. In the Twelfth District, profits and asset quality for most banks have remained at healthy levels. However, regional economies within the District have behaved quite differently, especially in the state of California.

One of the hardest hit regions has been the San Francisco Bay Area. Clearly benefiting from the technology boom of the late 1990s, the region's economy suffered considerably from the sharp drop in IT spending. In fact, the Bay Area accounted for over 14% of the country's total nonfarm job losses from December 2000 to June 2003.¹ In contrast, southern California has fared much better because of its more diversified economy.

Differences in California's regional economic performance are reflected in bank profits and asset quality. During the late 1990s and in 2000, northern California banks as a group enjoyed significantly stronger returns on assets than southern California banks; since 2001, median returns have climbed slightly in southern California but fallen moderately in northern California (current ROA is close to 1.0% for both regions).

Divergent trends are even more apparent in nonperforming loan measures (see chart). While the median bank nonperforming loan rate in southern California has been trending down steadily through mid-year 2003, the median nonperforming rate has ticked up slightly in northern California.²

At the 90th percentile level, the northern California bank nonperforming loan rate jumped more than three-fold from year-end 2000 to 3.5% at mid-year 2003, and now stands higher than any other state in the District. In other words, northern California banks with the highest nonperforming loan rates have experienced a significant increase in these rates over this period. Given continued weak economic conditions and expected lags, it is reasonable to expect that the worst may not yet be over for northern California banks.



¹ Source: FRBSF Economic Research Department

² Nonperforming loan statistics calculated from commercial bank call reports. As of 6/30/2003, there were 161 banks in southern California and 77 banks in northern California. Central California's 43 banks were excluded from this analysis.

What If Interest Rates Rise?

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of examiners, analysts and economists discussed the potential impacts of a rise in interest rates. The group considered a “what if” scenario where interest rates rise a hefty 500 basis points, perhaps related to unexpectedly sharp economic growth or from some negative shock. The group was reminded that in the early 1980s, rates climbed even more substantially, with the 90-day T-bill rate surging 926 basis points in an 11-month period and 30-year mortgages up 626 basis points over 15 months.



Given such a scenario, the assembled supervisors discussed the most likely impacts on banking institutions. First and foremost, mortgage origination volume (new and re-fi) would likely tumble, ending the tremendous run of unusually high profits for big mortgage lenders in recent years. Some of the supervisors felt that home prices also might fall materially in many markets as home demand dried up. Home equity loans were considered particularly risky as these are often structured with floating rates and relatively high loan-to-value ratios. Rising rates and declining property values would likely lead to more home loan delinquencies and charge-offs as well as significant challenges for home builders. The supervisors also noted that consumer debt service burden would rise, likely leading to higher bankruptcy rates and weakening credit card and installment loan quality.

The group also felt that commercial real estate lending could be hit with a rise in interest rates. Credit quality concerns might grow as property owners faced difficulties meeting higher debt service requirements. The demand for new commercial space might drop further, pushing vacancy rates higher and rent levels lower. Most likely, CRE loan delinquency and default rates would rise materially from their current low levels.

Finally, financial institutions that “borrow short and lend long” would see their margins shrink sharply.

In sum, a scenario of rapidly rising rates could produce broad challenges for banks; but hopefully, this is one scenario that won’t come to fruition. As one of our supervision brethren occasionally notes: “we (regulators) are paid to worry”!!!

The primary purpose of this report is to communicate banking risk issues to internal staff of the FRBSF Division of Banking Supervision and Regulation, and to provide a publication that FRBSF staff can share with supervised banking institutions and others to further the two-way exchange of information. For the first time, this edition is being made available from our public web site at <http://www.frbsf.org/publications/banking/radar/index.html>. If you wish to be notified when future publications of On the Radar Screen are available, please send your request via e-mail to: Elizabeth.Hanson@sf.frb.org

Opinions expressed herein do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco or of the Board of Governors of the Federal Reserve System.

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