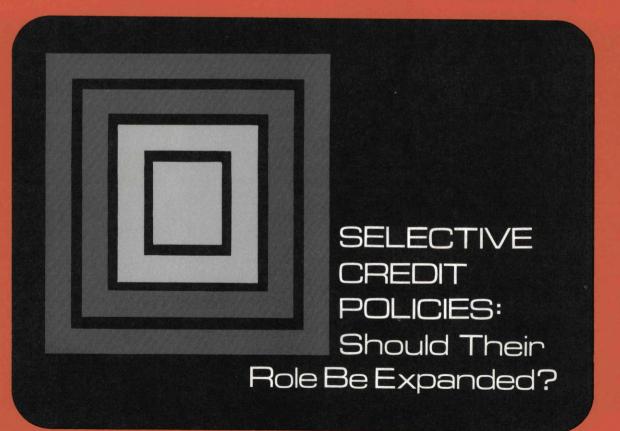
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ABOUT THIS ISSUE. . .

Selective credit policies have periodically been embraced by policymakers and their constituents to achieve a wide variety of objectives. Frequently the goals sought have been laudable. But all too often advocates have moved ahead without the kind of guidance that can be provided by systematic economic research. In large part this was because of a marked lack of such research. It was with this lack in mind that the Federal Reserve Bank of Philadelphia undertook a major and ongoing project to investigate credit-allocation techniques.

In this issue we summarize the conclusions to come out of the first phase of the project (the technical papers appear in Ira Kaminow and James M. O'Brien, eds., Studies in Selective Credit Policies, [Federal Reserve Bank of Philadelphia, 1975]). Perhaps the overriding conclusion emerging from this summary is that the current state of scientific knowledge concerning the issues surrounding selective credit policies is simply inadequate to make any confident assessment of their impacts at this time.

In the work currently underway we hope to provide more positive answers concerning the effects of selective credit policies. It is possible that this work could indicate a useful social role for credit policies. But given the large degree of uncertainty that now exists, it is difficult to endorse current credit-allocation proposals. However sympathetic one may be with the social goals of those who are for allocating credit, the economic underpinnings need a great deal more study before such policies can be pronounced reliable.

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Selective Credit Policies: Should Their Role Be Expanded?*

Using credit to build a business, buy a house, or bring home a new car is part of the American way of life. The importance of this tradition has spurred the concern of Congress and others (such as housing interests, small business associations, and women's groups) about who gets credit, when, and in what amounts. The most recent worry in some policymaking circles is that credit markets keep certain sectors of our economy from receiving the share of credit they deserve, especially during periods of tight money. For

*This article was prepared by Ira Kaminow and James M. O'Brien. It is based on a research project on selective credit controls sponsored by the Federal Reserve Bank of Philadelphia. For the specific studies undertaken in this project, see Ira Kaminow and James M. O'Brien, eds., Studies in Selective Credit Policies (Federal Reserve Bank of Philadelphia, 1975). Summaries of the individual studies are presented in Appendix 2 of this article. To obtain copies of the volume, see notice on page 23.

The Federal Reserve Bank of Philadelphia is interested in the issue of selective credit controls because of their current popularity and the System's long history of involvement with certain credit policies. (See Appendix 1.) example, large corporate borrowers are alleged to get "preferential treatment" in credit markets while small businessmen or municipalities are squeezed out.

Selective credit policies (also called selective credit controls or credit-allocation policies) are frequently proposed as a solution. These policies would encourage "favored" uses of credit and discourage others through incentives and penalties. For example, more credit could be made available for home buyers or local governments through subsidies and less for "unproductive" ventures by taxing such loans. In the U. S., we already have a number of credit support programs aimed at housing, municipal services, education, agriculture, exports, and other activities which involve several billion dollars in subsidies each year.

¹With respect to the costs only of Federal credit programs, see Murray L. Weidenbaum, "Subsidies in Federal Credit Programs," in U. S., Congress, Joint Economic Committee, *The Economics of Federal Subsidy Programs*, 92d Cong., 2d sess., 8 May 1972, part 1, pp. 106-10

Is further Government intervention in credit markets warranted?

Whether credit-allocation policies should be expanded hinges on the answers to three questions: Will shifting resources into different products or sectors of the economy via credit policies produce gains for society? Are credit policies able to reallocate real resources in order to achieve such gains? What is it going to cost society to implement these programs?

In evaluating what we do know about the effects of credit-allocation proposals, the overwhelming conclusion emerges that at present we are very far from satisfactory answers to the first two questions. Moreover, while the analysis did not specifically focus on the third question about costs, there is little doubt that society will bear some burden in implementing credit controls. On this basis, expanding Government's role in credit markets would be a major gamble with the odds of "winning" highly uncertain.

SOCIAL BENEFITS FROM ALTERING CREDIT MARKETS?

Selective credit programs are ultimately aimed at improving the lot of society. In a broad sense these policies presumably have objectives such as equality of opportunity, social stability, reduction in the inequality of income, and more efficient use of resources in our economy. Many proponents of creditallocation programs argue that the current mix of output in the U.S. economy fails to contribute to the achievement of these goals. Others focus on who gets the output, rather than the goods themselves, and make a similar kind of case. If this logic is valid, the solution seems obvious: change the mix of goods and services the economy grinds out or the mix of individuals receiving them.

Clearly the case for selective credit policies depends on whether the economy turns out the "appropriate" mix of goods and services and distributes them to the "right" individuals to achieve the broad goals. Credit markets may fall short for several reasons, according to proponents of credit policies. First, the markets are not competitive enough to ensure that the mix of goods and services society values most will be produced. Second, partly because of the first reason, during bouts of "tight money" credit markets squeeze out the "wrong" borrowers. And, third, our product markets "underproduce" certain goods that generate additional public benefits.

Are Credit Markets Competitive Enough to Do Their Job? In a free market economy credit goes to the borrower who uses it most profitably. If markets are competitive, the most profitable uses are likely to coincide with those society values. (Although the coincidence of profitability and socially valuable uses requires more than competitive markets.)

In a noncompetitive environment, however, this may not be the case. Some proponents of selective credit policies claim that there is a serious lack of competition in the banking industry and perhaps in other financial markets as well.² They argue that banks maintain special relationships with large corporations who receive preferential ("prime") rates, while small businesses and individuals pay higher interest rates. On occasion, small borrowers will not be able to get credit regardless of the rate they are willing to pay. Recently this kind of argument has received a good deal of discussion in the debate concerning "redlining" — a procedure whereby lending institutions allegedly refuse to extend credit for housing or urban renewal in certain geographical areas. Slums and socalled declining neighborhoods are alleged to be particularly affected by the redlining process. Selective credit policies are often

²See, for example, Lester C. Thurow, "Proposals for Rechanneling Funds to Meet Social Priorities," in *Policies for a More Competitive Financial System: A Review of the Report of the President's Commission on Financial Structure and Regulation,* Conference Series No. 8 (Federal Reserve Bank of Boston, 1972), pp. 177-89.

proposed to redress these kinds of credit market "imperfections."

Many economists, however, might resist this argument on grounds that credit markets are far from noncompetitive and riddled with imperfections. In contrast to most foreign countries, the U.S. has a myriad of highly developed credit markets, each possessing a relatively large number of lenders. It is reasonable to expect such a system to be characterized by a high degree of competition, and there is little hard evidence to suggest that competition is substantially lacking in U. S. credit markets.³ In fact, evidence

³Some would argue that although there are a large number of banks, they are really segmented into geographically defined markets where some areas would have only a "few" banks. Without considering the validity of this argument, there is still little evidence to suggest that geographical restrictions on competitive lending behavior have or would produce pervasive biases against any particular set of borrowers, such as small businesses or home buyers. There has also been some tendency to cite oligopolistic lending practices among large banks to help explain loan rate rigidities and the customer relationship. (See Thurow, "Proposals for Channeling Funds to Meet Social Priorities," op. cit., pp. 177-89; Donald R. Hodgman, "The Deposit Relationship and Commercial Bank Investment Behavior," Review of Economics and Statistics 42 [1961]: 257-68; Edward J. Kane and Burton G. Malkiel, "Bank Portfolio Allocation, Deposit Variability, and the Availability Doctrine," Quarterly Journal of Economics 79 [1965]: 125; and Dwight Jaffee and Franco Modigliani, "A Theory and Test of Credit Rationing," American Economic Review 59 [1969]: 851-72.) However, this citation would seem to be more of a casual suggestion than resulting from any serious presentation of theory or evidence to support the position. The analytical models developed to explain credit rationing and customer relationships generally are quite compatible with a high degree of atomistic-type lending behavior (albeit with regulatory constraints and long-run profit concerns). Moreover, the observation of loan rate sluggishness and "price leadership" (a bank initiating a loan rate change later followed by others) may reflect competitive market behavior under demand uncertainty and disequilibrium rather than the oligopolistic pricing procedure that is often suggested. See Edmund S. Phelps et al., Microeconomic Foundations for Employment and Inflation Theory (New York: W. W. Norton and Company, 1970) and Kenneth J. Arrow, "Toward a Theory of Price Adjustment," Moses Abramovitz, ed., The Allocation of Economic Resources (Stanford, Calif.: Stanford University Press, 1959), pp. 41-51.

of competitive restrictions and consequent distortion of credit flows appear mainly related to Government credit regulations currently in force. In particular, prohibiting interest on demand deposits and setting interest-rate ceilings on time and savings deposits inhibit depository institutions in competing for the savings of households. These interest restrictions also discriminate against small savers for whom time and savings deposits constitute a major form of saving.

Furthermore, the argument continues, credit markets can be competitive and still allow such things as "prime" borrowers.4 The reason is these phenomena may simply represent efficient responses by lenders toward risk. Large corporate borrowers may get "prime" rates because there is less chance of default on the loan or because they are regular customers with large deposit accounts who provide some stability to the bank's longterm earnings prospects. Borrowers with low incomes or with whom the lender is less acquainted may represent a higher credit risk. To compensate for this additional risk, a higher interest rate must be charged. Where the likelihood of default on the loan is quite substantial, lenders may be reluctant to extend credit at any rate since the return they anticipate will be quite small or perhaps even negative. According to this view, it is less obvious that financial markets are not doing the job they're designed to do-rationing society's savings more favorably to highreturn/low-risk investment projects and less favorably to low-return/high-risk ventures.5

On the whole, arguments concerning the existence of credit market imperfections provide little support for credit-allocation

⁴This point plus others that provide a basis for questioning the credit-market imperfection arguments are presented in detail in Ira Kaminow and James M. O'Brien, "Issues in Selective Credit Policies: An Evaluative Essay," Kaminow and O'Brien, eds., Studies in Selective Credit Policies, pp. 6-10.

⁵Some advocates of selective credit controls agree that credit markets are efficient but object to the impact of efficiency on different groups (see Box 1).

Box 1

SELECTIVE CREDIT CONTROLS AND THE DISTRIBUTION OF INCOME

Selective credit controls are envisioned by some proponents as a tool for reducing the large degree of inequality in the distribution of income in the U. S. At first glance, determining the effects of credit policies on peoples' incomes seems pretty simple. If we subsidize mortgage interest costs, the mortgagee comes out ahead. If we tax business loans, the businessman sees his income cut. But this is only a very rough first approximation. As home buyers respond by trying to get more mortgages, this will tend to raise mortgage interest rates. The home buyer sees his mortgage subsidy quite plainly (such as a deduction of interest costs from his taxable income) but is perhaps less aware that, because of the subsidy, he's paying a higher mortgage rate. Thus, some of his gain may actually be shifted to the mortgage lender. And it's not just the mortgage lender who might get some of the subsidy. The increased demand for houses can force up home prices and people who sell or build houses may gain too. Thus, the income gain to the mortgagee as a result of the subsidy is further eroded.

The income ramifications of selective credit policies do not end here. Controls placed on one market will have "spillover effects" on other markets. If mortgage rates go up, this might also cause consumer loan rates to rise, for there will be less money available for consumer loans as lenders switch to higher yielding mortages. The mortgage borrower would be getting some benefit from the subsidy while the user of consumer credit would be taking a loss. All this makes it doubly difficult to estimate the effects of credit policies on the distribution of income. Whether a person finally comes out ahead or behind will depend not only on whether he buys a home, but on the other assets and goods he buys or the types of debt he incurs.

It is this "shifting" of a subsidy or tax from one credit instrument to others and to goods and services which makes it difficult to pin down the effects of credit policies on peoples' incomes. The state of the art in economics and statistics is not advanced enough to measure the shifting as it actually works itself out. As a consequence, economists have mostly trained their sights only on the *initial* income effects of credit policies on the credit category actually being subsidized or taxed.

Most concern about the initial income incidence of selective credit policies has centered around various mortgage subsidies and the income tax exemption on municipal bond interest.* On the whole, these selective credit subsidies seem to benefit mainly those in the upper half of the income scale. This appears to be the result of the way the programs are designed and the ownership distribution of assets and debts that are involved. It is the more affluent individual who, because of his relatively high-income tax bracket, has the most to gain from the municipal bond income-tax exemption or the tax

^{*}The housing subsidy studies include the deduction from taxable income of mortgage interest costs (or the exemption from taxes of implicit income from housing ownership), mortgage-guarantee programs, and the regulation of deposit interest rates. They exclude the housing credit subsidies specifically designed for low-income families.

deductibility of mortgage interest costs. It is also the more affluent who tend to buy more expensive homes and, consequently, take out larger mortgages.

On the basis of these findings, we shouldn't jump to the conclusion that selective credit policies will necessarily have a regressive effect on the distribution of income. If credit policies were aimed at different types or uses of credit they might show a different incidence pattern. Consumer credit, for example, is more heavily used by lower-income groups than upper-income groups. With a subsidy to this credit category, lower-income families might fare better. Even redesigning some of our mortgage and municipal bond programs might render a more favorable incidence impact—for example, if the size of the subsidy did not grow with the individual's income-tax bracket.** Although we should still keep in mind that, regardless of design, the difficulty of measuring the degree of "shifting" of credit subsidies or taxes likely will still leave their ultimate income distribution effects with a good deal of uncertainty.***

policies at this time. However, additional evidence needs to be gathered before rendering a verdict on this issue.

Offsetting the Effects of Tight Money. It is often argued that selective credit policies should be used to help the sectors that are squeezed by tight credit. Advocates of this view underscore the urgency of such action when tight credit is brought on by restrictive monetary policy. Here they argue that because such a policy often makes it tough for some credit demanders, selective credit programs should be instituted to help those bearing the heaviest burden.

But not everyone agrees that selective credit policies are the answer (see Box 2). Opponents of the policies argue that just as smoothly functioning markets allocate credit best when things are going well, they do the

best possible job when credit is tight. In fact, the appearance of "arbitrary" allocation may be nothing more nor less than credit markets doing their job of allocating scarce credit for the most urgent uses. For example, mortgage flows slow, they argue, because postponing the purchase of a new house rather than postponing the purchase of food, clothing, or a new car is easier. This doesn't mean that food. clothing, or cars are more important than houses, only that houses that wear out slowly can be made to "do" for another year or two. Moreover, free marketeers argue that if there is a problem it is more likely a result of too much Government interference, not too little.

In particular, one of the reasons credit flows are altered during periods of "tight money" stems from the existence of legal ceilings on the interest rates that can be paid on certain

^{**}With respect to the incidence conclusions concerning mortgage subsidies, we should not attempt any hasty extrapolations of the effects on the ownership of housing. Selective credit policies affect a person's income by altering his income from assets and labor. An individual's propensity to purchase a home will depend not only on his income but on his responsiveness to mortgage rates. It is conceivable that while wealthier families receive a large share of mortgage subsidies, less-wealthy families are more induced to become homeowners.

^{***}It can be expected that credit policies specificially aimed at low-income groups will be more likely to have favorable income-distribution effects on those groups. However, the subsidy-shifting problem will remain even with those policies. Furthermore, credit policies aimed at low-income families will have another drawback over more direct income-distribution policies in that they are limited to those willing or able to use the subsidized form of credit.

Box 2

SELECTIVE CREDIT POLICIES AND ECONOMIC STABILIZATION GOALS

A number of economists have suggested that the frequency of tight credit periods might be reduced by relying less on monetary policy for stabilizing the economy and more on fiscal policy (increasing the size of the Government's budget surplus) to slow down an overexpanding economy. While this seems like a good idea at first, the plan also has some significant drawbacks. For one thing, there is good reason to believe that both monetary and fiscal policy are useful for economic stabilization.* If we decide at the outset to hold back on the use of one (in this case monetary policy), we may have to make some sacrifices of our stabilization goals—full employment and price stability. Another problem in switching emphasis from monetary to fiscal policy is that the latter also has sectoral impacts. Cutting Government expenditures or increasing taxes will hurt some sectors and some people more than others. How do we decide between the adverse impacts of restrictive monetary policy and those of restrictive fiscal policy?

Still another solution sometimes suggested is the use of selective credit controls to help achieve full employment and price stability. This would supposedly make it possible to rely less heavily on both monetary and fiscal policy. However, there is a serious question about how effective selective credit policies could be in reducing inflation or unemployment. Selective credit policies will primarily, and at best, shift credit from one use or economic sector to another. Restricting credit for purchasing products whose prices have been rising at a relatively rapid pace may make more credit available for other uses but, in so doing, increase the prices of these products. At most, the effects may be on the relative prices of goods and services rather than on the overall level of prices. Extensive experiences with the use of selective credit controls for purposes of price stability in a number of West European countries offer little support for the effectiveness of credit controls in curbing inflation.**

A somewhat analogous result may also occur in attempting to use credit policies to stimulate areas of relatively high unemployment. Shifting credit to an industry with an unemployment problem and, consequently, away from other industries may also shift the unemployment problem to the latter. Of course, it is possible that the offset may not be perfect, and some net gains might result. But it might also be possible that the offset could be more than 100 percent, resulting in a net loss. Thus, before attempting any such policies, it would be desirable to have some research on what might be expected and which industries might be appropriate for such policies.

^{*}Of course, even if both are useful, it is possible that currently they are not being used in the best possible combination for promoting economic stability. For an analysis of this issue, see R.M. Young, "The Distribution of Stabilization Policy: A Possible Role for Structural Instruments," Kaminow and O'Brien, eds., Studies in Selective Credit Policies, pp. 217-31.

^{**}See Donald R. Hodgman, National Monetary Policies and International Monetary Cooperation (Boston: Little, Brown and Company, 1974).

types of loans. Besides the ceilings on interest rates that can be paid on time and saving deposits at most financial institutions, state and local governments often set ceilings on rates for mortgage loans and for bonds they issue. Consequently, when interest rates on marketable securities (such as U. S. Treasury bills or private commercial paper) rise, funds flow in the direction of these instruments and away from those whose yields cannot rise because of legal ceilings (savings deposits, mortgages, and municipal bonds). Many economists have argued that interest-rate ceilings are an important cause of distorted credit flows during bouts of tight money. Consequently, the argument goes, it would be better to combat the problem first by removing the regulations before attempting to saddle credit markets with still another set of regulatory interferences.

However, as appealing as the "free market" answer might be to some, it has special problems in the context of tight credit and business cycles. Even if all Government regulations and other impediments to free markets are removed, markets will be efficient only if they are in a state of equilibrium. But the very nature of economic cycles, and hence tight money policies, is that markets are not in equilibrium. So, we can't be confident that free markets will allocate credit efficiently during tight-money periods. Whether this presents a cyclical role for selective credit policies is an open and important issue.⁶

Social Benefits: Which Goods? Most economists agree that some goods produce social benefits which the market does not adequately take into account. For example, some suggest that education is one such good. While obviously benefiting the individual "purchaser," it may also yield extra benefits to society since an informed populace may be more efficient in political

decision-making. In theory, credit-allocation policies might be a useful tool for encouraging markets to produce more of these goods—and, consequently, less of others.

In practice, however, social scientists have no well-developed criterion for defining the links between goods and social benefits. Consequently, there is likely to be much subjectivity involved in specifying what social benefits, if any, can be derived from particular goods. For example, it is sometimes suggested that widespread ownership of housing will make for greater social stability. Others, however, may ask why it is that this alleged social benefit is unique to housing ownership and not characteristic of other assets.

As long as Government stands ready to support worthwhile undertakings, there will be no shortgage of claims that particular projects will produce important social benefits. Some way needs to be found to select from the numerous competing proposals that allegedly yield social benefits. If rational decisions are to be made, then spelling out the nature of the alleged benefits, their links to the particular priority items of concern and the anticipated costs, therefore, is called for.⁸

Unfortunately, most proposals for selective credit measures are vague in these areas. The claims of social benefits tend to be general, the linkage between the priority item and the benefits uncertain, and the expected costs not well-defined. For example, some of the proposals have suggested we need more of this or that type of investment—say, more housing at the expense of less corporate investment—without saying how this will serve our social goals of efficiency, equal opportunity, and so forth. Other proposals suggest numerous social objectives will be

⁶For elaboration of this point, see Kaminow and O'Brien, op. cit., pp. 10-15.

⁷See, for example, David Laidler, "Income Tax Incentives for Owner-Occupied Housing," Arnold C. Harberger and Martin J. Bailey, eds., *The Taxation of Income from Capital* (Washington: The Brookings Institution, 1969), p. 53.

⁸A more detailed presentation of this view is developed in Kaminow and O'Brien, op. cit., pp. 3-6.

sought with no attention to their links to the output mix or possible conflicts among objectives.⁹

In sum, the problem with justifying selective credit policies on the basis of social benefits is a practical one of identifying benefits and linking them to a particular goal and allocation of resources. In an open and diverse society there will be as much agreement as disagreement on what is socially beneficial enough to warrant special treatment. These disagreements must be resolved through the democratic process, but their resolution should be based on discussions of how "special treatment" can advance ultimate social objectives. To date, there has been little public discussion of these issues, and partly because of this, little evidence that selective credit policies can advance our social goals.

CAN SELECTIVE CREDIT POLICIES CHANGE THE OUTPUT MIX?

Even if it could be shown that reallocating resources with credit policies could improve the lot of society, there is still the issue of whether credit-allocation policies can effectively change the allocation of resources. If credit-allocation policies are going to be able to change the mix of output in accord with "social priorities," then there must be some link between the tools of policy (taxes, subsidies, quotas, etc.) and the basket of goods produced in the economy. To find out if such a link exists, two questions need to be asked: whether credit-allocation policies can change the composition of credit successfully, and whether policy-induced changes in the com-

position of credit will somehow bring about desired changes in the mix of goods and services. If the Federal Government cannot affect the composition of credit or if changes in credit flows have no effect on the mix of goods, then credit-allocation policies will be unable to satisfy their aims, no matter how attractive the goals might be.

Selective Credit Controls and the Composition of Credit. There is a wide variety of techniques that can be used to try to change credit flows in the economy. (See Appendix 1 for a more detailed description of various types of credit policies.) These fall into three broad classes. The first—termed "moral suasion" — involves no explicit coercion. Rather, an official agency simply provides lenders with a list of "priority" credit categories, for example residential mortgages and student loans. Lenders are then "encouraged" to extend credit to priority users but there is no penalty for failing to meet the lending guidelines. A policy of this type is presently in effect. In September 1974, the Federal Advisory Council¹⁰ issued a list of various types of borrowing that might best serve the public interest. The Council encouraged banks to give special attention to loans to support homebuilding and capital expansion by business, for example, while deeming loans for speculative purposes "unsuitable."

The other two types of selective credit policies involve some form of coercion. For example, quotas or ceilings can be applied to extending different categories of credit. One current proposal would force banks to extend at least a third of their loans to "high-priority" credit categories, for instance. 11 Lenders who fail to heed the Government's decrees would

⁹See, for example, the prepared statement of Andrew F. Brimmer, "The Banking Structure and Monetary Management," in U. S., Congress, Senate, Committee on Banking, Housing, and Urban Affairs, Selective Credit Policies and Wage-Price Stabilization, 92d Cong., 1st sess., 31 March, 1 and 7 April 1971, pp. 159-73. Also see *S.* 887, 28 February 1975, as introduced by Senator Richard S. Schweiker and referred to the Committee on Banking, Housing, and Urban Affairs (see footnote 11 for full citation).

¹⁰This is a statutory body of bankers set up to advise the Federal Reserve Board.

¹¹U. S., Congress, Senate, Committee on Banking, Housing, and Urban Affairs, S. 887: A Bill to Reduce Interest Rates and Make Additional Credit Available for Essential Economic Activities, 94th Cong., 1st sess., 28 February 1975.

presumably be punished with fines or other penalties.

The remaining technique for credit allocation involves the use of subsidies or taxes on various types of loans. For example, the Federal income tax structure currently contains subsidies in the form of tax exemptions on interest from municipal securities and deductions from taxable income for interest paid on home mortgages. Several creditallocation proposals envision a more comprehensive program of subsidizing or taxing different types of credit. One popular proposal would apply "asset-reserve requirements" to bank loans. Banks would be required to hold cash reserves which would vary with the types of loans held. The larger the share of the bank's loans to high-priority borrowers, the lower that bank's required reserves would be. Since required reserves earn no interest income, this asset-reserve reguirement acts like a tax on low-priority lending. Bankers are not actually forced to make a given amount of certain kinds of loans as they would be with a quota; rather, some incentives are provided for them to do so.

In terms of effectiveness, is there any reason to prefer one kind of selective credit policy over others? It seems clear at the outset that moral suasion is unlikely to be a very effective device. The reason is easy to understand. The lender's preferred pattern of loans hardly represents a series of arbitrary choices on his part. Rather it reflects a conscious management decision involving profit, risk, liquidity, and so forth. It seems overly optimistic, then, to expect that lenders will generally sacrifice their own objectives for the Government's when there is no penalty or incentive for doing so.¹² Thus, some form of coercion or inducement is probably necessary if selective credit policies are to have much effect on the allocation of credit.

It might seem at first glance that quotas would prove a more effective tool than a taxsubsidy scheme since the latter allows individuals enough flexibility to ignore the incentive if they so choose. However, policymakers can probably get the same degree of curtailment or expansion in a credit category with a tax-subsidy scheme as with a quota by a sufficient dose of the tax or subsidy. In other words, the incentive can be made sufficiently strong so that few will be willing to ignore it. Moreover, quotas are hardly inflexible policy instruments. Judging from experience, we can expect that as certain lenders or institutions find themselves substantially constrained by quotas, the authorities will relax the regulations. This can be done, for example, by making exceptions to the rules, by changing the definitions of items subject to quotas or ceilings, or by relaxing enforcement of the regulations.

The U. S. experience with interest-rate ceilings on demand and time deposits provides some good examples of how regulations can be changed. As interest rates rose in the 1960s and '70s and the competition for checking accounts increased, the authorities allowed banks to make payments indirectly to their checking-account customers by eliminating service charges or giving "free" gifts for additional deposits.¹³ During the same period, the authorities not only raised the maximum interest allowed to be paid on time and savings deposits as market rates rose, but they actually eliminated the ceilings on certain types of time deposits. Thus, the fact that regulations can be changed means that quotas can be considered a flexible instrument. Nevertheless, economists usually favor subsidy-tax schemes over quotas. The reason is that most economists believe that subsidy-

¹²Obviously, there are some instances where most individuals feel so strongly about an issue that they put the country's interest ahead of their own—such as helping to defend one's country in wartime. However, it seems unlikely that credit-allocation programs will promote this degree of enthusiasm in more normal times.

¹³These implicit payments have become sufficiently important that some persons have questioned the further usefulness of the interest ban. See James M. O'Brien, "The Interest Ban on Demand Deposits: Victim of the Profit Motive?" *Business Review* of the Federal Reserve Bank of Philadelphia, August 1972, pp. 13-19.

tax schemes involve less social cost because individual lenders have more leeway than with quotas, although both approaches can be programed to yield the same total result.

Besides deciding on the type of credit policies to implement, a decision on the type of lending (or borrowing) to regulate also must be made. If, say, some lenders of a disfavored credit category are not included in the regulations, the policy will probably become less effective since borrowers will tend to switch from the restricted to the unrestricted source of funds. But even if all current lenders of some particular type of credit are covered by controls, the effectiveness of credit-allocation policies is likely to diminish over time. The reason is that borrowers and lenders will eventually learn to exploit loopholes in the regulations despite their apparent comprehensiveness. In addition, new credit channels are apt to develop which will also circumvent the regulations.

Most of the current credit control proposals in the U. S. apply to the commercial banking system, but there is no reason why credit policies can't be applied to other lenders or borrowers as well. In Western Europe, for example, governments apply a variety of selective credit policies to an array of lenders and borrowers. Credit-allocation proposals in the U.S. probably tend to focus on commercial banks because the banking system would be *relatively* easy to regulate—banks are already subject to a large amount of Government supervision—and because of the banking system's prominence in our financial structure.

By limiting controls to commercial banks, however, most proposals have failed to face the issue of avoidance. There is little apparent consideration given to what will be done, for example, as nonbank lending sources fill the gaps created by tighter regulations on bank lending. Experience in the U. S. as well as the more extensive experiences of West European economies all suggest that the problem of evasion of controls can be quite serious. ¹⁴ In short, the in-

genuity of the regulated has proved stiff competition for that of the regulators.

The Composition of Credit and the Mix of Output. The next link in the credit-allocation chain is how the mix of goods and services produced will change whenever a new tax or subsidy on credit is established or an old quota is repealed. Presently much uncertainty prevails on how altered credit flows will affect the output mix of the economy.

Consider first the issue of how changing the credit mix with a tax-subsidy scheme will affect the pattern of goods people want to buy. Suppose, for example, the Government tries to curb production of refrigerators by imposing a tax law that makes it more expensive to obtain "refrigerator loans." The idea, of course, is to cut down on the demand for refrigerators by making it more expensive to finance them with credit. Whether this policy will "work" hinges on several factors. First, it depends on the willingness of potential refrigerator buyers to alter their buying plans. If there is no other way to obtain refrigeration services, buyers may be willing to bear the higher cost of refrigerator loans. Of course, the tax rate could become so high that consumers would eventually take to building "ice houses." As a general rule, however, the harder it is to find a "substitute" good for the product subject to controls, the less effective controls will be. 15

Second, the effects of controls on spending

¹⁴Regarding the U.S. experience with regulating stock market credit, see James M. O'Brien, "Federal Regulation of Stock Market Credit: A Need for Reconsideration," *Business Review* of the Federal Reserve Bank of Philadelphia, July/August 1974, pp. 23-33. With respect to experiences in Western Europe, see Donald R. Hodgman, *National Monetary Policies and International Cooperation* (Boston: Little, Brown and Company, 1974).

¹⁵For a detailed analysis of the analytical conditions determining the effectiveness of credit-allocation policies, see D.C. Rao and Ira Kaminow, "Selective Credit Controls and the Real Investment Mix: A General Equilibrium Approach," Kaminow and O'Brien, eds., Studies in Selective Credit Policies, pp. 173-95.

for refrigerators will depend on the ease with which people can switch to alternative sources of finance to avoid paying the higher cost of "refrigerator loans." For example, refrigerator buyers may decide to buy more clothes on credit and make a smaller down payment on a new car, then use cash to buy a refrigerator. Their total credit purchases are the same, but they have avoided an expensive refrigerator loan. If many people behave this way, refrigerator demand may fall little even though the use of "refrigerator loans" could fall substantially. Thus, the easier it is to find substitute financing for the goods to be purchased, the less effective controls will be.

Third, even if a tax on refrigerator loans effectively discourages demand, producers must still be willing to respond by bringing fewer refrigerators to the appliance market. If, for example, producers expect controls to be short-lived or if they find it very difficult to switch to production of other kinds of goods, production may fall little. The main effect of the controls then would be a reduced price of refrigerators rather than fewer refrigerators.¹⁶

There are clearly, then, several possibilities for "slippages" to make controls less effective than their initial design would suggest. The quantitative importance of these slippages can be determined only by carrying out many statistical tests to find out what the substitution possibilities are among goods and among sources of finance. To date, little direct evidence has been produced which bears on these issues. There is, however, some indirect evidence on peoples' substitution tendencies

¹⁶In fact, the issue is even more complex than outlined above. The reason is that once producers and consumers respond to controls by adjusting their behavior in the refrigerator market, their actions will have some impact in other markets. If people increase their demands for other kinds of appliances, the price of these goods will rise. This may create a tendency for consumers eventually to revert to buying refrigerators and reduce the overall effectiveness of the control policy. To date, economists know very little about the magnitude of these kinds of feedback effects from one market to another and this makes it quite difficult to predict the effectiveness of controls.

that supports the view that credit controls can affect their buying choices. 17 But the evidence is too incomplete to predict the ultimate effects on the output mix with much confidence. 18

In sum, the success of credit-allocation programs will depend critically on how the output mix is affected. The key question is not, for example, whether the volume of mortgage loans has increased, but how much has the quantity of housing increased as a result of selective credit policies? Even if we know that subsidized mortgages are used only to buy houses, this is not enough to deem a credit-allocation program a success. For example, some people may be substituting subsidized financing for nonsubsidized loans — that is, using subsidies to finance home purchases that they would have made even if the subsidy program had not been in effect. If this is the case for a large number of home buyers, then the stock of housing would be little affected by a subsidy program.19

¹⁷For a review of this literature, see part 1 in Kaminow and O'Brien, eds., *Studies in Selective Credit Policies*, especially William L. Silber, "Selective Credit Policies: A Survey," pp. 95-120. In part 2 see John H. Wood, "Some Effects of Bank Credit Restrictions on the Short-Term Behavior of Large Firms," pp. 147-70; and James M. O'Brien, "Household Asset Substitution and the Effectiveness of Selective Credit Policies," pp. 197-215.

¹⁸The incompleteness of the evidence is discussed in Kaminow and O'Brien, op. cit., pp. 19-23.

¹⁹The importance of the linkage between the mix of credit and the mix of output suggests an alternative approach to reallocating resources favored by many economists. This is the use of fiscal measures such as subsidizing or directly taxing goods whose production is to be encouraged or discouraged rather than subsidizing or taxing credit used to buy the goods. A detailed consideration of the fiscal approach to resource reallocation is beyond the scope of this article. However, it can be noted that economists often favor this method over credit policies because its effectiveness does not depend on the linkages between the mix of credit and the mix of output. There are, however, other factors, some common to those of credit policies, which must be considered when evaluating the policies effects on the output mix. Moreover, the appropriateness of this approach versus

CREDIT ALLOCATION: IS A LARGER ROLE DESIRABLE?

Selective credit policies have long been intuitively appealing. If buying stocks with too much credit is bad and owning a home is good, then limit the amount of credit for financing equity purchases and subsidize mortgages. Selective credit controls are direct and get the job done, or do they? What we do know about credit controls suggests they may not be as straightforward or get the job done as readily as might appear at first glance. More important, what we do know about them is dwarfed by what we don't know.

At present there is considerable doubt that redirecting credit flows will improve society's welfare. Current arguments for creditallocation policies have done little more than enunciate actual or perceived social shortcomings of our credit and product markets without actually demonstrating that credit policies are a desirable response. Yet, in some cases the nature of the social problem itself hasn't been spelled out. In other cases, where social benefits are suggested, there is no indication of the linkage between resource reallocation with credit policies and these benefits. Nor has there been any attempt at relating credit-allocation policies to the achievement of social goals in general. Even if a policy yielded some social benefits, it could very well be at the expense of others.

Next comes the issue of the ability of selective credit policies to reallocate resources.

credit policies will depend on the ultimate objectives being served. In any event, it is important to remember that the desirability of credit policies rests not only on whether the policies do their job but how they perform relative to alternative approaches such as fiscal policy.

Here the problem is less philosophical and more one of nuts and bolts. The evidence to date is not totally pessimistic but not encouraging either. Experience suggests that it may be difficult to keep credit policies from being exploited, not necessarily because regulators are inefficient, but because lenders and borrowers can be expected to use their ingenuity to find ways to evade the rules. It is also to be expected that there will be "slippages" between altering credit flows and changing the mix of real output. More mortgages because of mortgage subsidies do not necessarily mean more housing than otherwise would have been the case. The magnitude of these slippages is largely unknown.

On the benefit side, then, there are some significant philosphical hurdles about what is "best" for society as well as some serious practical problems of how to achieve desired ends. On the cost side, there are unknowns as well. Totaling the salaries of those who enforce credit controls is relatively easy. Totaling the costs to the private sector of compliance with or avoidance of the regulations is more difficult. Moreover, there is almost a total lack of knowledge about the social welfare costs of altering individual choices, as well as the political "costs" of increased Government interference.

So, the case now for a larger role for selective credit controls is less than convincing. The benefits are elusive and, even if defined, difficult to achieve, and the costs of implementation may be sizeable. Therefore, the justification for additional selective credit controls, given the current state of knowledge, must rest more on "hunch" than any systematic analysis.

Appendix 1

A CLASSIFICATION OF CREDIT POLICIES*

Classifications

Explanation and Examples

A. On Lenders

1. Portfolio restrictions

This type of policy would apply mainly to financial institutions requiring (or persuading) them to hold certain types of assets. A current example is that savings and loan associations are limited mainly to holding only U.S. Government securities, mortgages, and home improvement loans.

2. "Special" reserve requirements

There are at least several possible forms. One example is the current suggestion that the Federal Reserve System impose "asset-reserve requirements" on bank lending (see text for an explanation). Another is that "high-priority" loans could be used by financial institutions to meet legal reserve requirements on their liabilities. Reserve requirements are currently not used for credit-allocation purposes in the U.S., although they are employed in West European countries.**

3. Other subsidies (taxes) to lenders making certain types of loans

This policy could take many forms. One form currently in practice is the exemption from income taxes of interest earned on municipal securities. Another example would be special access to the Federal Reserve's lending facilities to banks making certain priority loans (such as the September 1966 "letter" from the Federal Reserve System to banks). This practice of credit allocation has been much more common and formalized in Western Europe than in the U.S.

^{*}This classification scheme is adapted from William L. Silber, "Selective Credit Policies: A Survey," Kaminow and O'Brien, eds., *Studies in Selective Credit Policies*, p. 101. For a detailed classification of credit policies applicable to the residential mortgage market and housing, see Jack M. Guttentag, "Selective Credit Controls on Residential Mortgage Credit," Kaminow and O'Brien, eds., op. cit., pp. 38-40.

^{**}For a more detailed review of West European uses of selective credit controls, see James M. O'Brien, "Central Banking across the Atlantic: Another Dimension," *Business Review* of the Federal Reserve Bank of Philadelphia, May 1975, pp. 3-12.

B. On Borrowers

1. Subsidies (taxes) to certain kinds of borrowers

2. Capital issues committee

C. On Instruments

 Interest-rate ceilings and controls over other terms of credit There are also many forms that this policy might take. Some could involve one way or another of reducing the income-tax liabilities of certain borrowers.*** Other examples are provided by current Federal credit programs. One form is direct low-interest loans by the Federal Government such as those made by the Rural Electrification Administration, the Department of Housing and Urban Development, the Export-Import Bank, etc. Another form is interest-subsidy payments to those obtaining private loans. Current examples are subsidies paid on college housing loans and academic facility loans.****

Borrowers would have to get permission from some governmental committee in order to issue bonds on the open market. This is not practiced in the U.S. but is used in West European countries to guarantee favorable treatment in the capital market to high-priority borrowers.

The Federal Reserve System has had a long history of administering credit policies, as directed by Congress, to affect interest rates and other credit terms of several types of debt instruments. These include interest-rate ceilings on deposits of commercial banks, and down payment and collateral requirements on loans to purchase stock since the early 1930s. They also include the regulation of (noninterest) terms on consumer loans during World War II, 1948-49, and the Korean War as well as mortgages during the Korean War. Moreover, some state governments set maximum interest rates on mortgages, consumer loans, and municipal securities. These various ceilings have been largely used ostensibly to protect borrowers and lenders. However, the experiences associated with the two wars and intervening period were concerned with curbing consumer durable and home buying.

^{***}For a more detailed discussion of this type of policy, see Rudolph G. Penner, "Taxation and the Allocation of Credit," Kaminow and O'Brien, op. cit., pp. 76-78.

^{****}For a more detailed review of Federal credit programs and their importance, see Murray L. Weidenbaum, "Subsidies in Federal Credit Programs," in U.S., Congress, Joint Economic Committee, *The Economics of Federal Subsidy Programs*, 92d Cong., 2d sess., 8 May 1972, part 1, pp. 106-19.

2. Changing the characteristics of certain types of loans

Some credit programs have been aimed at reducing the riskiness of certain favored categories of loans, particularly residential mortgages. Both the Federal Housing Administration and the Veterans Administration make mortgage insurance available to qualified borrowers. Also, the Federal National Mortgage Association maintains a "secondary" market in mortgages and Federal Home Loan Banks make loans to savings and loan associations. These institutions help reduce the riskiness of mortgage lending by making it possible for savings and loan associations to obtain funds or liquidate mortgages in order to meet current commitments. The Federal Home Loan Bank Board has its liabilities guaranteed by the Federal Government and both financial institutions have backup-borrowing capability at the U.S. Treasury.

Appendix 2

SUMMARIES OF INDIVIDUAL STUDIES*

Ira Kaminow and James M. O'Brien: "Issues in Selective Credit Policies: An Evaluative Essay"

This essay uses the perspective provided by the other contributions to the book and other studies to examine and organize the issues surrounding selective credit policies. These issues are split into three groups — the ultimate social goals that selective credit policies are supposed to serve, the effectiveness of such policies in achieving the more proximate aim of resource reallocation, and their impacts on the distribution of income.

Ultimate goals that can be discerned from arguments for credit-allocation policies include a more socially desirable mix of output, correcting for Pareto-type imperfections in credit markets and offsetting the sectoral impacts of restrictive monetary policy. Arguments germane to these goals are examined in terms of social benefits to be gained from employing selective credit policies.

Arguments for the use of selective credit policies must also depend on their ability to affect the allocation of resources. Reviewing analyses dealing with this issue reveals different, but not necessarily incompatible, views on the *modus operandi*. Different views of how the process works color opinions on the type of evidence deemed relevant and sometimes the likely effectiveness of credit policies. Nonetheless, there seems to be some agreement that available evidence on the whole does not run counter to the notion that credit policies can effectively reallocate resources. However, the evidence is also mostly indirect and very incomplete.

Income-incidence impacts of credit policies have received less attention from economists than their ability to reallocate resources. Research in this area has been limited to a partial equilibrium analysis of some of our current credit subsidies. Although the incidence conclusions are still of interest the work largely fails to come to grips with the important issue of the shifting potential of credit subsidies and taxes.

^{*}These summaries were prepared by Ira Kaminow and James M. O'Brien. The individual studies appear in Ira Kaminow and James M. O'Brien, eds., *Studies in Selective Credit Policies* (Federal Reserve Bank of Philadelphia, 1975). To obtain copies of this volume, see notice on page 23.

Specific suggestions for orienting future research emerge from the evaluation. These deal with a need to (1) move away from the casualness that currently permeates most discussions of the objectives of selective credit policies, (2) develop analyses bearing directly on the issues and depending less heavily on work in other areas of economics that is sometimes inappropriate or of limited use, and (3) give greater recognition to the general equilibrium or disequilibrium and dynamic setting in which credit-allocation policies will operate.

Finally, from the perspective of the evaluation, the implications for extending credit-allocation policies beyond what is currently in existence appear negative. There seems no clear indication that credit policies might improve economic efficiency or otherwise produce social benefits. Indeed, there is little basis for even rejecting the possibility that such policies would be socially detrimental.

Jack M. Guttentag: "Selective Credit Controls on Residential Mortgage Credit"

The application of selective credit policies to affect mortgage flows is reviewed in this study. The first part of the study is concerned with various selective credit techniques which have actually been used or have been suggested for use in influencing mortgage flows to housing. These various techniques are classified and discussed. A special emphasis is given to analyzing the role of "maximum terms" — legal interest-rate ceilings, maturities, and loan-to-value ratios — as applied to mortgages.

The second part of the study uses the discussion of credit control techniques in evaluating five suggested objectives of selective credit controls for influencing mortgage credit: reduction of aggregate demand, correction of maladjustments in the housing sector, maintenance of structural stability in the economy in the face of unusually disruptive shifts in demand, increase of resources to housing, and achievement of a more equal distribution of housing among different income groups. Some conclusions are reached regarding these various objectives. For example, it is argued that in correcting for maladjustments in the mortgage and housing sectors (particularly mortgage and housing downturns) the preferred approach would be to stimulate mortgage credit and housing by reducing Federal deficit spending. Credit policies aimed at restricting corporate borrowing would be the next-best solution.

The objective of maintaining some form of structural stability in the economy would require a broad-based system of credit-allocation policies. Devising such a system of controls that would be effective, but not require extensive administrative interference in financial markets merits serious investigation. In using credit policies to affect a shifting of resources to housing, there is a strong need to study the importance of credit terms on the *long-term* demand for housing. Current attempts to measure the effects of credit terms on housing demand capture some mix of temporary and permanent effects. Finally, it can be argued that mortgage credit terms have the strongest impact on the housing demand of low-income groups. However, the impacts that legal restrictions on mortgage terms have on the distribution of housing ownership among different income groups have not been adequately analyzed and require additional research.

Rudolph G. Penner: "Taxation and the Allocation of Credit"

This study focuses on tax legislation that is aimed at reducing credit flows in order to change the mix of production. Attention is first given to specifying the economic variables which determine the

cost of capital to the investor and how capital costs are affected by different forms of subsidies and taxes. Various forms of subsidies and tax concessions are examined. The latter include the investment tax credit, depreciation allowances, deduction of interest from taxable income, and changes in the income tax rate. One conclusion is that interest subsidies or penalties are likely to be more equitable and efficient than tax credits and concessions. Moreover, since outright subsidies are a budget outlay they have another advantage over tax concessions as the subsidy element in the latter are often hidden and difficult to estimate. Among the different tax approaches, credits are deemed generally more desirable than other types of concessions because they tend to be more equitable and cost the Government less for a given impact.

Attention is also given to affecting the interest rate paid by borrowers through tax schemes applied to assets in lenders' portfolios. Using a mean-variance approach, definitive results of the effects of taxes on the demand for "risky" versus "safe" assets are difficult to obtain a priori. Several possible results are discussed under different portfolio behavior assumptions and different tax

policies.

Given the effect of a selective credit policy on the cost of capital, the impact on real investment will depend on the firm's response. In reviewing studies on this issue, a middle-of-the-road conclusion appears to be that changes in the cost of capital significantly affect investment demand but with a relatively long lag, as compared with, say, sales. Finally, it is emphasized that there are several possibly important "slippages" between changing the composition of credit and changing the mix of output. Thus, if the objective is to change the mix of output, it is likely to be done more effectively by subsidizing or taxing the outputs directly rather than through credit subsidies or taxes.

William L. Silber: "Selective Credit Policies: A Survey"

The degree of substitutability among financial market instruments by borrowers and lenders is crucial in determining whether a selective credit policy can affect the allocation of resources or redirect financial flows. Much of this essay examines these substitutability relationships. The discussion first focuses on the substitutability conditions required for credit policies to alter the output or credit mix, according to whether the policies are applied to lenders, borrowers, or more directly to the assets themselves.

With respect to these conditions, a review of empirical work on asset substitutability indicates a general lack of research on the efficacy of selective credit policies. What information is available, including indirect and piecemeal evidence, does not generally refute the hypothesis that credit policies can have desired effects on the composition of credit and possibly real output. However, several caveats are advanced. One is that the impacts of the policies may be much stronger on credit flows than on real resource allocation. Another is that the effectiveness of the policies is likely to diminish over time. And, finally, the piecemeal nature of most of the evidence, plus a number of possibly significant technical problems, suggests that any conclusions should be held with a good deal of reservation.

One aspect of the efficacy issue that has received some study is that of the effects of Federal Home Loan Bank advances to savings and loan associations and mortgage purchases by the Federal National Mortgage Association. Both programs have been important in recent years. Somewhat surprisingly, the studies indicate that the impact of FHLB advances on the mortgage and residential construction markets might be quite large while the impact of FNMA purchases appears neglible. However, the studies of these programs are still very few. Furthermore, some serious problems in estimating the policies' effects emphasize that the results should not yet be taken at face value.

Concluding the survey is a brief review of arguments for and against credit policies on the grounds of their equity and efficiency in reallocating resources. Several points emerge from the review. One is the need for a normative theory of the incidence of stabilization policy so that

policymakers will have a standard for judging whether the incidence of countercyclical policy should, or can, be offset by selective credit policies. Another point is that opponents of selective credit policies have most often stressed their interference with the efficiency of our financial system. The implication is that credit policies may not be particularly appropriate for reallocating resources unless the source of the resource allocation problem is a malfunction in our credit markets.

Paul F. Smith: "A Review of the Theoretical and Administrative History of Consumer Credit Controls"

Debate over the need and desirability of consumer credit controls has ensued for many years. Historically the arguments have revolved around consumer credit and economic stability: the impact of cycles in consumer credit on overall economic stability, the effectiveness of traditional monetary policy in dampening excessive increases in consumer credit, and the ability to alter aggregate credit expansion effectively with consumer credit policies. Definitive answers to these issues are still lacking, but recent arguments and some statistical work suggest that the cyclical behavior of consumer credit may, if anything, tend to dampen general swings in economic activity. Recent studies also indicate that consumer credit is sensitive to traditional monetary policies. However, there is a dearth of statistical research toward resolving the debate on the ability of consumer credit controls to affect total credit.

Another important issue is whether consumer credit controls can be expected to influence consumer buying. Studies of the relation between consumer credit terms and durable buying generally indicate that the latter is sensitive to the former. This offers some support for the effectiveness of consumer credit policies since these policies would attempt to affect consumer purchases through changes in the terms on consumer credit.

Some further insight into the potential effectiveness of consumer credit policies can be obtained through studies of experiences with controls during and following World War II and during the Korean War. At least on a superficial level, these experiences suggest that consumer credit controls can restrain consumer durable purchases. They also suggest some significant problems in the administration of the controls, particularly as borrowers and lenders attempt to evade them. None-theless, more study is needed before any firm conclusions can be reached on the effectiveness of consumer credit policies from these experiences. Credit controls were imposed during special times along with other controls, and there is little evidence on what the situation would have been without them.

John H. Wood: "Some Effects of Bank Credit Restrictions on the Short-Term Behavior of Large Firms"

A popular argument for selective credit policies is the need to curb corporate credit demands and, possibly, production during periods of high interest rates and economic booms. An important question has been whether these objectives could be achieved by restricting bank lending to corporations. In this contribution an analytical model is developed to get at some of the main issues. These issues concern the ability of corporations to avoid controls by using alternative sources of finance or altering the timing of their borrowing and production patterns. The effectiveness of both anticipated and unanticipated bank lending restrictions are analyzed.

Corporations are assumed to maximize profit over a multi-(four) period horizon. The firm's inputs are labor and capital. Production is divided between sales and inventories. Allowance is also made for "compensating balances" and credit is obtained by issuing long- and short-term securities as well as through bank borrowing (also short-term). Within this framework, the effects of a single-

period ceiling on bank loans to corporations are analyzed. The impacts on the output and credit patterns are generally shown to depend on the elasticities of alternative forms of finance, economies of scale in production, the costs of carrying inventories, and the prices of inputs and

outputs.

Some of the specific results indicate that, except in limited cases, unanticipated credit restrictions have a greater effect on curbing corporations' total credit demands and production than do anticipated controls during the restriction period. Changes in financing patterns may also be quite different in the two cases. However, even in the case of anticipated credit restrictions, there appears little danger that firms will be able to escape the effects of the controls. On this basis, anticipated controls might be preferable to unanticipated forms of credit restrictions. Anticipated controls are more likely to avoid credit crunches and rapid shifts in production and unemployment, while still having a curtailing effect on the credit demands and production of large firms.

D. C. Rao and Ira Kaminow: "Selective Credit Controls and the Real Investment Mix: A General Equilibrium Approach"

An important issue in judging the merits of credit-allocation policies is whether they can predictably alter the real investment mix where there exists a diversity of financial instruments that are substitutable in the portfolios of borrowers and lenders. This issue is investigated here using a general equilibrium framework. The model consists of a system of asset-market clearing equations for "deposits," "mortgages," "bonds," "housing capital," and "other capital" and is subject to the usual Walrasian constraint. All assets are assumed gross substitutes in households' and intermediaries' portfolios, and borrowers finance housing and other capital investment with mortgages and bonds. A selective credit policy consists of applying asset-reserve requirements to intermediaries' holdings of mortgages and bonds (but the effects of the policy apply to any instrument operating on the intermediaries' asset demands).

The policy's objective is to encourage housing investment relative to other capital. Success is determined by whether the policy's general equilibrium effects lower the required rate of return on housing and raise it on other capital. The conditions for success which are derived state essentially that the degree of substitution among holdings of different types of real capital is low and that the demand for each type of capital is more sensitive to the rate on one financial instrument than the other. It is also shown that the total effect of the policy on the required rate of return on real capital can be divided into the policy impact on the behavior of the financial sector and the response of the

nonfinancial sectors to changes in interest rates.

Major conclusions with policy implications include the following: (1) Where there is no disintermediation and all intermediaries are subject to credit controls, there will be little chance of failure. (2) Where all intermediaries are not covered, the magnitudes of the effects on the real rates of return will be reduced but the plausibility of success is still high. (3) However, where there are "open" markets and disintermediation is possible, the asset-reserve plan could fail to have the desired effect. In this situation, determining the likelihood of success requires careful empirical investigation. (4) Finally, regardless of any ambiguities in the real investment mix, the policies will have the impact on interest rates that policymakers would generally anticipate.

James M. O'Brien: "Household Asset Substitution and the Effectiveness of Selective Credit Policies"

This study deals with the general question of the ability of credit-allocation policies to alter the mix of real investment. Its particular focus is the role played by the financial asset behavior of

households. Relevant aspects of this behavior can be characterized by the following propositions: (1) Applying a credit policy uniformly either to all borrowers or lenders utilizing a particular financial instrument will more effectively alter the use of this instrument the more willing are households to substitute this for other financial assets. (2) If the policy is applied to only financial intermediaries, the substitutability condition for households is essentially reversed.

To determine which substitutability conditions are likely to be more realistic, an empirical investigation of household asset substitution is conducted across a range of nine financial assets—three kinds of deposits, savings bonds, marketable bonds, corporate stock, life insurance reserves, mutual funds, and "other assets." An attempt is made to employ a technique developed by Henri Theil and others which involved the use of estimated covariances among commodities to determine their substitutability. Asset and other data used in the present study come from the 1962 Survey of Financial Characteristics of Consumers (Board of Governors of the Federal Reserve System).

The major empirical finding is that households' asset-preference functions appear to be approximately additive. The implies that the relative substitutability of financial assets can be approximated by the assets' relative wealth elasticities. Estimates of the wealth elasticities exhibited a tendency for "fixed-price" assets to be wealth inelastic and "variable-price" assets to be wealth elastic, although all elasticities were not very far from "one."

The finding of an additive preference function also provides a basis for arguing that, among the assets studied, asset substitution is likely to be low. The policy implications cut several ways. To the extent that credit policies are applied directly to financial assets purchased by households, their effectiveness would be relatively small. However, if the policies applied only to institutional asset purchasers, there may be relatively little offset substitution by households. Of course, these implications apply only to the asset categories studied here. Within a given category, asset substitution could be expected to be greater.

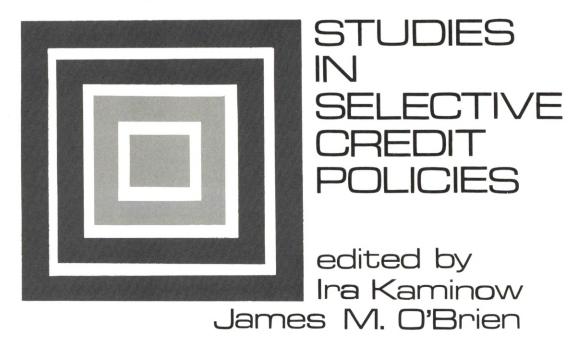
R. M. Young: "The Distribution of Stabilization Responsibility: A Possible Role for Structural Instruments"

A common assumption in discussions of stabilization goals is that a tradeoff exists between monetary and fiscal policy in producing economic stability. This presumption has become the basis of current arguments over a need to rely more heavily on fiscal and less on monetary policy in achieving economic stability because of the adverse side effects of the latter. The present study examines this issue and suggests a possible role for "structural" instruments such as selective credit policies either to affect this tradeoff or to alter the degree of economic stability achievable with the traditional macro tools.

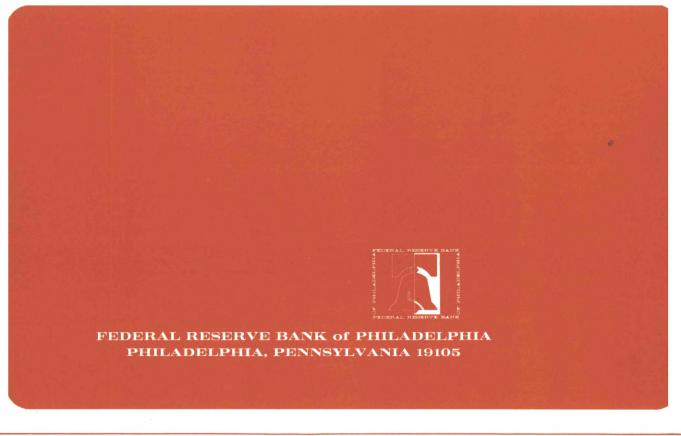
The mode of analysis rests on a simple stabilization model where the objective of policy concerns the variance of some measure of economic activity, such as Gross National Product, and the macropolicy tools may be viewed as the variances in fiscal and monetary policy. Within the context of this model, it is first shown that if the objective of the macro tools is to minimize the variability of GNP, there is a unique solution for each policy variable. Hence, there is no tradeoff among policy tools. If, however, policymakers engage in satisficing and attempt only to achieve, say, a target level of economic stability, then a tradeoff may well exist and debates on this issue become more meaningful.

This alternative view of a target level of economic stability and the stabilization model employed suggests a role for "structural" instruments somewhat different from the often-suggested role of directly helping to increase (the maximum amount of) economic stability. Illustrations are used to show how a structural instrument, such as selective credit controls, can alter the relations between the monetary and fiscal tools and the measure of economic stability. Thus, for any given target level of economic stability, credit policies or other "structural" instruments might be used to alter the tradeoff locus between the macro tools. From this alteration, it may be possible to obtain a mix of fiscal and monetary policies more in keeping with the totality of policymakers' goals.

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