

## Major changes in US secondary markets

By Robert Van Order

**U**NTIL recently, American mortgage markets were fairly easy to understand. They were dominated by depository institutions (mainly savings and loan associations) which by both regulation and tax incentive were induced to hold most (about 80%) of their assets in mortgages. These mortgages were financed with low-cost, government-insured deposits. There were at one time about 4,000 savings and loans and about 14,000 commercial banks. Currently, there are fewer than 3,000 savings and loans, and the number will be under 2,000, perhaps 1,000, in the next few years.

Mortgage markets were characterised by both regulation and by the savings and loans providing all the major aspects of mortgage lending. That is, they originated loans, serviced them (ie, collected the payments and managed defaults) and were the ultimate investors. The mortgages were mainly 30-year fixed-rate mortgages which were financed with short-term deposits. The maturity mismatch generated by borrowing short term and lending long term became quite risky, and in the early 1980s, when interest rose rapidly, many institutions had large losses.

The major change in mortgage markets has been the unbundling of the three aspects of mortgage lending — origination, servicing and investing. This is most evident on the investment side. Pools of mortgages now trade in national and international markets, almost as efficiently as Treasury securities. An effect of this has been to allow savings and loans to avoid interest

rate risk. They can originate fixed rate loans and sell them, but make money from servicing them. Mortgage rates are now determined by capital markets in general and are largely independent of the ups and downs of the savings and loan industry.

It is also true that originating and servicing have become unbundled. Servicing contracts are valuable assets and trade in fairly active markets. A contract to service a pool of loans may sell for 0.5% to 1% of the value of the pool. Many institutions now make quite separate decisions about originating, servicing and investing. For better or worse, decisions about all aspects of mortgage markets are now made in ruthlessly competitive markets.

### History and overview

The primary (ie, origination) mortgage market in the United States is dominated by depository institutions (especially savings and loans, but also commercial banks and credit unions) and mortgage bankers, who act as dealers and servicers in mortgages. After origination, mortgages are either held in portfolio (eg by a "traditional" savings and loan) or sold into the secondary market. While there has always been a secondary market in the United States, until recently it was informal and *ad hoc*.

The rise in the secondary markets in the 1970s and especially in the 1980s came about largely because of standardisation of pools of mortgages brought on by three government agencies: The Federal Home Loan Mortgage Corporation (Freddie Mac), the Federal National Mortgage

Association (Fannie Mae), and the Government National Mortgage Association (Ginnie Mae). Sales into the secondary market have risen from \$69 billion in 1980 to \$281 billion in 1988. Almost 40% of the outstanding stock of mortgages is now in pools that trade with the secondary markets.

Fannie Mae, the oldest of the agencies, was established in the 1930s. For most of its history it operated like a national savings and loan, gathering funds by issuing its own debt and buying mortgages which were held in portfolio. This was a particularly useful function during credit crunches when deposit rate ceilings limited the ability of savings and loans to raise money. Fannie Mae was a useful countercyclical tool because it was the only "deregulated" savings and loan.

In 1968, Fannie was moved off budget and set up as a private, government-sponsored corporation. It receives no government funding and its operations are separate from the "on-budget" parts of the government. Ginnie Mae was created in 1968 to handle Fannie Mae's policy-related tasks. It is on the federal budget and is a part of the Department of Housing and Urban Development.

Ginnie Mae was responsible for the major innovation in secondary markets, the mortgage-backed security (MBS). An MBS is a "pass-through" security. The issuer passes through all of the payments from a pool of mortgages (both principal and interest and net of its fee) to the ultimate investors who receive *pro rata* shares of principal and interest payments. The issuer also guaran-

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tees the payment of interest and principal even if the borrower defaults. Ginnie Mae deals only in federally-insured mortgages. Its guarantee is on top of the federal insurance, and mainly amounts to a guarantee of timely payment.

Freddie Mac was created in 1970. Like Fannie Mae, it is a private, government-sponsored corporation, and it is off budget. About 95% of its business is MBS pools (like Ginnie Mae pools) of conventional (ie, not federally insured) mortgages. Fannie Mae now deals almost entirely in conventional loans and has, since the early 1980s, moved heavily in the direction of MBS pools, largely as a result of the trouble it, like the savings and loans, got into in the early 1980s when interest rates went up and the maturity mismatch in its portfolio brought about big losses. MBS pools have the major advantage of eliminating almost all interest rate risk for the issuer of the pool.

Because Ginnie Mae is "on budget" it has a "full faith and credit" federal guarantee. And because Freddie Mac and Fannie Mae are separate corporations, they both have a nebulous, implicit guarantee and are (or soon will be) regulated by the Department of Housing and Urban Development. Fannie Mae and Freddie Mac are now, except for details, quite similar and compete quite intensely; the relative market shares of the two fluctuate almost randomly.

The major vehicle for all three agencies is the MBS. Currently, there are almost \$800 billion in agency MBS pools outstanding, and about \$70 billion in private, non-agency pools. Trading volume in these securities in 1988 was about \$2.4 trillion. This indicates an extremely liquid and competitive market. All three agencies guarantee their MBSs against default losses. Because, unlike Ginnie Mae, Freddie Mac and Fannie Mae deal primarily with conventional mortgages, their risk exposure is larger than Ginnie Mae's. However, they have some protection from private mortgage

insurance, large down-payments (20% or more) for uninsured loans, and from regional diversification.

More recently, secondary markets have developed beyond the "plain vanilla" mortgage-backed security and have attracted funds through additional means. This is because a *pro rata* share in a pool of 30-year fixed-rate mortgages is not what all investors want. While MBSs have no credit risk they have two types of interest rate risk: the usual risk that any long-term security that has value will fall when rates rise, and second, a risk that is similar to that of callable bonds, because borrowers have the option to refinance (ie, call the bond) and they tend to do this when rates fall. Hence, upside gains are limited.

Beginning in 1983 with the first collateralised mortgage obligation (CMO), issuers have created "derivative securities", which take pools of mortgages and pass through payments in non-*pro rata* ways. The first CMOs established groups or "tranches" that received principal payments in sequence; the first tranches receiving interest plus the first \$X in principal payments, the second tranches receiving the next \$Y in principal payments, etc. In this way a complicated 30-year callable security was broken into a sequence of short-, medium- and long-term bonds which could be sold to different types of investors. This carving up of the mortgages does not eliminate their interest rate risk, but it does allow the risk to be allocated more efficiently.

Complications in tax law limited the use of CMOs. Tax reform in 1986 created the "real estate mortgage investment conduit" (REMIC) which solved most of the remaining tax problems. REMICs are much the same as CMOs (the names are often used interchangeably), but they and CMOs have become much more exotic, carving up the cash flows from a pool of mortgages in very complicated ways. They can now be

tailored to quite specific needs, but because of their complicated nature, REMIC tranches are often difficult to evaluate; no two tranches are exactly alike, so that they are much less liquid than straightforward pass-throughs. In 1988 REMIC and CMO volume was about a third of the \$240 billion in mortgages that were issued during the year.

## Creating pools and derivative securities

Mortgage-backed securities are created in two ways. One version (called "Cash") involves selling mortgages (eg, conventional mortgages made by a savings and loan or a mortgage banker) to either Fannie Mae or Freddie Mac in return for cash. The agencies then form pools out of these loans (sizes vary, some pools are over \$100 million) and sell shares in the loans to dealers, who in turn sell them to investors.

The second way (called "Guarantor" or "Swap") involves less work by the agencies. With Guarantor a lender exchanges (swaps) a pool of mortgages for a security made up of those mortgages. Functionally this amounts to renting the agency's guarantee. The lender can then hold the pool or sell it.

The charge for renting the guarantee varies, but for a standard pool of fixed-rate mortgages the fee charged by Fannie Mae and Freddie Mac is around 15 to 20 basis points (0.15% to 0.20%). This fee includes a charge for credit risk and processing, administrating and other costs, net of some "float" income received by the issuer. Ginnie Mae charges a smaller fee, largely because it faces less credit risk, because its loans are federally insured to begin with. All of Ginnie Mae's and most of Fannie Mae's and Freddie Mac's business is now done through guarantor-type programmes.

Because they are more or less standardised, most pools consist of fixed-rate (usually 30-year) mortgages. However, an increasing share of adjustable-rate mortgages is

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being pooled. In the first half of 1989 34% of Freddie Mac's pools were adjustable rates, versus 18% in 1988 and 7% in 1987.

Pools trade like bonds. As mentioned above, trading volume is heavy, almost \$2.5 trillion last year. The average MBS turns over about three or four times a year. This is lower than in previous years largely because of the increased use of derivative securities, which because of their idiosyncratic nature are difficult to trade.

Derivative securities are generally created out of already existing MBS pools. A typical derivative security might be made out of Ginnie Maes which are bought by a Wall Street dealer. The dealer will then create, say, a REMIC after deciding on what types of tranches to create. Frequently, REMICs are created because a particular group of investors wants a particular type of bond, say one with a maturity of close to

five years. A dealer will set up a REMIC with a five-year tranche as well as other tranches.

Because all of the payments made into the pool have to be passed out and the investors have to be assured that there will always be enough in the pool to pay them off, REMICs, and all derivative securities, have a "residual" class which balances the books. Residual classes can be very complicated and very volatile. The success of a dealer in doing a REMIC deal (ie, the extent to which he sells the tranches for more than he paid for the MBS pool) quite often depends on finding buyers for residuals.

A major source of REMICs has recently been through Fannie Mae and Freddie Mac. The REMICs are still formed by dealers who buy the pools, set up the tranches, and sell them to investors, but the agencies

add their guarantee to the tranches. (This is somewhat redundant because they have typically already guaranteed the pools, but there is always some — small — risk that something will go wrong with deals that are set up privately. In any event, investors seem to be willing to pay for this extra comfort.) Since it was given authority to do REMICs in early 1988, Freddie Mac has done about \$28 billion in REMICs through mid-1989. Fannie Mae, which got authority in 1987, has done about \$23 billion.

## The Extent and Role of Secondary Markets

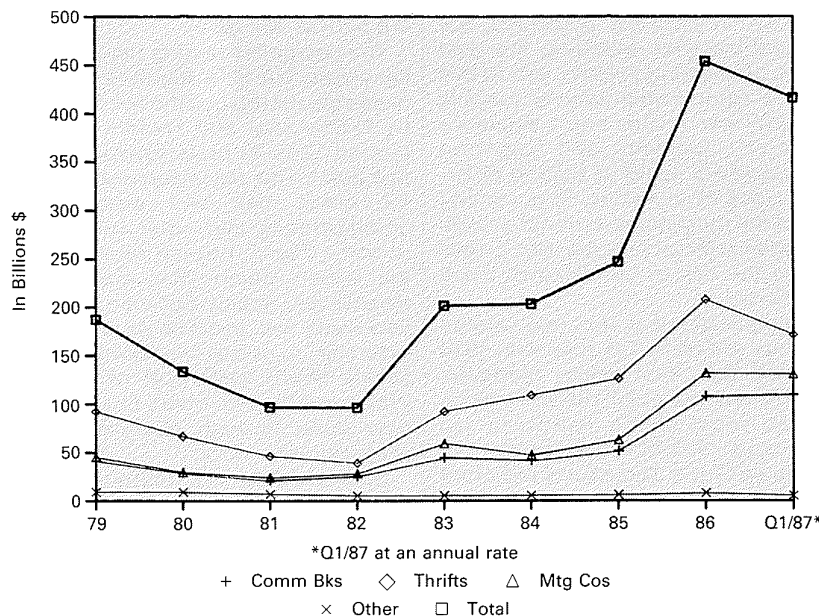
### The overall mortgage market

Chart 1 depicts annual originations of 1-4 family mortgages by major lenders. As can be seen from the chart, the volume of business in the mortgage market is quite volatile. This occurs primarily for two reasons: (1) housing demand (both for new houses and resales) is very volatile — housing is among the most interest-sensitive sectors of the economy — and (2) refinancing of existing loans is also very interest-sensitive. These two effects reinforce one another, so that mortgage originations tend to move inversely with interest rates.

Hence, in 1981 and 1982 when interest rates rose abruptly, housing production dipped sharply. Furthermore, existing homeowners moved less, had old, low-rate mortgages assumed more often\*, and generally refinanced less in an effort to keep old, low-rate mortgages alive. Originations fell precipitously. By the beginning of 1986, housing production had stepped up as interest rates fell. When the rate decline accelerated during 1986, refinancings rose rapidly, and accounted for about

\*Currently, most conventional mortgages cannot be assumed by a new owner, but government-insured mortgages generally can. In the 1980s many state laws allowed assumption of previously unassumable conventional loans and assumptions were a major factor. These state laws were generally overturned in 1982 by Congress.

Chart 1  
1-4 Family Mortgage Originations  
By Lender Type



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\$200 billion of the record \$454 billion in single-family mortgage originations. Volume has declined since then, but, at about \$370 billion, it is still well above the levels of 1983 through 1985.

Table 1 gives a breakdown of major lenders' share of 1-4 family originations. Table 2 gives the share of new mortgage investment (including MBSs) of various lenders over time. Together the two point to an important recent development. While the role of savings and loans as originators has not changed much over time, their role as ultimate investors in mortgages has diminished. This is in large part a result of secondary markets bringing in new investors, and of deregulation allowing savings and loans to invest in a wider range of assets.

### Types of mortgages

Chart 2 shows the relative amounts of fixed-rate mortgages (FRMs) and adjustable-rate mortgages (ARMs) originated in the past few years. During early 1981, federal regulations authorised federally chartered depository institutions to originate ARMs. The ARM share of originations rose rapidly, but then fell in 1985 and 1986. It increased in 1987 and 1988, and was over half of conventional loan closings until recently.

The main factor in explaining the fluctuations in ARM share is the spread between FRM and ARM rates,

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Chart 2  
FRM/ARM Spread & ARM Share  
on Conventional Loans Closed

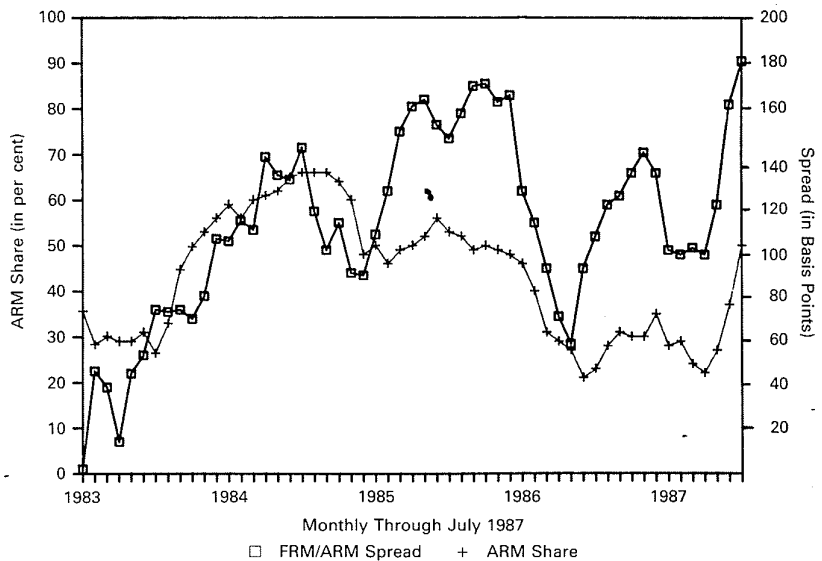


Table 1. Lender Share of Residential Mortgage Originations, 1950-1988

Decade	FSLIC-insured Thrifts	FDIC-insured Savings Banks	Commercial Banks	Federal Credit Agencies	Mortgage Companies	Other
1950-1959	43.5%	10.0%	20.3%	0.7%	17.8%	7.7%
1960-1969	45.7	7.1	20.3	1.5	20.5	4.9
1970-1979	47.2	6.3	21.0	3.8	17.9	3.8
1980-1988	41.4	6.1	23.4	2.0	24.0	3.1

Source: US Department of Housing and Urban Development.

Table 2. Investor Distribution of Net Growth in Residential Mortgage Debt Outstanding, 1949-1988 (based on year-end data)

Decade	FSLIC-insured Thrifts	FDIC-insured Savings Banks	Commercial Banks	Federal and Related Agencies	Life Insurance Companies	Private and Public Pension Funds	Mutual Funds	Other	Memo: Multiclass Securities
1949-1959	38.6%	16.4%	11.3%	5.8%	18.3%	1.5%	0.0%	8.1%	0.0%
1959-1969	42.2	14.1	13.1	6.8	8.0	3.3	0.0	12.5	0.0
1969-1979	47.9	6.7	19.0	6.9	0.1	4.3	0.0	15.1	0.0
1979-1988	28.6	4.1	19.2	6.2	5.0	2.7	3.7	30.5	13.0

Note: The percentage figures represent the ratio of the change in holdings of whole residential mortgage loans and single-class pass-through securities from the end of one decade to the end of the next decade to the change in the amount of total residential (1-4 family and multi-family) mortgage debt outstanding during that time period. Memo item on multiclass securities reflects agency and conventional CMOs and REMICs.

Sources: Federal Reserve Board, Office of Thrift Supervision, Department of Housing and Urban Development, Investment Company Institute, Mutual Fund Sourcebook.

Public pension funds' holding of pass-through securities are Freddie Mac estimates.

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Chart 3  
Agency Purchases – Per cent Share  
of 1-4 Family Mortgage Originations

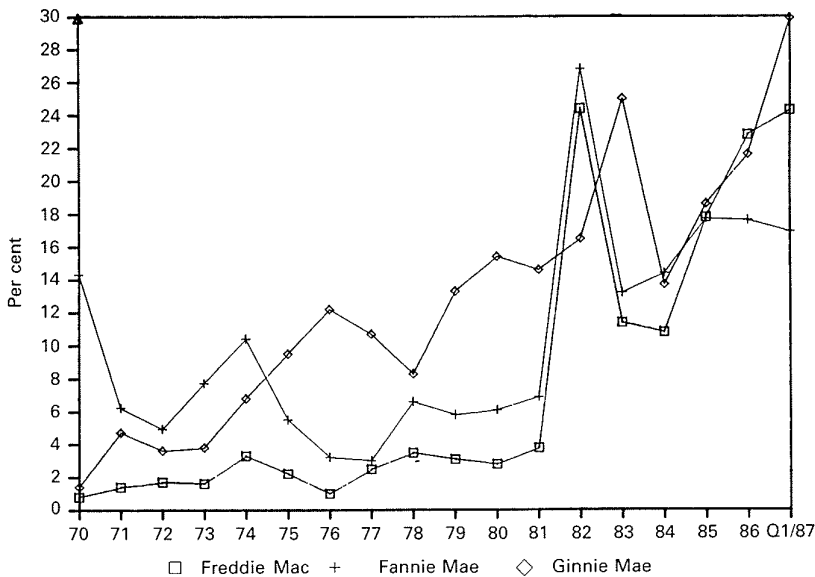
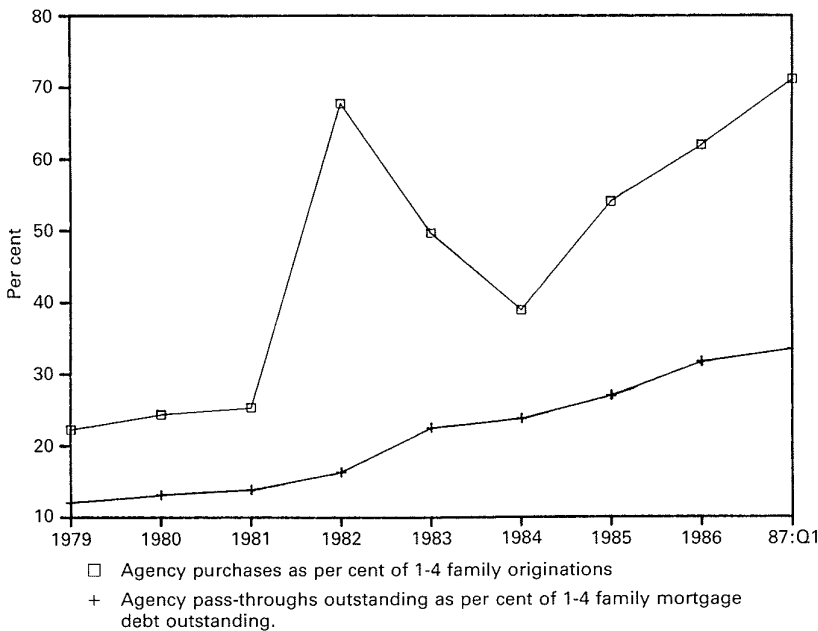


Chart 4  
Agency Acquisition of Home Mortgage Debt



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also depicted in Chart 2. The rise of ARMs came at a time when FRM rates were well above ARM rate; the share declined with this spread, rose as the spread had again widened in 1987 and 1988, and fell again this year when the spread narrowed again.

ARMs come in many forms and are much less homogeneous than FRMs. This makes them more difficult to assemble into pools, which is a factor in their relative unimportance in secondary markets. Most ARMs have caps that limit changes in rates and payments. These caps also make ARMs difficult to evaluate. Most ARMs are halfway between a fixed-rate and a true floating-rate instrument, and as a result they do have some interest rate risk (as much as half the interest sensitivity of FRMs).

ARMs and FRMs account for almost all mortgages. Recently, there has been some discussion of price level adjusted mortgages (PLAMs), which will be indexed to the inflation. There is currently a proposal for government-insured PLAMs.

### Extent of the secondary market

Chart 3 shows that the activity of the major players in the secondary markets can vary substantially from year to year. The ratio of secondary market purchases to originations also fluctuates (Chart 4). Historically, this was because of the secondary market's role as a residual lender that had increases in business activity (eg in 1970, 1974 and 1981) when shortages of deposits cut into thrifts' ability to make mortgage loans. During the early 1980s — especially after the introduction of mortgage/security "swap" programmes by Freddie Mac and Fannie Mae after 1981 — portfolio lenders relied on the secondary market to convert seasoned loans into pass-through securities, which were far more liquid and could be more effectively used to collateralise borrowings. More recently, the secondary

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market has become a more permanent source of funds for the primary market and originators of fixed-rate mortgages have sharply increased their reliance on it.

Chart 5 shows the volume of FRM and ARM purchases in secondary mortgage markets. The FRM volume has overwhelmed the rather small amount of ARMs. While this is partly due to the heterogeneity of ARM contracts, the primary reason for the small trading volume of ARMs is that thrifts have tended to want to hold ARMs in portfolio and have been increasingly interested in selling FRMs in secondary markets, avoiding interest rate risk and earning income from servicing. Hence, the secondary markets are allowing thrifts to diversify out of FRMs (and out of mortgages if they want), yet assuring a supply of FRM credit to homeowners. More recently, ARM activity has picked up and new pooling techniques have made it easier to pool them. Overall, they are still a small part of the secondary market.

## The Federal role

The rise in secondary markets has not come without controversy. While secondary markets do support many thrift institutions by buying mortgages from them, they also compete with them because they provide an alternative source of funds (from capital markets rather than deposit markets). This has lowered mortgage rates on some (particularly on FRMs, for which secondary markets have probably lowered rates by about one-quarter of one per cent), which has lowered the profit margins of traditional savings and loans.

Not surprisingly, this has raised a protest from some savings and loans. The underlying issue is part of the broader policy discussion of the use of federal guarantees. Clearly, the "savings and loan problem" and the enormous costs of deposit insurance are the major impetus, but there has for some time been increasing concern about the safety of all beneficiaries of federal guaran-

tees, and about their role in resource allocation.

The federal government, through implicit and explicit guarantees, plays a large role in mortgage markets. Inevitably, this role involves some sort of subsidy. Whether mortgage markets, and ultimately housing, should be subsidised is an important issue, one which has to be solved in Congress. My focus here is on the narrow issue of the way that federal guarantees affect mortgage markets and the efficiency of different types of guarantees.

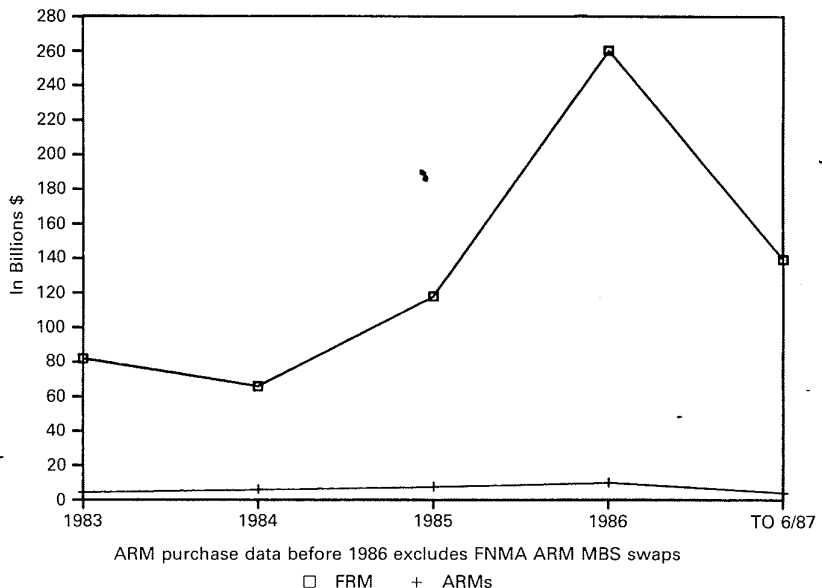
There are two major types of federal guarantees in mortgage markets: securities guaranteed by the federally-sponsored agencies and deposit insurance of banks and savings and loans. Both work in much the same way; they attract funds into mortgage markets at lower costs than would be required otherwise. As of May 1987, FSLIC-insured institutions had \$1.141 trillion in liabilities, of which over

80% (mainly insured deposits up to \$100,000) was explicitly covered by an implicit or explicit federal guarantee. Implicitly, an even greater amount of the liabilities (and some of the equity) of these institutions is covered because most of the time a failed institution has been merged with another savings and loan, and its liabilities (and sometimes some of its stock) kept whole. Similarly, the total liability of the secondary market agencies (MBSs plus debt) was \$647 billion at the end of 1986.

At the end of 1986 there were \$1,667 billion in 1-4 family mortgages outstanding. Of these, \$814 billion were held as whole loans by federally-insured institutions, \$127 billion by federal agencies, and \$518 billion were in federally-sponsored pools. These three groups add up to \$1,459 billion. That is, 88% of the 1-4 family loans in the United States benefited from some sort of federal guarantee. The remaining 11% were

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Chart 5  
All Agency Single-Family Purchases  
Fixed-Rate vs ARMs



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held by other institutional investors (eg life insurance companies or pension funds), were securitised by private conduits, or represented mortgage credit extended by individuals (mostly home sellers).

This share has changed very little. In 1980, 85% took advantage of a federal guarantee. The difference between 1980 and 1986 is in the form of the guarantee. The share of the agencies (rather than deposit insurance) rose from 19% in 1980 to 39% in 1986. Because many agency-guaranteed pools are held by banks and savings and loans and financed with deposits, there is a good deal of overlap in the two guarantees. The above figures are adjusted for the overlap.

It is difficult to estimate how much the advantages involved in these guarantees have affected mortgage rates, but we can make some ball park estimates of how they have affected the borrowing rates of the institutions involved. We might define the advantage to an institution of either agency status or

deposit insurance as the difference between the rate it would have to pay to raise funds if it were a fully private institution (with its current portfolio) and the rate it actually pays (with the guarantee).

One way of looking at the value of the federal guarantee is to compare agency MBS yields with those of comparable, private MBSs. While we do not have reliable public data on private yields, there is a consensus that they are about one-quarter of one per cent above those of agency securities. This is consistent with recent estimates that fixed-rate mortgages eligible for agency purchases (\$187,600 for Fannie Mae and Freddie Mac) have rates about 0.25 to 0.3 percentage points below ineligible loans (virtually all of the private MBS pools are made up of ineligible loans).

Hence, the agencies have probably lowered rates on fixed-rate mortgages by about one-quarter of a

percentage point. Because agencies have not been nearly as heavily involved in adjustable-rate mortgages, the effect on ARMs has probably been smaller.

Some of this one-quarter point difference is due to the implicit federal guarantee, and some of it is due to the benefits of liquidity that come from the enormous size and trading volume of the agency MBS market. It is hard to separate the two effects. Whatever the source of the decrease it is clear that at least on the fixed-rate side the agencies have squeezed the savings and loans' profit margins.

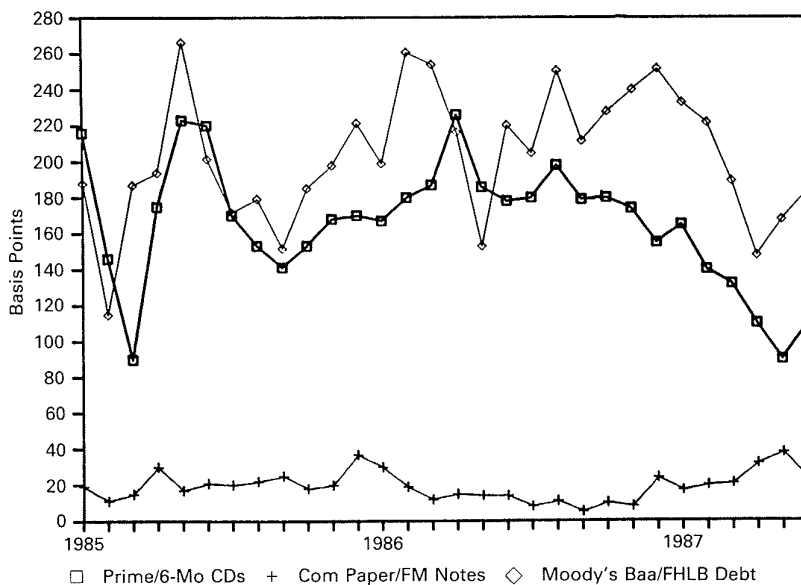
However, as recent events have clearly indicated, there is also a significant subsidy to savings and loans from deposit insurance. It is more difficult to estimate the advantage for federally-insured institutions because it is hard to estimate the rate at which they would borrow (and this would vary across institutions) in the absence of deposit insurance. We can consider two conservative proxies for this: one in the short-term part of the market and one in the long-term part.

Looking at short-term borrowing, it is almost certainly the case that thrifts, without deposit insurance, would borrow at no less than the prime rate, and recent experience suggests a lot more. One estimate of thrifts' advantage is calculated as the spread between the prime rate (a short rate) and six-month certificate of deposit (CD) rates. This is in Chart 6.

In the longer end of the market, thrifts would have to borrow at rates of comparable private corporations. We do not know for sure what rate class that would be; we think that Baa would be a good approximation. Hence, we look at Moody's index of Baa bonds, minus a comparable thrift borrowing rate. Since thrifts do not issue many long-term deposits, we use as a proxy the 10-year rate paid by Federal Home Loan Banks (who lend to the savings and loans). Chart 6 also depicts the spread between the Baa rate and the FHLB

Chart 6

## Subsidies in Mortgage Markets



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10-year rate. As can be seen from the chart, the estimated thrift advantage is larger than Freddie Mac's, around 100 basis points for either of our measures. This is offset somewhat by the 20% fee paid by savings and loans for deposit insurance.

The bottom line in the chart depicts a similar calculation for Freddie Mac, which issues short-term notes. The comparison is between Freddie Mac one-month notes and one-month rates on commercial paper issued by AA-rated corporations.

#### Private conduits

A key limitation on the agencies in secondary markets is the above-mentioned limit on loan size. We estimate that in 1988 roughly \$65 billion in ineligible or "jumbo" loans were originated (ie, loans with a balance greater than Fannie Mae and Freddie Mac limits, \$168,700 in 1988). This was about 20% of the conventional single-family market

(\$329 billion in conventional single-family originations).

The large amount of refinancings in 1986 of older, smaller loans made the jumbo share lower than the 25% that it had been in previous years. While the agencies are statutorily excluded from this market, thrifts may hold jumbo loans in portfolio (funding these investments with insured deposits), thus limiting the size of the secondary market in jumbo loans. Estimates of the size of the private conduit business run between \$8 and \$16 billion, the range representing difficulties in estimating private placements. In any event, a fairly small percentage of jumbo originations were securitized through private conduits. Apparently, the thrifts were formidable competitors, and they competed by emphasising ARMs. ARMs have generally held a larger share of

the jumbo market than of the market as a whole.

#### Benefits and costs of the secondary markets

The main benefit of secondary markets is to increase the efficiency of mortgage markets by increasing the number of investors that buy mortgages. This promotes a more dependable supply of funds so that disruptions or bottlenecks from one type of investor can be corrected by tapping a different investor. Two important effects of this are:

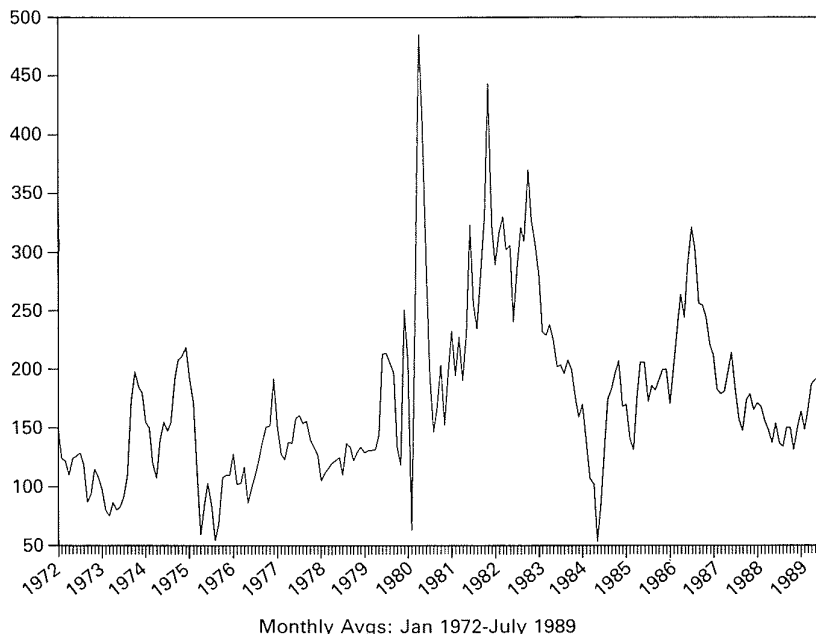
*Secondary markets increase the liquidity of mortgages.*

This allows funds to flow to high-cost areas, evening out regional rate differentials; it allows savings and loans to borrow against mortgages without incurring the costs of buying and selling securities; and promotes competition in all capital markets by making it easier for funds to flow to where they are valued most.

*Secondary markets allow more efficient risk allocation.*

A major issue has been risk-

Chart 7  
FIXED-RATE MTG — 10YR TREASURY SPREAD  
(In Basis Points)



## 'Promoting competition'

taking by savings and loans' and the effect of that on federal insurers, especially by institutions holding fixed-rate mortgages financed with short-term deposits. Adjustable-rate mortgages are a good way of limiting this risk, but it is important to borrowers that FRMs be available at market rates.

Secondary markets assure this. Hence, they allow the savings and loans to control risk via ARMs, yet assure the availability of FRMs (eg by selling them to portfolio lenders with longer-term liabilities). Also, they allow savings and loans to hold other, non-mortgage assets (to diversify), yet

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have mortgage money still available.

Without secondary markets many smaller savings and loans would run the risk by having too many of their loans concentrated in a single area. By selling loans into secondary markets, they can buy into the agencies' national diversification and still concentrate on originating loans locally.

A major result of secondary markets is that mortgage markets are much less sensitive to the success or failure of the savings and loan industry than they were in the past. This has been a benefit of late. Despite the catastrophe happening to the savings and loans, the mortgage market has prospered with minimal disruption. Chart 7 depicts spreads between yields on mortgages and 10-year treasuries. While spreads have gone up this year, they are well within historical experience despite a lot of turmoil.

While the secondary market, particularly the agency part of it, has (because it has lowered mortgage rates and cut into spreads) not been a boon to a lot of savings and loans, it has, for the same reasons, been a benefit to home buyers. Whether this is a net social benefit is a source of controversy. One argument is that the lower mortgage rates come from a government subsidy which distorts resource allocation, taking resources away from other investments and largely benefiting the middle class. An alternative story is that mortgage-backed securities (because of efficiencies and scale economies) are a more efficient way of raising funds than are traditional deposit sources. This lowers real resources used in producing mortgages and leads to more efficient capital allocation by integrating mortgage markets with other markets.

There is, of course, some truth in both views. Firm evidence is scarce, largely because effects of secondary markets on mortgage rates are almost certainly small (one-quarter

of a point or so) and are hard to sort out and separate from other more important causes of mortgage rate changes. Hence, we do not know much in detail about how much secondary markets have stimulated housing demand, and how much of this stimulus is due to subsidy and how much to lower resource costs.

Finally, in the wake of the savings and loan problem, there has been increased awareness of the risks involved in federal guarantees and concern about whether there will be new disasters from other programmes. The recently passed Savings and Loan Bill calls for several studies of government-sponsored agencies (including those in mortgage markets as well as other such agencies) with an eye on their capitalisation and their risk-taking.

Even the most ardent supporters of the agencies acknowledge the need for studying their riskiness. They (including the author) are

## *'The competitive balance'*

inclined to point out that the savings and loans that got into the worst trouble did not get into trouble with mortgages. Rather they made risky commercial loans and took equity positions and other risks that by law the agencies cannot take. This, plus the benefits of national diversification will almost certainly lead to the conclusion that the agencies are not about to be another scandal. Whether they should be controlled more than they are or required to be more heavily capitalised is, however, a separate question, which is the topic of a somewhat different paper. In any event, analysis of federal credit agencies will have to be done in detail, one at a time. Answers will vary from one institution to another, because different institutions take different amounts of risk. The key

issue in the coming months is whether policy will be based on good economics or rules of thumb.

## *Forecast*

The recently passed Savings and Loan Bill (and other recent regulatory changes) will, on balance, increase secondary market activity. This is largely for two reasons: (1) The new rules will have stronger capital requirements for savings and loans, but the requirements will be smaller for agency-backed MBSs, and (2) tighter capital requirements will keep many savings and loans from growing, and in some cases institutions will have to shrink. This will mean a bigger need for outside investors, who will come in through the secondary market.

There are some offsets. For instance, savings and loans will have to hold a larger percentage of their portfolio in mortgages, but this will have a fairly small effect, and will to some extent be done through MBSs (again, because of the lower capital requirement for MBSs).

An important question is the "competitive balance" between the savings and loans and the secondary markets. Again, both actors use a similar sort of federal guarantee to raise funds. In the past, the savings and loans had a bigger subsidy (clearly reflected in the costs of the "bail-out"), but they also had an inefficient instrument (deposits markets have been less efficient than securities markets).

The subsidy content of deposit insurance has clearly been cut a lot, and in the short run this does not bode well for the savings and loans. In the longer run, as deposit markets become more efficient and the more efficient savings and loans survive, their role relative to the secondary markets is a much more open question. ■

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