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Trends in residential mortgage loan originations and their impact on community banks

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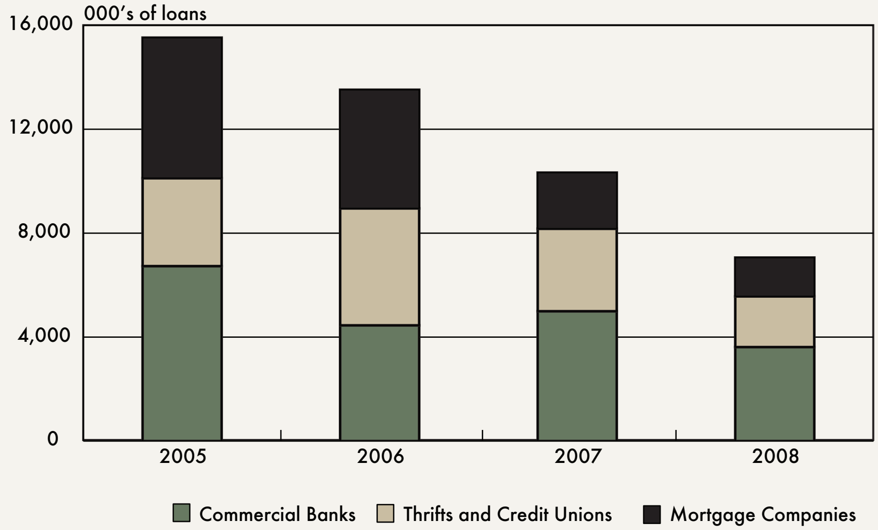
Introduction

The residential real estate (RRE) market in the United States has experienced dramatic deterioration in the last several years. Both the number of homes sold and the prices on them have shown unprecedented declines. This decline in the housing industry has also been a major factor in the decline in the condition of the financial services industry and in overall economic activity.

There were many causes for the decline in RRE, including rising foreclosures, falling home prices and declining sales. These led to the collapse of several major lenders as well as a loss of many secondary markets for mortgage-backed securities. All of these factors contributed to the shrinkage in the residential mortgage market and in the availability of credit. Lending has declined across the board, by type and size of lender.

However, certain sectors of the RRE mortgage market have been much harder hit than others. In particular, the market for privately securitized loans (i.e., nongovernment agencies) has declined dramatically. This in turn has disproportionately impacted private mortgage banks, which typically sell their loans in the secondary market, as

Chart 1
Number of Loans Originated by Lender Type



Source: Home Mortgage Disclosure Reports—Federal Reserve System

shown in Chart 1. It has also greatly affected the availability of credit for higher-risk borrowers and for more-expensive homes, since these sectors of the market relied more heavily on mortgage banks for financing.

On the other hand, insured financial institutions have seen much smaller declines in their lending. A major reason for this appears to be that they have been less reliant on selling loans in the private secondary market and have been much more likely to hold loans for their own account. This has been particularly true for smaller institutions. One result of this trend has been that insured institutions, and especially smaller banks, have seen a substantial increase in their share of the RRE market, albeit, of a much smaller overall market.

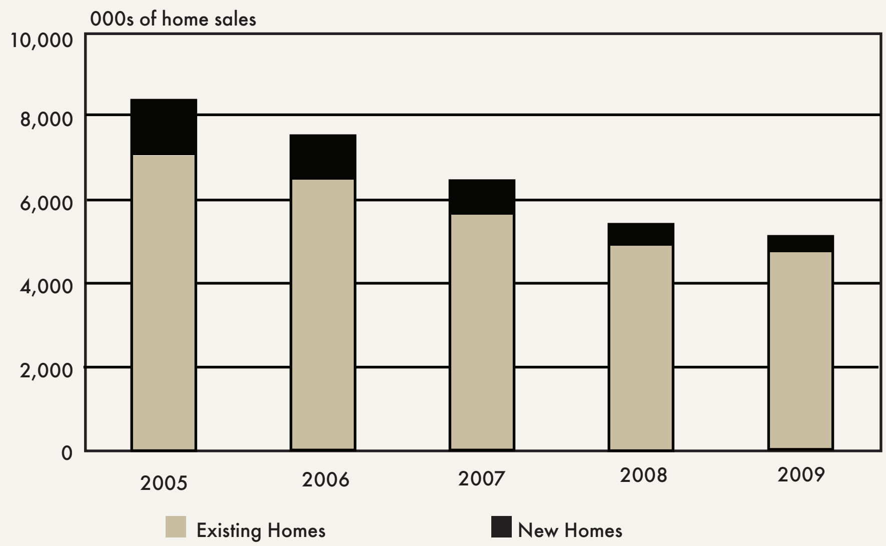
There are reasons to believe that the relative advantage currently shown by smaller banks may continue or even expand as the mortgage market begins to improve over the next several years. It is not clear what form mortgage markets will take as they return to health. For instance, it is possible that private securitizations and subprime, higher-interest-rate lending will again play major roles in the future market place. However, there appears to be a clear sentiment towards stricter underwriting standards and more lender involvement and accountability in the RRE market, including the holding of loans on lenders' books. Small community banks would appear to be well-positioned to participate in such a market. Furthermore, community banks hold a relative small share of a very large RRE market. Therefore, picking up (or holding on to) only a few additional shares of the market could have significant implications for their overall business strategies.

In this paper, we will describe the trends that have occurred in RRE funding since 2005 and explore the possibility that these trends will continue in the future. We will then analyze the potential implications of these possible changes on the various providers of RRE finance. We will concentrate, in particular, on the impact on smaller banks if their share of the residential market were to expand significantly. We would expect that an increase in RRE funding would create earnings and growth opportunities as well as challenges in multiple areas for small community banks, including capital, funding, interest rate risk, and asset quality.

Trends in the condition of the housing industry and mortgage lending

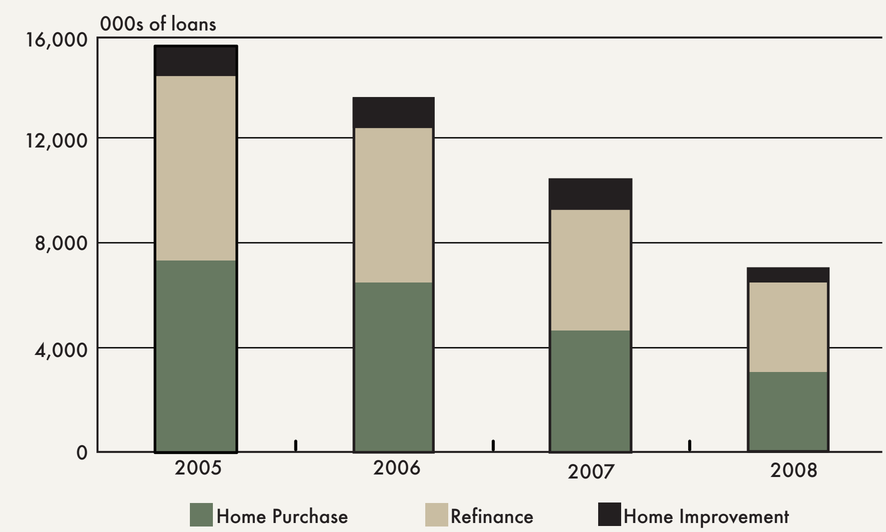
The housing market in the United States has gone through an historic decline since 2005. As shown in Chart 2, the total number of homes sold fell by over 35 percent from 2005 through 2008 and had yet to show any improvement through

Chart 2
Number of New and Existing Homes Sold



Source: National Association of Home Builders. 2009 is an annualized value as of May 2009.

Chart 3
Number of Loans Originated by Loan Purpose



Source: Home Mortgage Disclosure Reports—Federal Reserve System

May 2009. The new home market was particularly hard hit with new home sales falling from 1.3 million in 2005 to just 485,000 in 2008. The annualized rate for 2009 through May looked even weaker. Home prices have shown similar deterioration with a 24 percent decline in the median value of existing homes since 2006.[1]

Mirroring the decline in home sales, there has been a similar decline in home financing. The number of home purchase loans originated fell from 7.3 million in 2005 to just 3.1 million in 2008, a decline of 58 percent, as shown in Chart 3[2]. At the same time, total mortgage loans originated, including refinancing and home improvement loans, fell by 55 percent.[3]

Trends in loan originations by type of lender

The decline in loan originations was not felt equally across types of lending institutions. Insured depository institutions (DIs), including commercial banks, thrifts and credit unions[4], experienced a decline in loan originations of 45 percent over the period, as shown in Table 1, whereas private mortgage banks not affiliated with an insured depository showed a decline of 72 percent in overall originations as their share of the mortgage market fell from 35 percent in 2005 to just 21 percent in 2008.

A major cause for the greater decline in loan activity at mortgage companies appears to have been their reliance on the private secondary market to fund the loans that they originated. Mortgage companies have traditionally operated in an "originate-to-distribute" mode. That is, since they do not have access to insured deposits to fund the

Table 1
Loan Originations, 2005 through 2008

000s of loans

All Lenders - By Loan Type					
					% Change
	2005	2006	2007	2008	2005-2008
All Lenders					
Purchase	7342	6514	4615	3076	-58.10
Home Improvement	1090	1030	954	564	-48.26
Refinance	7090	5974	4760	3419	-51.78
Totals	15522	13518	10329	7059	-54.52
Banks, Thrifts and Credit Unions					
Purchase	4505	4022	3492	2266	-49.70
Home Improvement	948	955	923	552	-41.77
Refinance	4664	3976	3757	2749	-41.06
Totals	10117	8953	8172	5567	-44.97
Mortgage Companies					
Purchase	2837	2492	1123	810	-71.45
Home Improvement	142	75	31	12	-91.55
Refinance	2426	1998	1003	670	-72.38
Totals	5405	4565	2157	1492	-72.40

loans that they originate, they typically sell them in the secondary market, either through securitization or the sale of whole loans. Their profits come from the fees that they generate from the origination of loans, not from the interest earned on them.[5] They are, therefore, reliant on high volume and high fees to sustain profitability. At the same time, they do not require a great deal of capital or on-balance-sheet funding sources, since they typically sell loans soon after origination.

Beginning in the second half of 2006, many secondary sources of funding dried up, particularly for higher-risk loans. The mortgage bank business model called for sales in the secondary market, and mortgage banks had neither the sources of funding nor the capital to hold loans on their own balance sheets. The result was a dramatic decline in their lending in 2007 and 2008.

Table 2 illustrates how the reliance on private funding affected the various types of lenders. In this table, loans are broken down by type of lender and by "Loan Disposition." Disposition indicates whether the loan continued to be held on the lender's balance sheet or was sold in the secondary market either to a government agency or government-sponsored entity or in the private market.[6] Government agencies and sponsored entities would include, among other organizations, GNMA (Ginne Mae), FNMA (Fannie Mae), and FHMC (Freddie Mac).

As shown in the table, mortgage companies were much more reliant on sales in the private market. In 2005, 72 percent of their loans were sold in that market (3,884,000 of 5,406,000), whereas DIs sold only 24 percent of their loans in the private market in 2005. Both DIs and mortgage banks experienced similar percentage rate declines in that part of their loan originations sold in the private market from 2005 through 2008. Mortgage banks had a 75 percent decline and DIs had a 72 percent. So, the large difference in the

Table 2
Loan Originations 2005 through 2008

000s of loans

All Lenders - By Loan Disposition					
					% Change
	2005	2006	2007	2008	2005-2008
All Lenders					
Sold - Agency	2912	2039	2513	2541	-12.74
Held	6268	6174	5356	2862	-54.34
Sold - Private	6343	5305	2460	1656	-73.89
Totals	15523	13518	10329	7059	-54.53
Banks, Thrifts and Credit Unions					
Sold - Agency	2497	1730	2159	2268	-9.17
Held	5161	5061	4872	2601	-49.60
Sold - Private	2459	2162	1141	698	-71.61
Totals	10117	8953	8172	5567	-44.97
Mortgage Companies					
Sold - Agency	415	309	354	273	-34.22
Held	1107	1113	484	261	-76.42
Sold - Private	3884	3143	1319	958	-75.33
Totals	5406	4565	2157	1492	-72.40

overall decline in originations between DIs and mortgage banks can be explained almost completely by the mortgage banks' very high reliance on the private market.

Perhaps the most surprising result is how well originations sold to government agencies held up. Overall, loans sold to government agencies fell only 13 percent from 2005 to 2008 and actually increased in 2007 and again in 2008.[7] However, this increase in government agency loan purchases did not benefit mortgage banks because they had only a very small share of this market, and that share actually declined from 2005 to 2008.

These results show a clear movement away from the originate-to-distribute model for RRE financing towards an originate-to-hold model, at least in the short term. Such a model clearly favors DIs over mortgage banks. DIs tend to hold a large portion of the loans that they make on their own balance sheets.[8] They also have sources of insured deposits and much larger capital bases. In addition, we would expect that DIs have more of a "credit culture" because they are reliant on the long-term performance of the loans that they originate to remain profitable and viable.

These trends are even more pronounced when concentrating solely on loans carrying a high interest rate. For an analysis of these trends, see the box below—Trends in "High-Priced" Loans.

Trends in mortgage lending at community banks

We have seen that DIs have fared much better in terms of loan originations than have mortgage banks during the dramatic housing downturn that has occurred over the last few years. In this section, we will divide DIs further and analyze the performance of commercial banks with a particular emphasis on smaller community banks.

Commercial banks, as a group, experienced a decline in loan originations similar to that of all DIs from 2005 through 2008. Banks saw their loan originations drop from 6.7 million in 2005 to 3.6 million in 2008, a decline of 46 percent. This compares to a decline of 45 percent for all DIs. However, looking at all banks masks significant differences among banks of various sizes. The largest banks in the country are responsible for

Box
Trends in "High-Priced" Loans

In 2005, certain interest rate data began to be collected on RRE loans as part of the HMDA requirements. In particular, where the interest rate on an originated loan exceeded a benchmark value, the difference between the interest rate on the loan and that of the benchmark ("differential") was required to be reported. The benchmark was based on the yield on Treasury securities having a comparable period to the maturity of the loan. The thresholds were three percentage points for first-lien mortgages and five percentage points for junior-lien loans. If the interest rate on the loan fell below the benchmark, no interest rate information was required to be reported.

Loans where a differential was reported are often referred to as "high-priced" loans, and while they should not necessarily be considered subprime or low quality, they do demonstrate some of the same qualities as such loans. For instance, they are much more prominent for low-income borrowers or borrowers located in low-income areas (census tracts). In addition, they made up a much larger proportion of the loans originated by mortgage banks than by insured DFIs in 2005 and 2006. In both those years, mortgage banks originated over half of all high-price loans, as shown in the following table.

Beginning in 2007, originations of high-priced loans began to fall precipitously, and by 2008, such loans had fallen nearly 80 percent from their 2005 level. By far, the largest decline was in mortgage companies, where such loans fell nearly 93 percent to just 166,000 loans, compared to 2.3 million in 2005. Clearly, a major reason for this decline was lack of financing. In 2005, for instance, 2.5 million high-priced loans were sold to private buyers. By 2008, this had fallen to 145,000.

Commercial banks showed the smallest decline (58 percent) and, by 2008, were the major source of funding for high-priced loans. In 2008, their share of all high-priced loan originations had increased to 61 percent from just 30 percent in 2005. Small community banks actually showed a 19 percent increase in their high-priced loan originations from 2005 to 2008. Community banks were much less reliant on secondary funding sources for these loans. In 2005, they held 88 percent of them on their books; by 2008, this had increased to 91 percent. Their ability to originate and hold allowed them to continue to lend to this sector of the market even as the overall market for high-priced loans was locking up.

All Lenders - "High-Priced" Loans (000s of loans)					
					% Change
	2005	2006	2007	2008	2005-2008
All Lenders	4087	3751	1901	831	-79.67
Banks	1208	749	847	504	-58.28
Banks < $1 Billion	104	94	104	124	19.23
Thrifts and Credit Unions	594	1102	609	161	-72.90
Mortgage Companies	2285	1900	445	166	-92.74

Table 3
Loan Originations, 2005 through 2008

000s of loans

Commercial Banks - By Asset Size / Loan Disposition					
					% Change
	2005	2006	2007	2008	2005-2008
All Banks					
Sold - Agency	1860	1004	1444	1465	-21.24
Held	3275	2521	2907	1732	-47.11
Sold - Private	1597	928	645	419	-73.76
Totals	6732	4453	4996	3616	-46.29
Under $1 Billion					
Sold - Agency	57	32	40	44	-22.81
Held	321	272	300	314	-2.18
Sold- Private	189	123	143	150	-20.63
Totals	567	427	483	508	-10.41
$1 - 10 Billion					
Sold - Agency	91	32	53	51	-43.96
Held	269	196	230	204	-24.16
Sold - Private	208	135	160	135	-35.10
Totals	568	363	443	390	-31.34
Over $10 Billion					
Sold - Agency	1712	940	1351	1370	-19.98
Held	2685	2053	2377	1214	-54.79
Sold - Private	1200	670	342	134	-88.83
Totals	5597	3663	4070	2718	-51.44

most loans originated. Over the 2005 through 2008 period, they accounted for four of every five loans originated by commercial banks.[9]

At the same time, the largest banking organizations showed much larger declines in lending from 2005 to 2008 than did smaller banks. The largest banks' originations fell 51 percent, while banks with assets of $1 billion to $10 billion, which we will call "large community banks," saw a decline of 31 percent. The smallest banks, those with assets of under $1 billion and which we will call "small community banks," saw a decline of just 10 percent.

As a result of these differences, the share of loan originations at the smaller banks increased substantially. Large community banks saw their share of lending relative to all banks increase from 8.4 percent in 2005 to 10.8 percent in 2008. Small community banks saw their share increase from 8.4 percent to 14.0 percent of all bank originations. Relative to all loan originations, including all DIs and mortgage banks, these increases were even more marked: large community banks saw an increase from 3.6 percent to 5.5 percent, while small community banks saw an increase from 3.6 percent to 7.2 percent, a doubling of their share of the overall RRE market in four years. These results can be clearly seen in Table 4.

Table 4
Percentage Share of Total Loan Originations

Market Share - By Lender Type - All RRE Loan Originations					
					% Change
	2005	2006	2007	2008	2005-2008
All Banks	43.37	32.94	48.37	51.23	18.12
Under $1 Billion	3.65	3.16	4.68	7.20	97.02
$1 Billion – 10 Billion	3.66	2.69	4.29	5.52	50.99
Over $10 Billion	36.06	27.10	39.40	38.50	6.79
Thrifts & Credit Unions	21.81	33.29	30.75	27.64	26.75
Mortgage Companies	34.83	33.77	20.88	21.14	-39.31

Of course these share "increases" were the result of not shrinking as fast as the overall market, not because of absolute growth. However, there are reasons to believe that these share increases may "stick" as the RRE markets begin to recover. Small community banks are much less reliant on selling loans in the secondary market than other lenders. Over the 2005-2008 period, small community banks held 61 percent of the loans that they originated, and that level remained virtually constant over the entire period. Larger banks held just over 50 percent of the loans they originated. If we are gravitating towards a RRE market based more on an originate to hold model, small community banks are already using such a model and are well positioned to compete in such an environment.[10]

In addition, small community banks actually experienced growth in their loan originations after the decline in 2006. After a large drop in originations from 567,000 in 2005 to 427,000 in 2006, originations picked up in 2007 and 2008. So, in possibly the worst RRE market on record, small community banks increased their lending in both 2007 and 2008.

Implications of an increased market share for community banks

This section will make some assumptions about the size of the overall RRE market and the share generated by small community banks to explore the implications of an increased market share. The intent is not to generate specific values so much as to explore the magnitude of a doubling in market share by small community banks.

For small community banks to increase, or to just maintain, the share that they now have will not require a huge increase relative to the size of the overall RRE market. Even after the doubling of their market share since 2005, small community banks still have just 7 percent of the overall RRE market. Maintaining that share or even increasing it would appear feasible. However, such an increase, if sustained, could have significant implications and pose challenges for small community banks.

In a more normal market, we would expect total loan originations of about 14 million a year for all lenders, which is approximately the overall level prior to the downturn. If small community banks had a 7 percent share of this market, that would mean nearly 1 million loans originated by small community banks per year. In 2005, small community banks originated 567,000 mortgages, so 1 million would be a near doubling. Any further increase in market share or in the overall mortgage market would add to this total.

Looking at the dollar volume of lending, over $2.8 trillion of RRE loans were originated in 2005. If we assume a lower level of $2 trillion in a more normal market, that would imply a dollar volume of loan originations in small community banks of about $140 billion, given a 7 percent market share. This would represent an increase of about $72 billion over the level small community banks would have generated at their traditional market share. To put the $72 billion in perspective, it represents about 5.6 percent of the assets in small community banks as of June 2009. This level of growth does not appear to be out of the norm. Banks, as a whole, have annual asset growth of about 5 to 6 percent in a typical year.

However, a one-time increase in loan volume is not the complete story. We would expect that, of the $72 billion of loans originated, small community banks would hold around 60 percent on their books based on their historical performance, or about $43 billion. We would also expect that the typical RRE loan would have a life of around seven to eight years, factoring in amortization and prepayments (due to refinancings and sales). So, what we would actually expect is not a one-time increase in loan volume of about $43 billion, but successive increases of about $43 billion in each year for seven to eight years, after which the level would remain more or less the same. That is, the longer-term expectation of a doubling of small community bank market share is an increase in RRE loans of over $300 billion.[11] This, in turn, suggests a substantial increase relative to asset size, because $300 billion is about one-fourth of small community banks' current assets. Of course, the full impact of this increase would occur over an extended time frame of approximately eight years.

The potential changes in asset growth and composition could offer small banks opportunities for increased earnings or growth but could also pose challenges. In the next section, we will discuss how such changes could impact small banks' earnings, asset quality, capital, funding and interest rate risk.

Impact on community bank performance

RRE loans now comprise approximately $178 billion of the assets of small community banks, representing 14 percent of their assets. Under the assumptions described above, this level could reach over $300 billion. Such growth could clearly impact the financial performance of these banks, posing challenges in key areas such as capitalization, asset quality, earnings and interest rate risk/liquidity.

In this section, we will analyze the potential effects on the "average" small community bank of a large increase in RRE lending. Table 5 presents the average values of certain financial ratios for small community banks over the last four full years and through June 2009. While we recognize that averages may obscure the challenges faced by weaker banks in the group and overstate the problems of the stronger banks, they may still shed some light on the overall condition of these banks and how they would cope with a major change in their business model.

Capital

A large increase in one asset class, in this case, RRE, could reduce small community banks' capital adequacy, as each dollar of capital would now support a larger amount of assets. Small community banks could deal with this decline by reducing other assets, such as commercial real estate loans, or by raising additional capital. However, a review of the average capital levels in small community banks suggests that they may already have the capacity to substantially increase their asset sizes and still remain strongly capitalized.

As of June 2009, 96 percent of small community banks were designated as "well capitalized" by supervisory standards. This is the highest capital designation under current regulatory guidelines. To meet this standard, a bank must pass a test

Table 5
Small Community Banks - Key Financial Ratios

	2005	2006	2007	2008	Jun-09
Number of Banks	6,998	6,860	6,726	6,525	6,420
Total Assets ($ billions)	1,169	1,199	1,214	1,244	1,238
Capitalization					
Percent Classified as "Well Capitalized"	99.00	99.30	98.80	97.60	96.20
Leverage Ratio	10.06	10.26	10.26	9.82	9.62
Tier 1 Risk-Based Capital Ratio	13.44	13.52	13.25	12.82	12.88
Total Risk-Based Capital Ratio	14.59	14.66	14.37	13.99	14.08
Earnings (all ratios to average assets)					
Net Operating Income Before Taxes	1.66	1.57	1.29	0.49	0.15
Net Interest Income	3.91	3.89	3.74	3.52	3.34
Loan Loss Provision Expense	0.21	0.20	0.29	0.72	0.89
Percent of Banks With Losses	6.56	7.92	11.49	22.21	25.61
Asset Quality - All Loans					
Net Loan Losses to Average Loans	0.21	0.18	0.27	0.65	0.94
Nonperforming Loans to Total Loans	0.68	0.74	1.26	2.40	3.14
Asset Quality - Residential RE Loans					
Net Loan Losses on RRE	0.07	0.08	0.14	0.32	0.49
Nonperforming RRE to Total RRE	0.73	0.78	1.09	1.78	2.32
Asset Concentrations - Residential RE Loans					
RRE to Total Assets	14.03	13.95	13.82	14.28	14.37
RRE to Total Risk-Based Capital	132.94	129.66	128.37	137.56	138.32
Liquidity					
Total Loans to Assets	67.25	68.22	69.54	69.82	68.72
Net Noncore Funds to Assets	19.48	20.43	21.15	23.03	22.68
Interest Rate Risk					
Net 1-Year Position to Assets	36.66	38.82	39.33	42.63	43.28
Net 3-Year Position to Assets	26.08	26.57	28.50	32.57	33.00

based on three separate measures of capital adequacy. The average small community bank currently has capital ratios substantially above what they need to remain "well" capitalized in each of the three categories. In fact, if RRE lending doubled, it appears that the average small community bank's capital ratios would still be well above the minimums required to maintain the "well capitalized" standard.

Clearly, certain banks in the group may face capital constraints, either because they are bumping up against the capital standards or because they are facing problems in other areas, such as asset quality. However, it appears that small community banks, as a group, have the capacity to grow substantially without needing large amounts of additional capital.

Asset Quality

Small community banks have experienced very serious declines in their overall asset quality in the last two years. From their low in 2006, loan losses have increased over five-fold. In addition, noncurrent loans (troubled loans that have not yet been charged-off) are up 460 percent, which indicates the potential for further losses.

Losses on RRE have not increased to as high a level as on all loans, with a 0.49 percent loss rate through June 2009 for RRE compared to 0.94 percent for all loans. But these losses are still up substantially from historical norms. From 1991 through 2007, net losses on RRE had never exceeded 0.17 percent. So, they are now well above any level seen in the last 20 years. Similarly, noncurrent RRE loans at 2.32 percent are very high by historic standards and higher than they have been since at least 1990.

Historically, RRE has been a very low-risk type of lending. Also, as the housing market begins to improve, loans originated in the next several years should be expected to perform better than loans originated in the last several. However, the current economic problems have made it clear that RRE can be a serious asset quality concern. Therefore, especially with any significant expansion in RRE lending, proper underwriting, pricing, and administration will be essential concerns.

Earnings

As shown in Table 5, small community banks are facing significant earnings pressures (as are all banks). Their operating income has fallen from over 1.5 percent of assets in both 2005 and 2006 to just 0.49 percent in 2008 and 0.15 percent (annualized) in the first half of 2009. The percent of small community banks experiencing losses jumped to over 25 percent in the first half of 2009.

The two major causes of declining earnings performance have been rising loan loss provision expense and falling net interest income. Banks have greatly increased their provision expense to deal with actual increases in loan losses, as well as expected future losses. With the major asset quality problems associated with the current downturn, provision expense has increased four-fold from 2006 through June 2009.

The decline in small community banks' net interest income has impacted earnings almost as much as rising provisions have. Since the margin that banks earn between interest on loans and other earning assets, such as securities, and their cost of funds is by far their largest source of earnings, the decline in margins has been a major problem for small community banks.

The impact that a rising level of RRE would have on earnings is difficult to assess. Historically, RRE loans have had low levels of loss associated with them. Nonetheless, as discussed above, small community banks have now experienced large losses on RRE with the potential for additional losses. In addition, RRE does not usually generate high interest rates compared to other asset classes with more perceived risk, such as commercial real estate or business loans. This implies that rising levels of RRE loans may not improve interest margins and will not necessarily be low risk. However, it is possible that rising RRE may improve earnings in other ways. Banks may increase noninterest income, as they collect loan origination fees and possible servicing fees, if they maintain servicing rights on loans that they sell in the secondary market. In any case, small community banks will need to carefully evaluate whether significantly increasing their levels of RRE will enhance their earnings.

Liquidity/Interest Rate Risk

Perhaps the most difficult challenges that small community banks will face if they expand their RRE lending are managing liquidity and interest rate risk. Small community banks are already facing liquidity pressures. Despite the economic downturn, they are still extremely "loaned up." As of June 2009, their average loans-to-assets ratio was 69 percent, near a record high and well above the long-term average. In addition, banks have become more reliant on types of funding, such as brokered and large deposits and Federal Home Loan Bank advances, which are not considered core sources of funding. If banks expand their RRE lending, they will require additional funding, unless they reduce lending in other areas. Small community banks already face long-term challenges to find stable funding sources, and any increase in lending will only raise these challenges.[12]

In addition to liquidity concerns, a large increase in RRE lending may have serious implications for the management of interest rate risk. By the nature of their business, small community banks are typically "liability sensitive." That is, the average source of funding (or liability) on their balance sheets, such as a deposit, reprices or matures before their typical earning asset, such as a loan or a security. So, in a rising interest rate environment, banks' net interest margins tend to contract, unless banks quickly adjust to the new environment.

Actual interest rate risk measurement and management is very sophisticated, but the "Interest Rate Risk" variables in Table 5 illustrate the problem small community banks face. The "Net 3-year position to assets" ratio at the bottom of the table shows what percent of the average banks' assets reprice (or mature, if fixed rate) in over three years after netting out liabilities that also reprice in over three years. So, as of June 2009, 33 percent of a typical small community bank's assets matured in over three years without being offset by liabilities with similar repricing schedules. This value has been increasing since 2005 when it was 26 percent. In practice, this means that if interest rates were to rise, banks would, on average, have to raise the interest rate they pay on their liabilities more than they could raise the rates they charge on their assets. This, in turn, would put pressure on their interest margins, which we have seen are already at very low levels.

Banks have a variety of ways of offsetting, at least partially, these interest rate imbalances. However, a large increase in RRE lending would tend to exacerbate them. Many RRE loans are written with fixed rates and have maturities of 15 to 30 years.[13] These are often the longest maturity earning assets that a bank will have on its books.[14] Any upward movement in interest rates would reduce the net margin that a bank earns on these loans and would also reduce their value, if a bank sought to sell them in the secondary market. We are now in a very low interest rate environment for RRE loans; so, the likelihood of rising interest rates is very real.

Small community banks face significant challenges if they are to maintain the increased share of RRE lending that they have recently obtained. They will need to recognize how such an increase in a specific asset class will impact their capital, earnings, and asset quality. And especially, they will need to devise adequate strategies to increase funding and manage interest rate risk.

Summary

The dramatic decline in housing activity that the economy has faced in the last two years has led to a very large contraction in home financing and a major shift in the share of RRE lending away from mortgage banks and towards insured financial institutions. There has been a shift away from sales of mortgages in the private sector to a holding of loans by originators. This shift is often referred to as a movement away from an "originate-to-distribute" model and towards an "originate-to-hold" model. Given the very large losses associated with originate-to-distribute lending, as well as possible lending abuses associated with it, there has been a substantial shift away from such a business model towards the originate-to-hold model. This shift has considerable political support as well.

Aside from the impact on the private mortgage banking business, the most dramatic lending shift has occurred with regards to small community banks, which have gained a substantial share of the RRE loan origination market. In just the last four years, their share of loan originations has doubled. If this newfound share is to be maintained, small community banks will need to adequately address challenges in their business practices, particularly those relating to funding and interest rate risk.

Endnotes

[1]Source: National Association of Realtors.

[2] Data on loan originations is derived from reports filed annually, as required by the Home Mortgage Disclosure Act. See the Appendix for a more thorough description of this data source.

[3] For broad overviews and analysis of trends in home financing, see Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner, "The 2008 HMDA Data: The Mortgage Maker during a Turbulent Year," The Federal Reserve Bulletin, forthcoming, December 2008; "The 2007 HMDA Data," *The Federal Reserve Bulletin*, December 2008; "The 2006 HMDA Data," *The Federal Reserve Bulletin*, December 2007; and "Higher-Priced Home Lending and the 2005 HMDA Data," *The Federal Reserve Bulletin*, December 2006.

For analyses of the impact of home financing in specific markets, see James Harvey and Kenneth Spong, "Home Financing in Kansas City and Its Contribution to Low- and Moderate-Income Neighborhood Development," *Financial Industry Perspectives,* 2007, Federal Reserve Bank of Kansas City; "Home Financing for Low- and Moderate-Income Borrowers: What Are the Trends in Denver?" *Financial Industry Perspectives*, 2005. and "Low- and Moderate-Income Home Financing: What Are the Trends in Kansas City?" *Financial Industry Perspectives,* 2003.

[4]Totals for DIs include loans originated by their parent organizations as well as by nonbank subsidiaries of depository institution holding companies.

[5]They may also profit from short-term interest rate movements prior to the sale of loans and may also retain mortgage servicing rights, which would generate an ongoing source of revenue, even after the loans themselves were sold.

[6]In practice, the disposition is the disposition of the loan at the end of the year in which it was originated. Presumably, some loans originated in a given year and reported as "held" were sold in the subsequent year.

[7]Beginning in late 2008 and early 2009, there were several institutional factors that would likely enhance this result in 2009, but not in the period covered by this analysis. These included the explicit guaranteeing of FNMA and FHLMC debt and the increase in the ceiling on the size of loans that the government agencies were allowed to fund in certain "high cost" areas.

[8]Including not only residential mortgage loans, but also commercial real estate, business loans, and consumer loans.

[9]They also account for 80 percent of the assets of all banks, as of June 2009. So, their residential lending is basically proportionate to their overall size.

[10]There is considerable momentum in the regulatory area towards an originate to hold model. The Obama administration's proposal for regulatory reform would require that loan originators hold a certain percentage of their loan volume on balance sheet to encourage lenders to employ prudent underwriting standards. The House of Representatives' bill HR 1728, "The Mortgage Reform and Anti-Predatory Lending Act of 2009," would require that lenders maintain at least five percent of the credit risk of many mortgages.

[11]Eight years times $43 billion per year would be $344 billion.

[12]See Harvey and Spong, "The Decline in Core Deposits: What Can Banks Do?" *Financial Industry Perspectives* 2001, Federal Reserve Bank of Kansas City.

[13]Due to loan amortization and early repayments, the effective maturity of most mortgages is closer to five to eight years. However, this is still significantly longer than the repayment/maturity of most of a bank's liabilities.

[14]As of June 2009, 72 percent of the dollar volume of RRE loans at small community banks matured or repriced in over one year. Forty-seven percent matured or repriced in over three years.

Appendix

The Home Mortgage Disclosure Act (HMDA) applies to certain financial institutions, including banks, savings associations, credit unions, and other mortgage lending institutions that make residential mortgage loans in metropolitan areas. It requires an institution to report data to its supervisory agency about home purchase loans, home improvement loans, and refinancings that it originates or purchases, or for which it receives applications, and to disclose certain data to the public.

Included in the items collected on each subject loan application, among others, is information on the type of loan; and amount of the loan; whether it was approved and funded; property type; location of the property (census tract); the type of institution purchasing the loan (if it is sold during the calendar year); the ethnicity, race, and sex of the applicant or borrower; and the gross annual income relied on in processing the application. If a loan was denied, the reason for the denial is also required.

Beginning in 2005, interest rate data was also collected on loans made where the interest rate exceeded a benchmark value based on the yield on Treasury securities having comparable periods of maturity.

The HMDA data consist of information reported by about 8,600 home lenders, including all of the nation's largest mortgage originators. The loans reported are estimated to represent about 80 percent of all home lending nationwide (per Avery, et al.)