

An Update on Emerging Issues in Banking

Refinancing Waves Alter the Landscape for Mortgage Specialists

April 25, 2002

Summary

The profitability of the nation's residential mortgage lending specialists has become more exposed to the effects of a rising interest rate scenario that would compress net interest margins and suppress noninterest revenues associated with mortgage production and sales. Residential mortgage specialists comprise less than 10 percent of FDIC insured institutions, but two nationwide refinancing waves have elevated the importance of this issue for them. The current interest rate environment affords institutions the opportunity to correct material asset/liability mismatches before the rate cycle turns and risk reduction strategies become less effective or more expensive to execute.

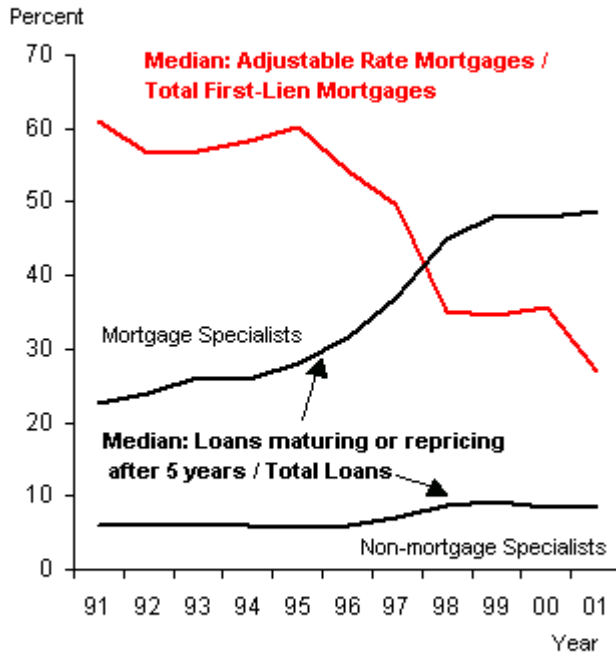
The FDIC routinely disseminates analysis to insured institutions that may be useful to them in managing risk. Such analyses represent the opinions of the authors. They are provided for information purposes and do not constitute supervisory guidance.

Unprecedented levels of refinancing spurred by low long-term interest rates have contributed to a significant lengthening of asset maturities for many insured institutions, particularly for those with large concentrations in residential mortgage-related assets. Conversely, the funding mix remains short and the growing presence of embedded options in term liabilities would likely result in further shortening in a rising rate environment, even as asset duration lengthens in response to lower prepayment activity. This shift in balance sheet composition has heightened interest rate risk (IRR) for many institutions. As a group, savings institutions exhibit the greatest shift in exposure to rising interest rates due to their traditional reliance on residential mortgage loans as the primary source of revenue. However, similar trends are noted for many commercial banks with similar concentrations in residential mortgages.

The **Mortgage Bankers Association** estimates that approximately 80 percent of the dollar volume of residential mortgage loan applications made during the refinancing waves of 1998 and 2001 was fixed-rate, much of which converted from adjustable-rate instruments. This rapid turnover in assets, while affecting all types of insured institutions, has significantly altered the interest rate risk profiles of institutions specializing in residential mortgage finance.¹ Since the 1980s, adjustable-rate mortgages (ARMs) had provided the bulk of rate-sensitive assets for mortgage specialists. Over the past few years, the median share of ARMs to total first liens for these institutions has fallen sharply as a result of elevated refinancing activity and customer preference for fixed-rate loans (see Chart 1).

Chart 1

**ARM Holdings Have Fallen Sharply at Mortgage Lenders,
Contributing to a Lengthening of Loan Portfolios**



Note: Residential mortgage specialists are defined as institutions with residential loans greater than 50 percent of earning assets. Approximately 10 percent of insured institutions meet this definition, 85 percent of which are savings banks.

Source: Bank Call Reports

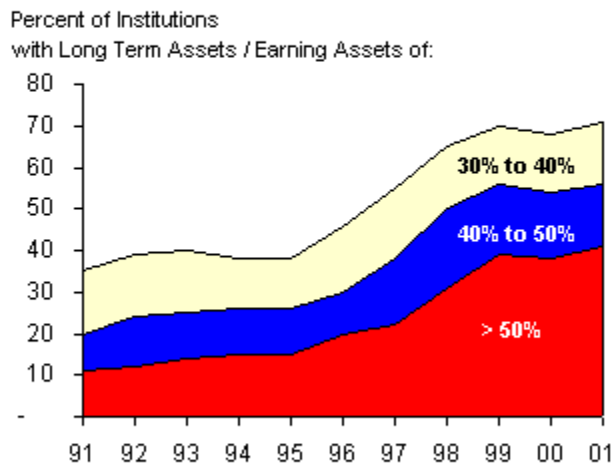
Refinancing activity has had an especially pronounced effect on the risk profiles of smaller institutions, most notably those located in metropolitan areas. For example, the median percentage of ARMs to total first lien mortgages for institutions included in the preceding chart that are located in a Metropolitan Statistical Area (MSA) has fallen from 61 percent to 25 percent since year-end 1995. Comparable data for non-MSA domiciled institutions are 58 percent and 34 percent, respectively. Similar trends are noted for federally chartered thrifts as well. Institutions located in metropolitan areas are exposed to a greater degree of competition and hold larger average loan sizes, both of which can foster higher prepayment rates. In addition, unlike larger institutions, smaller institutions may not have the origination network needed to replace ARM runoff, given the limited volume of new ARM originations.

While mortgage lenders have been slowly diversifying into other forms of lending, commercial borrowers also have sought to lock in longer-term financing, which has led to an extension of duration in non-residential portfolios as well. In addition to the customer-driven changes affecting loan duration, securities portfolio maturities are lengthening as well, as mortgage lenders have securitized (and retained) newly originated fixed-rate loans in an effort to support net interest margins. These shifts can be seen in the repricing data reported in the Call Reports of mortgage specialists.² The median percentage of these institutions' mortgage pass-through securities that mature or reprice in over five years has increased from 40 percent to 71 percent since year-end 1997. The cumulative effect of these portfolio shifts is reflected in

Chart 2. Fifty-six percent of mortgage specialists filing Call Reports now report long-term asset concentrations in excess of 40 percent of total earning assets; approximately 25 percent reported similar concentration levels in the mid-1990s.³ While comparable data are not contained in the Thrift Financial Reports (TFRs) of OTS-supervised savings institutions, the median ratio of fixed-rate loans of 15 years or more to total earning assets for mortgage specialists filing TFRs has risen from 25 percent to 38 percent since 1995.

Chart 2

Rising Long-Term Asset Concentrations Suggest Interest Rate Risk Has Risen for Institutions Specializing in Residential Lending



Source: Bank Call Reports
Mortgage Specialists (Residential Loans > 50% of Earning Assets)

Even as asset maturities have lengthened, the duration of liabilities has remained fairly short. The median percentage of time deposits that mature in less than one year exceeds 75 percent for all insured institutions, including mortgage lenders, and has actually risen modestly over the past few years. As depositor preference continues to favor short-term deposits, many institutions have also become more reliant on wholesale funding to support asset growth, which has increased the rate sensitivity of the funding mix. The reported maturity structure of borrowings has lengthened: however, data contained in the annual reports of the various **Federal Home Loan Banks** (the source of over 95 percent of term funding for mortgage specialists) suggest that a substantial portion of the longer term advances are subject to early redemption at the option of the lender.⁴ As of year-end 2000, the 12 FHLBs collectively reported that over 60 percent of advances with contractual maturities of greater than three years contained such an option. Repayment of these advances will likely be accelerated in a rising rate environment and they will do little to offset the growing exposure to higher interest rates embedded in the asset side of the balance sheet.

Optionality is also creeping into the deposit mix. In the current low rate environment, prepayment penalties on certificates of deposit are correspondingly lower and will be less of a deterrent to early redemption if

interest rates rise. This is particularly true for those institutions that offer reduced penalties and may result in deposit costs rising more than anticipated in a rising rate environment.

Thus, there appears to be little change in the rate sensitivity of on-balance-sheet liabilities to offset the continued growth of long-term assets. From an off-balance-sheet perspective, less than 10 percent of mortgage specialists report any use of interest rate derivatives to mitigate risk. This percentage has remained fairly stable since long-term asset concentration levels began to rise in the mid-1990s. Thus, greater reliance is now being placed on holding down the cost of core deposits, a strategy that may prove difficult for many institutions given the competitive pressures that likely will exist in an improving economic environment.

Interest rate risk has risen for many institutions with significant concentrations in residential loans and management of that risk is becoming increasingly complex. Recently, the net interest margins of mortgage lenders have risen modestly given low short-term interest rates and a steep yield curve. More importantly, the current rate environment appears to afford institutions the opportunity to act. Correction of material asset/liability mismatches will require a trade-off of short-term profits for greater long-term earnings stability. Once the rate cycle turns, risk reduction strategies may be less effective or more expensive to implement.

This FYI expands on findings noted for New England insured institutions in the current Boston Regional Outlook.

¹ For this discussion, residential mortgage specialists are institutions with residential loans greater than 50 percent of earning assets. Approximately 10 percent of insured institutions meet this definition, 85 percent of which are savings institutions.

² Comparable data is not contained in the Thrift Financial Reports filed by OTS-supervised savings institutions. The charts set forth in this article reflect trends for mortgage lenders that file Call Reports.

³ Assets that mature or have their next repricing opportunity beyond the next five years.

⁴ The Federal Home Loan Bank (FHLB) of Pittsburgh's 2000 Annual Report refers to these advances as convertible or putable loans for which the FHLB "provides below-market fixed-rate loans in exchange for the right to convert the loans to variable-rate loans and/or at the member's option to terminate the loans. These conversion options and/or put options are normally exercised by the FHLBank and members when interest rates increase."

Chart 1

ARM Holdings Have Fallen Sharply at Mortgage Lenders, Contributing to a Lengthening of Loan Portfolios

Year	91	92	93	94	95	96	97	98	99	00	01
Median: Adjustable Rate Mortgages / Total First-Lien Mortgages	61	56.59	56.94	58.28	60.09	54.23	49.57	35.09	34.71	35.79	26.93
Median: Loans maturing or repricing after 5 years / Total Loans for Mortgage Specialists	6.08	6.11	6.18	5.91	5.75	6.09	7.16	8.73	9.38	8.55	8.76
Median: Loans maturing or repricing after 5 years / Total Loans for Non- Mortgage Specialists	22.48	23.88	26.28	26	28.11	31.59	37.14	45	48.15	47.95	48.73

Note: Residential mortgage specialists are defined as institutions with residential loans greater than 50 percent of earning assets. Approximately 10 percent of insured institutions meet this definition, 85 percent of which are savings banks.

Source: Bank Call Reports

Chart 2

Rising Long-Term Asset Concentrations Suggest Interest Rate Risk Has Risen for Institutions Specializing in Residential Lending											
% of Institutions with Long Term Assets to Earning Assets of:											
Year	91	92	93	94	95	96	97	98	99	00	01
Greater than 50%	11	12	14	15	15	20	22	31	39	38	41
40 to 50 percent	9	12	11	11	11	10	16	19	17	16	15
30 to 40 percent	15	15	15	12	12	16	17	15	14	14	15

Source: Bank Call Reports

Includes mortgage specialists (Call Report filers with residential loans greater than 50 percent of earning assets.)