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THE ROLE OF THE FEDERAL
AND "QUASI-FEDERAL" AGENCIES
IN THE RESTRUCTURED HOUSING
FINANCE SYSTEM

BY

KENNETH T. ROSEN

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THE ROLE OF THE FEDERAL AND "QUASI-FEDERAL" AGENCIES
IN THE RESTRUCTURED HOUSING FINANCE SYSTEM *

by

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The Role of the Federal and "Quasi-Federal" Agencies
in the Restructured Housing Finance System

The restructuring of the private financial system may greatly alter the traditional roles of the key government and quasi-government agencies dealing with the housing finance system. The eventual complete deregulation of the liability structure of financial institutions will allow these institutions to compete for deposit funds on the basis of yield to savers. This in turn should reduce the periodic spells of disintermediation from mortgage lending institutions, which have been the main cause of non-price rationing of mortgage credit and cyclical instability in housing production. It may, however, create a new form of instability caused by interest rate fluctuations which the agencies may try to moderate.

In addition to combating the likely continued instability in housing production, the agencies will also be called upon to handle another key problem of the housing finance system in the 1980s.

The second major area for agency intervention concerns the need to fill the mortgage credit gap. The excess demand for mortgage credit and the Reagan administration's desire to reduce the guarantor role of FHA and GNMA will require the remaining agencies to devise an innovative set of non-government programs to facilitate the required supply of mortgage credit in the 1980s.

This paper represents a draft of a chapter of a book funded by the Twentieth Century Fund, Housing and Mortgage Market Policy in the 1980s (forthcoming).

We will now proceed to examine the effectiveness of the agencies in the 1970s in ameliorating the problems of cyclical instability and the long term supply of credit. This will be followed by an analysis of the required changes in agency policies to meet these continuing problems and the new challenges facing the housing finance system in the 1980s.

Section I: Governmental and Quasi-Governmental Countercyclical Mortgage Assistance Policies*

Public policy towards the cyclical instability in residential construction is based on the premise that cyclical instability in mortgage lending causes fluctuations in housing activity. As a result, stabilizing the flow of mortgage credit to the housing market appears to have become a major goal of federal housing policy since the mid-1960s. The establishment of FHLMC (Federal Home Loan Mortgage Corporation), the reorganization of FNMA (Federal National Mortgage Association), and the reorientation of GNMA

* For a more extended analysis see Kenneth Rosen and James Kearl, A Model of Housing Starts, Mortgage Flows, and the Behavior of the Federal Home Loan Bank Board and the Federal National Mortgage Association, Joint Center for Urban Studies, MIT-Harvard, Paper No. 27, June 1974.

Dwight Jaffee and Kenneth Rosen, "Estimates of the Effectiveness of Stabilization Policies for the Mortgage and Housing Markets," Journal of Finance, June 1978.

Kenneth Rosen and David Bloom, "A Micro-Economic Model of Federal Home Loan Mortgage Corporation Activity," Journal of Finance September 1980.

Kenneth Rosen, "The Federal National Mortgage Association, Residential Construction and Mortgage Lending," (forthcoming).

Dwight Jaffee and Kenneth Rosen, "Mortgage Credit Availability and Residential Construction," Brookings Papers on Economic Activity (1979:2).

(Government National Mortgage Association) can all be viewed as at least partial attempts to insulate the mortgage and housing markets from general financial restraint. The activities of these agencies have also led to an increased federalization of the private housing finance system. The federal government has become an integral part of the mortgage credit and housing production system.

In addition to the role of these agencies, since mid-1978 public policy toward cyclical instability has taken a surprising new turn. Following the long-standing recommendations of housing economists, the first steps towards a deregulation of the housing finance system have taken place. The introduction of the Money Market Certificate (MMC) and the introduction of various other floating rate certificate accounts has substantially mitigated the inflexibility of Regulation Q ceilings. In addition, the passage of the federal override of state usury law ceilings has at least temporarily alleviated the negative consequences of these usury regulations. As a result of these actions and the likely further deregulation expected in the 1980s, federal policy appears to be directly confronting the historic cause of the cyclical stability problem -- the supply rationing of mortgage credit. We now proceed to an analysis of the effectiveness of the federal agencies' activities and potential of the agencies in moderating future cyclical instability in housing markets.

A. Linkages of Agencies with the Private Markets

The establishment of the intermediaries, FHLBB, FNMA, FHLMC,

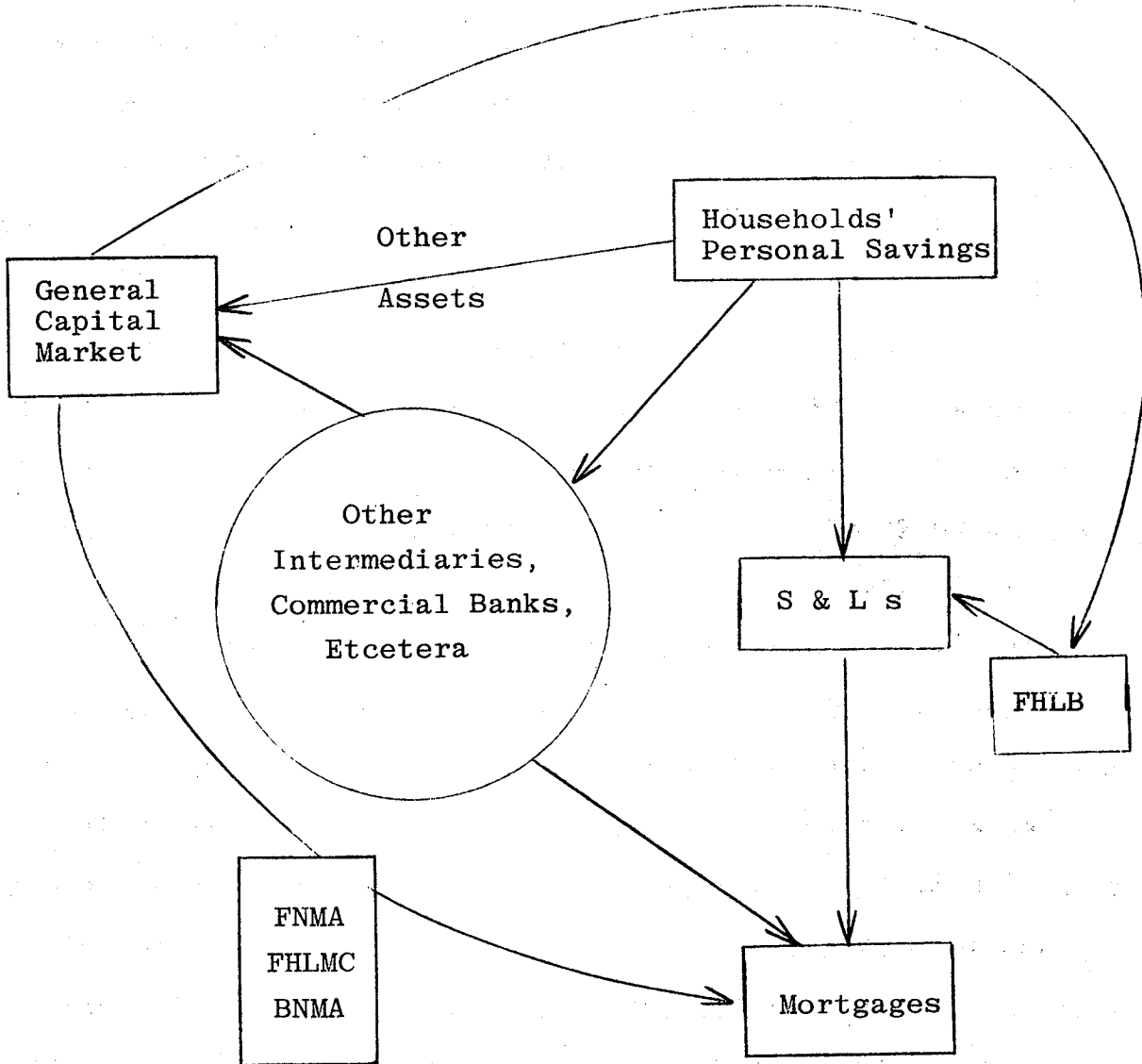
and to some extent GNMA, can be viewed as attempts to direct capital from the general capital markets toward the S & L's and other mortgage-creating institutions during periods of financial restraint, in an effort to offset the disintermediation phenomena experienced by financial institutions. (Figure 1 depicts these processes.) The federal agencies have been given a variety of instruments to attract this capital, including overt subsidization and covert subsidization in the form of federal guarantees.

There are two basic mechanisms by which the federal agencies can influence the housing and mortgage markets. The FHLBB, reacting to conditions in the housing and mortgage markets, makes advances or loans to the savings and loan associations, which can then expand their holdings of mortgages in excess of their inflow of savings deposits. These advances can be viewed, like borrowings of commercial banks from the Federal Reserve System, and are considered as liabilities by the S & L's. Advance borrowings, unlike FED discount window borrowings, are often of an intermediate or long-term nature -- thus supplementing the long-term supply of mortgage credit. The advances are financed by the sale of FHLBB securities in the open market.

The second mechanism involves the savings and loan associations and other intermediaries acquiring liquidity by selling their holdings of mortgages on the secondary market and using the funds derived to acquire new mortgages. This can be achieved in a variety of ways. FNMA can purchase FHA-VA or conventional mortgages from the savings and loans and other intermediaries, financing the

Figure 1

THE SUPPLY OF MORTGAGE FUNDS



purchase through the sale of its own securities in the open market. FHLMC can purchase conventional mortgage loans from S & L's, with financing derived primarily through the sale of mortgage backed securities. Recently, GNMA was also authorized to purchase conventional and FHA-VA mortgages at below market interest rates, with the mortgages then resold to FNMA or FHLMC. Through the Emergency Home Purchase Act of 1974, GNMA has become the major direct countercyclical support program of the federal government.

Both of these mechanisms have two common features. First, they allow mortgage creating institutions to make mortgage loans in amounts in excess of current cash flow (comprised of deposit flows and repayments of existing loans). Second, they require the agencies to generate funds on the open capital market to finance their activities.

In order to analyze the effectiveness of these agencies, it is necessary to provide some additional institutional description of how FNMA, FHLMC, and GNMA function.

FNMA and FHLMC at present function in a similar fashion. Believing in the efficiency of market mechanisms, both agencies use auction systems to determine the volume of their activity in their major mortgage purchasing programs. Every other week those individuals and organizations wishing to sell mortgages to FNMA and FHLMC specify the dollar volume of mortgages they wish to sell and the effective yield they are offering on that volume. The agencies then determine the volume and cutoff yield of acceptable bids. Where the cutoff bid is set crucially determines the amount of money pumped into the mortgage market. Both agencies consider

two major factors in determining this cutoff bid. First, they examine their expected cost of funds to assure themselves an adequate profit margin (in the case of FNMA) or solvency margin (in the case of FHLMC). Second, they consider the credit needs of the market and presumably attempt to offset shortages or excesses of mortgage funds. While the demand for FNMA and FHLMC commitments is determined by those offering mortgages in the auction, the ultimate supply and volume of market support is determined by the number of offers accepted by the agencies (and therefore by the cutoff yield). If these agencies are reacting in a countercyclical fashion, they should reduce their "profit and solvency margins" during periods of credit restraint, and thus accept additional mortgages. During periods of financial ease, they should increase "profit and solvency margins" and so marginally reduce the quantity of mortgages they accept during those periods.

Once the volume of acceptances is determined by the agency, it then issues a commitment to the offering lender. The commitment provides the lender with an option to sell the specified quantity of mortgage loans to the agency at a specified interest rate over periods ranging from several weeks to over one year. The lender may then either "take-down" the commitment, in which case it sells mortgages to the agency, or may cancel the commitment. FHLMC functions somewhat differently in that the "take-downs" of its commitments are mandatory.

GNMA's countercyclical mechanism functioned in a substantially different fashion. Its activities were a direct function of Con-

gressional and HUD actions. Congress passed the Emergency Home Purchase Assistance Act in October of 1974. This Act authorized GNMA to purchase up to \$7.75 billion of single-family home mortgages at interest rates ranging from 7½ to 8½ percent. GNMA was authorized to enter into a commitment contract with a private lender to purchase an FHA, VA, or conventional loan within a one year period after the commitment was made. GNMA financed its purchase of mortgages through borrowings from the Treasury and revenues from the sale of previously purchased mortgages.

During the period from October 1974 to August 1975, GNMA released \$7.93 billion in mortgage commitments. These commitments resulted in \$6.4 billion in mortgage purchases.

It is important to emphasize that GNMA's involvement in countercyclical policy was essentially a one time action. An attempt to reactivate the GNMA countercyclical program in 1980 was strongly resisted by a deficit conscious Administration and Congress. It is not at all clear that this program will be reinstated in future periods of cyclical decline in housing markets.

B. Evaluation of Mortgage Assistance Policies

With the linkage between the government intermediaries and the mortgage market clearly specified, it is then necessary to evaluate the impact of the government mortgage assistance policies on the cyclical problem.

If FNMA, FHLBB, FHLMC, and GNMA do, in fact, attempt to serve as a stabilizing influence in the housing and mortgage markets, there are two aspects of their activity which must be assessed.

It is first desirable to examine the extent to which their reactions to market events are "correct" in a countercyclical sense. It is then necessary to examine the overall effectiveness of their activities on moderating fluctuations in mortgage lending and in residential construction activity. To assess these two aspects of FNMA, FHLBB, FHLMC, and GNMA activity, several econometric models of housing and mortgage markets, which include the actions of these four intermediaries, have been constructed by the author. The models estimate housing starts, mortgage flows to thrift institutions, and open market interest rates.*

With respect to their response to housing and mortgage market conditions, it appears that all the agencies have developed a set of institutional mechanisms which are highly responsive to the demands of mortgage market participants. The free market system of FNMA and the FHLMC, the advance mechanisms of the FHLBB, and the emergency countercyclical program of GNMA, all responded to the cyclical credit needs of the mortgage and housing markets in a strongly countercyclical fashion. With respect to savings flows to thrift institutions, the usual lending indicator of housing and mortgage market activity, all the agencies appear strongly countercyclical. When individual savers disintermediate, transferring their funds from thrift institutions to other assets and intermediaries, FNMA, FHLBB, FHLMC, and GNMA appear to attempt to rush in and divert funds from the general capital market back to the

* For more details on the actual model used for the evaluation and for the results of the simulations, see: Rosen and Kearl, op. cit., and Jaffee and Rosen, op. cit.

mortgage-creating institutions. In the 1970s, the activities of these agencies have been "correct" in a countercyclical sense. That is, these organizations have increased mortgage acquisitions (for FNMA, FHLMC, GNMA) or advances made (for FHLBB) during trough periods in housing activity, and decreased them during periods of peak activity in the housing market. Prior to 1968, the activities of these agencies were not clearly countercyclical and, in some cases, were procyclical. The tables that follow illustrate the countercyclical activity of these agencies.

In the 1980-1981 decline in housing activity, the agencies did not appear to react in a countercyclical fashion. All the agencies put less money into the market in 1980 than during the peak years of 1978-1979. In partial defense of the agencies, one can point to the extremely unsettled conditions prevailing in the spring of 1980 -- the high mortgage interest rates and plentiful flows of funds arising from the money market certificates which reduced the demand for their non-subsidized credit, and of course the extremely distressed conditions of FNMA itself. Regardless of cause, however, the agencies were not acting in a strong countercyclical fashion in 1980-1981.

Limitations on the effectiveness of their activities arise from a number of sources. First, the nature of the institutional relationship of the agencies to the mortgage market limits their ability to influence the market. They are, to a great extent, dependent on lender initiative in making use of advances or the secondary mortgage market. Savings and loan associations cannot be forced to demand advances (even though rate policies may encourage their use),

Table 1
ACTIONS OF FNMA, FHLBB, FHLMC, GNMA
NEAR PEAK OR TROUGH PERIODS

<u>FNMA</u>						
Turning Point Date in Housing	Change in Net* Acquisitions of Mortgages by Quarter					Characterization of Actions
65:4 P	40	172	<u>456</u>	823	653	Incorrect
66:4 T	653	604	<u>558</u>	444	223	Incorrect
68:4 P	536	296	<u>404</u>	599	577	Correct
69:4 T	577	1234	<u>1710</u>	1640	1293	Correct
72:1 P	1701	751	<u>835</u>	684	1083	Correct
74:3 T***	1054	2117	<u>2514</u>	1269	527	Correct
77:4 P	1097	245	<u>326</u>	1704	2766	Correct
80:2 T****	1954	2906	<u>1543</u>	1645	-1595	Mixed

<u>FHLBB</u>						
Turning Point Date in Housing	Changes in Advances Outstanding*					Characterization of Actions
65:4 P	838	216	<u>195</u>	-310	1095	Correct
66:4 T	1095	392	<u>-240</u>	-1759	-873	Incorrect
68:4 P	619	138	<u>234</u>	70	1081	Correct
69:4 T	1081	1228	<u>1349</u>	396	475	Correct
72:1 P	395	299	<u>-1946</u>	84	662	Correct
74:3 T	-150	2674	<u>3129</u>	1033	-3640	Correct
77:4 P	1267	1305	<u>3039</u>	1082	3840	Incorrect
80:2 T	2819	1973	<u>-1796</u>	1929	4481	Mixed to Incor- rect

* Figures shown for turning point and two quarters on either side of turning point in housing starts. The turning point is underlined.

** For FNMA, a correct stabilization policy would be to increase rate of mortgage acquisition during trough periods. For FHLBB, advances outstanding should be increased during trough period and decreased during peak period if a correct stabilization policy is implemented.

*** The actual trough of the cycle was 1975:1, but the market was experiencing major distress beginning in 1973:4.

**** FNMA new commitments used for 1980:3 and 1980:4.

Table 1, (continued)

ACTIONS OF GNMA AND FHLMC
NEAR TROUGH PERIOD

Turning Point Date in Housing	GNMA New Commitments by Quarter					Characterization of Actions
74:3 T*	.52	1.89	<u>1.96</u>	3.63	4.21	Correct but Slow
77:4 P	- no program -					Incorrect
80:2 T						

Turning Point Date in Housing	FHLMC New Commitments by Quarter					Characterization of Actions
74:3 T	.67	2.51	<u>1.27</u>	.09	.09	Correct
77:4 P	.76	-.02	<u>-.18</u>	-.11	.76	Correct
80:2 T	-.70	-.24	<u>.58</u>	.14		Mixed to In- correct

* Data for both GNMA and FHLMC are really available for only two cycles.

and cannot be forced to use advances for mortgage purposes (as opposed to general liquidity purposes). Likewise, FNMA, FHLMC, and GNMA cannot force lenders to sell mortgages, even though rate policies can encourage such sales. Thus, the agencies can only passively react to events in the market, even though interest rate policies can actively influence the market to some extent.

Their use of interest rate policies is, however, substantially limited by the nature of the organizations. FNMA is a profit making company, and so cannot be expected to completely sacrifice profitability in order to meet a cyclical stability goal. During periods of cyclical tightness, FNMA faces the same yield differential problem confronted by S & L's. To some extent, FNMA has attempted to counteract this problem by lengthening the average life of its corporate debt so to better match its assets and liabilities. However, this does not alter the basic fact that one of FNMA's major goals is, of necessity, profitability. In fact, FNMA appears to have sacrificed some profitability in order to meet a counter-cyclical goal. This "sacrifice" is measured by a reduction in FNMA's "profit margin" during periods of financial restraint. During periods of credit ease, however, it does not appear that FNMA attempts to slow down its rate of mortgage acquisition by expanding its "profit margin".*

The FHLMC, while not a profit-making organization, is influenced by similar desires -- a solvency constraint. This constraint may limit the extent to which advances and commitments below bor-

* Rosen, FNMA paper, op. cit.

rowing costs could be made. It appears, however, that the FHLMC has made no attempt to alter its "solvency margin" in a countercyclical fashion. This is quite surprising, given that the FHLMC is a public agency, while FNMA, essentially a private company, has reacted in a countercyclical fashion.*

Despite the limited active policy response by the FHLMC, and the somewhat constrained response during periods of credit ease by FNMA, the overall design of the mortgage commitment mechanism makes both agencies appear strongly countercyclical. It is the strong response of demanders to the availability of credit from these sources that gives the agencies their countercyclical impact.

Only the GNMA, a government agency, did not face profitability or solvency constraints. During the 1974-1975 credit crunch, GNMA assisted the mortgage and housing markets at a cost to taxpayers of \$412 million.**

The most important limitation on the activity of these agencies, however, is related to the general equilibrium impacts of their activities. The FNMA, FHLMC, FHLBB and GNMA not only influence the supply and price of mortgages, but also influence the cost of funds in the general capital market through their borrowing activities. Their issuing of debt to finance mortgage purchases would tend to increase overall market interest rates, and thus would contribute to the marginal disintermediation problem.

* Rosen and Bloom, FHLMC paper, op. cit.

** GAO report on the GNMA Emergency housing program, What Was the Effect of the Emergency Housing Program on Single-Family Housing Construction, provides a detailed analysis which is too lengthy to summarize here.

This, in turn, would decrease their impact on the mortgage market by reducing private mortgage availability. The net impact of any injection of funds on the availability of mortgages thus depends on the response of market interest rates to incremental borrowing, and on the response of savings flows to changes in free market interest rates. In addition, the injection of resources into the construction sector might intensify inflationary pressures, causing further upward pressure on interest rate levels. The sum of these general equilibrium effects can be estimated using simulation techniques with a version of the econometric model mentioned previously.

Two sets of simulations were run. The first simulation represents a period when credit rationing was present in the mortgage market. The second simulation represents a "non-rationing" regime. In both cases the agencies were assumed to provide \$1 billion of mortgages per month starting in month four. It was assumed that these activities continued for a six month period. It is important to realize that none of these simulations represents the "true" impact of a particular agency, but rather they should be viewed as representing a likely range of impacts in the housing, mortgage, and capital markets of the agency programs.

The net impact of these agencies on mortgage supply appears, in simulations (based on actual historical parameter estimates of FNMA and FHLBB in each equation), to be substantially less than their gross injection of mortgage funds. Their net impact appears to be between 17 and 34% of their gross mortgage fund provision.*

* This analysis comes from Jaffee-Rosen, op. cit., Journal of Finance.

The higher estimate includes the dollar value of new housing starts and existing home sales stimulated during the rationing regime. The lower estimate includes the dollar value of starts stimulated during a non-rationing regime. This fairly small net impact is due primarily to the adverse impact of their borrowings on open market interest rates, and so on private flows to thrift institutions. Additionally, the intermediaries themselves reallocate their portfolios away from the mortgage market in response to a relative decline in the mortgage rate. The combination of these indirect supply and demand effects offsets a major portion of the impacts of these agencies. Table 2 highlights these counteracting effects. Thus, while the agencies are clearly countercyclical in their activities, both institutional and market limitations on their effects greatly reduce their ability to moderate cyclical fluctuations in residential construction.

While admitting this general equilibrium constraint, there are additional procedures that the agencies could undertake to improve their cyclical responsiveness. In particular, FNMA could be more aggressive during periods of credit glut by even further reducing their commitment volume at these times. FNMA appears to lower rather than raise its required yield spread during periods of credit glut. The FHLMC could increase the demand for their commitments during periods of credit tightness by cutting their "solvency margin" somewhat more than it presently does. The GNMA countercyclical mechanism could be made more responsive if it were triggered by market mechanisms rather than awaiting congressional

Table 2

SIMULATION EXPERIMENTS

Changes from Base Run of Model

	Mortgage Rate (Percentage Points)	Mortgage Loans Outstanding of S & Ls (billion \$)	Savings S & Ls (billion \$)	Housing Starts (000 units)	Value of Housing Starts	T-Bill 3-5 Year Bond Rate (Percentage Points)
(Cumulative from date of Policy Shock)						
Supply Side (Rationing Period)						
Simulation No. 3						
4 months	-.252	+3.206	-.256	+ 53.46	+2.145	+ .32 +.18
7 months	-.262	+3.882	-1.581	+ 84.66	+3.440	+ .63 +.26
12 months	-.033	+ .415	-3.451	+101.10	+4.172	+ .238 +.061
Supply Side (Non-rationing)						
Simulation No. 4						
4 months	-.124	+1.076	-.231	+ 7.62	+ .372	+ .27 +.16
7 months	-.154	+1.642	-1.670	+ 39.06	+1.924	+ .66 +.28
12 months	+ .06	-.967	-3.739	+ 62.63	+3.093	+ .31 +.086

Source: Jaffee-Rosen, Journal of Finance, June 1978

and executive branch authorizations. Finally, the countercyclical activities of all agencies could be improved if there were increased interagency coordination. Improved coordination could assist in the forecasting and identification of cyclical intervention, allow a better determination of aggregate dollar levels of assistance required, and perhaps eliminate costly duplication in administrative functions. The latter would suggest, perhaps, a consolidation of countercyclical functions in one or two agencies, rather than in the present four agencies.

Despite these suggestions, it is clear that these agencies, because of the deregulation of the housing finance system, may have to react to market events in a different way in the 1980s to achieve a strongly countercyclical effect. Since non-price credit rationing should be less of a problem for the housing finance system in the 1980s, the agencies will have to counteract the effects of interest rate volatility on the housing sector. This will be a far more difficult task as it would require some type of countercyclical subsidy program. Perhaps a program modeled on the same principle as the "builder-buydowns" or owner provided second "balloon" mortgage at below market rates could be facilitated. Both of these concepts provide temporary subsidies to the buyer, usually for a period of one to three years, allowing an offset to the impact of high interest rates. FNMA has initiated the purchase of buydown mortgages in 1981.

Finally, if use of the dual interest rate (DIM) mortgage becomes widespread, there may, in effect, be a sharp-

ly reduced interest rate elasticity in the housing sector. Thus, with a deregulated liability and asset structure in the private sector, there may be no need for a countercyclical federal or quasi-federal agency devoted to the mortgage market. If so, the agencies could turn their full attention to solving the "mortgage credit gap problem."

Section II: The Agencies and the Mortgage Credit Gap

The extraordinary secular increase in the demand for mortgage credit which began in the late 1970s and will accelerate in the decade of the 1980s, has created an important new role for the mortgage agencies -- facilitating the attraction of nontraditional mortgage lenders to the mortgage market.

The use of government-backed mortgage securities has undergone a virtual explosion in activity in recent years. The GNMA passthrough security program was started in 1970 as an attempt to attract nontraditional mortgage lenders to invest in the mortgage market. The activities of FHLMC, through the issuance of participation certificates, has opened a whole new range of opportunities for the conventional mortgage lender. The growth in the passthrough securities market has sharply accelerated the trend toward an "unbundling" of services offered by the traditional mortgage lenders.*

A mortgage passthrough certificate represents an ownership

* The following sections are derived from Rosen and Jaffee, "The Use of Mortgage Passthrough Securities" (New Sources of Capital for the Savings and Loan Industry, Proceedings of the Fifth Annual Conference, San Francisco) December 6-7, 1979.

interest in a pool of mortgage loans. The mortgage loans represent a debt obligation of the individual household, and the mortgage pool results from the sale of assets by the mortgage originator. The passthrough nature of the certificate provides the holder with regularly scheduled monthly payments of principal and interest. In addition, any prepayments of the mortgage loans in the pool are also "passed through" to the certificate holder. Thus, because of the probability of unscheduled loan principal repayments, there is not a fixed schedule of payments on the passthrough certificate. The investor is, however, assured a minimum yield due to the scheduled monthly payment of all principal and interest payments to the certificate holder. Publicly issued certificates by private financial institutions also provide a cash advance provision, by which the issuer states an intention to advance its own funds to the certificate holder in the event of delinquencies in mortgage loan payments. This cash advance provision, subject to reimbursement by an insurance policy, thus provides for the timely payment of principal and interest on these certificates.

There are essentially four major categories of passthrough securities: GNMA certificates, Farmers Home Administration (FHMA) pools, FHLMC Passthrough Certificates (PCs), and publicly issued certificates by private financial institutions. As Tables 3 and 4 show, more than 98 percent of mortgage passthrough certificates outstanding have the implicit guarantee of the three governmental or quasi-governmental agencies. Even in 1978, private institutions offered less than 4 percent of new pool certificates issues.

In terms of the dollar amount of pools outstanding, GNMA accounted for two thirds of the total, FHMA accounted for 17.7 percent, FHLMC accounted for 14.3 percent, and private financial institutions accounted for 1.4 percent of the total.

The growth in the aggregate amount of mortgage pool certificates since 1970 is truly extraordinary. An instrument virtually untried in 1970 today accounts for nearly \$87 billion of mortgage debt, representing more than 10 percent of the single-family home loans outstanding. In the past three years, the passthrough certificates have added more than \$20 billion per year to the mortgage market.

The initial and still the largest source of growth in the mortgage pool securities market is, of course, GNMA. "Any qualified FHA mortgagee who is judged to have adequate experience and facilities to issue mortgage-backed securities and who is approved for a guarantee by GNMA can issue a passthrough security."* The issuer services the mortgage for a fee of .44 percent and GNMA receives a fee of .06 percent. In the event of a default by an issuer, GNMA assumes responsibility for the payments due the certificate holder. The GNMA loan pools are comprised primarily of FHA-insured single-family home mortgages. Starting in the spring of 1979, GNMA began guaranteeing graduated-payment mortgage loan pools and, by September, these pools accounted for more than 14 percent of new pools issued in that month.

* Richard G. Marcis, "Mortgage Backed Securities: Their Use and Potential for Broadening the Sources of Mortgage Credit," Journal of Economics and Business, Winter, 1975.

Table 3

RESIDENTIAL MORTGAGE-BACKED PASSTHROUGH CERTIFICATES ISSUED
(Dollars in Millions)

	Government National Mortgage Association*	Federal Home Loan Mortgage Corp.**	Public Offering by Private Institutions***	TOTAL
1970	\$ 452.0	--	--	\$ 452.0
1971	2,702.2	65	--	2,767.2
1972	2,661.9	317	--	2,978.9
1973	2,952.5	409	--	3,361.5
1974	4,552.7	53	--	4,605.7
1975	7,447.3	951	--	8,398.3
1976	13,764.4	1,362	--	15,126.4
1977	17,439.7	4,033	225.2	21,727.9
1978	15,358.4	5,715	728.1	21,801.5
1979	17,166.0	2,519	314.5	19,999.5

* Source: Office of the Secretary, GNMA, through September 1979.

** Source: Federal Home Loan Bank Board Journal, through August 1979.

*** Source: Paine, Webber, Jackson and Curtis, Inc., Corporate Finance Department, through August 1979.

Table 4

RESIDENTIAL MORTGAGE-BACKED PASSTHROUGH CERTIFICATES OUTSTANDING
(Dollars in Millions)

	GNMA	FHLMC	FHMA	Private Institutions	TOTAL
1970	\$ 347	\$ --	\$ 2,245	\$ --	\$ 2,592
1971	3,074	64	3,693	--	6,831
1972	5,504	441	5,148	--	11,093
1973	7,890	766	5,596	--	14,252
1974	11,769	757	6,898	--	19,424
1975	18,257	1,598	9,489	--	29,344
1976	30,572	2,671	10,751	--	43,994
1977	44,896	6,610	12,156	217	63,879
1978	54,347	11,892	14,516	878	81,633
1979:1	57,955	12,467	15,348	1,178	86,948

Sources: Federal Reserve Bulletin for all except private institutions which were estimated from data supplied by Paine, Webber, Jackson and Curtis, Inc., Corporate Finance Department.

The major issuer of conventionally backed mortgage pools is the Federal Home Loan Mortgage Corporation. Unlike GNMA, FHLMC directly issues mortgage participation certificates that represent undivided interests in specific pools of mortgages held by FHLMC. Since 1971, the FHLMC has regularly conducted four separate programs for making commitments to purchase single-family and multi-family conventional mortgages on whole and participatory bases. This increased purchase activity is reflected in the incremental issuance of mortgage-participation certificates, which were being issued at a \$4 billion to \$6 billion annual rate in 1978-1979. FHLMC, which purchases mortgages nearly exclusively from savings and loan associations, serves as the servicer and guarantor of timely payment of interest and principal. Mortgages in FHLMC pools are insured primarily by private mortgage insurance companies.

The third source of mortgage passthrough securities is private financial institutions. While, at present, they represent only slightly more than \$1 billion in pools outstanding, they are perceived to have a bright future given the overall size of the conventional mortgage market.* Bank of America has issued 16 of these pools, representing 65 percent of the dollar volume of publicly issued pools by private financial institutions. The only savings and loan association to enter this market in a regular way is Home Savings and Loan Association in Los Angeles.

It is quite clear from these figures that these agency guar-

* Richard G. Marcis, "Mortgage Backed Securities: Financial Alternatives for Savings and Loan Associations," FHLBB Journal, November, 1978.

anteed mortgage securities became a major source of mortgage credit in the late 1970s. If we add the net extension of credit by FNMA and the FHLBB, we find that in 1979 the total net volume of activity by these four agencies was \$43 billion or 39% of the total of \$110 billion of net mortgage credit extended for one to four family housing. Thus, these agencies' activities have made them the largest source of mortgage credit -- and the key to meeting the mortgage credit gap problem.

This apparent solution to the projected mortgage gap in the 1980s has one major constraint. It appears that the legislative and executive branches of the Federal government are raising serious questions concerning the policy of guaranteeing such a large volume of mortgages for middle- and upper-income homeowners. These questions are being asked in conjunction with an attempt to limit governmental debt guarantees, especially in cases where there is a vigorous private sector ready to provide the required services. An argument can be made that these public-backed mortgage certificates reduce the effectiveness of monetary policy and so thwart macro-policymakers.

At this point, it is not at all clear that the government agencies will be allowed to continue to pursue the guarantor programs they so effectively developed in the late 1970s. On the other hand, private passthrough securities with private mortgage insurance are probably a reasonably good substitute for the government backed securities. Both FHLMC and FNMA are in the process of becoming fully private institutions

with little or no government involvement. Given the attitude of policy-makers, and the vital role of this mortgage security type funding, it would make sense to encourage this privatization of the guarantor function.

Finally, if FNMA and FHLMC evolve to private sector mortgage security issuers, then the role of GNMA could be substantially reduced or eliminated.

To summarize, both the countercyclical and credit supply functions of the federal and quasi-federal agencies will be changing dramatically in the now deregulated financial environment. FNMA and FHLMC are likely to emphasize their private sector guarantor role and de-emphasize their direct countercyclical role. As GNMA functions become duplicative, and in light of present administration policies, both its countercyclical role and its role as a guarantor are likely to be substantially reduced. The FHLBB will continue to regulate and provide liquidity to a somewhat diminished savings and loan industry.

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