The Mortgage Market: A Place For Ceilings?

*By Helen Frame Peters**

Each month, Pennsylvania's Secretary of Banking announces the state's ceiling on mortgage interest rates. This is one of his duties under the law, but there is some debate over whether, in discharging it, he is doing the state's citizens a favor. The issue is not how a state regulator should administer ceilings, but whether this ceiling performs its function well enough to be worthwhile. The function? To help mortgage borrowers get loans at reasonable rates.

Pennsylvania is not alone in regulating its mortgage market. The other two states in the Third Federal Reserve District—New Jersey and Delaware—do it, too. In fact, only four states in the union do not impose ceilings on conventional loans. What's more, the Federal government puts a ceiling on FHA and VA loan rates.

Usury regulations to limit interest rates have been around ever since the states were colonies. But today, many people are questioning the role of the state and the Federal government in the mortgage market. Does that market need ceilings to make it work, or are they merely a cultural holdover from the days when lending money for profit was considered immoral? The economic approach to mortgage ceilings involves weighing the costs created by ceilings against the benefits they produce. Will borrowers pay less if there are ceilings, or could they perhaps pay more? And what happens to the supply of mortgage money? Are more mortgages written when there are ceilings, or do lenders shut their doors to the average borrower and put their money into other kinds of investments? The answers to these questions indicate that in some segments of the mortgage market ceilings may be workable and appropriate. The first step in identifying where mortgage ceilings may be effective is to determine how

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they affect the price borrowers pay for their mortgages.

THE PRICE OF MORTGAGE MONEY

In a free market economy, buyers and sellers jointly determine the prices of goods sold. The two sides, armed with as much information as they can muster, look for the best available deals. It's a complicated process; but goods of different grades do get priced. The most attractive goods command the highest prices, and less attractive goods go for lower prices.

Credit Like a Commodity. The mortgage market is much like any commodity market. The buyers and sellers are borrowers and lenders, the price is the mortgage interest rate, and the quality grade of the mortgage is determined by the risk that the borrower may not repay on schedule.

The price each borrower pays for mortgage money is determined, for the most part, by the forces of supply and demand in local credit markets. Lenders compare the cost of the money they propose to lend with the price borrowers are willing to pay for it. They check to see what price the competition is charging and whether there are other, more profitable outlets for their money. Once they've assessed the supply and demand conditions, they have a fair idea of the average interest rate they can charge. And then they can figure how much more or less than average to charge on an individual mortgage loan, depending on their expectation of that loan's costs to them. While lenders have some important administrative costs, their primary costs are associated with risk.

The Element of Risk. Estimating risk is serious business for lenders. In their efforts to decide whether an individual loan will turn out to be profitable, they base their risk assessments on certain know characteristics of borrowers and mortgages. The proposed mortgage terms, the borrower's financial history, and the value of the property are

MANY STATES HAVE FIXED MORTGAGE INTEREST CEILING RATES. . .*

State	Rate (Percent)
Alabama	8
West Virginia	8
New York	8 1/2
Iowa	9
South Carolina	9
North Dakota	9 1/2
Arizona	10
Arkansas	10
District of Columbia	10
Georgia	10
Florida	10
Idaho	10
Kansas	10
Louisiana	10
Maryland	10
Mississippi	10
Missouri	10
New Mexico	10
Oregon	10
South Dakota	10
Tennessee	10
Texas	10
Utah	10
Nebraska	11
Hawaii	12
Nevada	12
Washington	12
Wisconsin	12
Maine	16‡
Colorado	18‡
Indiana	18‡
Oklahoma	18‡
Wyoming	18‡
Rhode Island	21‡

*As of 1 June 1977.

‡These ceilings are so high that they ordinarily have no effect on the supply of mortgage credit.

... BUT SOME STATES HAVE MOVED AWAY FROM THE FIXED CEILING APPROACH

Alaska
Illinois
Minnesota
Ohio
Montana
Vermont
have joined the Third District states in floating their ceilings.
California
Connecticut
Kentucky
Michigan
have only selective ceilings.
North Carolina
Massachusetts
New Hampshire
Virginia
have no ceilings at all.

SOURCE: Office of the State Legislative Counsel, American Bankers Association. This is a summary table prepared by Philadelphia Fed researchers and does not reflect the many exceptions and other provisions associated with state ceilings.

among the most important characteristics.[1]

In evaluating the information they gather, lenders are looking for the answers to two crucial questions: What is the chance that a borrower will be unable to make timely payments on his mortgage? And if the borrower cannot meet his payments at all, will he sell his house and pay off the remaining mortgage balance, or will he default and thus force the lender to initiate a costly foreclosure? Lender's estimates of these probabilities, and of expected losses in case of delinquency or default, are the basis for the interest differential charged for risk. As long as borrowers differ with respect to the risk characteristics of their mortgages, some will pay higher rates than others.

This picture of the mortgage market, with risk accounting for interest rate levels in a competitive setting, represents the market as a smoothly functioning machine. But some people don't think it functions nearly so smoothly. Instead, they see frictions that make it sputter along, overchanging some borrowers and undercharging others.

FLAWS IN THE MORTGAGE MARKET?

Market critics focus on two conditions that could keep the market from functioning efficiently—lack of information and lack of competition. They contend that limited knowledge weakens the ability of some mortgage bidders to get as low a rate as they might. And they argue that, where mortgage markets are not competitive, lenders may be tempted to take advantage of the situation and tack on an extra interest charge.

Information on Mortgage Prices. It's not easy to find out how much to pay for a mortgage. One of the biggest hindrances is the mortgage contract itself, whose variety of terms, options, and clauses can confuse the average borrower. When lending institutions offer different arrangements, many borrowers are at a loss to compare them. A borrower may be offered a 30-year mortgage at one lending institution and, at another, a 25-year mortgage at a slightly lower rate but with a higher down payment and a prepayment penalty (for paying off the mortgage before it matures). Deciding which is the better deal takes a lot of careful figuring.

The practice of charging extra fees makes the calculation even more complicated. Many lenders charge a fee for originating the loan, appraising the property, and obtaining

[1] Many studies evaluate the risk on home mortgage loans. See, for example, John P. Herzog and James S. Early, *Home Mortgage Delinquency and Foreclosure* (New York: NBER, General Series 91, 1970) and George Von Furstenberg, "Default Risk on FHA-Insured Home Mortgages," *Journal of Finance* 24 (1969), pp. 459-477

a credit report on the borrower. Such charges can make a big difference in the effective interest rate the borrower pays. (The effective interest rate or true price of the mortgage includes all money payments, both fees and contract interest.)

Truth-in-lending laws require that borrowers be informed of the effective interest rate when the loan is settled, but lenders are not required to make complete disclosure at the time of application. Thus, if the borrower does not know how to translate fees and contract rates into effective interest rates, he might not learn the exact price he is paying for his mortgage until the mortgage contract is ready to sign. At that point, the borrower has invested so much time and money that he may have little incentive to start shopping again.

Institutional loyalties also may keep borrowers from seeking price competition. Many borrowers talk only to financial institutions with which they've done business in the past. Sometimes this is advantageous to both parties, but sometimes the borrower fails to realize that lower rates are available elsewhere. Other borrowers may let their real estate brokers recommend or even arrange financing with a lending institution. They may not recognize that brokers, though generally good sources of information about where money can be borrowed, have an incentive to get the best rate for the lender, since the lender can return the favor by guaranteeing a steady flow of financing in tight money times.

Thus, although the information on mortgage interest rates is out there somewhere, borrowers ordinarily have to work to get it. And many of them can't or don't make the effort.

The Competitive Picture: Not Very Clear. When borrowers don't know how to look out for their own best interest, lenders will not feel the pressure to offer competitive rates. And in areas that are serviced by only a few lending institutions, there may be little incentive indeed. Lenders could take advantage of the situation and charge some borrowers relatively high prices for mortgage money.

Thus, at its worst, the mortgage market could be a fairly tough battleground for some prospective homeowners. But exactly how many borrowers are being taken advantage of in today's market? Are uncompetitive situations common? Or are they only occasional?

Unfortunately, there are no recent measures of the competitiveness of mortgage markets. Older studies pointed toward lack of competition.[2] But in the years since those studies were done, many attempts have been made to educate and protect the mortgage consumer. Truth-in-Lending laws, the Real Estate Settlement Procedures Act,[3] the Fair Credit Reporting Act, and the Equal Credit Opportunity Act have given the borrower much more clout. It is possible that local mortgage markets have become more competitive than they used to be. But we can't be sure.

Thus, in short, some borrowers never get the information that would help them negotiate the lowest available effective interest rate, and they may be the victims of uncompetitive practices. In an effort to remedy these problems, legislators have turned for help to ceilings on mortgage interest rates.

[2]Studies of the mortgage market unfortunately are quite old. See, for example, Leo Grebler and Eugene Brigham, *Savings and Mortgage Markets in California* (Pasadena: California Savings and Loan League, 1963); William Conrad, Jr. "The Mortgage Market of Middletown, Connecticut," *Land Economics* 32 (1956), pp. 183-188; and Paul M. Gregory, "Imperfect Competition in the Mortgage Market," *Southern Economic Journal* 10 (1944), pp. 275-291.

[3]A good source of information on the effect of these laws on borrowers' rights is the HUD pamphlet "Settlement Costs and You." Lenders are required under the Real Estate Settlement Procedures Act to present this booklet, or a similar one with the same information, to mortgage applicants.

THE TIME-HONORED SOLUTION: MORTGAGE RATE CEILINGS

A mortgage interest rate ceiling sets the maximum allowable interest rate that can be charged on certain kinds of mortgages. The purpose of the ceiling is to keep lenders from overcharging unwary borrowers. But are ceilings successful in protecting borrowers, or do they get in the way of the pricing mechanism, causing more harm than good?

How They Work. The impact of an interest ceiling on mortgage market operations depends on how high the ceiling is with respect to going market rates. A ceiling set at 75 percent would affect most markets hardly at all, since even loan-sharks ordinarily wouldn't be charging that high a rate. An annual rate of 1 percent, which is well below even the current inflation rate, would destroy the present-day mortgage market, because lenders would look for more attractive investments elsewhere.

In the past, most state legislatures wrote the level of the ceiling rate into their usury statutes. Changing the laws and thus the

ADAM SMITH FAVORED INTEREST CEILINGS TO DRIVE MORTGAGE BORROWERS OUT OF THE MARKET

The mercantile countries of the eighteenth century regulated their colonial trade to increase their own national wealth. Not all economists of the age, however, favored such regulation. Adam Smith, for example, called for market pricing and for the removal of restrictions that impeded the flow of resources.

Smith saw an automatic mechanism in the marketplace—an invisible hand which fostered economic prosperity if left free of governmental intervention. In his day, the operations of the money market were clear examples of intervention: interest ceilings assured that capital would flow only to low-risk ventures and that projects requiring a higher rate of return to compensate for risk simply wouldn't be funded.

Yet even Adam Smith favored interest-rate ceilings, and low ceilings to boot. His reason? Because low ceilings on interest rates would eliminate the mortgage market.

Smith wanted money to be lent for industrious and profitable uses. He believed that when an individual borrows capital for immediate consumption, "he acts the part of a prodigal and dissipates in the maintenance of the idle, what was destined for the support of the industrious. . . . The only people for whom stock [money] is commonly lent, without being expected to make a profitable use of it are country gentlemen who borrow upon mortgage." Interest ceilings were not to protect the mortgage borrower but to keep him out of the market!

According to Smith: "When interest rates are fixed close to the lowest market rate [the prime rate], sober people [blue chip commercial borrowers] are universally preferred to prodigals and projectors [mortgagors and entrepreneurs]. The person who lends money gets nearly as much interest from the former as he dares to take from the latter, and his money is in safer hands."

Smith understood that mortgage loans require a higher risk-adjusted rate of return since they are riskier than the obligations of prime-rate customers. If the government imposes ceilings, money won't be lent to high-risk borrowers.

It's curious that recent arguments against ceilings are based on economic principles developed by a man who vehemently favored ceilings, while arguments for ceilings are held by those who show little faith in the invisible hand.

ceilings under this system was such a time-consuming maneuver that the rate seldom was changed until well after it had lost touch with market conditions. Too often, rigid ceiling rates strangled the market. When interest rates on comparable investments were hitting seven and eight percent, lenders had little interest in making mortgages at a ceiling rate of six percent. Borrowers were caught in the squeeze. The ceiling rates were meant to guarantee a low often, rigid ceiling rates strangled the market. When interest rates on comparable investments were hitting seven and eight percent, lenders had little interest in making mortgages at a ceiling rate of six percent. Borrowers were caught in the squeeze. The ceiling rates were meant to guarantee a low mortgage rate. But what good is a low rate to someone who doesn't get a mortgage at all?

To relieve this squeeze, some ceiling rates have been made more flexible. Many legislative bodies have taken the ceiling rate out of the usury statutes and given the job of setting it to a government agency. In some states, such as New Jersey, an agency has discretionary control over the level of the ceiling. In others, a formula must be followed. Pennsylvania and Delaware, for example, tie their mortgage ceilings to other interest rates. Pennsylvania uses the yield on long-term U.S. government bonds, and Delaware takes its bearings from the Federal Reserve discount rate.[4] The states of the Third Federal Reserve District are not alone in moving towards flexible ceilings. Many other states either have changed or are in the process of reviewing their methods for setting interest ceilings.

The Third District states have been applauded for revising their methods for setting ceilings. But many people still are discontent. They contend that praise for more flexible ceilings may obscure the underlying questions: *Should* a government agency—either state or Federal—regulate the mortgage market? And *if* it should, are ceilings the best way to do it? To answer these questions, it's necessary to take account of the diversity of the market.

CEILINGS MIGHT HURT SOME MARKETS BUT HELP OTHERS

Although some people speak as if there were a single, unified, well organized mortgage market, the fact is that there are many small local markets. The number of lenders, the ability of borrowers to price-shop, and the kinds of mortgages available differ sharply from market to market.

Borrowers Aren't All Alike. If all mortgage borrowers were alike—if they had the same expected income and credit rating, bought similar houses, and wanted the same mortgage terms—then a mortgage ceiling set at the competitive market rate would ensure a fair interest rate for all. But borrowers are not all alike, so when the ceiling is set at an efficient rate for one group of borrowers, it will be too high or too low for all the rest. Set the ceiling at the low end of the rate spectrum and the blue-chip borrower is assured a competitive rate, but no one else will get a mortgage. Increase the ceiling and you increase the number of acceptable borrowers, but you also could increase the chance that the lower risk

[4]Pennsylvania and Delaware laws require that the State Banking Commissioners use set formulas for calculating their interest rate ceilings. In Pennsylvania, the ceiling is calculated every month by adding 2.5 percentage points to the long term U.S. government bond rate for the second preceding month and rounding to the nearest one-quarter of a percent. Delaware also calculates its ceiling monthly. The Philadelphia Federal Reserve Bank Discount Rate (the interest rate charged on loans to member banks) plus 4 percentage points equals the Delaware ceiling.

The levels of the ceiling rates in the three states are not necessarily comparable. The exclusion of fees, various loan amounts, and other important criteria could change the effective interest ceiling in a state. The State Banking Commission in Pennsylvania and corresponding agencies in other states are the sources of information on this subject.

borrower will be overcharged. In fact, the lower risk borrower might be worse off than he was in an unregulated market. A ceiling might even inhibit competition, if all lenders ended up charging the government-sanctioned ceiling rate.

As long as borrowers and mortgage contracts differ in their characteristics, a ceiling rate will interfere with the pricing mechanism of the mortgage market. The more diverse the characteristics of the borrowers and of the mortgage terms they want, the more harm a given ceiling rate will cause. Setting more than one ceiling rate could improve the situation, and setting a ceiling for every borrower and mortgage characteristic that deserves a different rate could eliminate the problem. But even the most ingenious ceiling administrators have yet to find a way to match every loan characteristic with a ceiling rate.

Further, lenders may deal in two kinds of residential mortgages—conventional mortgages and government-insured mortgages. The substantially different features of these mortgages segregate the market for single-family home mortgages into two main subdivisions. And on these features may depend the appropriateness of a mortgage interest ceiling.

Conventional Mortgages at Odds with Ceilings. Conventional mortgages are mortgages issued by financial institutions without benefit of Federal Housing Administration insurance or Veterans Administration guarantees. The bulk of mortgage credit is granted through conventional loans. The percentages change each year, but conventional loans usually account for about 65 percent to 70 percent of all outstanding mortgages.

Broad-based ceilings on conventional loans are likely to reduce the availability of mortgage money. The conventional mortgage portfolio of a typical lender may reveal wide variations among borrower histories, house values, and mortgage terms. These are important risk characteristics; and when borrowers are not similar in their riskiness, a ceiling rate can interfere with the pricing and availability of mortgages. If the ceiling is set low enough to protect most unwary borrowers, those that require higher rates than the ceiling won't get mortgages, while lower risk borrowers may be overcharged. Thus the conventional market doesn't seem to be an appropriate place for ceilings.

FHA and VA Mortgages: More Compatible With Ceilings. The Federal Housing Administration and Veterans Administration mortgage programs generally offer borrowers the option of lower down payments and longer maturities than are available on conventional mortgages. For many high-risk borrowers, the government mortgage programs may be the only sources of funds. Lending institutions are willing to accept riskier mortgages under these programs, since the lender is insured or guaranteed against serious loss if the borrower is unable to meet future mortgage payments. What about ceilings for this market?

There is less rate variability among mortgages written under the government programs than among conventional mortgages. FHA and VA mortgage borrowers are more similar to one another in terms of their income levels, house values, down payments, and desired maturities than are conventional borrowers. But more important, the lending institution bears little risk on these mortgages. If a borrower defaults, the Veterans Administration or Federal Housing Administration reimburses the lender for most of the foreclosure expenses. Since lenders are protected against serious losses, they need not charge the riskier borrower a higher insterest rate. The overall result is that rates on FHA and VA loans differ less than rates on conventional loans, so imposing a ceiling that closely tracks market rates is much less likely to disrupt the supply of mortgage credit to FHA and VA borrowers.

Whatever yield spread remains in the FHA market results from differences in the sizes

of loans.[5] Since the same ceiling applies from the smallest loan to the maximum ($45,000) on single-family houses, fixed costs make it impossible for lenders to do as well with smaller loans as with larger ones when they lend at the ceiling rate.[6] The market in small loans could be improved by authorizing separate ceilings for different loan amounts. Under a tiered ceiling system, lenders would be more eager to originate smaller loans, since the higher interest rates on smaller loans would offset the proportionally higher adminstrative costs.[7]

For FHA and VA loans, then, a ceiling rate may be appropriate if and where local markets are uncompetitive. But there still may be room for overall improvements in administering the FHA-VA rate ceiling. The ceiling presently is set and monitored by a Federal government agency. Many people fear that this assignment of responsibility could lead to disruption of the market if the rate committee failed to react quickly enough to changing market interest rates. Tying the ceiling to another market rate, such as the yield on secondary market transactions, could help to meet this objection.[8]

There are two markets for FHA and VA loans—primary and secondary—and the secondary market is well developed. (A newly written mortgage is a primary market transaction. The resale of a mortgage to another investor or lending institution is a secondary market transaction.) The FHA and VA secondary markets are active because mortgage buyers don't have to worry about the underlying risk on individual mortgages when these mortgages are backed by the Federal government. But the secondary market for conventional mortgages is much less active. Purchasers of conventional mortgages must look more carefully at the borrower's financial history and the quality of the underlying property, since they bear the risks associated with the mortgage.

The advantage of using data from the FHA secondary market to set interest ceilings comes from this market's competitiveness. The market is national in scope and has a large number of knowledgeable participants. The buyers and sellers usually are institutions that operate in financial markets every day, not single-family homeowners who might transact a mortgage three to five times in a lifetime.[9] The secondary market

[5]Actually, since FHA insurance covers only two-thirds of the foreclosure expenses, the mortgage contract still imposes some risk on the borrower, and so there may be a narrow residual yield spread even here.

[6]In Alaska, Hawaii, Guam, and the trust territories of the Pacific, the limit is $67,500. Under a bill pending before Congress, the $45,000 limit that holds in the contiguous states would be raised to $60,000 and the limit in the other jurisdictions to $90,000—1.5 times the ceiling in the contiguous states.

[7]In the FHA and VA markets equity considerations also may influence a decision on ceilings. An FHA or VA borrower should receive a lower interest rate since the insurance feature makes the loan a better risk.

In the case of VA loans, the guarantee fee is paid by the Federal government. If the lending association fails to charge the VA borrower the rate appropriate for a low-risk loan, the government program ends up subsidizing the lending institution! In contrast, most FHA borrowers pay for the insurance themselves. But FHA still is a government-sponsored program. If a few lending institutions charge FHA borrowers exceptionally high rates, it may appear that the government has sanctioned such treatment. Our legislative bodies are much too sensitive to public interpretations of economic issues to accept such insinuations passively. As a result, the pressures to enforce mortgage rate ceilings are stronger in the government-insured market than in the conventional market.

[8]This proposal was developed by Professor Jack Guttentag of the Wharton School. Readers who want a more technical and more thorough treatment of the issues presented here are encouraged to read Jack Guttentag, "Changes in the Structure of the Residential Mortgage Market: Analysis and Proposals," in *Study of the Savings and Loan Industry* (Washington: Federal Home Loan Board, 1969).

[9]Another compelling reason for placing the ceiling rate close to the yield on secondary market transactions is that it would minimize discount points in the market. The paying of discount points—a charge imposed by the lender when a mortgage is written—often is expected when ceiling rates are low relative to the lender's expectation of the going market rate.

yield represents the forces of the market itself rather than someone else's view of how a market ought to work. Thus, tying a ceiling to this yield can achieve the social objective of protecting borrowers in the primary FHA-VA mortgage market while assuring a continuous availability of credit in that market.

CEILINGS: NO CURE FOR MARKET ILLS

Thus a case can be made for retaining ceilings in the FHA and VA mortgage programs. But even a ceiling with the strong qualities of secondary market yield will have little effect on basic conditions in the market. If local mortgage markets are seriously noncompetitive, for example, they will remain so, despite ceilings, unless the causes of noncompetitiveness are tackled directly.

In the conventional mortgage market, the cards are stacked heavily against mortgage interest ceilings. But state legislators, who continue to impose ceilings, appear to believe that their local mortgage markets are not competitive enough. Do the facts support this belief, or has it just been around for so long that nobody bothers to question it?

Much research remains to be done on these topics. If uncompetitive practices are found, it's better to get to their source than to cover them up with ceilings. Changing the state branch banking laws might spur competition, if competition is lacking. Standardizing the mortgage contract and informing the public about how to interpret it also might help. Many initiatives have been suggested, and some of them may be worth a try.

No one can guarantee that a more active approach to increasing competition would eliminate the need for ceilings. But while ceilings are likely to impose costs that will have to be shared by everyone, competition is likely to reduce borrowers' costs. Thus it appears that the first step in helping the borrower is to improve competition, and only if that doesn't work to put a ceiling on some segments of the market.

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Reorganized October 29, 1976—
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FEDERAL RESERVE SYSTEM PUBLICATIONS
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ANNUAL STATISTICAL DIGEST *available*—
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GARDNER, STEPHEN S.
Statement to Congress, August 31, 1976 (foreign branches in U.S.)—
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Statement to the National Commission on Electronic Funds Transfers, November 11-12, 1976 (role of government)—
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JACKSON, PHILIP C.

Statement to Congress, July 29, 1976 (consumer credit)—
FR Bull Aug 76 p 674
Statement to Congress, September 16, 1976 (Truth in Lending Act)—
FR Bull Oct 76 p 833
Statement to Congress, November 23, 1976 (consumer protection)—
FR Bull Dec 76 p 1012

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REGULATION A
Extension of credit amendment, August 25, 1976—
FR Bull Sept 76 p 787

REGULATION AA
Effective September 28, 1976—
FR Bull Oct 76 p 879

REGULATION B
Amendment July 30, 1976—
FR Bull July 76 p 607
Amendment July 30, 1976—
FR Bull July 76 p 646
Requirement extended on September 2, 1976 to November 1, 1976—
FR Bull Sept 76 p 811

REGULATION C
Exemptions December 9, 1976—
FR Bull Dec 76 p 1061

REGULATION D
Reserves of member banks interest on deposits—amendments, July 26, 1976—
FR Bull July 76 p 601
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Amendment July 26, 1976—
FR Bull July 76 p 646
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REGULATION F
Amended November 15, 1976—
FR Bull Oct 76 p 880
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FR Bull Nov 76 p 928

REGULATION G
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FR Bull July 76 p 608
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FR Bull Aug 76 p 687
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FR Bull Aug 76 p 729

REGULATION Q
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FR Bull July 76 p 601
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FR Bull July 76 p 604
Amendment July 26, 1976—
FR Bull July 76 p 646
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FR Bull July 76 p 648
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FR Bull Nov 76 p 973
Amended November 6, 1976—
FR Bull Dec 76 p 1034

REGULATION T
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FR Bull July 76 p 608
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FR Bull Sept 76 p 790
Amended January 1, 1977—
FR Bull Oct 76 p 849
Amended January 1, 1977—
FR Bull Oct 76 p 880

REGULATION U
Amendment August 6, 1976—

FR Bull July 76 p 608
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FR Bull Nov 76 p 949

REGULATION Y
Amended October 13, 1976—
FR Bull Oct 76 p 880
Amendment on bank underwriting deferred October 19, 1976—
FR Bull Nov 76 p 28
Amended October 13, 1976 (automobile leasing)—
FR Bull Nov 76 p 930
Action deferred on amendment October 20, 1976—
FR Bull Nov 76 p 973

REGULATION Z
Amended March 23, 1977—
FR Bull Oct 76 p 881
Amended March 23, 1977 (Consumer Leasing Act 1976)—
FR Bull Nov 76 p 944
Supplement December 13, 1976—
FR Bull Dec 76 p 1061

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Structure an impediment to monetary control?—
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Swap operations 1962-1976—
FR Bull Dec 76 p 1006

TRANSFER OF FUNDS
Electronic funds transfer: An introduction—
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A primer on electronic funds transfer—
Minn July 76 p 7
Development of electronic funds transfer systems—
St Louis Sept 76 p 10

WALLICH, HENRY C.
Statement to Congress, November 19, 1976 (investment policy)—
FR Bull Dec 76 p 1012

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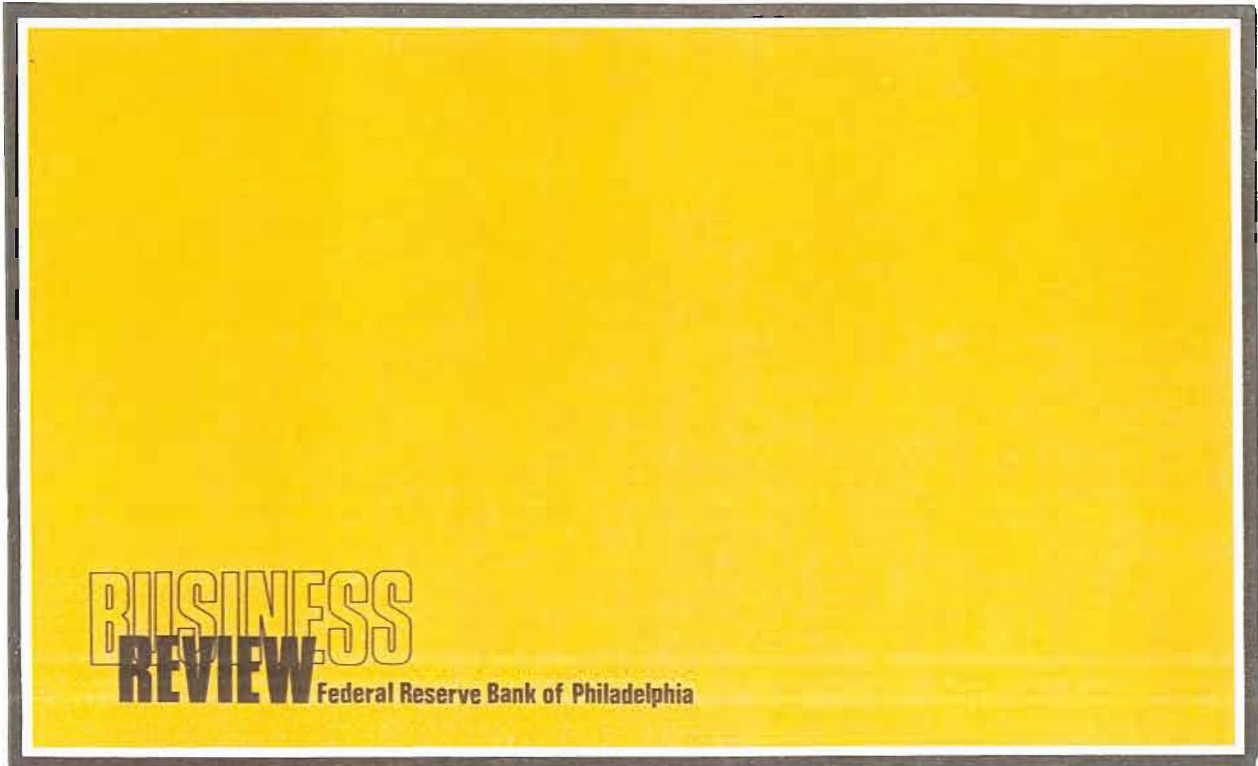

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