The Players in the Primary Mortgage Market

Peter S. Rose and Richard L. Haney, Jr.*

The residential mortgage markets, which changed dramatically during the decade of the 1980s, will evidence an even more rapid transformation into a new and dynamic form during the 1990s. The major innovation during the 1980s was the role of the capital markets in providing funds for mortgage lending by the securitization process described by Dwight Jaffee and Kenneth Rosen in their article in this series. The major impact of this process has largely been completed. On the other hand, the most far-reaching changes to occur during the 1990s will be in the primary mortgage markets where a major shift will occur among institutions that are most active in originating single-family home loans.

In this paper, we first describe the institutions active in the primary mortgage markets during the 1970s and 1980s in order to gauge the magnitude of the coming changes. We then isolate some modifications to the legal, economic, and regulatory climate. These changes will facilitate the institutional transition which we envision occurring during the 1990s so that the new lending environment will be in place for the next millennium. Finally, we discuss some managerial and environmental influences which will encourage continued changes in the primary mortgage markets during the next century.

The Past Two Decades

During the 1970s and the 1980s, the mortgage markets expanded rapidly, yet they were able to keep pace with the burgeoning growth of the capital markets which had to accommodate continuing federal government deficits and the merger and leveraged buyout booms of the 1980s. The mortgage market growth occurred both in the single-family home loan area and in the broader mortgage markets (see table 1). This growth was in response to the rapid inflation of the 1970s, real estate's widely perceived role as an excellent hedge against that inflation, and the strong economic growth and subsequent overbuilding that occurred during the 1980s.

---

* Peter S. Rose is professor of finance and Richard L. Haney, Jr., is associate professor of finance and real estate in the Department of Finance at Texas A&M University. Partial support for this project was provided to the second author by the Homer Hoyt Institute.

Table 1. **Mortgage Market Growth year end 1969–year end 1989 (dollars in billions)**

	Year				
	1969	1974	1979	1984	1989
Single-family mortgage debt outstanding	$280.2	437.4	861.0	1,336.2	2,331.2
Total mortgage debt outstanding	$438.8	726.4	1,316.3	2,048.8	3,453.9
Total credit market debt outstanding	$1,486.4	2,402.4	4,233.3	7,195.7	12,196.4
Single-family mortgage debt as a percentage of credit market debt	18.9%	18.2	20.3	18.6	19.1
Total mortgage debt as a percentage of credit market debt	29.5%	30.2	31.1	28.5	28.3

Source: *Federal Reserve Bulletin*, selected monthly issues.

During the past two decades, many institutions, led by the traditionally large lender to this market segment—the savings and loan association (S&L)—supplied the demand for single-family mortgage loans. S&Ls have generally provided between 40 and 50 percent of all the single-family home loan money required by borrowers (see table 2). In an ominous note for the S&Ls, however, their market share has declined during each period shown in the table since reaching a high of almost 53 percent in 1975.

Economic and Regulatory Environment

The 1970s were noted as the decade of inflation as increasing inflation rates were associated with natural resource shortages and an accommodative monetary policy that resulted in rapid money supply growth. While these phenomena were originally stimulated by the OPEC cartel's oil embargo and subsequent tripling and quadrupling of crude oil prices, inflationary pressures spread quickly to other segments of the economy. For example, the inflation rate, as measured by changes in the consumer price index, jumped from 5.9 percent in 1970 to 12.2 percent in 1980, while the prime interest rate peaked at 20.5 percent in August 1981.

Table 2. **Single-Family Loan Originations by Type of Lenders 1970–89**

Lender	Year				
	1970	1975	1980	1985	1989
Savings and Loan Association					
Originations ($B)	14.8	41.2	61.1	109.3	134.5
Percent of total	41.6%	52.9	45.7	44.3	38.2
Mutual Savings Bank					
Originations ($B)	2.1	4.3	5.4	16.5	23.2
Percent of total	6.0%	5.6	4.1	6.7	6.6
Commercial Bank					
Originations ($B)	7.8	14.5	28.8	51.7	123.2
Percent of total	21.9%	18.5	21.5	20.9	35.0
Mortgage Company					
Originations ($B)	8.9	14.0	29.4	63.3	65.6
Percent of total	25.0%	18.0	22.0	25.6	18.6
Other Lender					
Originations ($B)	1.9	3.9	9.0	6.0	5.6
Percent of total	5.4%	5.0	6.8	2.4	1.6
Total Single-family Loan Originations ($B)	35.6	77.9	133.8	246.8	352.0

Source: U.S. Department of Housing and Urban Development, Office of Financial Management, *Survey of mortgage lending activity*, Annual gross flows, selected issues.

Note: Some totals do not add due to rounding.

In this environment, depository institutions faced increasingly severe disintermediation as the 1966 imposition of Regulation Q deposit rate ceilings on nonbank depositories (including S&Ls) prevented them from satisfactorily competing for the public's savings dollar. In a series of important regulatory actions during the 1970s, interest rate ceilings were first suspended on negotiable certificates of deposit in 1971, and depository intermediaries were subsequently allowed, beginning in June 1978, to pay market interest rates on smaller denomination, six-month deposits. This action paved the way for increasingly liberal regulatory and legal restrictions on both the deposit rates and permissible investment activities allowed thrifts and commercial banks.

President Ronald Reagan's 1980 election, for example, signaled a regulatory shift toward dramatically fewer restrictions. With the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Depository Institutions Act of 1982 and subsequent regulatory lifting of deposit-rate ceilings between 1981 and 1986, depository institutions were able to retain longer term deposits simply by ensuring that their posted offer rates kept pace with movements in domestic and international money-market interest rates.

Deposit rate deregulation would have enabled S&Ls to maintain their share of the single-family home loan market. Unfortunately, the S&Ls still had billions of dollars of relatively low-yielding mortgages in their asset portfolios at the same time that the market required them to pay higher interest rates if they wished to attract deposits. Many decided that the only recourse was to use their newly obtained investment powers to diversify away from single-family home loans and into more risky, but potentially higher yielding, loans and investments. The nation's return to prosperity after the severe 1982 recession, when coupled with a fall in natural resource prices, the unwinding of inflationary expectations, and a tax code which encouraged ownership of income-producing real estate, led many lenders—particularly S&Ls, savings banks, and commercial banks—to invest heavily in commercial real estate loans. Consequently, many office buildings, retail centers, and apartment complexes were developed during this period.

The folly of this real estate lending activity first appeared in Texas and the surrounding oil patch states in the mid-1980s when the fall in crude oil prices decimated that region's economy. Lenders soon were foreclosing on so many of their risky loans that remaining earnings were insufficient to keep them solvent. Moreover, the recession in the oil patch states forced ordinarily good loans, including many mortgage loans on single-family homes, into default as (1) unemployed individuals were unable to meet their mortgage payments and (2) decreases in housing prices encouraged many others to default on their loans and walk away from their homes when housing prices dropped substantially below their remaining mortgage loan balances.

The Federal Deposit Insurance Corporation (FDIC) arranged for mergers of most large Texas banks with healthier regional banks in other states. Meanwhile, Congress devised the Southwest Plan to bail out the Federal Savings and Loan Insurance Corporation (FSLIC), which was faced with the prospect of insufficient funds because so many Texas S&Ls were failing. Political considerations interceded, and the Southwest Plan was replaced by a new congressional initiative entitled the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA). At the same time, it

became increasingly clear that the overbuilt (and overlent) situation facing Texas and the other oil patch states during the mid-1980s was not just a regional problem. Many lenders in other areas with weakening economies, notably the northeast, the middle atlantic states, and Arizona, also faced a growing inventory of problem real estate loans. FIRREA would also greatly affect these lenders.

FIRREA

The deepening problems of the S&L industry, evidenced by the failure or forced merger of hundreds of S&Ls, led President George Bush in February 1989 to propose an S&L industry bail-out plan. Conceived as a ten-year program to restructure the U.S. S&L industry and clean the industry's ledger of thousands of nonperforming real estate loans, the Bush plan proposed spending nearly $160 billion to liquidate and consolidate troubled thrift institutions. After numerous compromises, the essentials of the Bush plan finally passed Congress in August 1989.

Labeled FIRREA, the new law called for dismantling the existing FSLIC and turning its resources over to the FDIC. The latter agency would henceforth manage two insurance funds which would not be commingled. The Bank Insurance Fund (BIF) would handle payoffs to depositors and liquidations of failed commercial banks, while the Savings Association Insurance Fund (SAIF) was pledged to insure S&L deposits. Each would calculate and assess its own separate insurance premiums. However, in order to promote public confidence and to ensure that insurance reserves would be available for future depositor claims, both banks and S&Ls would be required to pay higher insurance premiums. The FDIC was ordered to continue to adjust insurance premiums upward until federal insurance funds were sufficient to cover at least 1.25 percent of all insured deposits.

To help the surviving S&Ls avoid risky additions to their investment portfolios, Congress moved to prohibit S&Ls from making investments in junk bonds. Thrifts were also required to adhere to strict new capital requirements which would gradually increase to levels comparable to those applicable to the commercial banking industry. Moreover, S&Ls were required to place even greater emphasis on their traditional product line, housing finance, if they wished to retain their tax benefits as qualified building and loan associations under the Internal Revenue Code. The Internal Revenue Code requires 70 percent of their assets to be invested in housing-related credit. At the same time, commercial real estate loans could not exceed 400 percent of total capital. Finally, a new federal agency,

the Resolution Trust Corporation (RTC), which was to be backed by bond sales of approximately $50 billion, was created to handle the liquidation of assets of failed thrifts.

The 1989 Market Share Shift

Commercial banks, which generally originated between 20 and 22 percent of the single-family home loans during the past two decades, suddenly increased their share of the market to 35.0 percent during 1989.[1] Meanwhile, mortgage companies' market share declined moderately to less than 20 percent during this time. Mutual savings banks continued to originate approximately 6 percent of the loans throughout the period. These market share divergences have profound implications for the primary mortgage markets during the 1990s (see table 2). These divergences were spawned by a number of trends that began during the 1980s and contributed to the major shift in market share during 1989. Many of these trends will continue during the 1990s, along with the establishment of several new ones that we will discuss in the following sections.

Continuing Trends

The trends that began in the 1980s serve as important—even if only partial—determinants of the future direction that the primary mortgage markets will take during the current decade. It is for this reason that we explore many of the trends that will remain significant during the 1990s.

Adjustable-Rate Mortgages. In his article in this series, Patric Hendershott discusses the mortgage instruments expected to be used commonly by the year 2000. A major instrument discussed is the adjustable-rate mortgage (ARM) which first became widely accepted during the 1980s. Because it shifted interest rate risk from the lender to the borrower, it was not immediately embraced. Instead, it took such historically high interest rates on fixed-rate mortgages (FRMs) that many prospective borrowers were priced out of the market, along with relatively low ARM rates during the initial year or two after origination,[2] to overcome the market's initial fear

---

[1] During June 1989, commercial banks originated more home loans than did S&Ls for the first time since data collection began in 1970. The banks took a 38 percent share during June, versus the S&Ls' 35 percent, and continued their dominance throughout most of the rest of the year.

[2] These were called "teaser rates" since many people were concerned that borrowers would be unable to recognize that the low interest rates would be in effect for only a short time before the rate would be adjusted upward, often in spite of the future direction of market interest rates.

of ARMs. With the fall in market interest rates that began in 1982 and with the mortgage loan originators' greater expertise for explaining ARMs to potential borrowers, ARMs became widely used by the mid-1980s.

The development of ARM instruments in the 1970s and gradual federal bank regulatory acceptance of market-responsive terms for mortgage loans in the 1980s are also important because they further heightened commercial bank interest in and involvement in the residential loan market. These developments proved to be of added significance because of major structural changes that were reshaping the markets for working capital and equipment loans to corporations—historically the principal areas for commercial bank lending activity. U.S. banks increasingly found that their traditional business loan markets had become intensely competitive because of deregulation of nonbank thrift institutions and growing foreign bank competition.

As corporate loan markets became increasingly internationalized, prevailing business loan rates were driven below the U.S. prime rate and settled at narrow margins over the London interbank offered rate (LIBOR) and U.S. money market interest rates. Such a pricing technique was well known to the largest British, Canadian, French, and Japanese banks that have been wresting an increasing share of corporate loan business from U.S. banks. Confronted with these significant structural changes, many American banks sought alternative loan markets in which they appeared to possess a distinct economic and cultural advantage. Their interest settled primarily upon consumer installment and housing-related loans, an important harbinger for the future.

Securitization. Another important trend, discussed by Jaffee and Rosen, was the move toward the secondary mortgage market and securitization as a way to fund mortgage loan originations. This meant most primary market originators no longer had to be depository institutions in order to make single-family home loans. Mortgage companies, which are nondepository institutions, retained their market share during the 1980s, although it continued to be volatile (see table 2). There were two reasons for this volatility. First, the secondary market for FRMs was more well developed than that for ARMs. As borrowers increased their demand for FRMs as compared to ARMs, mortgage companies were particularly well placed to satisfy that demand because they have long had the institutional structure to service that market segment.

The second reason for the market share's volatility was related to primary market competition from depository institutions. S&Ls, for example, relied less heavily during the 1980s on the disintermediation-susceptible passbook savings accounts for their funds. Instead, they placed greater

reliance on savings certificates, money market deposit accounts, and negotiable order of withdrawal (NOW) accounts, although these liabilities did carry higher costs compared with the passbook accounts. More importantly, they had longer and more predictable maturities, although their durations were still markedly less than those of mortgages. The S&Ls then used ARMs to generate the funds necessary to pay these liability costs. In fact, ARMs have been so important to S&Ls that they are often willing to pay a premium for ARMs (or, equivalently, to offer ARMs at lower interest rates) that the mortgage companies could not match.

Commercial banks were in much the same position. Their greater reliance on more stable interest-bearing deposits (principally certificates of deposit and money market accounts) relative to more volatile checkbook (demand) deposits and passbook savings accounts (which lack specific maturities) meant that commercial banks, too, could originate and hold ARMs in their portfolios. While some S&Ls and banks originated ARMs for ultimate sale in the secondary mortgage market or made FRMs both to sell and to hold in their portfolios, the competition with mortgage companies was much more severe when FRMs were involved.

Globalization. Another important trend that began in the 1980s was the increasing share of U.S. residential mortgages purchased by foreign investors as U.S. securities firms and federal mortgage agencies made a significant effort to educate foreign investors on the advantages of this financing instrument. Residential mortgage securities have proven to be especially attractive to selected foreign institutional investors in view of their relatively low level of default risk because of government and private loan guarantees and steadily improving liquidity. Moreover, the significant yield margins of most mortgage loans over U.S. government securities of comparable maturity have been especially attractive to foreign-based institutional investors. Recent foreign investment purchases have tended to concentrate upon mortgage-backed securities, particularly those packaged through Fannie Mae and Freddie Mac. Leading foreign dealers in housing-related mortgage instruments include the Industrial Bank of Japan and Nomura Securities, with the latter firm now operating as a primary dealer in Fannie Mae-guaranteed mortgage securities.

Rising Home Prices. There is considerable evidence of growing interest among commercial banks and thrift institutions for mortgage lending opportunities on more expensive homes for higher income households. These households became a larger market during the 1980s because of growing demands from families expanding in size and/or experiencing increases in personal income as the number of two-earner households increased. Moreover, this upscale housing market is expected to be one of the fastest-growing segments of the residential mortgage market of the 1990s because

of a marked slowing in new family formations, sharply increased numbers of households whose principal breadwinner is over 35 years of age, and the increased savings expected from an older population.

Commercial Bank Involvement. The shift of U.S. banking during the past two decades toward greater relative emphasis upon retail banking and less emphasis on wholesale credit accounts was aided by the spread of interstate banking. Between 1975 and 1989, more than 40 states passed laws allowing out-of-state banking companies to enter their territories. U.S. bankers who had hesitated to invade residential mortgage markets distant from their own traditional market areas now eagerly moved to broaden and diversify their consumer loan portfolios, particularly in those metropolitan and regional markets that appeared to possess excellent prospects for continued economic expansion and in-migration. The passage of tax-reform legislation in 1986 added additional luster to home mortgage credit for banks because the tax-exempt privileges attached to home loans allowed banks to price these loans more profitably compared with non-tax-enhanced consumer credit. Moreover, the spread of home equity credit lines has allowed banks to book somewhat shorter term mortgage loan maturities. The shorter maturity home loans have encouraged greater bank activity in the mortgage market because these credit lines more closely conform to the relatively volatile funding mix banks face compared with traditional long-term lenders in the residential market.

Demographics. Finally, the ongoing demographic changes identified by Gretchen Armijo et al. in their article in this series will have profound effects on the structure of the demand side of the primary mortgage market in the year 2000. The most important features in the dynamics of U.S. population growth include (1) a significantly slower birth rate as the so-called baby boom generation enters the middle-aged cohort of 35 to 45 years of age and (2) a dramatic rise in the 46–65 and over-65 age groups. Total household formations will slow sharply in the 1990s with an absolute decline in new family formations among those individuals under 35 years of age. This decrease suggests there will be substantially fewer first-time buyers of new homes. Indeed, in 1989 the National Association of Home Builders reported that first-time buyers accounted for less than 30 percent of all purchases of new homes—the lowest percentage since the 1970s.

The rising average price of new homes and the shift of primary mortgage market lenders toward more conservative down payments will further depress the proportion of first-time home buyers. These same trends, though, appear to be raising demand for the type of real estate loans larger institutions have historically funded and generally reducing demand in those markets traditionally served by the smaller lenders. For example,

increasing bank involvement in the upscale housing market for growing and more affluent households characterized both the 1970s and 1980s. This market should receive a substantial boost from significant increases in the U.S. population over 35 years of age and in the number of households whose head is 45 years of age or older. The result should be a significant decline in housing starts for smaller homes and apartments but a corresponding acceleration in starts for new upscale homes, for sales of larger existing homes, and for home expansion and improvement—all areas of mortgage demand in which larger institutions seem especially well positioned for the decade ahead.

FIRREA Revisited

While the preceding trends will continue to exert their influences during the 1990s and beyond, a major new factor for the last decade of the century was introduced with the passage of FIRREA. Among the many components of the legislation described earlier, two stand out as important influences on the market share shift of 1989. First, federal regulators were required to merge or close insolvent thrift institutions. In practice, this meant the regulators were encouraged to place insolvent S&Ls in conservatorships prior to their ultimate resale or dissolution, a practice the FSLIC and FDIC had already begun. Since conservatorship status was essentially a holding pattern for institutions that frequently had been trying to grow out of their problems, this meant there were fewer S&L competitors actively originating loans in the primary mortgage market.

The second factor was the requirement that S&Ls must boost their tangible capital[3] to 1.5 percent of assets immediately, with higher minimums in the future, and otherwise meet the same capital requirements as commercial banks. Since commercial banks were already subject to a risk-based capital requirement introduced earlier by the FDIC, thrifts would now be subject to the same rules. The outcome is that most thrift institutions will either have to boost their capital—an unlikely prospect given the profitability problems many of them appear to be facing—or shrink their asset base in order to have their existing capital account cover a larger percentage of their assets. Most S&Ls have chosen the asset shrinkage route. In large part, then, the removal of many S&Ls from significant participation in the primary mortgage market—either by the regulators or by management—is what was driving the reduced market share for the S&Ls during 1989. Moreover, this is a trend that seems likely to intensify during the early 1990s.

---

[3] Tangible capital omits "goodwill" from the capital structure for calculation purposes.

A Cost-driven Structure

Several of the legal and regulatory framework trends already identified in this paper will continue to exert their influences during the 1990s. In addition, the securitization trends outlined by Jaffee and Rosen, the mortgage instrument trends identified by Patric Hendershott, and the mortgage operations specialization trends described by James Follain and Peter Zorn in their articles in this series will all have an impact on the primary mortgage market of the future. Moreover, the future demographic and economic trends described in Armijo et al., which will have a major impact, suggest a slowdown in population, as well as in household, growth. Concurrently, the aging of the post-World War II baby boom means a broadening move-up market at the same time that housing starts fall. Of course, these same demographic trends also suggest that the baby boomers will be entering a life-cycle phase when consumption decreases and savings increase. In addition, Armijo et al. forecast continued slow productivity and disposable income growth. When the trends in all of these papers are taken together, they suggest a much more competitive primary mortgage market.

If the number of new mortgage loans shrinks, as expected, during the 1990s, if secondary mortgage market funding makes mortgage rates more homogeneous, and if specialization allows institutions to develop greater expertise in a particular market segment, then current primary mortgage market players must become more efficient if they expect to thrive or, perhaps, even survive. This suggests a greater market share for the least cost institutions in the origination, financing, and servicing functions. Moreover, the least cost institutions will likely be different for each of the three areas.

Financing

In our view, financing costs will drive the transaction. The dominant primary market lenders will be the least cost providers of funds.[4] Note, however, that this emphasis on least cost funds does not ignore customer service. In most markets, the ability to provide superior service will be an important factor. What is suggested is that there will be dominant institutions that will devise ways to provide high-quality service with least cost funds and will thus take a larger market share.

For "conforming" mortgage loans (those that meet the purchase requirements set by Fannie Mae and Freddie Mac), what will be paramount is

[4] The least cost provider does not necessarily have to be the low-price lender.

the cost to place the loans with a secondary market source like Fannie Mae, Freddie Mac, one of the major investment banking firms, or perhaps one of the nation's large commercial banks that has developed its distribution skills. This suggests that larger institutions, which can originate or purchase loans in sufficient volume to obtain lower placement costs, will predominate. Since many S&Ls will be shrinking rather than growing in order to meet the FDIC's capital adequacy requirements and since mortgage companies are generally smaller sized institutions,[5] commercial banks appear to have the greatest potential to transform themselves into the low-cost providers of funds for conforming loans.

For "nonconforming" mortgage loans, the marketplace will be much more local in nature. Cost considerations will be less important to the borrower than the lender's ability to provide financing. This opens the way for thrift institutions, smaller commercial banks, and perhaps credit unions that expect to place the loans in their investment portfolios, as well as for mortgage companies that have cultivated placement sources in a manner similar to the way they operate their commercial lending activities. Even for these institutions, though, the player that can provide less expensive loans because of a lower cost of funds will be more likely to gain market share in this segment.

Origination

In a similar manner, those institutions that are able to minimize origination costs will be able to garner a larger market share. These costs, however, may vary. If the market demands a place of business for the originator, then financial institutions with their existing bricks and mortar will be able to spread those costs over several loans and many different functions and thus become the least cost provider. On the other hand, small independent mortgage brokers, perhaps operating out of their homes, can just as easily originate a loan in the borrower's home or at the real estate agent's place of business. In fact, the real estate agent may provide this service in some cases in the future. What appears to be key is the expertise of the originator so that the function is performed correctly the first time. Reworking costs will not loom large for the market leader. The leading primary market lenders must originate loans quickly, accurately, and inexpensively so their origination costs will not force them to raise rates or fees above those of the competition.

---

[5] Although some mortgage companies are owned by large nonfinancial corporations, many are bank holding company subsidiaries. We consider these to be the same as commercial banks.

Servicing

The same type of market segmentation envisioned for the financing and origination functions will also occur in servicing. There are heavy fixed computer costs for hardware and software involved with servicing. Moreover, there are large, fixed personnel costs necessary to respond quickly and accurately to customer queries and problems. As with the financing and origination functions, heavy fixed costs suggest the need for large volumes over which those costs may be spread. Moreover, mortgage companies appear to have a differential advantage in experience and a large volume of business in this area already. It appears to us that many mortgage companies will become specialized servicing institutions and will perform this service function for the originators who will wish to concentrate their resources elsewhere.

Institutional Impacts

Two overriding trends will frame the institutional impacts on the primary mortgage market as we approach the year 2000. First will be the trend toward greater specialization as the need to be the least cost player is increasingly recognized. Second, there will be a blurring of the distinctions among different financial institutions that compose the primary mortgage market. In fact, a functional reorganization appears to be most likely as the unbundling of lending institutions occurs. Nevertheless, we will continue to use the traditional institutional breakdown to frame our discussion in this section, as it will take much of the decade for this reorganization process to occur.

Commercial Banks

Thrift Acquisitions. Commercial banks likely will play a substantially greater role in the residential mortgage market of the future as one of the low-cost service providers with a number of significant economic advantages over nonbank lenders in this market. For example, bank holding company organizations are expected to expand significantly their share of the U.S. residential market by either acquiring failed S&Ls through the RTC or by making acquisitions of solvent thrifts with Federal Reserve Board approval as authorized by the 1989 FIRREA. Leading regional banking firms appear to be attracted by the large pool of deposits available in many of these acquisitions and by the potential consumer loan demand emanating from an already established customer base.

RTC Activities. The terms of these RTC-negotiated acquisitions of troubled thrift institutions generally have been quite favorable. Acquirers generally appear to have paid purchase premiums ranging from just over 1 percent to slightly less than 4 percent of total deposits acquired. The majority of questionable thrift assets usually remain with the RTC. Moreover, acquirers have been permitted to lower contracted deposit interest rates after a two-week notice of acquisition to their depositors. Thus, the high risk premiums paid on interest-sensitive deposits by troubled thrifts can legally be reduced if the acquirers under the RTC program choose to do so.

Recently, the RTC has considered splitting corporate entities that represent defunct thrifts and selling their more attractive pieces (such as individual branch offices that appear to have significant economic potential) rather than forcing acquirers to bid for the entire thrift organization. This step, if actually taken by the RTC, would tend to accelerate the acquisition of thrift-held mortgage loans and deposits by banking firms because it would bring these acquisitions within the reach of hundreds of smaller banks and bank holding companies.

Banking's Thrust. In addition to the acquisition of failing thrift institutions, there are several other reasons leading us to believe commercial banks may continue to increase their share of residential mortgage loan originations. Among the most significant factors expected to sustain banking's recent leadership position in the primary mortgage loan market are the tax advantages of home equity credit over consumer nonhousing-related loans. These advantages have set in motion strong demand for mortgage credit from borrowers who regard banks as the primary source of household credit. For example, Federal Reserve Board estimates conclude that commercial banks held $45 billion in home equity loans out of an estimated total of $75 billion for all such credit lines in 1988. Moreover, home equity credits, growing in excess of 20 percent annually, have been the most rapidly growing retail loan category for banks in recent years.

A second factor is related to the market strategy of leading regional and national banking organizations. This strategy has, for the most part, been centered upon household customers as the central focus of organizational expansion, which makes greater direct home mortgage lending a key item in their future strategic plans. Third, as mentioned above, FIRREA granted banking organizations the option to acquire both failing and healthy thrift institutions and has given expansion-minded banking firms new ways to enter target markets, some of these at lower merger premiums than are involved in acquisitions of commercial banks or at lower cost for acquiring selected assets (such as branch offices) than building new facilities would require. The result of such acquisitions is increasing consolidation in the banking industry with fewer independent organizations and a much larger

average size for banking firms. If there are significant economies of scale or scope in the banking industry and if larger size banks are better able to keep pace with improvements in service production and delivery technology, these trends will contribute to greater efficiency and lower costs for mortgage origination.

Finally, the demographic trends discussed earlier, including substantial increases in older households and decreases in first-home buyers, favor mortgage credit areas in which banks have both accumulated experience and special expertise. Areas in which mortgage credit demands are expected to accelerate significantly include the construction and purchase of higher valued (upscale) single-family homes and the purchase and improvement of larger and higher priced existing homes.

Thrift Institutions

Minimum Capital Standards. New capital standards at the federal government level now require S&Ls to raise new capital, slow the growth of their assets, or reduce asset-risk exposure by downsizing. The latter two options suggest a retrenchment in home mortgage lending by S&Ls and greater opportunities for commercial banks and mortgage companies to acquire a growing share of new loans.

The new capital requirements for S&Ls are likely to be a particularly difficult feature for the survival of troubled thrifts and for the maintenance of S&Ls' market shares in the primary mortgage market. Effective in December 1989, U.S. S&Ls began facing an escalating required capital-to-asset ratio over the ensuing five years. At year-end 1989, the ratio of tangible capital to total assets had to be a minimum of 1.5 percent. By January 1, 1993, savings associations must hold an 8-percent ratio of risk-based capital to assets and the ratio of tangible capital to total assets must be at least 3 percent on January 1, 1995.

These higher capital requirements should intensify pressures for consolidation already present in the industry and should also force S&Ls below current capital-adequacy standards (estimated at about 45 percent of the number of operating savings associations at year-end 1989) to slow significantly their asset growth. Unfortunately, if new capital is needed to effect the consolidation of troubled thrifts or to fund their acquisition by solvent financial institutions (particularly bank holding companies), that capital is likely to carry such heavy risk premiums in order to attract capital-market investors that it will discourage many proposed mergers and acquisitions. More S&Ls will be subject to forced liquidation or will seek out banks with stronger capital positions to acquire them.

Composition Effect. Partially offsetting the severe dampening effect on overall S&L expansion and credit-granting capacity will be a composition effect from the new capital requirements that will benefit, to some extent, S&L participation in the primary mortgage market. This regulatory feature was born in the deliberations of the United States and other industrialized countries that erected the Basle Agreement on International Capital Standards, approved in principle by all 12 participating nations in 1987. Under the terms of the Basle Agreement, each category of regulated-lender assets is assigned a risk weight with what regulators perceive to be riskier assets carrying heavier capital requirements than less risky assets. For example, consumer installment loans generally have a 100-percent-risk weight, while residential mortgages are generally classified as less exposed to default and, therefore, carry a credit-risk weight of only 50 percent. The dollar volume of different assets outstanding is multiplied by these risk weights and the sum of all the assets a regulated institution holds is taken in order to calculate its total risk-weighted assets. The critical point is that the weights reflect regulatory authorities' perceptions of the relative safety of various lender assets. Under the current system of asset-risk weights, insured home mortgage loans are favored over consumer installment, cash loans, and selected credit guarantees, though not as favored as acquisitions of government securities.

Larger Institutions. The new capital standards clearly favor those mortgage lending institutions whose capital is already adequate by current standards, those with capital deficiencies but also greater access to the capital markets, and those still generating positive earnings or with higher probabilities of continued positive earnings. These conditions are often found among the larger thrift institutions in regions with continuing economic strength and with access to both domestic and international capital-market investors. These few reasonably well-capitalized thrifts can benefit from the troubles of neighboring thrifts by acquiring their neighbors' better assets at discounted prices. Even among the members of these better performing S&Ls, however, the previously noted redefinition of the acceptable components of core capital has pressured thrifts to raise more core capital either through new issues of permanent equity or convertible debt or, where market conditions for the foregoing instruments are weak or unstable, through equity or debt swap transactions.

Bank holding companies were authorized to purchase both troubled and healthy thrift institutions under the terms of FIRREA. However, the new law also created some uncertainties and some new costs that are likely to limit bank involvement in the restructuring of the S&L industry for some time to come. For one thing, both bank and savings and loan capital-adequacy requirements appear to be in transition, awaiting compromise among the regulatory agencies. Thus, many potential bank acquirers of

S&Ls are waiting for a clearer picture of the impact of the newly revised capital guidelines. Moreover, the ongoing deterioration of real estate markets in several regions has discouraged further bank involvement in S&Ls in those areas of the nation. The passage of FIRREA also imposed new rules on permissible assets for thrifts which limits the expected returns of even healthy thrift institutions and makes them relatively less attractive as acquisition targets for bank holding companies. At the same time, those bank holding companies that had hoped to purchase thrifts and convert them to commercial banks now must pay higher fees to effect that transformation as a result of FIRREA.

Collateral Risks. Of perhaps greater concern is the possibility of a general, system-wide decline in housing prices. The most vulnerable areas for further housing price declines appear to be in the Southwest, in New England, in some portions of the Southeast, and in selected western states such as Arizona and California. Some portion of the inflation-driven run-up in housing prices experienced during the 1970s and early 1980s is now being reversed with selective housing price deflation. The housing price slide is likely to be exacerbated by massive sales of residential properties by the RTC as it attempts to dispose of the asset portfolios of failed thrift institutions.

Because the market value of homes represents the collateral for approximately 30 percent of the total assets of commercial banks and nonbank thrift institutions combined and because tax reform has led to rapid increases in home equity credit lines, any precipitous decline in home prices might endanger the viability of hundreds of S&Ls and other depository institutions. Nevertheless, it can be argued that significant forces on both the supply and the demand side of real estate markets are likely to put a floor under any potentially precipitous decline in housing prices. One force is the continuing rise in the number of individuals and families in the age and income brackets traditionally associated with home purchases, particularly purchases of larger, upscale homes for a population that is older on average and more affluent with accumulated savings. Tax reform has added still another favorable element as home mortgage interest remains the most significant legitimate deduction from taxable income for most households. Moreover, average home mortgage interest rates are expected to be lower in the 1990s and be more stable because of slower growth in the U.S. economy and an augmented supply of long-term savings from the rapidly growing over-40 segment of the U.S. population. The rise of two-earner households has added to borrower debt capacity and, therefore, created more prospective demand for home ownership.

Summary. Many S&Ls will find the new capital requirements of FIRREA too burdensome and financially unattainable. Some of these will convert

to commercial banks under the terms specified in FIRREA. Others will alter their organizational structure to become more broadly based financial service companies and surrender the tax benefits of an S&L. Whatever organizational form is ultimately adopted, it seems clear that the S&L industry of the 1990s and beyond will be substantially different in structure than those envisioned in the sweeping federal legislation of the 1930s that sheltered this industry, nurtured its growth in the more stable periods of recent history, and, unfortunately, contributed to the downfall of many thrift institutions in the volatile era of the 1970s and 1980s. Any vacuum left by troubled or failed S&Ls is likely to be filled by aggressively managed commercial banks and bank holding companies whose stronger capital positions and recently enlarged opportunities for full-service interstate banking give them a strategic advantage in the mortgage market of the 1990s.

Mortgage Companies

In contrast to commercial banks, mortgage banking firms face an uncertain future. Changes instituted in the residential finance delivery system by the growth and maturation of the global secondary market as a common funding outlet, by the rolling economic recession of the late 1980s and early 1990s, and by FIRREA's provisions will certainly alter the environmental fabric. These changes must also be coupled with the previously described pressures which offer the greatest rewards to the primary market players that are the most efficient, least cost institutions. Together, they suggest dramatic changes for many residential mortgage companies.

Financing. Mortgage bankers typically call the financing function "marketing" since their status as nondepository institutions means that the loans they originate must always be sold into someone else's portfolio. If mortgage bankers are to thrive during the 1990s in the form in which they currently exist, they must be able to be least cost marketers. Is there any reason to believe they will be able to do so? In our opinion, it will be very difficult for many mortgage banking firms to stand out as models of financing efficiency. On the other hand, they will probably not be overshadowed by other institutions either.

Consider how mortgage companies market their loans. If they are small- or medium-sized firms,[6] then they most likely sell directly to Fannie Mae,

[6] We are assuming that the mortgage banking firms are large enough to meet the appropriate net worth requirements and to be able to originate enough mortgage loans to meet minimum pool requirements. If not, of course, then the mortgage company will either cease business or be forced to incur greater costs to aggregate its loans with those of a larger competitor.

Freddie Mac, or another wholesaler (such as an investment banking firm) that ultimately obtains the funds for the mortgage paper elsewhere through the secondary mortgage market described by Jaffee and Rosen and by Michael Lea in their articles in this series.[7] There is no reason to believe that one mortgage company could consistently obtain financing from one of these sources at a better rate than could another mortgage banker.

On the other hand, if the mortgage company were a large-sized firm, it could directly access the secondary markets and sell securities based on its own real estate mortgage investment conduit. This could provide the mortgage company with a cost advantage if it were able to tap efficiently the secondary markets while avoiding the markups necessarily charged by the wholesalers. Still, the margin would be small, and the mortgage company would have to bear the costs of a large volume of contingent liabilities associated with the mortgage-backed securities.

Risk hedging is often considered to be another aspect of the marketing function. Mortgage bankers will need to explore new and exotic hedging techniques to reduce their risks, at the least possible cost, prior to disposition of the mortgages. Some of these techniques are not yet invented, while others call for skills that are currently beyond the level of most mortgage banking firms. This suggests that it will be necessary to staff the risk-hedging positions with knowledgeable—and expensive—individuals; thus, risk hedging offers an advantage to the larger firm that can amortize these costs over a larger volume of business.

Origination. The least cost origination firm will probably be a small-sized mortgage company. Both today's mid- and large-sized firms will suffer as they will be competing with the depository institutions that already have the bricks and mortar serving other functions. The marginal costs for the financial institution to place a mortgage loan origination officer in an otherwise empty desk will be very low. On the other hand, the mortgage companies will have to maintain office space for their originators and thus incur an incremental cost that the competition does not have to bear. Since there will be intense competition in the primary market, controlling costs will be paramount and will favor the depository institution.

The small-sized mortgage company, though, may have an advantage. Its originators can work with little overhead for the company. They can

---

[7]An alternative would exist if the mortgage banking company were owned by a depository financial institution, such as a commercial bank, savings institution, or life insurance company, that could keep the loan in its portfolio of investments. In that case, there may be some financial advantage since the mortgage company could bypass the financing intermediary and avoid its markup.

operate out of their homes while selling their services in the real estate agent's office—perhaps even being the agents if sophisticated enough software can be designed to assist them in preparing the loan application correctly and compiling the requisite supporting documentation. Or the small firm's originators, again avoiding fixed costs, may take the loan application in the borrower's home or office. In either case, the small firm will likely sell the originated loans on a servicing-released basis to larger institutions hungering for the servicing revenue stream.

Another important advantage of the small firm is its flexibility to move quickly into new markets and follow new opportunities. In addition, serving niche markets will be a specialized, but profitable, segment for the small firm. Finally, the mortgage company may profitably originate loans in small communities not adequately served by their larger brethren.

There are some additional factors which may modify the previous conclusions. For example, a major concern of the mortgage banker is the need for risk management and quality control. The mortgage originator must judiciously select the risks he or she is willing to accept when taking a loan application. Medium- and large-sized firms will be able to spread the costs of instituting a rigorous quality control function over a large volume of mortgages, while the small firm will have to rely on competent originators to perform that function themselves. If the smaller firm cannot do that, it will surely go out of business as the secondary market shuns its offerings.

Another example of an external factor is the future course of mortgage interest rates since the mortgage companies' future market share appears to depend partly on the course of home mortgage interest rates. With lower projected interest rates caused by subdued price inflation and higher household savings rates (related to population aging), mortgage banks should be in a substantially stronger market position than was true in the 1970s and 1980s. As detailed by Hendershott, the principal reason is that fixed-rate residential mortgages will likely grow more rapidly relative to adjustable mortgage instruments in a period of more stable and lower average market interest rates. While S&Ls dominated the adjustable-rate residential mortgage market in the 1980s, mortgage banks may play a greater role during the 1990s than they did for most of the 1980s as the capital market environment becomes more favorable to fixed-rate credit instruments.

Servicing. Mortgage loan administration (servicing) is the area in which the mortgage banking firm likely will have its greatest competitive advantage. Because there are many scale economies in servicing because of computer hardware and software costs, a single firm currently needs many

tens of thousands of loans in order to perform the servicing function profitably. In order to be the least cost servicer, the company must service several times as many loans as the minimum level for profitable servicing. As the decade progresses and computer hardware costs continue to fall while servicing software becomes more efficient, the nature of the business suggests the need for mortgage banking firms to continue growing larger.

Mortgage banking firms understand this part of the business very well. They already have well-functioning servicing systems with people who understand the market's needs for customer counseling and cost controlling. As they find themselves being squeezed on the origination side of the business—and thus losing the opportunity to perform the financing function as well—many companies will gravitate toward the servicing side as the area where they can perform best.

Specialization. We view the future of mortgage banking to be one of greater specialization. The mortgage company will be squeezed on the origination side of the primary mortgage market by the depository financial institutions that are not only able to spread their fixed costs over several different businesses, but are also able to tap into an existing customer base that the mortgage companies do not have. The mortgage company will also be squeezed by mortgage brokers operating on an independent basis with little overhead, but with great agility and an intimate knowledge of the local marketplace. In order to survive, the mortgage company will have to specialize so that it can ruthlessly pare its costs and become the least cost provider. That probably means retreating to niche markets or small communities that the competition feels are too small or too localized to devote much attention toward capturing. It may also mean converting the origination function into a wholesale relationship, with all loans sold servicing released to larger competitors.

Without primary market loan originations, there is no need for the mortgage company to pursue the financing function. On the other hand, the loan servicing portion of their current business will grow as more and more firms specialize in this market segment to the extent that they become the least cost providers of servicing solutions in their marketplace for the financial institutions that do originate loans. We envision the development of a modest number of elite super-sized mortgage loan administration organizations with nationwide loan servicing portfolios, as well as the survival of small-town loan servicers that use this niche to avoid competing with the behemoths. Both can be immensely successful.

Mortgage Brokers

Single-family home mortgage brokers, concentrating on the origination of high-quality mortgage loans within a limited marketplace that they know well, will prosper during the 1990s. Taking a share of the origination function market that mortgage bankers and smaller financial intermediaries used to call their own, the mortgage brokers operate with very low overhead. They will frequently use their homes as their places of business; this helps keep their costs low and sets them up as the least cost originator.

In addition to maintaining a low-cost environment, mortgage brokers are also striving to maximize their revenues. They will either originate their loans in the name of the lender that agrees to provide them with the largest fee income, or they will sell their originations—servicing released—to the institution that provides them with the best price. Purchasers, on the other hand, are likely to try to maintain some sort of stable correspondent relationships with the brokers. The purchasing lender may be a depository institution or perhaps a mortgage banking company. It will not matter to the broker as long as he or she is well compensated.

Credit Unions

Credit unions are another depository institution that hold considerable potential as players in the primary mortgage market. They have a substantial base of fairly stable deposits and a user community that is more loyal than the customers of other financial institutions. Moreover, they have been allowed to make 30-year residential mortgage loans since 1978 and have thus had an opportunity to develop substantial expertise. In spite of these advantages, many credit unions have not fully pursued their mortgage market opportunities.

During the past 15 years, most credit unions have continued to concentrate on investments in the consumer installment credit area, primarily loans for automobile purchases. This means they let slip the opportunity to develop an additional area of expertise during the turmoil in the mortgage markets in the 1980s, an opportunity in which traditional borrower-lender relationships were very fluid because of shifting institutional alignments. If credit unions do not develop substantial expertise in one of the primary mortgage market specializations, it is difficult to envision credit unions becoming major players in this marketplace during the 1990s.

Market Broadening as an Influence on Future Suppliers

The broadening role of mortgage-backed securities as desirable investment vehicles for capital-market investors and as devices for primary mortgage lenders to raise new capital has had a profound impact on the behavior of mortgage interest rates and on the stability and responsiveness of the residential mortgage market to external conditions, especially to business cycles, changes in credit conditions, and monetary policy. While residential mortgage interest rates historically have changed gradually over time in response to long-run forces of demand and supply, mortgage market conditions appear to have become considerably more sensitive to both long- and short-range factors. Rate volatility has become more evident in mortgage-market index rates, and it seems more than merely coincidental that these rate changes (of both greater frequency and greater amplitude) parallel the growth of more actively traded mortgage-backed securities and collateralized mortgage obligations. These innovative financial instruments appear to have linked irrevocably the home mortgage market to broader financial and economic forces, both short run and long run, that today impact all credit and equity markets. The residential mortgage market is far less sheltered than at any previous time in its history from the forces that drive all interest rates and dividend yields across the breadth of the global markets.

The particular lending institutions that will play key roles in the primary mortgage markets of the future will be those financial firms best able to take advantage of cross-market links between mortgages, debt, and equity securities and to understand the interrelationships between mortgage demand, interest rates and currency prices, general economic conditions, and monetary policy. They must be market players whose portfolios are sufficiently flexible to respond to a more volatile mortgage loan market that is likely to continue to experience substantial swings in the cost and availability of funds. They must understand and be able efficiently to employ risk-hedging techniques (such as futures, options, and swaps) in order to offset the market's increased elasticity. And they must have management that is better trained in a variety of important skills ranging from portfolio analysis and hedging to credit evaluation.

We would be remiss, however, if we fail to note that not all the recent changes in financial markets, instruments, and regulations point to greater future sensitivity of the mortgage market to interest rate movements and broader economic, financial, and regulatory conditions. In fact, the links between investments in housing and interest rate movements appear to have weakened in recent years, especially following federal deregulation of deposit interest rates between 1980 and 1986. For example, the powerful impact of monetary policy upon decisions to build and invest in residential

housing and, therefore, upon gross investment in the economy appears to have weakened recently. Moreover, following passage of the Depository Institutions Deregulation and Monetary Control Act in 1980 and the enactment of the Garn-St Germain Depository Institutions Act of 1982, the historical countercyclical relationship between movements in market interest rates and inflows of deposits into bank and nonbank thrift institutions may have been significantly eroded. Moreover, the major innovations in mortgage instruments which characterized the 1980s, particularly the regulatory acceptance of flexible-rate mortgage instruments, seem to have reduced further the long-standing countercyclical relationship between rate movements and housing construction.

In brief, the fundamental linkages between housing construction and sales, economic conditions, and market interest rates appear to be in transition. Historical relationships have been controverted by deregulation, financial innovation, and the increasing internationalization of the American economy. The residential mortgage market appears less strongly countercyclical in its links to the remainder of the domestic and global economy. Interest rate swings of greater amplitude are now possible without bringing about major shifts in housing investment and, in turn, without necessarily setting in motion substantial changes in production and income. Thus, the home mortgage market appears to be more robust with respect to changes in market interest rates and, therefore, less likely to precipitate economic recessions and inflationary expansions. In turn, economic fluctuations today are less likely to destabilize the mortgage market of the future.

However, the challenges faced by mortgage-market lenders and service providers are no less foreboding for the decades ahead. The mortgage firm of the future faces a more sophisticated customer with rapidly changing service needs and with demonstrated loyalty only to those service providers that quote the most competitive prices and provide the most consistently high-quality products. On the supply side of the market, the number of competitors is increasing and is led by commercial banks, bank holding companies, mortgage brokers, and specialized mortgage banking firms. There will also be growing numbers of foreign banking and securities firms who view U.S. markets as a highly desirable arena for long-term investments because of U.S. political and economic stability compared with many other areas of the globe.

The most successful mortgage-market suppliers will be those able to achieve low-cost operations, greater stability of cash flow and capital, and continuing access to new service production and service delivery technologies. The managers of these firms must be better trained with special emphasis on risk-hedging techniques, cost accounting and cost control

methods, marketing principles, and strategic planning techniques. Perhaps most importantly, there must be greater openness to new ideas and new approaches and continuing encouragement and support for research in all phases of mortgage lending and servicing.

References

Armijo, Gretchen A., David W. Berson, Mark H. Obrinsky, and Bragi Valgeirsson. 1990. Demographic and economic trends. *Journal of Housing Research* 1, no. 1:21–42.

Board of Governors of the Federal Reserve System. *Federal Reserve Bulletin,* selected monthly issues.

Brewer, Elijah, III. 1989. Full-blown crisis, half-measure cure. *Economic Perspectives.* Federal Reserve Bank of Chicago (November/December):2–17.

Cacy, J.A. 1989. Thrifts in the troubled 1980s: In the nation and the district. *Economic Review.* Federal Reserve Bank of Kansas City (December):3–23.

Canner, Glenn B., and Charles A. Luckett. 1989. Home equity lending. *Federal Reserve Bulletin* (May):333–44.

Crone, Theodore. 1987. Housing costs after tax reform. *Business Review.* Federal Reserve Bank of Philadelphia (March-April):3–12.

Department of Housing and Urban Development. Office of Financial Management. *Survey of mortgage lending activity,* Annual gross flows, selected issues.

Follain, James R., and Peter M. Zorn. 1990. The unbundling of residential mortgage finance. *Journal of Housing Research* 1, no. 1:64–91.

Freund, James L. 1983. The housing market: Recent developments and underlying trends. *Federal Reserve Bulletin* (February):61–9.

Garrett, Joseph. 1989. The changing housing finance delivery system: Structural realignment of mortgage banking. *Real Estate Review* 19, no. 3 (Fall):17–21.

Haney, Richard L., Jr. 1989. The future residential finance delivery system: A research agenda. Monograph prepared for the Homer Hoyt Advanced Studies Institute, February.

Hendershott, Patric H. 1990. The composition of mortgage originations. *Journal of Housing Research* 1, no. 1:43–62.

Jaffee, Dwight M., and Kenneth T. Rosen. 1990. Mortgage securitization trends. *Journal of Housing Research* 1, no. 1:119–39.

Lea, Michael J. 1990. Sources of funds for mortgage finance. *Journal of Housing Research* 1, no. 1:139–61.

Mills, Edwin S. 1987. Dividing up the investment pie: Have we overinvested in housing? *Business Review*. Federal Reserve Bank of Philadelphia (March–April):13–23.

Pozdena, Randall Johnston. 1989. Are housing prices too high? *Weekly letter*. Federal Reserve Bank of San Francisco (January 20):1–3.

Rose, Peter S. 1989. *Money and capital markets: The financial system in an increasingly global economy*. 3d ed. Homewood, Ill: BPI/Irwin.

Wolfson, Martin H., and Mary M. McLaughlin. 1989. Recent developments in the profitability and lending practices of commercial banks. *Federal Reserve Bulletin* (July):461–84.