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# RESEARCH TOPICS IN MORTGAGE MARKETS

*Proceedings of a Seminar  
Held June 1976  
West Lafayette, Indiana*

Sponsored by  
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Krannert Graduate School of Management  
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## FOREWORD

The papers contained in this volume were presented at a conference sponsored by the Credit Research Center at Purdue University, West Lafayette, Indiana in June 1976.

The seminar brought together three groups of individuals with expertise in the functioning of mortgage markets and the distribution of mortgage credit. Participants included representatives of private financial institutions that are responsible for the delivery of mortgage credit, representatives of government agencies that sponsor mortgage programs or oversee aspects of private mortgage lending, and representatives of the academic community that bring a scholarly interest to issues which concern mortgage borrowers, lenders, and public bodies.

As the title of this volume indicates, the objective of the seminar was to compile a list of pressing issues which mortgage market participants perceive as deserving of additional or, in some cases, new research efforts. Identifying high-priority areas where research is needed is the common thread that ties these papers together. However, each author brings a different background and a different perspective to bear on the subject.

In order to incorporate this diversity of perspective within the program, each paper was followed with a discussion by someone representing a sector different from the author of the paper. Thus, the paper by Donald Kaplan, director, Office of Economic Research, Federal Home Loan Bank Board, was followed by comments from Lawrence Smith, professor of economics, University of Toronto, Canada. The paper by Kenneth Thygerson, chief economist and director, Economics Department, United States League of Savings Associations, was discussed by Marshall Dennison, president, PENNAMCO, a mortgage banking firm. The paper by William Grigsby, professor of economics, University of Pennsylvania, was commented upon by John Weicher, deputy assistant secretary, Office of Economic Affairs, Department of Housing and Urban Development, and by Bruce Lippke, manager of marketing and economic research, Weyerhaeuser Company.

It is unfortunate that space limitations permit publication only of the texts of the papers presented at the seminar. Comments by those in attendance were often as thought provoking as the papers which initiated the discussions.

It is our hope that these papers will provide a stimulus for carrying out additional scholarly research on pressing issues in the area of mortgage credit.

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## **RESEARCH TOPICS IN MORTGAGE MARKETS: A PUBLIC/REGULATORY VIEWPOINT**

*By Donald M. Kaplan, Director, Office of Economic Research, Federal Home Loan Bank Board Introduction*

The focus of this conference is not only intellectually interesting, it is also very important to the future viability and efficient operation of our mortgage and housing markets and the lending industry which serves these markets. By this I mean that it is essential that the key factors upon which turn the health and stability of our housing finance system be identified and receive whatever study and research is needed to allow legislative and regulatory policy makers to carry out their responsibilities in a thorough, intelligent, and effective manner. This conference is important, then, because our discussion this afternoon, constitutes the essential first step of identifying the important issues and questions which we and others can address and at least begin to resolve.

Before I go any further, I want to share with you some of the difficulties I experienced in putting this paper together. First, I believe it will become apparent as the discussion evolves this afternoon that our respective listings of important research topics will not be all that different whether developed from a regulatory, private financial intermediary, or academic point of view. I think the really important issues are, by definition, important to all of us, although our emphasis may differ. Second, I found it impossible to be exhaustive. There are simply too many key topic areas, interesting problems, and important issues to hope to list them all. I hope the most important topic areas will get identified by having three different viewpoints tackle the same assignment. Third, in spite of my efforts to outline or structure my discussion in a logical sequential fashion, there remains a great deal of overlapping on the listed research topics. That is, very few, if any, of the research topics I have identified fall unambiguously into any one category as opposed to another. Most topics could easily be listed under at least two and often more than two categories. The specific choices I have made are thus subjective and reflect my personal point of view. I hope my efforts to provide this structuring of the discussion helps rather than hinders.

The specific approach I have adopted is to organize my comments according to the major players or entities I face as a regulatory agency staff member (see Table 1). First, I will consider research topic areas from the perspective of the major regulatory functions and operations of the Federal Home Loan Bank Board (FH LBB), which is the agency charged both with regulating the largest group of mortgage lenders - namely, savings and loan associations - and with facilitating a stable flow of economical residential housing finance. Second, I will focus on research topic areas from the point of view of the regulatee - some 4,000 plus savings and loan associations (S&L's) which hold approximately \$350 billion or 50 percent of the outstanding residential mortgage debt in this nation and which, in recent years, have been accounting for nearly 60 percent of the new flows of such credit. Third and finally, I will consider research topics from the viewpoint of individual household consumers - first in their role as borrowers in the mortgage and housing markets and second as savers - who by their actions have an impact on a wide spectrum of our financial markets. While this threefold approach undoubtedly overlaps somewhat with the other speakers, it is unavoidable since a regulator's responsibility encompasses both the institutions being regulated and the general household public.

Of course, there are many other important players. First, there are the other banking regulatory agencies - the Federal Reserve, Federal Deposit Insurance Corporation, (FDIC), and Comptroller as well as the U.S. Treasury and, of course Housing and Urban Development (HUD) - all of which play key roles in the mortgage and housing areas. Also, there are other regulatees as well as other nonregulated mortgage lenders including commercial banks, mutual savings banks, mortgage bankers, insurance companies, and pension funds. And certainly we should not forget the

home builders. Obviously, all of these other players are important. However, if we are to make a start on our assigned topic, I believe it is appropriate to draw the scope of our discussion as I have defined it in Table 1.

Two final comments before I begin. First, in order to stimulate a broad discussion this afternoon as possible, my list of topic areas is intentionally a long one (see Table 2) - really a potpourri of relatively specific and narrowly defined topic areas. This listing is not sequenced in any particular order of priority, nor are the topics in it explicitly located within a formal theoretical economic framework. Nevertheless, bedded within the separate topic areas are a host of public policy issues relating to the proper role of government regulation and the general efficiency of the mortgage market which, after all, is why we gathered here today.

Second, because my list of research topic areas is long, and because there are so many important issues relevant to each area, I will comment only very briefly on each. Where I believe it is most helpful, I will give examples of specific current or recent research projects relevant to the issue. Time permitting, I will indicate some of the current and recent research projects under way in the Office of Economic Research at the FHLBB.

**Table 1**

**A Simple Framework for Organizing Important Research Topics in Mortgage Markets  
From a Public/Regulatory Viewpoint**

- I. The Regulator - Federal Home Loan Bank Board
  - A. Regulatory Functions
    - 1. Chartering new federal associations
    - 2. Authorizing federal deposit insurance
    - 3. Approving new branches
    - 4. Approving proposed mergers
    - 5. Approving holding company formation and acquisitions
    - 6. Authorizing new investment activities
    - 7. Approving the issuance of new savings instruments and debt and equity securities
  - B. Regulatory Operations
    - 1. Office of Finance
    - 2. Office of Examinations and Supervision
    - 3. Federal Savings and Loan Insurance Corporation
    - 4. Office of Economic Research
- II. The Regulatee - Savings and Loan Associations
  - A. Individual asset and liability powers
  - B. Association or firm level considerations
  - C. Industry level issues
- III. The Consumer - households
  - A. As savers
  - B. As borrowers

**Table 2**

**Nonexhaustive List of Important Research Topic Areas**

1. Local and Regional Mortgage, Housing, and Savings Market Research
2. Market Structure versus Operating Performance in Mortgage Lenders
3. New Investment Opportunity: Performance and Impact on Housing
4. New Financing Instruments, Deposit Rate Control, and Saver Behavior
5. Impact of Federal Home Loan Bank System (FHLBS) Financing Activities on Financial Markets and Interest Rates
6. Accounting Issues, Early Warning Systems, and Capital Adequacy
7. Issues Relating to New Empowerments; and Insurance Risks
8. Impact of Regulatory Policy Tools on Mortgage Flows and Housing Starts
9. Alternative Mortgage Instruments
10. Asset Management and Liability Management in Thrift Institutions
11. Electronic Funds Transfer in Financial Institutions
12. National Housing Needs and Goals for the Future
13. Consumer Attitudes, Preferences, and Necessary Safeguards

**Suggested Research Topic Areas**

*1. Local and Regional Mortgage, Housing, and Savings Market Research*

Three regulatory functions which rank among the most important for the FHLBB are the approval of new federal association charters, insurance of deposit accounts, and approval of new branches. The basis for making these determinations includes many factors, the most important being the board's assessment of (a) public need and (b) probability of success on the part of the individual association applicant. Empirical evidence on both of these criteria is sought by the bank board from data and analyses on the mortgage, housing, and savings markets relevant to the applicant. The problem is that such data availability is very inadequate, and the methodologies to analyze even the available data are neither well developed nor widespread.

The specific types of data I have in mind include (but are certainly not limited to) local and regional measures of the demand for and supply of housing units and mortgage credit and, of course, the supply of savings capital. On the demand side, we need to be able to break down local housing needs by type of unit and by the terms on mortgage credit. On the supply side, we need to know the magnitude and characteristics of the existing housing stock and the existing availability of mortgage credit. Also, on the savings supply side, more than anything else we need to have more complete and better quality household demographic data.

The above listing is only suggestive. However, it does illustrate the point. Our experience has been that the data necessary for making informed decisions is hard to come by, when available at all. Undoubtedly as a direct result of this, the development of disaggregated or small-market-area research techniques has been slow, and what techniques do exist are not nearly as well known as are traditional macro-level procedures.

Our specific focal point where these small-market-area data and techniques will be receiving a lot of attention in coming months will be the measurement of effective mortgage demand in specific local markets. The issue here is that of alleged redlining and urban investment by mortgage lenders, and it is an area where much innovative and careful research is needed.

As a result of the importance of this (as measured by the large and increasing volume of applications for new charters, insurance of accounts, and new branches), the FHLB system - and in particular the economics departments of our 12 district banks - have given high priority to the development of local market data, small-market-area analysis techniques, and regional economic analysis.

## 2. *Market Structure Versus Operating Performance in Mortgage Lenders*

Assessing public need and probability of success constitutes one side of the regulatory responsibility. The other side is to assess the likelihood of injury to existing associations resulting from the entry of new associations, new branches of competitor associations, and the entry of new competitors as a result of mergers. Judging the trade-off in this area is an especially important regulatory responsibility that requires a delicate balancing of laissez-faire free market economics on the one hand; and on the other, the need to maintain public confidence and protect the safety and soundness of our financial institution, which is the underlying rationale for regulations in the financial sector.

Put most simply, the issue here is the trade-off between prices, services, and convenience to the public versus operating performance and viability of the S&L. On the one hand, the more service facilities (home offices and various types of branches) there are in a given market area, the more convenience is provided to consumers, and presumably, the more competitive the price will be (i.e., higher deposit rates and lower mortgage rates).

On the other hand - and what has to be weighed against this - is the impact that more competition will have on association profitability and in more and more instances, survivability.

The research we need to make these judgments runs the gamut from the impact of market structure on prices and services delivered to consumers, to much more work in the area of economies of scale. For example, just how concentrated is the mortgage lending business today, how competitive are mortgage lenders in their pricing behavior; and what is the current status of our knowledge regarding economies of scale in the operations of financial institutions?

While much work has been done on this latter topic, most of it is dated; and especially as electronic banking is becoming more prevalent, much more research on operating performance of financial institutions is needed.

Closely related to this topic is a research study on branching of financial institutions which Senator McIntyre, chairman of the Financial Institutions Subcommittee of the Senate Banking Committee, has initiated. The study is in preparation for a major set of hearings to be held on the evolution and impact of current federal branching policy - both legislative and regulatory and for both commercial banks and S&L's - on competition and efficiency in depository institutions in various financial markets. The Office of Economic Research at the Federal Home Loan Bank Board is one of several principal investigators in the study.

### 3. *New Investment Opportunity: Performance and Impact on Housing*

A major responsibility of the FHLBB is its power to authorize new investment activities for S&L's. The basic questions considered by the board in evaluating proposed new activities are: (1) Is the new investment activity or line of business likely to be viable and profitable if authorized for associations; and (2) How would such authorization affect the performance of S&L's as mortgage lenders?

Being able to answer these questions is very important. For several years now, S&L's have been authorized to set up limited size subsidiary service corporations to engage in business lines not previously authorized. Examples of approved service corporation activities include: (a) land ownership and development; (b) property management and sales; (c) special mortgage lending activities; (d) service activities (escrowing, abstracting, appraising, advertising, accounting, tax returns, data processing, market research, records retention, clerical services, and the like); (e) nonmortgage lending; and (f) insurance agency activities. In each approval instance, the board has been faced with assessing original investment, operating revenue, and expense relationships in order to judge the viability and profitability of the proposed activity - not to mention the ability of the applicant's management to succeed in the undertaking.

An even more important dimension to the same general question has received much attention in recent months - namely, what will be the impact on the mortgage and housing markets of allowing S&L's to diversify into new consumer financial businesses such as consumer lending and personal trust services?

With regard to consumer lending, what seems to be needed is more research on specific industries and specific lines of business. The wider availability of carefully developed financial and accounting (especially functional cost) based analyses should not be too difficult to achieve. On the other hand, assessing quantitatively the likely impact of authorizing new lines of business on future participation of S&L's in the mortgage finance business is a very difficult task.

Opponents of broadened investment authority for S&L's argue that giving S&L's the ability to diversify into other lines of business - some of which are more profitable than mortgage lending - will cause S&L's to abandon the mortgage market, and that housing will be the victim. Diversification proponents, on the other hand, argue that a limited ability to diversity into new types of loans is essential to the competitive viability of S&L's, and that housing will be the winner since it will receive only a modestly smaller proportionate slice of an ever growing pie of lendable funds.

The research needed here is difficult to carry out, but critically important. Some early attempts in the area of econometric simulation have been undertaken. I think this is a fruitful line to follow. However, future efforts will have to do a better job of recognizing institutional behavior if the research is to achieve credibility with the Congress, the regulatory agencies, and the lending industry.

#### 4. *New Financing Instruments, Deposit Rate Control, and Saver Behavior*

Turning to the liability side of the S&L balance sheet, we find that the FHLBB has several regulatory responsibilities in which research can and should play a major role. First, the bank board has broad authority to authorize and regulate a wide variety of savings and consumer payment instruments. It has similarly broad regulatory authority regarding debt securities and, in the case of stock-chartered associations, equity securities. And in recent years, the bank board has exercised these various authorities on numerous occasions.

Some recent examples would include the following authorizations: In 1972, NOW accounts in Massachusetts and New Hampshire and in the remaining New England states early in 1976; in July 1973 the so-called "wild card" certificate; in 1974, six-year minimum maturity, 7% percent maximum fixed-rate certificates; negotiable CD's and a sale of stock approach to mutual-to-stock conversions; and in 1975, mortgage-backed bonds.

In terms of research, the essential element which underlies most of these examples (as well as most of the questions pending before the board today) is our ability to understand the behavior of household savers. What characteristics of savings instruments are important to savers - interest rates, promotional considerations, minimum denomination, convenience of access to funds, safety, and so on? Clearly, it is inadequate to speak solely in broad generalities of return and risk. The facts are that we really do not have a good understanding of savers' attitudes, preferences, and trade-offs in this area.

A case in point is the recent series of issues of commercial bank holding company floating-rate notes. Several of these notes, issued somewhat over one year ago, recently reached the first date at which purchasers could redeem them. In at least two instances, the voluntary redemption's ran between one-third and 50 percent of the outstanding issue. I doubt whether the issuers contemplated such magnitudes of early redemption. Today, the Federal Deposit Insurance Corporation has a somewhat similar proposal pending for a variable-rate certificate of deposit issued directly by commercial banks. Clearly, in assessing the implications of this proposed instrument, we need to understand how issuers as well as savers will respond.

In the specific area of deposit-rate control - which is really the joint responsibility of the Congress and the Federal Reserve, FDIC, Comptroller of the Currency, and the FHLBB - an understanding of thrift behavior is critical. Very recently, the Congress considered sweeping legislation which, among other things, would have phased out, over a period of time, both deposit rate ceilings and the differential of one-fourth of one percent provided to thrifts to compensate them for the broader powers commercial banks enjoy on both the asset and liability sides of the balance sheet. Just a few weeks ago, the Banking Commissioners of several New England states suggested another experiment in the spirit of the NOW account. The essence of their proposal was to eliminate deposit-rate ceilings immediately, but only in the New England states. Speaking just for myself, I would feel much better able to evaluate this proposal, and many others, if we had some carefully developed and thoroughly tested models of consumer thrift behavior that could help us assess the probable market impact of such a major change before the fact.

5. *Impact of FHLB System Financing Activities on Financial Markets and Interest Rates*

The FHLBB's Office of Finance performs the fiscal agent function. As such, it is responsible for making recommendations regarding the amount, maturity, timing, and pricing of the bank system's financing activities, and for executing the sales of the system's consolidated note and bond issues. In addition to its obvious interest in research on such traditional financial topics as interest-rate forecasting and portfolio management, the Office of Finance has a special concern for the impact of the bank system's financing activities on financial markets and interest rates. The general impression we have is that investors who purchase FHLB system securities do not, in the process, disintermediate S&L's to any great extent. Similarly, it is our impression that the bank system's financings do not exert significant pressure on interest-rate levels. However, given the magnitude of our financing activities, these questions certainly deserve careful study.

6. *Accounting Issues, Early Warning Systems, and capital Adequacy*

The board's Office of Examinations and Supervision performs the traditional regulatory function implied by its title. From a supervisory viewpoint, much research is needed on various current accounting issues (e.g., merger treatment, marketable securities valuation, and treatment of sales of assets on a participation basis), statistical approaches to financial problem early warning systems, and most importantly capital adequacy in the S&L industry.

7. *Issues Relating to New Empowerments and Insurance Risks*

The Federal Savings and Loan Insurance Corporation (FSLIC), which is an integral part of the FHLB system, is also interested in research on early warning systems for serious financial problems and capital adequacy. However, the FSLIC's research concerns are more with the future than with the present. Thus, research questions focusing on the risk implications of future S&L Empowerments are important to the FSLIC, as are the associated implications for the nature and structure of the insurance fund itself and its premium structure. The FSLIC hopes to be funding outside research on these and related questions in the near future.

8. *Impact of Regulatory Policy Tools on Mortgage Flows and Housing Starts*

The concern of the board's office of Economic Research with the questions obviously exceeds any treatment possible in the limited space here. However, one particularly important area that is not mentioned elsewhere in these remarks is the need for better understanding of the impact of major housing policy tools. For example, over the years - and particularly utilized such policy tools as a minimum liquidity requirement for member S&L associations and an increasingly wide range of terms of FHLB System advances to member associations. While the impact of each of these policy tools on mortgage flows and housing starts has been studied by the office of Economic Research, these studies are only initial attempts and much more work needs to be done in this area. Two other policy issues that give me grave concern and hence where I would personally like to see further research would be, first, the impact of usury rate ceilings; and second, the implications housing of various recent proposals for selective credit allocation.

9. *Alternative Mortgage Instruments*

We have already considered a number of specific asset and liability items at the level of the individual association. However, one key asset has not been discussed yet - namely, the mortgage instrument itself. The need for research in this area should be clear. The standard, fixed rate, level monthly payment mortgage has been with us for

more than 40 years. While it has generally served us well, more and more people are recognizing its inadequacies both because of its inability to accommodate borrowers with different or changing income patterns and its inability to allow lenders to pay market rates-of-return to savers in inflationary times. For these and other reasons, substantial research on alternative mortgage instruments - both from a primary and secondary market perspective - is needed (the Office of Economic Research at the bank board is currently developing a major study in this area).

10. *Asset Management and Liability Management in Thrift Institutions*

Of the many research topics one might identify at the association or overall firm level, one that I rank high on the list would be the application of existing asset and liability management theory and analytical models to S&L's. The need for further work in this area is great. During the 1950's and first half of the 1960's, growth and profitability went hand in hand in the S&L industry. Thus, strategies which maximized growth generally maximized profits. However, in the last ten years, the structure and behavior of our financial markets has changed substantially; and now, growth and profitability - while not mutually exclusive - are not necessarily coincident. While our housing markets obviously cannot tolerate a no-growth S&L industry, at the same time our financial system cannot tolerate an unprofitable S&L industry. Thus, I believe substantial and important research needs are present in this area.

11. *Electronic Funds Transfer in Financial Institutions*

At the industry level many research topics vie for attention. The one I have chosen to single out here is electronic funds transfer (EFT). So called electronic banking is already on the scene and it is advancing daily. Frankly, I can think of no other issue or trend that holds such an all consuming impact for financial institutions as does EFT. The technology, economics, and politics of EFT deserve major research attention, and as soon as possible. The issues here will permeate all aspects of the financial institution business, but they will take time to evolve and identify. This work has been started by a Presidential Commission on EFT.

12. *National Housing Needs and Goals for the Future*

One very important area not yet mentioned is that of this nation's housing needs and goals for the future. In contrast to the first topic discussed, focusing on local market areas, here we are speaking in broad, national aggregates. Housing needs and goals have been an important focal point for discussion and legislative action since the concept was first promulgated in the Housing Act of 1968. Defining framework of housing goals, first from a demographic viewpoint and second from a social assistance standpoint, has been felt by many Congress to have been of valuable assistance in focusing attention the magnitudes and types of housing needs we face, future capital shortages that may be on the horizon, and the nature and magnitude the physical production and related efforts we must implement achieve these goals. Another major research area is that of social oriented housing assistance programs. Here I believe much work needed to determine the most efficient delivery system for government subsidy efforts in the housing area. For example, our past reliance indirect subsidization through the mortgage instrument has not yield satisfactory results. One possible alternative is that of indirect house allowances to homebuyers. Of course this is all predicted on premise that housing subsidy efforts can produce positive benefit/cost impacts, which is itself a key question for future research.

### 13. *Consumer Attitudes, Preferences, and Necessary Safeguards*

The final research topic area I want to identify focuses on consumers and households in their roles both as savers and as borrowers. In spite of all the research that has been directed to consumer behavior over the years, there is much we do not know regarding consumer attitudes and preferences on specific types of financial arrangements and also regarding what safeguards, restrictions, and protections really desired by the public.

A recent and very appropriate illustration of this can be seen in the Real Estate Settlement Procedures Act. This legislation sought to protect and aid homebuyers by imposing various procedures and requirements for disclosing and executing a home mortgage agreement turned out that - in spite of all the good intentions - the added red tape, paperwork requirements, and mandatory time delays significantly increased the cost and the time to accomplish the transaction apparently the added costs far exceeded the benefits, to judge from reactions of many vocal citizens.

My point is simply that we need to be careful as we proceed in this general area: truth in lending, truth in savings, fair credit reporting borrower data disclosure for equal credit opportunity, property data disclosure for evaluation of discrimination in lending, etc. It is important that we do not let the costs exceed the benefits.

#### **Concluding Comment**

Many important research topics may be missing from this list. By now perhaps it is clear that one simply cannot list all of the important areas, but it is hoped that the preceding discussion provides at least an appetizer before the meal begins.

### **DISCUSSION OF RESEARCH TOPICS IN MORTGAGE MARKETS: A PUBLIC/REGULATORY VIEWPOINT**

*Lawrence B. Smith, Associate Chairman, Department of Political Economy, University of Toronto.*

In his paper Donald Kaplan presents a very useful and comprehensive list of topics that are worthy of research in the mortgage market. He does this by focusing on the players or participants in the market. Although any list that I would make would in the end be quite similar to Don's, my approach and emphasis would be quite different. I could focus research attention on markets rather than on players, and as I would be concerned primarily with market imperfections and the appropriate form of government intervention in these markets.

A consequence of a market approach is that it emphasizes such issues as imperfections in capital flows and distortions in capital markets. Priority is thus placed on examining the implications of such market imperfections as the interest ceiling on government insured mortgages, interest ceilings on deposits of thrift institutions, redlining, different tax treatments for different forms of financial income, a thin secondary market, regional impediments, and so on. Once an understanding of the causes and impacts of these distortions is achieved attention should then be devoted to remedying them and seeking alternative schemes to accomplish their objectives with fewer undesirable implications. In order to understand these market imperfections a thorough understanding of the operation of the market and the behavior of the participants is required. As a result a market approach still implies that considerable research effort should be devoted to the behavior of financial institutions, the behavior of various types of borrowers, and the behavior of savers, although the orientation of this work is primarily to understand the motivation and actions of these participants rather than to focus on specific issues. Once a understanding of the organization and operation of the market and its players is achieved

specific issues can be examined in a general equilibrium framework looking not only at the direct effects of an issue but also the secondary effects and offsets.

Of course, it is clear that a market approach would focus considerable research effort on investment yields and their influence on the allocation of credit. In particular the relationships between the yield on mortgages and other securities, between the yield on mortgages and borrowing rates paid by financial institutions, and between the yield on mortgages and the expected rate of inflation, and the implications of these relationships on the demand for and supply of mortgage credit would require much attention.

If I can be permitted a brief digression, it is interesting to note the different orientation implicit in a market approach and a player approach. In his paper Donald Kaplan raised the question whether savings and loan associations (S&L's) should be allowed to become less specialized and offer a wider range of services. He considered the issue solely in terms of the trade-off between a likely reduction in the services and funds for mortgage borrowers versus a likely improvement in S&L viability and profitability.

I agree with him that the issue is important and that the trade-off is an important aspect of the problem. But the issue is too narrowly defined in this manner. An issue is not only the impact on the player but also the nature of the imperfections in the savings and mortgage markets that required a specialized mortgage lending institution in the first place, and jeopardize its financial viability in the second place.

If the capital market were free of imperfections there would be no need for a specialized mortgage institution because mortgage rates and terms would adjust to attract the appropriate volume of funds. If there were a specialized institution, its economic viability would not be questioned since the mortgage rate and instrument would adjust to enable the institution to structure a deposit instrument and to offer deposit rate that would attract the appropriate volume of funds for the housing industry.

Thus, the question of broader powers for S&L's really involves a analysis of market imperfections which inhibit the proper adjustment in interest rates, in the evolution of debt instruments and in the flows of funds into mortgages and into S&L's. Thus, concentrating on market rather than players places a different emphasis on the direction of the research, and increases the likelihood that the solution will go to the root of the problem rather than simply provide additional "patching or "second-best" solutions.

Another consequence of a market approach which focuses on conditions is that it clearly indicates the need for an appraisal of government participation in the market. The need for government participation is usually assumed to follow from the existence of natural imperfections in the mortgage and housing markets, and from the existence of positive externalities in the housing sector. The existence distortions and externalities is more often than not taken as an article of faith, and it is now time that these issues be examined.

One facet of this examination ties in completely with the analysis the market and its participants discussed above, and this analysis need only be broadened to allow for different forms of government participation. A second facet of the analysis focuses on the housing market and such issues as whether there is a "housing problem" and if so what type, whether externalities do in fact exist, whether there is a case for direct housing subsidies, and so on.

Assuming that the above research indicates a need for government intervention in the housing and mortgage markets, the question then rises as to the appropriate form of this intervention and research should be directed toward

the operation and improvement of existing programs. Existing programs should be examined in terms of their ability to remedy deficiencies and distortions in the market, in terms of their secondary effects, in terms of the offsets they generate in the private sector, and in terms of the efficiency with which they satisfy the appropriate objectives. Such an analysis should also consider alternative methods of achieving the desired objectives. Continuing research is needed to analyze the degree and type of desired government intervention in a changing economic environment.

In addition to continual research on the efficacy of direct government intervention, considerable attention should be focused on the ways in which government regulation or assistance can improve the operation of the free market. Included here would be work devoted to the design of new mortgage instruments such as variable interest rate mortgages, roll-over mortgages, indexed mortgages, and graduated payment mortgages. Of course, the research effort should not only consider the effects of these instruments on the flows of funds, but also on income distribution and other micro questions, and on the effectiveness of stabilization policy and other macro questions.

Finally, when undertaking much of this research I think a great deal can be learned by examining the experience of foreign countries with a similar economic structure. In particular the housing and mortgage markets in Canada function very similarly to those in the U.S., and Canadian programs and policies are sufficiently similar to those in the U.S. to be very instructive. For example, Canada recently removed the yield ceiling on government insured mortgages and allowed the mortgage rate on these mortgages to be determined in the market. An examination of the Canadian experience could be very useful when analyzing the operation of the federally insured mortgage market in U.S.

## **RESEARCH TOPICS IN MORTGAGE MARKETS: A PRIVATE FINANCIAL INSTITUTION VIEWPOINT**

*By Kenneth J. Thygeson, Chief Economist and Director, Economics Department, United States League of Savings Associations.*

### **Introduction**

This paper reviews recently completed research and suggests needed research on the broad topic of mortgage finance. My willingness to undertake this task is predicated on my belief that I have not been asked here to develop an extensive bibliography of research activity in the area of mortgage finance. Rather I have been asked to focus on those few issues and areas of potential research activity which hold the greatest promise for our increasing the understanding of mortgage market finance by the public at large and, most importantly, by its governmental representatives.

I will put a great deal of emphasis on the public policy aspects of mortgage credit research for several reasons. Mortgage finance, unlike virtually any other credit sector of the economy, is subject to considerable political manipulation. One can go back as far as the 1930's, during which time wide scale defaults on home mortgages prompted massive governmental lawmaking in the area of home mortgage finance. Such lawmaking resulted in the creation of the Federal Home Loan Bank System and a system of federally chartered savings and loan associations, the Federal Deposit Insurance Corporation, the Federal National Mortgage Association, and the Home Owners' Loan Corporation. This significant legislation established the structure of mortgage finance which we largely continue to live with today.

More recently, in 1968, Congress passed and the President signed a wide ranging housing bill that again reiterated the national goal of providing "a decent home and a suitable living environment for ever American family." This goal was first espoused in the Housing Act of 1949. This legislation set the stage for an annual march on Washington by the home builders, realtors, lender interests and specialized finance institutions - those most directly affected by housing and mortgage finance legislation. The result has been a growing list of laws which directly relate to the financing of residential housing in America.

Thus it is logical that the focus of my comments here today related to the impact of government - its laws, regulations, and policies - the mortgage credit markets. It is also logical that in my discussion completed research and recommendations for forthcoming research that I put heavy emphasis on the social policy aspects of such efforts.

Let me begin by focusing on research that has been complete within the last several years and that primarily emphasizes the pub policy aspects of mortgage finance. These research efforts include t following: (1) analysis of mortgage contract reform; (2) research concerning the role of government in housing finance as a direct lend insurer, and guarantor of the mortgage contract; and (3) research into the effects of financial structure reform on the mortgage market.

## **Recently Completed Research in Mortgage Finance**

### *1. Analysis of Mortgage Contract Reform*

Probably the largest body of research, representing both public private efforts, is represented by study of mortgage credit contact reform. The variable rate mortgage, the Canadian plan, the balloon mortgage, the flexible payment mortgage, and the price level adjusted, mortgage are but a few of the variations which have been under study by governmental and private research bodies during the last decade more. Virtually every methodology in the researchers' arsenal has been applied to the problem of mortgage contract reform. Simulations models, theoretical constructs, surveys, analyses of existing practical and a wide variety of other methodologies have been used to unravel the secret of which mortgage contract will best serve the needs of lending institution and the public.

About the only effect of this research has been an experiment six savings and loan associations in the state of California - with use of a variable rate contract that is legal under California state law and a Congressional statement to the Federal Home Loan Bank Board (FHLBB) to refrain from authorizing variable rate mortgages nationally. Even in California, however, public interest groups are beginning to question whether such contracts should continue to be offered on the same basis that they have been during the last year and a half.

Despite these setbacks, this research has been valuable in isolating the demands of the borrower and of the lender regarding the tenets for mortgage contract reform. Still, the final chapter in this litany will not be written until Congress speaks.

### *2. The Effects of Financial Structure Reform on the Availability of Mortgage Credit*

Nearly tied in volume with research on mortgage credit contract, reform is the large body of research devoted to the study of the effects of financial structure reform on the availability of mortgage credit. Dating as far back as the Commission on Money and Credit, and more recently, to the Hunt Commission and the subsequent legislation passed by the senate as the Financial Institutions Act of 1975, considerable research has been focused on the effects that

financial reform would have on the availability of mortgage credit. The use of simulation models and eloquent descriptions and models espousing the benefits of the free market system have been employed to show that financial structure reform would not detrimentally affect the mortgage credit markets.

Again, it is left for the Congress to be persuaded or dissuaded by these arguments. And, as in the above topic, I would suggest that additional research into this question is not likely to produce results that can be expected to move this issue out of subcommittee on to the floor of Congress.

### *3. The Role of Government Housing Finance as a Direct Lender, Insurer and Guarantor*

Of the three topics discussed in this section, the role of government in mortgage finance has received the least attention, although it is picking up steam. With the impact of disintermediation first felt in 1966, and the imposition of Regulation Q ceilings on thrift institutions approximately the same time, substantial changes have been made in the way credit is delivered to the mortgage borrower. Not the least important of these changes is the growth of major government agencies designed to service the mortgage market. The Federal National Mortgage Association, the Government National Mortgage Association, the Farmers Home Administration, and the Federal Home Loan Mortgage Corporation, as well as over 35 state housing agencies structured to provide tax-free money to the mortgage market, have combined to substantially alter the structure of mortgage finance in America.

Happily, these events have not gone unnoticed by researchers both in and out of government. Although, frankly, the amount of time devoted to this topic by researchers within the bureaucracy in Washington has been far less than that devoted to it on the outside. The impact of this research, like that in the previous two sections, is difficult to evaluate. One problem of direct and indirect government subsidize lending, insurance, and guarantee programs is the use of the advantage of the government in the money and capital markets through the provision of agency status, the use of "faith and credit," and the advantage of tax-exempt status to compete against the private sector for the mortgage assets available in the market. Although studies have shown that such activities have been on balance detrimental to the private sector institutions that support mortgage finance, little more can be said as to what the benefit of this research has been, since the ultimate resolution of the problem again rests in Washington.

### **New Avenues for Mortgage Credit Research**

Although it would be a mistake to suggest that each of the above three areas of research has been fully explored by government a private researchers, there are a number of new areas in which the lack of sound analysis has resulted in a rising level of friction between private and governmental sectors. Thus, these areas may well represent the highest priority for additional research in the area of the mortgage credit market. There are five general problems in which additional extensive research relating to the mortgage credit market is warranted. These include: (1) an analysis of the costs and benefits of socially induced pressures to alter mortgage credit allocation; (2) an analysis the nonhousing use of mortgage credit; (3) the effects of mortgage credit costs of governmental laws, regulations, and policies on delivery of mortgage credit; (4) an economic appraisal of the due sale clause, acceleration clause, and prepayment penalty; and (5) factors relating to urban disinvestment - analysis of government housing programs past, present, and proposed.

Let me briefly review and describe my notions for extensive search efforts in these areas.

#### *1. An Analysis of the Cost and Benefits of Socially-Induced Pressure to Alter Mortgage Credit Allocation*

The last several years, and particularly the last year which witnessed the passage of the Home Mortgage Disclosure Act of 1975, have lighted Congressional concern relating to the impact of private mortgage lenders on the allocation of credit within the urban environment. The claims and counterclaims on this issue commonly referred to as, "redlining" have gone largely unchallenged by researchers both in and out of government.

On the one hand, we have financial institutions that are cha by federal or state governments to fulfill specified objectives within the community. These institutions have witnessed a significant erosion in their capital base and in some cases have experienced massive losses in their real estate lending operations. At the same time, public policy efforts encouraging the growth of secondary market facilities such as the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association have exerted increasing pressure on these local institutions to enhance the allocation efficiency of the mortgage market by encouraging the purchase of large blocks of mortgage assets by areas of capital surplus from areas of capital deficiency. These efforts have been largely successful and have resulted in a more liquid mortgage investment and a sharp decline in differential mortgage rates throughout the country. These efforts have also reduced the need for local institutions to confine their operations to their local communities.

On the other hand, a growing number of neighborhood and consumer groups have challenged the operations of these local institutions with the charge that they have abandoned their responsibility to make mortgage credit available to their local communities. One result of this challenge has been the successful passage of the Home Mortgage Disclosure Act of 1975. The strong inference is that this information may be used to apply social and political pressure on these institutions to increase their allocation of credit to local communities on noneconomic bases.

The implications of these efforts by community groups to alter the allocation of mortgage credit through political and social pressure has far reaching consequences for the entire credit system. As a result, it is essential that considerable research effort be devoted to attempting to determine the impact that these pressures could have on financial structure specifically and on the credit system generally.

## 2. *An Analysis of the Nonhousing Use of Mortgage Credit*

It has been well known for decades that mortgage credit is used for many nonhousing purposes by the household. However, not until Bernard A. Gelb completed *Mortgage Debt for Non-Real-Estate Purposes* for the Conference Board in 1972, was the extent of the use of mortgage credit for these purposes quantified.

The degree to which the net increase in home mortgage debt surpasses the aggregate outlays for new homes was not generally recognized to be as extensive as it was shown. While the largest proportion of the net increase of mortgage debt over and above new construction goes to refinance the price appreciation on the existing properties, it is well known that the equity in a home allows the homeowner to obtain debt for other nonhousing purposes. Thus, it is not unusual for debt to be used to finance a college education, an automobile, a home improvement, or any of a multitude of other purchases. Despite the recognition that mortgage debtors use this credit for purposes aside from "home ownership," there seems to be little recognition of this slippage within the mortgage credit markets. Little known about the relationship of this credit to other credit sectors.

The significance of this development is seen when one considers the efforts that have been made in recent years to promote housing go; through mortgage credit and indirect and direct subsidies tied mortgage credit. The Government National Mortgage Association Tandem Plan, which provides for low-rate interest on home mortgage is a program

designed to spur housing construction. What is not known is the extent to which providing this lower cost home mortgage credit actually results in a slippage of credit into nonhousing applications.

Because of the growing tendency to promote housing goals through the mortgage sector, there is need for considerable research into effectiveness of such policies. In addition, mortgage lenders interested in providing open-ended mortgages should this market appear broad.

### *3. The Effects on Mortgage Credit Costs of Governmental Regulations, Laws, and Policies on the Delivery of Mortgage Credit*

During the last several years, there have been extensive and reaching laws passed which relate specifically to the delivery of home mortgage credit. The Home Mortgage Disclosure Act of 1975, the Equal Credit Opportunity Act, the Real Estate Settlements and Procedures Act of 1975, the Flood Control Act, and the Truth-in-Lending Act, are just a few examples of the rather extensive legislation which affected the delivery of mortgage credit and the origination servicing of these instruments. The impact that such laws have had on the delivery of mortgage credit is unknown. Certainly it is safe to say that such laws have increased the cost of mortgage credit and financial institutions providing mortgage credit. Beyond that, however realizing that we do not have quantification of the impact the result has had on prices, we do not know the extent to which these have sharply increased the expertise needed to provide mortgage credit. Nor do we know the extent to which these laws have sharply increased the returns-to-specialization inherent in credit organization, servicing and investment. One can hypothesize, for example, that for number of small institutions that are not active in the mortgage market the increased burden of government regulation may have forced some to abandon this market altogether. The information costs associated with complying with this growing level of government regulations will be limiting the number of participants in the market.

It would seem useful, therefore, to consider research at the micro level as to the potential impact that such laws and regulations have had on the delivery of mortgage credit in our economy. To what extent have they affected the number of institutions involved and the price of granting mortgage credit?

### *4. An Economic Appraisal of the Due-On-Sale Clause, Acceleration Clause, and Prepayment Penalty.*

The last decade of secularly rising interest rates, combined with increasing volatility, have increased the focus of attention of regulators and financial institutions on the value of due-on-sale clauses, acceleration clauses, and prepayment penalties. The due-on-sale or alternatively the acceleration clause is a means used to require refinancing and updating of the mortgage interest rate on mortgages issued by mortgagees selling their existing unit. These clauses permit the mortgage lender to advance the rate or to require refinancing of the unit upon its sale. The due-on-sale or acceleration clause provides significant protection to the lending institution during periods of sharply rising interest rates. Without such clauses, mortgages with below current market rates can be assumed by the purchaser. It is further possible for other lenders to make second mortgage loans and, in effect, wrap-around the first mortgage should the borrower want additional credit.

There has been considerable pressure brought to bear by consumer groups and regulators in a number of states to eliminate, reduce, or modify these clauses. It would be significant to determine the economic effect of liberalizing or eliminating these clauses which are common in mortgage credit markets today.

A similar problem relates to the prepayment penalty imposed on the borrower for early prepayment of principal on the mortgage loan. A prepayment penalty acts much like a call provision used in the bond market to provide the lender with protection. Should the issue be called, there will be some protection in the form of a penalty when such a call takes place. Without prepayment penalties, it is likely that mortgage interest rates would have to be higher than they are currently. A real problem exists for financial institutions during periods of declining interest rates when there is an economic incentive for the borrower to prepay his loan or to refinance his loan at a lower rate. In such situations, the lending institution has no protection against conversion of a higher rate mortgage loan into a loan at far lower interest rates.

As a result of the growing social pressure to review and modify these commonly held provisions in the mortgage contract, it would be useful for research activities to go forth into the study of the economics of these kinds of penalties and provisions in the mortgage contract. Little is known empirically about the relative trade-off between rate and terms and the use of these clauses. Little is known, for example, about customer perceptions of these clauses and their use in the marketplace.

##### 5. *Factors Relating to Urban Disinvestment - Analysis of Government Housing Programs Past, Present, and Proposed*

The passage of the Housing Act of 1968 and the development of a wide range of subsidized housing and mortgage credit programs, together with growing concern about mortgage institution-induced urban disinvestment have highlighted the need for additional research of factors relating to urban disinvestment. The challenge of the consumer groups in urban areas together with the claims made by energy economists that we must preserve the inner city with its inherent transportation economies have increased the need to study carefully factors relating to urban disinvestment.

Up to this point, such research has focused primarily on criminatory analyses of good loans and bad loans, with the inclusion several economic and demographic variables to help explain market value declines within urban areas. Unfortunately, few of these studies touch upon the issue of what provides market value to a residential property beyond such factors as number of rooms, quality of schools, quality of the neighborhood, and that ever present tautology "comparables." Today we find the appraisal profession - as well as mortgage lender providing conventional mortgage credit - under pressure to review lending procedures and practices.

Considerably more study must take place before the growing friction between local community groups and local lending institutions and government agencies can be expected to subside. For example what extent, are the policies of the municipal governments, school boards, park districts, local taxing authorities, providers of municipal transportation, retail firms, and industrial plants, also responsible for urban decay? What types of large scale capital investments projects would be most likely to encourage rising or stable market values within the city? Why have some neighborhoods been able to preserve selves and enhance market values while others have not? These are difficult questions. Until they are answered little real progress can be expected. Research is sorely needed in this area.

Before ending the topic of research needs in mortgage finance, I would like to comment on the recently announced research effort of the Federal Home Loan Bank Board on mortgage contract reform. Although I have categorized this topic in the class of completed research, I do consider this effort an extremely valuable one. In part, my classification of mortgage contract reform as "recently completed done with advance knowledge that this effort was already underway.

With regard to this effort, however, I would like to make one recommendation. In all of the work completed in this area, no analysis has been done concerning the potential market for new mortgage contracts. New mortgage contracts are after all, new products. Therefore, it seems logical that an extensive marketing research effort go forth regarding the marketability and consumer acceptance of any new contracts that may be developed.

## **DISCUSSION OF RESEARCH TOPICS IN MORTGAGE MARKETS: A PRIVATE FINANCIAL INSTITUTION VIEWPOINT**

By Marshall Dennison, President, PENNAMCO and Executive Vice President, First Pennsylvania Bank

All things considered, an article which appeared in the Wall Street Journal a few weeks ago was a fair and accurate portrayal of the problem. The author went to great lengths to point out the financing problems associated with condominium ownership in Ocean City, Maryland, a popular resort city. It was reported that "by 1974 everyone had completely misread the market for condominiums." Almost as an epilogue, the article ended with a "rueful" quote from an anonymous Ocean City savings and loan officer who said, "there was simply too much money. Financing was just too liberal."

On any given day, an ironically dissimilar story can be written concerning the plight of mortgage financing within the cities of Cleveland, Detroit, or Philadelphia. In this story, however, the appropriate quote would probably come from a recognized community leader and claim "there is simply no money available from lending institutions for mortgage loans."

Credit executives across the nation are intimately familiar with the circumstances which led to this disparity. Although the examples may seem extreme, they certainly are realistic and serve to focus on one of our most serious shortcomings. Those of us who earn our livelihood through the delivery of mortgage finance must recognize by now that here is something terribly inadequate with the quality of our marketing research process.

What industry could expect to avoid ridicule if it persisted pushing its product, at distress or cut-rate prices, in a market where there is no demand for the product? What industry would gain respect if it persisted in arbitrarily withholding its product from a market where the demand is clearly overwhelming? It seems unfortunate that both these questions serve as an indictment of the mortgage credit industry.

We have relied too long on legislative and political persuasion to alleviate our marketing burdens. We have applauded the enormous growth of government interference in our marketing effort through roles as a direct lender, an indirect lender, an insurer, and a guarantor. More than 36 separate state housing agencies, some half dozen federal bureaucracies, and countless county and township political bodies significantly expropriated our role as providers of mortgage credit in America. Our industry may have been too efficient in communicating its needs to government. For almost every need we have a government program; for every program we have an agency; for every agency there is a dependency.

Just as the tobacco companies manufacture cigarettes, we see produce a dependency on more government help. Like cigarettes, this is a dangerous habit.

I was not too surprised to attend a recent conference and representatives from four different federal agencies on a one-day gram. The apparent misconception among credit officials is that all research is market research. Certainly we do not lack for research efforts. A knowledgeable observer would not criticize our innovations in credit vehicles. These advances have been documented elsewhere. Nevertheless, our research has been overly preoccupied with programs that focus on our relationship with political entities and with the public policy aspects of our business. On the other hand, our knowledge our customers is not sufficient. An example from the retail banking business may be illustrative: I know of a bank which was planning promotion to sell savings certificates. A high-ranking officials impressed with the success of digital watches and strongly suggested that the bank purchase a large quantity of these watches for us premium item to help sell the certificates. The marketing research department made a different proposal. They had evidence that certificate buyers were older citizens interested in safety and security. They explained that digital watches were favored by younger fashion individuals.

With this input, the bank purchased the watches as an incentive for their auto-leasing campaign which was aimed at young salesmen. The results were overwhelmingly successful.

I believe this experience has important lessons for us. We desperately need to know more about the personality of all customers, whether they are seeking condominiums, inner-city residences, or something else. The time has come for us to launch a vigorous and imaginative new market research effort. With national support from all mortgage credit officials, the target of this research must be the ultimate consumer. We must update and expand our body of knowledge concerning (1) the identity of our customer, and (2) what he/she perceives to be important about our product.

We need hard evidence to document the characteristics and needs of both current and potential mortgage buyers. Can we correlate age, income, lifestyles, interests, priorities, or even the number of credit cards owned, with an intention to purchase a home? It is imperative to profile nonmortgage customers. Have they rejected our product because of price, availability, packaging, or simply because they have not received our (advertising) message? Why can't we use consumer confidence levels to predict consumer sentiment? If unemployment rises two percent and home buying drops 20 percent, it should be obvious that consumer confidence is a major component of the demand for mortgage credit.

We need a thoughtful and in-depth review of the way we have exploited natural resources. Have we reached the point of diminishing marginal utility in our use of land and energy? How does this impact residential housing patterns and which variables are predictive?

The Conference Board reports that consumers spent 13 percent of their money on housing in 1955. Two decades later consumer expenditures on housing remains the same. Yet, during these 20 years the market share of government mortgage credit has grown from four percent of the total to 12 percent of the total. This erosion of market from the private sector would cause genuine alarm in any other industry. We cannot afford to passively allow this trend to continue.

My conclusion from this brief analysis is relatively simple: Market research, like any other managerial device, must be used to plan and control if it is to be effective. While we may properly take some pride in the advances we have developed for the credit markets, we are being distracted from the immense amount of work which remains to be done. We desperately need some new answers - and some new questions - if we hope to advance the fortunes of our industry.

Without new knowledge, we are like the mushroom farmer whose management style is "keep them in the dark and feed them lots of fertilizer."

Perhaps a wise first step would be to research our market research.

## **RESEARCH TOPICS IN MORTGAGE MARKETS: AN ACADEMIC VIEWPOINT**

By William G. Grigsby, Chairman, Department of City and Regional Planning, Graduate School of Fine Arts, University of Pennsylvania.

### **Introduction**

This paper will touch briefly on three related aspects of housing finance: (1) the boundaries of the field and their significance for research efforts; (2) the current housing environment, and implications for research directions; and (3) residential finance in declining areas, an immediate residential finance problem that merits more scholarly research than it has received.

In a conference on research frontiers, there is likely to be a certain amount of disagreement as to what the significant gaps in knowledge really are. Before turning to the three questions listed above, therefore, it may be useful to distinguish between two separate categories of important unknowns.

In the first category are truths that have already been discovered but for one reason or another have not come to the attention of decision makers and others who need the information. I will cite examples later, but it may be noted here that a fairly large amount of research in housing seems unnecessarily repetitious, probably because of inadequate perusal of prior work.

The second category of unknowns has to do with genuine deficiencies in our understanding of certain phenomena. In this situation, ignorance is not necessarily universal. There sometimes may be a few persons who do comprehend what most others do not, but if they cannot marshal enough facts to be generally persuasive, more research is necessary. Unfortunately, the dividing line between real and imagined unknowns is not always clear. I hope it is clear in the discussion that follows.

### **Research Boundaries**

This usually dull and unrewarding topic is of special importance to the subject at hand.

Visualize, if you will, three overlapping areas of inquiry: financial markets, housing markets, and consumer preferences and behavior. Most practitioners and academicians with an interest in housing have developed expertise in only one of these areas, while remaining relatively uninformed about the other two. Such ignorance is especially characteristic of both mortgage lenders and officials in federal mortgage finance agencies. They know a great deal about high finance but much about housing markets or low finance (consumer credit) or dynamics of family spending patterns. Their superficial acquaintance with fields just beyond their own has had unfortunate results because a large portion, possibly the greatest portion, of national housing policy is given expression through mortgage finance programs designed persons who do not understand certain aspects of housing markets, consumer behavior.

Just a few examples. The Government National Mortgage Association/Federal National Mortgage Association tandem plan, generally, regarded as a sophisticated mechanism for pumping funds into mortgage market when more housing starts are felt to be needed, is now thought to have had very little effect on the volume of residential construction. This failure of the plan reflects ignorance of housing markets not mortgage markets. Likewise, the recent Federal Housing Administration (FHA) scandals, the reckless infusion of funds into construction-mortgage Real Estate Investment Trusts (REIT's), and indiscriminate redlining of inner-city neighborhoods. Still another display of the same ignorance is the widely parroted view by mortgage lenders and others that a reduction in the rate of interest will increase by some calculable amount, the percentage of families who can afford a new home.<sup>1</sup> Both education and research beyond the confines residential mortgage markets may be needed if significant improvement in the structure and operation of the mortgage finance industry can be achieved.

## **The Policy Environment**

Over the past 10 to 15 years, housing problems, housing programs and the housing market have all changed substantially. Housing subsidy programs and mobile home production, both of which were a minor part of the housing scene prior to 1960, are major forces in the low and moderate income sectors of the market today. Improvement in housing quality, aided in part, perhaps, by the huge expansion of social welfare programs, has been remarkable. Overcrowding has declined. The Civil Rights Act of 1968 and subsequent related decisions of the Supreme Court have brought de jure equality in the housing market to racial minorities. Housing consumers have greatly expanded their rights vis-a-vis the suppliers of shelter. Exclusionary zoning barriers are being slowly dismantled, while environmental controls have created new obstacles to residential construction.

Some of the recent trends are rather disturbing. Nursing homes, with over one million residents, are a rapidly growing, and in many cases, are a shabbily operated part of the housing supply. Peacetime rent control appears to be a distinct possibility in more and more cities. Housing abandonment continues, though apparently at a much lower rate than before. Housing starts drag along at depressed levels. The cost of operating a new house appears to be rising faster than per capita income, reversing a long-term trend, at least temporarily. Finally, although some of the evidence is conflicting, the social and physical environments of low-income neighborhoods are deteriorating in many cities.

Within the residential mortgage market itself change has been no less substantial. Sex discrimination is fast disappearing. Variable rate and variable payment mortgage loans are coming into their own. The movement toward a central mortgage bank, or something quite similar, is unmistakable. The decline of the FHA is permanent. The rise of state housing agencies, though perhaps less permanent, has certainly been no less sudden and unexpected. And current proposals may soon bring even more severed connections with the past - tax credits for those who invest in mortgages, insurance against interest-rate risk, removal of distinctions between commercial banks and savings and loan associations.

Individually, none-of the changes in the housing market generally or in the residential mortgage market in particular may be very important, but collectively they have created a new era in housing:

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<sup>1</sup> The most startling recent example of ignorance, however, lies outside the mortgage market and illustrates the failure of decision makers to utilize knowledge already available. It was the Congressional attempt in 1975 to revive the residential building industry by granting a tax rebate to anyone who purchased one of the huge number of new unsold homes plaguing the market at the time. This predictable failure cost American taxpayers over one-half billion dollars while helping builders scarcely at all.

- Housing objectives have shifted, with debates about locational choice and neighborhood improvement displacing traditional arguments over housing quality and space.
- The demarcation between the public and private housing sectors has become more blurred, and the problem of fine-tuning private incentives, more complex.
- With the increased importance of housing subsidies, the problem of achieving national production goals without disrupting local markets has become more difficult.

What this new era implies for housing and mortgage market research is not yet entirely clear. The rapidity of change, however, should serve as a caution. A real danger exists that a disproportionate amount of research effort may be directed toward problems that either already have or soon will become less important, to the neglect of newly emerging issues.

It might be argued, for example, that given the shift in housing goals just described, HUD research should be more concerned with the costs and presumptive benefits of various subsidized-housing dispersal schemes. Similarly, in view of the rising importance of mobile homes in the middle and lower reaches of the market, it is remarkable how little we know about depreciation rates of mobiles and the relationship of these rates to the real cost of this form of housing to consumers. An within the mortgage market, continued research on various aspects of allocative efficiency may be less important than inquiries into issues having to do with equity, issues which the mortgage lending industry has not, regrettably, illuminated with scholarly research.

### **Dynamics of Neighborhood Decline**

This is a subject about which neither those with an expertise in Mortgage finance nor those who allegedly are knowledgeable about housing markets have much understanding. The need for useful information is critical. In the absence of an appreciation of market processes and of good actuarial data relating foreclosure risks to neighborhood variables, mortgage lenders are forced to respond to requests for loans in questionable sections of the city either by reference to empirically vague criteria such as "remaining economic life" or by less than discriminate redlining. They find support for the attitude toward greying areas in the recent disastrous experience of FHA, alluded to earlier. But the huge volume of FHA foreclosures in the inner-city reflects sloppy underwriting and servicing much more than neighborhood decline. It is anomalous that banks will lend on ca and mobile homes, both of which do depreciate rapidly, but express fears about granting loans on homes which may drop in value.

Assuming the behavior of lenders is a rational response to lack of information and to misinterpretation of facts, research would be of immense potential value. And, even if lenders do have nearly perfect knowledge and understanding of local market dynamics, which doubtful, research could help reveal whether new institution structures might yield better market outlines.

Examples of our primitive understanding of neighborhood decline appear so often in the literature that citations in a brief essay such as this seem unnecessary. The typical analysis of decline does no more than describe observable symptoms at various stages of the process. In addition, operational definitions of decline are not articulated and distinctions between "decline," "decay," and "falling property values" are vague. Further, it is assumed implicitly that trends in income, property values, and rates of owner occupancy move in the same direction, even though this seems not to be so in a sizeable portion of neighborhoods. In descriptions of decline which say something about redlining, the

usual presumption appears to be that redlining aggravates a downward movement which has already begun. But when decline itself is not defined, how any assumption at all can be made with respect to when redlining commences is unclear, especially when a generally accepted definition of redlining does not exist either.

It might be argued that research into the dynamics of neighborhood change is unnecessary since policy decisions are running ahead of the knowledge base which we would like to see undergird these decisions. Nevertheless, a few suggestions are offered here for consideration. First, now that mortgage lenders are required to report the geographical distribution of their deposits, criteria need to be developed for determining whether particular neighborhoods are receiving adequate financing support from lending institutions. Otherwise, the deposit data are likely to be misused.

Second, better analyses of changing lender behavior in older neighborhoods would be useful. Various simplistic notions about redlining now in currency misperceive the gradual nature of shifting lending patterns and fail to distinguish between lender withdrawal and disappearance of creditworthy borrowers.

Third, an attempt to model the effects of restrictive mortgage lending practices on various types of neighborhoods might prove fruitful. In offering very conservative loan terms or in refusing to make loans at all in certain neighborhoods, lenders argue that they are protecting unwary buyers as well as themselves. To the extent that their forecasts of decline are incorrect, will the market later overrule, as it were, their judgment or will their judgment have such a substantial effect on buyers and sellers as to cause the very trends which they fear? This is a controversial question which would seem to merit some attention.

Fourth, since nearly every asset including inner-city housing, has some value as loan collateral, it should be possible through research to produce data which could be used to determine more accurately the mortgageable value of various types of properties in various types of neighborhoods, and thus reduce the understandable inclination to redline.

Finally, research which theoretically and empirically connects the macro and micro determinants of neighborhood change in various types of market areas is needed as a foundation for the more narrowly focused analyses just described.

## **DISCUSSION OF RESEARCH TOPICS IN MORTGAGE MARKETS: AN ACADEMIC VIEWPOINT**

By John C Weicher, Deputy Assistant Secretary, Office of Economic Affairs, United States Department of Housing and Urban Development

Since I seem to spend odd-numbered years in a university doing research on housing and urban problems, and even-numbered years in the government using research results to try to improve our housing and urban policies, I can see Grigsby's paper, and the general question of mortgage market research, from two perspectives. This being an even-numbered year, I will concentrate on the policy-maker's view of some of the points raised by Grigsby, and also indicate where academic research in mortgage markets has been inadequate for policy purposes.

Grigsby points out quite correctly that policy-makers have confused mortgage markets with housing markets. My own department, despite its name, is concerned much more with mortgages than with houses. The Department of Housing and Urban Development (HUD) insures, buys, sells, and subsidizes mortgages; we do not insure or buy houses -although we do sometimes sell them, if we have insured the wrong mortgages. Our housing subsidy programs are few,

primarily public housing for many years and, most recently, the Section 8 rental assistance program; our mortgage subsidy programs are enumerated in section after section of the National Housing Act. We are really a department of Mortgages and Urban Development. The kinds of confusions generated by our failure to make these distinctions are succinctly discussed by Grigsby; he could list many more.

In fairness, however, it should be pointed out that policymakers are not alone in this confusion. We have privately-developed, academic models of the housing (?) market in which equilibrium is determined between the supply of houses and the demand for mortgages, without any reference to a demand for housing or a supply of mortgage funds.

There is not, to my knowledge, a well-developed analytical framework that incorporates both financial and real variables, and housing policy suffers as a result. In this respect, the academic community has not served the policy-maker well.

Two other weaknesses in much academic research have been briefly touched on in other papers, but deserve further emphasis. First, most mortgage market research is insufficiently dynamic. Policy-makers have a very different rate of time preference than do academicians. The long run comparative static implications of a policy decision are frequently far less important than the immediate effects. Consider, for example, the Tandem Plan, mentioned by Grigsby as "thought to have had very little effect on the volume of residential construction." Studies done in my office, using the Hendershott flow-of-funds model, suggest that about 15 percent of the Tandem-financed starts over a housing cycle may be net additions to the housing stock which would otherwise never have occurred, but that about 60 to 70 percent of the starts financed in the first six months would be - for that period of time - incremental. This means that the cycle is partly smoothed out by Tandem, with more starts coming earlier, and fewer later, than would occur in the absence of Tandem. The long-run equilibrium level of housing starts, different legal powers and administrative structures. Most academic research combines these institutions into a small number of categories, partly for reasons of data availability, but also partly in the belief that the institutional differences are minor and can be ignored. This belief, common to economists, is totally foreign to policy-makers trained in other disciplines. They spend much of their lives working for institutions which, to them, are clearly distinct from all other types of institutions. The savings and loan association is very different from the mutual savings bank; they are chartered and regulated by different agencies. To take a specific question, under what circumstances should GNMA sell mortgages to FNMA? Most mortgage market research does not differentiate between the two, so that either it offers no guidance for policy-makers, or it concludes that the two institutions are indistinguishable and therefore the question doesn't matter. But policymakers in GNMA and FNMA both spend much of their time dealing with each other; they know that they are not identical.

The institutional differences are undoubtedly overemphasized in Washington. But academic research must take account of the overemphasis. Policy-makers can be shown that GNMA and FNMA accomplish the same things, as the result of a study; they will not accept it as an assumption.

Grigsby devotes the last section of his paper to the area of neighborhood decline and change, strongly criticizing research on this topic. His criticism is valid but frustrating. Nearly all research on neighborhood dynamics has been government-sponsored, because the problem became serious for the government - we have insured many mortgages in declining areas, and now we own many houses there - before it became interesting to the academic community. In seeking to cope with the problem, government policy-makers have faced a research vacuum. Long run analyses of urban areas, such as the density-gradient models developed by several economists, suggest that older areas of cities may gradually lose population, but these provide little guidance when block after block is abandoned in a short time. There has been no scholarly body of literature on the process of decline, as opposed to the comparative static's of the

density-gradient models. I suspect that this vacuum occurs because neighborhood decline is an extraordinarily complex phenomenon which crosses disciplinary boundaries and which does not lend itself to 20-page articles in scholarly journals. Government research managers have therefore frequently turned to research firms who can at least describe the process of decline over time, although they do not try to analyze it systematically. But that is more than the academic researcher appears to offer. Speaking as an academician, I agree completely with Grigsby's evaluation; speaking as a government policy adviser, I feel strongly that the scholarly community has let us down.

Finally, after criticizing academic research, let me close on a more positive note. There is a general recognition in Washington that past policies in the housing - or mortgage - area have been deficient, and that something new should be tried. But there are very few ideas being offered. Most "new" ideas involve combining elements of two or more old programs, or perhaps creating a new agency to perform an old function. Despite rhetoric about such new ideas, nearly all housing specialists recognize their sameness. At this point, a good new idea in housing or mortgage policy would be very welcome, by either party, by either the legislative or executive branch. An academic researcher with something to offer will find a receptive audience. He should be aware of the peculiarities of the policy-maker's perspective, but if he can respond to them, he will be heard.

## **DISCUSSION OF RESEARCH TOPICS IN MORTGAGE MARKETS: AN ACADEMIC VIEWPOINT**

By Bruce Lipke, Manager of Marketing and Economic Research, Weyerhaeuser Company

You have already heard a lengthy if not exhaustive list of mortgage research topics. Each one of the broad topic areas is of concern to the agencies, the industry, and the academics. There are however, differing views of the nature of the problems in each topic area that are important to the type of research needed. Grigsby, in his presentation, suggested some broad "boundaries" within which the research could be focused such as the areas of mortgages, housing, and the consumer.

Unfortunately, even these broad boundaries appear to me to be too narrow. Research that is to have any effectiveness in the public policy issues involves understanding the competitiveness between consumers and business demands on the credit market. Research centered on one area that ignores this competition is of little value. Let me elaborate somewhat on what I consider to be the major policy problem and the focus on research that this suggests.

Stabilizing the availability of mortgage money with the intent of stabilizing the availability of homes to the consumer has been the major mortgage policy issue before the legislatures for the last several decades. The enormous business cycle experienced by the home building and supplier industries has not only contributed to instability in the economy, but is also a major cause of their low productivity and hence the resulting high costs that must be absorbed by consumers.

Mortgage insurance and subsidy programs and more direct housing subsidy programs have proliferated, yet the recent business cycle in mortgage availability and housing starts was more extreme than any in history. In effect, there is little evidence to support any conclusion that existing programs have made any significant improvement in the stability of mortgage credit for housing. The research that was available was clearly insufficient or at least ineffective in supporting the creation of a successful housing policy.

Major reforms of financial institutions have recently been added to the prescriptive list of potential policy changes. There are several areas of research that could contribute significantly to the development of more appropriate policies or reform programs.

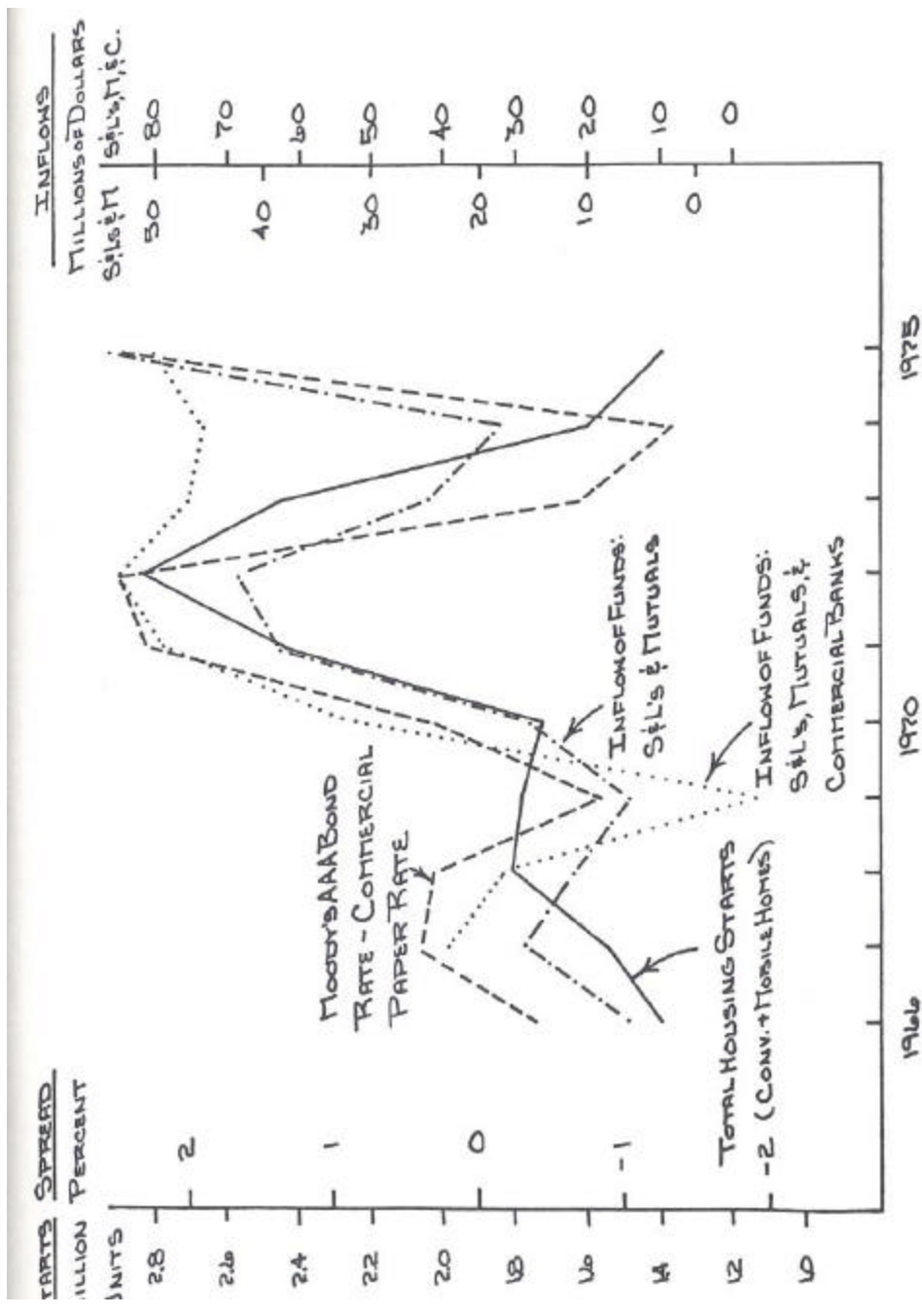
Figure 1 shows the dramatic swings that have occurred in mortgage supply, housing starts, interest rates, and total credit demands. The inference that can be drawn from this chart is that the behavior of interest rates and the monetary policies that govern them are major factors in determining the availability of credit and hence the impact of mortgages and housing and also other consumer credit. The mechanism by which credit is rationed to consumers is not a simple interest rate/price rationing problem. Higher interest costs do result from tight credit policies, but I have always thought that they are not nearly so important a rationer of credit as are the changing credit standards employed by mortgage lenders.

Most of the research on the availability of credit for mortgages has involved the econometric analysis of the behavior of mortgage credit over time. This general approach does not capture the degree to which consumers can and will compete with other users to obtain mortgage money. Typically, the corporate uses of the total funds raised increase in share during tight markets while mortgage uses decline. Other consumer credit is even more cyclic, although the impact on a single sector in the economy is not nearly so great as the mortgage money impact on housing.

It is not enough to know that generally mortgage credit tracks interest rates. What is important is to know the conditions under which a consumer mortgage user can compete with a corporate borrower or a small business borrower. Are there policies that could stabilize the mortgage use share of funds, or that could prevent the corporate use share from encroaching on the mortgage share?

To put this problem into clearer perspective, let me state it very bluntly. I defy you to find many, if any, consumers who feel their opportunity cost of delaying a mortgage purchase is even close to as high as the opportunity cost to any but the very smallest corporations in delaying a planned expansion. You certainly can not ration a single-A to triple-A company out of the market, thus requiring them to slow down their plan by a slight increase in interest rates. Therefore, the policy options of subsidizing especially the low income consumers in order to purchase a mortgage may only raise the interest rate that corporations must pay to ration the consumers out of a limited money market. Research centered solely on the past behavior of mortgages and the consumer which ignores this competition can not help establish the proper policy.

Agencies and promoters of credit programs usually measure the impact of their program by the magnitude of government dollars involved and the number of mortgages that will be impacted by the program. But as the government intervenes to provide support for the consumer, it also places new credit demands on the market which in turn drive up interest rates while rationing out of the market some other user. It appears to me the most logical user to be rationed out is some other mortgage purchaser; hence the net impact on total mortgages available may be very small for a very large support program. If we are ever to understand this problem, we must have a much more thorough understanding of how the total spectrum of consumers responds to the changing terms of mortgage availability and whether they can or can not compete with other borrowers.



SAVINGS FLOWS AND HOUSING STARTS, 1966-1975

FIGURE 1

Similarly, on the supply side, we must better understand the cost of service differences for the several lender groups if we are ever to understand their potential for participating in mortgages. Concentrating only on the current major mortgage lenders would again ignore the competitive aspects of the lenders.

Ideally, we would like to know from surveys and the analysis of cross-sectional data how different groups of consumers react to changes in: (1) price or interest cost; (2) income or debt service coverage ratios; and (3) debt structures. It should be recognized that this is really just a special case of the same consideration for a business firm and these parallels are important. The issue is whether we can, through more thorough research, better understand how the consumer has been rationed out of tight money markets even as corporate borrowers increase their share of the available total funds.

Money growth restraints that in effect restrain only mortgage credit while other sectors of the economy continue to overheat, can hardly be considered effective policy. The total available funds in the market continues to be much less cyclic than mortgage funds.

From this perspective, I believe the focus of mortgage research must be broadened rather than intensified on the narrow topics. Research must focus on understanding more clearly the abilities of different classes of consumers to compete with other classes of credit users as well as the cost of different lenders in providing loans to different users. In order to do this, it seems to me previous econometric research efforts must be balanced out by including survey research of consumer credit behavior. In effect, we need a quantitative understanding of the microeconomic theory of the consumer as a competitor in the capital markets. The importance of such understanding to the public policy question should be obvious. But if we had this, we would also have a firm basis of understanding for approaching many of the other issues, especially those that involve market research such as the behavior of the consumer or lender to different mortgage contracts, the impact of altering contracts, other consumer uses of mortgage credit, and even a basis for understanding some of the regional issues. We are currently lacking a basic understanding of consumers' behavior in mortgage credit and as Marshall Dennison has already said, that research has to start with the people involved in these markets.