Treasury-Federal Reserve Study of the Government Securities Market

PART III

Supplementary Studies

Published in February 1960

Foreword

Early last spring the United States Treasury Department and the Federal Reserve System initiated a joint inquiry into the functioning of the Government securities market. It was hoped that the study would point the way toward improvement in the market's mechanisms and to the prevention of speculative excesses in the market.

The objectives of the current inquiry differ from those of the 1952 examination of the market's functioning conducted by the Federal Open Market Committee. The 1952 study had focused upon the role of the Federal Reserve Open Market Account in the Government securities market, with the effects of the Federal Reserve open market operations on the market's performance and also on money markets generally, and with procedures and practices in Federal Reserve open market operations that would help in carrying out appropriate monetary policies.

Part I of the study, issued in July 1959, summarizes the informal consultations conducted by the Treasury-Federal Reserve study group with individuals associated with or informed about the functioning of the market. These consultations were designed to obtain a broad cross section of opinion on underlying forces shaping activity and price changes in the Government securities market during the period of economic recession-revival 1957-58, as a basis for possible improvement of the mechanisms and functioning of the market. We wish to express our sincere thanks to all who cooperated either by personal discussion or by making contributions through written communication. A copy of the outline for study guidance, together with a list of participants in the consultation program, is included in Part I of the study beginning on page 54.

Also published in Part I of the study is a special technical report concerned with the question whether an organized exchange or a dealer market might better serve the public interest in effectuating the purchase and sale of Government securities.

This question was raised in the hearings of the Joint Economic Committee earlier this year on the President's Economic Report. The objective of this special study is to illuminate the central issues in this important question with a view to facilitating further consideration of it.

Part II of the study, *Factual Review for 1958,* is an analytical report on the performance of the Government securities market in 1958, with special reference to the build-up in market speculation prior to midyear and its liquidation during ensuing months of declining securities prices and rising interest rates. This report is based on a group of special statistical surveys covering major lenders to, or participants in, the Government securities market, including larger commercial banks, nonfinancial business corporations, savings banks and insurance companies, agencies of foreign banks, New York Stock Exchange members, and Government securities dealers. The almost universal cooperation received in response to the survey requests has been especially helpful.

Suggestions received through informal consultations with market participants and observers, together with the findings from the factual record of last year's market performance, indicated the need for certain supplementary studies of specialized and technical focus. Although these studies are primarily conceived of as working documents for the use of Treasury and Federal Reserve officials, they are released in the present volume as Part III of the over-all study.

ROBERT B. ANDERSON,
Secretary of the Treasury.

WM. MCC. MARTIN, JR.,
Chairman, Board of Governors of the Federal Reserve System.

WASHINGTON, D. C.,
February 1, 1960.

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1. Adequacy of Market Statistics

1. Adequacy of Market Statistics

Efficient markets, bringing together informed buyers and sellers under conditions of open competition, are vital organs of a healthy, free economy. The market for United States Government securities should lead the way, both in developing trading procedures to serve the needs of all kinds of investors most effectively, and in providing the fullest practicable range of information to serve as a basis for the judgments of those who participate in the market and those who study its performance. In many respects this market in its methods may already have become well adapted to present needs, but the flow of reliable statistical data to the public is not as comprehensive as it could be, or should be, particularly in relation to the flow now available in some of the other principal trading markets for securities and commodities.

RANGE OF NEEDED INFORMATION

Such data, with suitable variation to fit differences in market organization and in the kinds of "products" being handled, generally reach into five areas: (1) data enumerating the total *outstanding supply* of the tradeable "product" that is currently in existence, broken down by grades, or types or maturities, along with data relating to prospective or current changes in the total outstanding and in particular segments within the total; (2) data on the *ownership* of the existing supply, by major groups of participants, including specialized traders or intermediaries; (3) data on market *activity,* including prices or price quotations, trading volume, and, where relevant, changes in significant long or short positions; (4) data on the *financing* both of trading operations and of substantial holdings that are being carried on borrowed funds; and (5) data on the creditworthiness, business practices, and financial *condition of market participants,* including the intermediaries who trade or "make markets."

There is undoubtedly continuing scope for broadening or improving the data of all five kinds in most of the principal markets. The implication of immediate relevance, however, is that a limited survey of other leading markets, against the background of direct information on the Government securities market assembled by the present Treasury-Federal Reserve study, points to a number of possibilities in some of these areas for improving the range of information regularly available to the participants in the market for Government securities, and to those who study the performance of this market in the broader terms of economic analysis and policy. Perhaps only some of these possibilities would prove practicable. The aim here is simply to identify the main shortcomings or gaps in the information that is now available—either on a current basis or as part of the perspective or historical record—to anyone actively interested in the Government securities market, and to suggest lines along which remedies for those possible shortcomings or gaps may be found.

In keeping with that aim, this special report is focused on statistics, and on the highlights of what is done or might be done to gather and disseminate them. It does not consider the details of statistical procedures, nor the differences in mechanics and organization among the various markets, which have necessarily been taken into account during the course of this study. Each of the five areas of statistical needs is discussed separately below, and the principal conclusions are drawn together in summary form at the close. Although the center of attention throughout the report is upon the needs of the public as a whole, continuing reference is also made along the way to any additional needs of the Treasury and the Federal Reserve in exercising their special responsibilities.

SUPPLY OF MARKETABLE SECURITIES

Data on the existing volume of Government securities outstanding, by issues, are complete, and readily available to the public through many media. Data on current changes, brought about mainly through the issuance of new Treasury securities and the retirement of old ones, are also published promptly.

Data relating to prospective changes must, so far as total amounts are concerned, be derived from projections of the United States Government's cash receipts and disbursements. The Bureau of the Budget provides official estimates on the annual totals twice a year, typically only in January and again as soon as possible after the adjournment of Congress each summer. More frequently, Treasury officials may provide informal short-term estimates of the approximate size of imminent cash needs during background meetings with press representatives at the time of financing announcements. In this way investors are alerted to forthcoming needs, and a better basis is provided for obtaining appraisals from informed participants in the market, concerning possible alternative methods of future financing. Current Government financial data also constitute a source of material for a number of reliable estimates of Treasury financing needs by private financial services. The detailed terms and amounts of each offering are announced just as soon as the Treasury has reached a definite decision, but always after the market has closed for the day. The announcement is typically accompanied by a background discussion with the press including an elaboration of the major considerations influencing the decisions.

Thus, in this important area of information, the Government securities market is served fully as well, if not better, than any other specialized market for securities or commodities in the United States. No suggestions need be offered for improving either the current flow of information or the compilation of the historical record, so far as the total supply of securities available to the market is concerned.

OWNERSHIP OF SECURITIES

Data summarizing the ownership of United States Government securities by major groups of holders are published by the Treasury monthly in some detail, and in greater detail by class of commercial banks semiannually. More current but less detailed data on the total holdings of banks are also available, with some maturity breakdown, each week for the weekly reporting member banks of the

Federal Reserve System, and semimonthly totals are now estimated by the Federal Reserve for all commercial banks. Data also become available through a variety of channels from time to time concerning the total holdings, but more rarely on the holdings of specific issues, by most major groups of investors. It is thus probably possible to construct more nearly satisfactory compilations of the ownership of Government securities, over the years, than could be done from presently available data for the "products" handled by any of the other major trading markets. Yet, there still appears to be some room for useful improvement in the coverage, frequency, and subdivision into relevant categories of data on the ownership of marketable Government securities.

A simple illustration may clarify some of these needs. As a Treasury security nears maturity, investors want to know something about the ownership distribution of this issue as a guide in making their own plans either to hold, buy and await the offering of new securities, or perhaps sell some of this issue or other securities. The Treasury wants to know the ownership pattern as one of the aids in deciding upon the terms of its new exchange offering, and estimating the probable "attrition." The Federal Reserve needs such information as an aid in anticipating and interpreting the significance of the churning in the money market that always occurs when an exchange of Treasury securities is passing through. And observers of financial and economic conditions need such information currently, and historically, to help in interpreting the interactions between the events occurring in the Government securities market, the money market, and other financial markets, on one side, and developments in more general economic activity, on the other.

Under present statistical arrangements, the most recent data on ownership of any given issue, by major groups of holders, that are available to the public, are from two to four months old; fragments or preliminary data available to the authorities are one to two months old. Much of the substantial shifting of ownership that occurs shortly before an exchange offering, and which would provide helpful evidence of over-all market preferences and behavior, is not visible through any statistical facility now in service. This illustration could be multiplied into many others, pointing

out the desirability, for all participants in the market, of increasing both the frequency and the speed of present Treasury reporting arrangements.

One approach toward improvement might be to strive to process and release data on each past month by the date on which respondents will report their holdings for the next month. The availability of electronic accounting and statistical facilities would seem to make such an approach feasible fairly soon. Another approach would be to try to obtain current data on transfers of ownership for each outstanding issue, by classes of holders, from Government securities dealers. But this would be a cumbersome process, subject to wide errors, as a given security passed through perhaps as many as three or four different hands in the course of a single day and each dealer tried to define the appropriate classification for each customer.

Even with timely data, at frequent intervals, for each issue, the investor's needs would not be as well satisfied as he might rightly expect. For he would find that present reporting arrangements permit tabulations by specific issues only for six categories—United States Government agencies and trust funds, Federal Reserve Banks, commercial banks, mutual savings banks, insurance companies, and "other investors"—and that a large proportion of most issues, particularly the nearer term ones, is actually held by the "other investors." On closer inquiry he could also be somewhat disturbed to find that the residual "other" includes a number of smaller banks and insurance companies not included in the direct reporting sample on an issue-by-issue basis, as well as such important investor groups as State and local governments, business corporations, savings and loan associations, foreign holders of all kinds, corporate pension funds, nonprofit institutions, private individuals, and, perhaps of special significance, dealers and brokers (including stock exchange houses and underwriters as well as dealers in Government securities). Surely, State and local governments, business corporations, savings and loan associations, and possibly certain other nonbank institutional investors might be broken out of this conglomerate.

To be sure, the investor probably should not expect that a detailed census, or significant sample, covering all of these separate

groups could practicably be assembled for each outstanding issue of Government securities each month. Perhaps it is enough that improved estimates of the total holdings of all Government issues by each of these separate groups be published monthly.

Investors do know that, in the case of common stocks, purchases and sales as well as the actual holdings of a particular stock by large holders and any principals at interest must be disclosed to a responsible body representing the public and that, in turn, such information is made available to any interested person and in part published. Investors and students of these markets know that all trades and holdings above a certain minimum, by traders in regulated commodity exchanges, must be disclosed to the Commodity Exchange Authority, and that information on aggregate positions of large holders is released to the public.

This awareness leads reasonably to questions as to whether detailed information should not be gathered directly from such special "parties at interest" as the Government securities dealers. Presumably questions as to how much should ultimately be published, by whom, how promptly, and how often, could only be resolved after reports had been compiled for some period by the Treasury or the Federal Reserve. Perhaps such a reporting burden for actual holdings on specified dates would, in the case of Government securities dealers, collide with other possible needs to be mentioned below for data on "positions" (which are normally kept on a commitment basis and would show widely different totals, issue by issue, from those for holdings on any given day). This is not the place to resolve these questions, or possible conflicts, with respect to the need for some further breakdowns of detailed, prompt, and frequent statistical information on the ownership of marketable Government securities. It does appear, however, that some further subdivision of the ownership data, by groups of owners and maturities of holdings, which would become available promptly, should be initiated.

There is one other kind of statistical data on ownership that has definite significance both in the trading market and for students of financial developments. That is information, broken down by investor groups, on the allotments of new Treasury issues. Such

tabulations are published promptly. Perhaps the only suggestion to be made here is to note that detailed classifications of investor groups for this purpose differ slightly from those found in the regular surveys of ownership.

ACTIVITY IN THE MARKET

Because Government securities are free of credit risk, and are outstanding over the full range of the maturity structure, trading in these securities is one of the least ambiguous indicators of changing supply and demand conditions throughout the money and capital markets. That is why not only investors of all kinds, foreign and domestic, are keenly interested in what is going on in the Government securities market, but also analysts of current credit and economic conditions throughout private industry, the academic community, and Government. They want to know as much as they can about the prices and price changes for all issues; about the volume of trading underlying these price movements; about the possible influence of overhanging long or short positions; and about all other significant influences affecting both the actual supply and demand conditions and expectations concerning those conditions.

The active participant in the market knows much of all this, from time to time, because he lives in the market, has an accumulated store of experience, and draws continually upon a developed and tested array of contacts with sources of immediate intelligence. Most of this kind of information, essential as it is to the dealers who "make" the markets, simply cannot be transcribed or adequately communicated to others, though much that is helpful to others interested in market developments is provided by statisticians and economists in some of the dealer firms, banks, and other financial institutions and by news media. Even these analysts, however, find continued need for prompt, reliable and comprehensive statistics—as an aid to those who make the immediate operating decisions, and later on, as an aid in interpreting past events in order to learn from them. Much information relating to activity in any market is ephemeral; rumors abound, and these certainly defy statistical quantification. But there may, nonetheless, be more of a statistical

nature that could be done to help both those actively engaged in buying and selling Government securities, the analysts, and students, although the needs of each will certainly not be all the same.

Prices and interest rates. Data on the prices quoted for specific issues are readily available from dealers all of the time. There is no shortage of basic information, nor of processed composites of prices and rates, in terms of the quotations in effect at the close of each business day. There have been times, however, when volatile movements that occurred within a trading day had an unusual significance, known to dealers at the time, but not captured for the historical record. While such instances would not justify a vast apparatus for assembly and distribution of hourly details, nor even justify encouraging newspapers or other publications to follow the practice of other markets by quoting "high" and "low" along with the closing quotations, there would seem to be value in retaining at the trading desk of the Federal Reserve Bank of New York a master record of composite quotations running through the course of each trading day in a form that could be made readily available to serious students on request. There would also seem to be merit in the idea of an official closing quotation sheet for all Government securities to be issued each day by the New York Federal Reserve Bank. The daily press might well be encouraged to use this official source for its published quotations.

Volume of trading. The stock exchanges regularly disclose their aggregate volume of trading, as often as hourly throughout the day, and the volume for each issue is made public soon after the close of each day. Similarly, data on trading volume are published daily by all of the commodity markets for each kind of commodity contract and delivery month. These are, to be sure, auction markets, in contrast with the Government securities market which had not been able to function well on that basis and has evolved instead into a huge over-the-counter market in which transactions are worked out on a negotiated basis. Nor do buyers and sellers of Government securities anonymously post their bids or offers (or that portion of them which they are willing to show), by price and amount, for all to see "on the Board." Each trade is individually negotiated. With due regard for fundamental differences,

however, the analogy suggests the usefulness for the public of reliable volume data on transactions in the Government securities market.

While there is certainly some business conducted directly among investors themselves, their dependence upon dealers is so heavy, for so many reasons, that fully adequate statistical data should be obtainable through direct reports from the dealers on their own transactions, possibly supplemented by reports from large city banks that maintain trading relations with their own or correspondent customers. The Federal Reserve has already developed and maintained informal reporting relations with most dealers for some time, and is consequently well aware of the detailed problems of achieving uniformity of accounting practices in this area. Dealers should, for example, if their reports were to be assembled for use in preparing statistically reliable time series, all follow the same methods in classifying purchases and sales involved in repurchase agreements. Are these all simply the equivalent of transfers of collateral for the purpose of borrowing money; are they all straightforward purchases and sales of securities; or are there some types of repurchase agreements that are essentially borrowing, and others that are essentially securities transactions?

Dealers do not now follow fully uniform practices in respect to questions such as these, and the differences among them could—as has been revealed during the collection of data for the present Treasury-Federal Reserve study—produce results of widely differing magnitudes for total volume, and for volume by specific issues or groups of issues. Clearly, if there is to be comprehensive continuous reporting that is statistically reliable, the Treasury and Federal Reserve in conjunction with the dealers themselves must start by working out—not only for this purpose but for others to be mentioned later below—guides to uniform accounting practice among the dealers. Then ways would have to be found, preferably by voluntary agreement but through legislation if necessary, to assure acceptance of these uniform practices by all of the dealers, to verify actual conformity from time to time, and to provide machinery for review and resolution of doubtful cases. With the fundamentals assured, such other questions as these would then

have to be resolved: who are the dealers? how and by whom is that identification made? what means should be used to assure full reporting by each dealer? and to whom should the reports be submitted for compilation (and the usual editing always required in the processing of statistical reports)?

If these questions become resolved, it will be possible to begin accumulating experience as a basis for answering the final questions with which the investing public and the students of the market would be most concerned: in how much detail will the reports be collected? how often? how soon? and how much will be regularly available to the public, and with what time lag?

Dealer positions. In most other markets, when a firm engaged in specialized trading functions acquires large outright holdings of the securities or commodities with which it is directly concerned, these holdings must be disclosed either to the officials of the exchange, or to a duly constituted public authority. In some cases there is also a provision for actual publication, or at least that the reports may be open to the inspection of any interested, competent person. But there are fundamental differences between the auction markets to which these procedures have been successfully applied and an over-the-counter market.

Essentially, the role of intermediaries in auction markets is to match off ultimate buyers and ultimate sellers; they are not expected in fulfilling their function to carry large inventories of their own most of the time. One of the principal reasons why Government securities have instead moved into an over-the-counter market is that the sheer volume and diversity of the trading needs of investors in Government securities call for faster moving and more flexible arrangements than those provided when ultimate buyers must wait until ultimate sellers (or speculators willing and able to chance a "short sale") appear with the right issue, in the right aggregate amount, at the right price—or *vice versa*. The Government securities market is "made" by dealers who will buy from or sell to customers, outright, in reasonable (and usually that means quite large) amounts on the basis of quotations that the dealer is prepared to make instantly over the telephone at any time during the trading

day. That kind of performance requires inventory, often of substantial size, in the case of major dealers.

Thus, it is to be expected that when dealers are doing their job in making markets, their positions will be relatively large, will turn over rapidly, and will usually include gross long and gross short holdings considerably larger in the aggregate than the net position. As noted earlier, positions must be kept on a commitment basis so that a dealer knows at any moment what he actually has at his disposal. Consequently, positions always differ from actual holdings, and it is the latter (including securities pledged as collateral against other securities borrowed to complete short sales) which give rise to a dealer's needs for borrowed funds. All of these arrangements are essential parts of a market machinery that has proved responsive and efficient for the large transactions characteristic of Government securities trading. In other kinds of markets and potentially in this one, if there were no required procedure of disclosure, sizable dealer or broker positions might indicate a risk of inside manipulation.

Moreover, the details of a given dealer's position and holdings are, to him, the equivalent of essential trade secrets. It is therefore essential, as it is in the case of virtually all business statistics, that the details for each individual concern be submerged in totals that would not reveal to competitors or to others the situation of any one respondent or any one customer. If that can be done, some publication of aggregate position figures, by groups of issues, and perhaps including totals for the gross long and gross short positions, could serve two purposes: first, alerting the market as a whole at times of rapid change to the magnitude of the inventory being carried, or perhaps being distributed by all of the intermediaries of the Government securities market, taken together; and second, filling out the information needed by students who attempt to appraise the effectiveness of the Government securities market in performing its economic function over the years.

While both purposes appear quite valid, neither is sufficiently clear cut or compelling to support an early decision to prepare the way for publication. At least it would seem, with respect to data from the dealers, that those for ownership holdings and for ac-

tivity that have already been discussed, and those for financing that are soon to be discussed, clearly deserve prior attention so far as the needs of the public—investors and analysts—are concerned. Any comprehensive formulation of dealer accounting standards should certainly, however, extend to the methods of classifying items for the purpose of preparing position statements. And it would be desirable, if practicable, to have consistent daily reports of position filed by each dealer with the Treasury and Federal Reserve in order to provide a basis for continuing study of the possible usefulness of regular or occasional releases of aggregate data in some form to the public. In any event, dealer position reports are essential to keep the authorities fully informed concerning the amount (and relative distribution among different dealers) of the build-up of commitments in advance of actual deliveries. It is this build-up that should often be taken into account in formulating or implementing current policy decisions in the broad public interest.

Other activity. Though it is inherent in competitive markets that no participant can perceive all of the supply and demand influences as a whole, each of the major participants is forever engaged in the attempt. While this involves the use of many sources of information and of statistical data, which need not be reviewed here, the effort usually includes some close guessing as to the possible sources of any potential large blocks, either of supply or of demand —where they are likely to be coming from, when, in what way, and how urgently.

Guesses concerning the operations of Treasury accounts and funds, as well as Federal Reserve operations, play a large part in this pursuit, and that is one of the reasons why frequent publication of the actual changes in Treasury funds and accounts and in Federal Reserve holdings is eminently desirable. Both Treasury and Federal Reserve holdings are now published regularly on an issue-by-issue basis, but some speed-up in publication would be desired by many participants in the market.

In addition, the authorities probably should have access to one other additional block of information on market activity, in order to be in a position to decide whether, and when, to release some

supplemental data at times of unusual market disturbances, particularly when rumors of sales in process and threatened sales may be exerting an exaggerated and demoralizing influence upon the current behavior of many participants in the market. It is striking, for example, after all the tumult in June and July of 1958, that full records now tabulated long after the events show that perhaps less than 1,000 different institutions—banks, nonfinancial business corporations, and others—accounted for the bulk of the changes in holdings that occurred.

Would it not be possible, and desirable, for the Treasury and Federal Reserve, in some unified and wholly confidential way, to maintain fairly regular and informal contact with a variable list of several hundred major entities in the market, calling upon them from time to time for quick approximations of their holdings, or recent changes in them? This would, in effect, involve an extension and perhaps some coordination of various existing arrangements, such as the Treasury's occasional special reports from large corporate taxpayers. The mere knowledge that established procedures for special surveys were readily available to the authorities might at times be enough to allay disruptive apprehensions. If that were not enough in rare instances, even without any regular periodicity, the simple release of one or two round numbers might be enough to ease a situation of tension before it cumulated into a disruptive spasm. The same contacts, carefully maintained by specialists assigned permanently to this kind of work, might also, understandably, be developed into a quasi-statistical intelligence service of broader continuing usefulness.

Financing of dealers and traders. Because Government securities dealers have to carry inventories of some size, the availability and price of borrowed funds to them is one important determinant of their ability and readiness to position or sell securities. It is thus through dealer borrowing that one of the important conduits is formed between the money market and the whole array of Government securities, from the shortest term to the longest. This is why information on the sources and amounts of dealer financing, and the rates that they pay, is important not only for investors and students but also for Treasury and Federal Reserve policy

and operations. To a lesser extent, as noted again shortly, there is also value in having some statistical data on the financing of other traders in Government securities who may depend heavily upon borrowed funds.

There is surely a public interest to be served by the regular, frequent, and prompt publication of aggregate data on dealer borrowing. The Federal Reserve is already about to launch a two-year experimental tabulation of data on transactions in Federal funds, which will include daily reports from the dealers. It would be advisable to parallel this undertaking, as soon as practicable, with regular daily reports from the dealers on their other financing activities, segregated between collateral loans and repurchase agreements, classified by maturity and by geographical source (that is, as between New York City and the rest of the country), and further distinguishing between banks, business corporations, and others.

If and when a comprehensive codification of dealer accounting procedures is accomplished, some revisions might prove necessary in the data, but that eventuality should not be a deterrent to earlier introduction of financing reports along the lines just suggested. Negotiations on a partial program to this end had already proceeded some distance between the Federal Reserve and the dealers when further action was suspended pending completion of the current Treasury-Federal Reserve study. This program might well be extended and it certainly should be pressed forward actively.

It is regrettably true, however, that present accounting procedures would make it cumbersome for some dealers and impossible for others to supply data on average rates of interest paid each day for Federal funds—or for borrowing—in a way that would correspond to the breakdowns by form and source recommended above. The systematization of dealer accounting, and the establishment of reporting arrangements with all active dealers, should eliminate these obstacles, however, long before the stage is reached at which Treasury and Federal Reserve officials would decide, presumably after consultation with dealers, upon how much detail could usefully be published, at what intervals, and with how long a lag after the date to which the statistics apply.

Meanwhile, it is also desirable to make full use of the sources of information available through the weekly reporting banks. As a minimum, it will be useful in the reports of all weekly banks to have loans for the purpose of purchasing and carrying Government securities subdivided between brokers or dealers and others, a breakdown that has been used continually by the New York and Chicago banks since World War II and that was initiated as of July 1, 1959, for all of the others. At some time it may also be relevant to distinguish between collateral loans and repurchase agreements, at least with respect to dealer loans, but whether or not to pursue that would depend partly upon the extent of detail that can practicably be collected from the dealers themselves, and upon subsequent decisions concerning the publication of such tabulations.

So far as the financing of other traders in Government securities is concerned, there are probably only infrequent intervals, such as the episodes of midsummer 1958, when that kind of activity becomes significant in the volume, and behavior, of the market. It is difficult to visualize any practicable method of regular reporting that would bring out the emergence of these special situations without also being extremely cumbersome through the weeks and months and years when such information would be of virtually no interest to anyone. The separation between dealers and others in the Government securities loans of the weekly reporting banks is most desirable as a way of sorting out for early attention the emergence of any substantial rise in bank lending on Government securities (to other than dealers and brokers). With that kind of data available, if the specialized staff mentioned earlier should be created, or some other informal intelligence relationship were established with several hundred key concerns in the market, contacts should readily be available for spot surveys.

Reliance upon spot surveys for unusual situations, or to test for the possible emergence of major changes in market behavior when other data cast out signals of doubt, would seem at the least to be helpful for the authorities themselves as an adjunct to existing sources of information. It might also, collaterally, provide a means to reducing some of the burden of direct contact with the market

now carried by senior officials of the Treasury and Federal Reserve. But its principal role from the purely statistical point of view would be that of making possible prompt surveys for special needs, so as to avoid the necessity for maintaining a statistical program to provide data for detecting (or perhaps only for making a post-mortem analysis of) occasional unusual situations that threaten to become disorderly. If instead, the aim were to have fully comprehensive data flowing into the Treasury and Federal Reserve all of the time, such statistical series would have to be maintained in elaborate detail week in and week out and would provide more figures than could be usefully employed the greater part of the time by investors, students, or the Treasury and Federal Reserve. There is a risk, to be sure, of frightening the market simply by conducting a spot survey, but that should not be an insuperable problem if the technique were also to be used occasionally for other kinds of purposes.

At the present stage of informational development for this market, it is difficult to visualize any other practicable and useful way of attempting to obtain quick, current data directly, either from the nondealer-nonbank borrowers of funds for use in carrying Government securities, or from the nondealer-nonbank lenders of funds for the purpose of purchasing or carrying Governments.

FINANCIAL CONDITION OF DEALERS

The dealers in Government securities are all very reputable business firms. Ethics, reliability, and efficiency are essential for survival in competition for the Government securities operations being carried out by the country's leading banks, other financial institutions, and business corporations. Moreover, the Federal Reserve does business with the dealers for itself and on behalf of the Treasury, and is familiar with their financial standing and ability to perform. The Federal Reserve is also in effect a supplier of funds to dealers, since it uses repurchase agreements with nonbank dealers as one means of effecting short-term changes in the availability of bank reserves, and in this capacity it reviews the financial state-

ments of the dealers regularly, just as any bank would do in continually re-appraising the creditworthiness of its customers.

Perhaps these are enough assurances of impeccability to lead to the conclusion that no regular publication of financial statements should be required. Yet the very special nature of the quasi-public responsibility exercised by the dealers, in making markets for the Government's own credit instruments, raises a question as to whether the public is not entitled to some open periodic disclosure. Most dealer firms do not do so now for several reasons, but one very important one is that virtually all dealer firms are also participants in other markets or in banking and they do not attempt to maintain fully detailed, separate, financial statements for the Government securities side of their business.

As no segregated statements are available, and since there are no uniform accounting procedures that would permit standardization of financial reports at the present time, there is little or no basis for offering suggestions concerning the possibility of eventual publication of some kind of consolidated balance sheet and income statement for the dealer community as a whole. From an over-all, public point of view, the present shortcomings in dealer accounting practices—shortcomings that do not in any way reflect upon the integrity of the concerns or the adequacy of their own accounting methods in each case fully to satisfy their own needs—do seem to call for further detailed exploration by Treasury and Federal Reserve officials with the dealers, both nonbank and bank. Not only with respect to financial statements, but because of the more urgent statistical needs mentioned earlier, there does seem to be a need for some action in the direction of uniformity—in order to be able readily to provide the kinds of information needed in the public interest, as a corollary of the kind of public responsibility which the dealers as a whole, in their own way, exercise in a capacity somewhat comparable to the special role of the commercial banks.

So far as other participants in the market are concerned, most are already covered by some kind of reporting and surveillance arrangements: some with the stock exchange; the banks with their various supervisory authorities; the insurance companies with the

various State insurance commissions, and so on. In view of these existing arrangements, there is no pressing need, in the public interest, to provide further for the review of the standing and practices of other major participants in the Government securities market.

CONCLUSION

The primary concern of this report has been with the needs of the investing public, analysts, and students for more statistical information concerning the performance of the Government securities market. Their clearest needs are for historical records, describing in some way the amounts held, by issues or classes of issues, by all of the principal groups of participants in the Government securities market, as well as the volume of market activity, and the financing of dealers (amount, and if possible, interest rates). While the same data in current form would also be helpful to investors and others, it seems clear that considerable experience would first be required in assembling data with a view toward publishing an historical record, before responsible decisions could be reached concerning the practicability of current publication.

In the process of developing detailed procedures for beginning reliable reports that could form the basis for statistical time series, the Treasury and the Federal Reserve will probably find it necessary to identify in some explicit way the active dealers in Government securities, and to work with them to devise uniform accounting procedures covering all segments of the business of each dealer that relate specifically to the purchasing, carrying, and trading of Government securities. Any informal reports that have been received by the Treasury and the Federal Reserve in the past would not provide a suitable basis for aggregative compilations or for time series, although such material may well serve many of the day-to-day needs of the Treasury and the Federal Reserve for supplementing immediate impressions of market activity with some rough and rounded numerical background.

There are many other aspects of market performance that might usefully be illuminated by statistical compilations from time to

time. Some of these may emerge as concrete possibilities once progress is made toward improving data on ownership, and providing data on activity and financing. But there will probably always be a range of developments that cannot practicably be brought within the framework of routine, regular, and frequent comprehensive statistical reports. For these, as an alternative to formalized statistics, there might be established a small, specialized permanent staff charged with responsibility for maintaining direct, intermittent contacts with the market. Such a staff could, for various kinds of purposes, when necessary, call for special, quick reports to serve as a basis for compilations that could be used by Treasury and Federal Reserve officials, and which might in part be found appropriate at times for release as a special statistical supplement to the regular flows of information.

All of the suggestions for information offered here for consideration by Treasury and Federal Reserve officials might, if found promising, be implemented through voluntary consultations and understandings. This partial report has not attempted to explore the possibility of formulating legislation toward such ends, in the belief that such an approach need not even be considered unless attempts to carry through a voluntary approach break down. In that event, the actual experience would be the best guide to formulation of specific legislative proposals to meet whatever needs might then have been revealed.

Appendix A

Securities Market Statistics

Statistical data originating in the securities markets and especially through the organized exchanges are of several broad types: (1) data concerning the over-all supply of securities of various types as determined by new and outstanding issues; (2) data on the shifting pattern of ownership among various investing groups; (3) transactions data including detail as to volume, prices, types of transaction, and participants; (4) data which indicate the flow of credit through the securities markets; and (5) data concerning the financial status of the brokers and dealers who execute transactions in these markets. The scope and limitations of these data, with special reference to the relevance of similar figures in the market for United States Government securities, are briefly discussed in this Appendix.

Securities market statistics are generated by a number of sources and for a variety of reasons. Some are published with varying time lags by the exchanges, the Securities Exchange Commission (SEC), or the Board of Governors of the Federal Reserve System, and certain additional data collected by these agencies are available to the public for inspection on request. Other statistics are treated confidentially by the collecting agencies. Still other records, which must be maintained currently and retained by exchange members or by registered dealers, are available for official inspection on demand. Financial trade associations supply data concerning market participation of their members. In addition to such primary sources, statistical series of various sorts are computed and published in the financial press.

SUPPLY FACTORS

Information concerning the over-all supply of debt instruments other than Government securities and equity securities is frag-

mentary and must be drawn from a variety of sources. In regard to outstanding equity issues, the New York Stock Exchange publishes monthly the number and value of listed shares. This describes the universe of issues traded on the exchange though it gives no indication of the floating supply at any given time. In addition, publications of various financial advisory services compile information on current prices and number of shares outstanding for the more widely traded individual issues, including a number which are regionally listed or are traded over the counter. The SEC publishes monthly data on new issues and a quarterly series on the net change in corporate securities outstanding which shows separately new stock issues and retirements according to a broad industrial classification.

In the market for debt—both corporate and State and local—information concerning new issues is substantially more indicative of actual supply available in the market than are global estimates of total debt outstanding. Incomplete tabulations of prospective issues can be derived from the financial press. After offering, some trade information is available on a current basis on the movement of new issues out of underwriting syndicates; the financial press carries weekly figures for corporate float (undistributed issues) and similar statistics. For State and local issues, data as to dealer inventories in both new and outstanding issues are available in the dealers' "Blue List" which shows amounts and maturities available, along with "inside" offering prices or yields.

Retrospective tabulations in some detail as to issuing unit and type of issue are available monthly from the SEC and the Investment Bankers Association. The SEC new corporate issue data include private placements as well as public offerings and also distribute the gross proceeds by a broad industrial classification. As already noted, the SEC publishes quarterly the net change in corporate securities outstanding which affords the same detail for debt that it does for equity issues. These figures are all subject to various statistical limitations and provide a much less complete picture of market supply factors than is available for the Federal debt.

The problems in collecting statistical data concerning participants in the securities markets differ considerably from those in the field of Government securities, and the information, generally speaking, is more fragmentary and less satisfactory. The shifting pattern of ownership is obviously an important factor in analyzing the market for specific types of debt and equity securities.

No coordinated data on ownership comparable to the Treasury's Debt Ownership Survey exists, but fragmentary information can be pieced together from a number of sources. Trade groups—such as the Institute of Life Insurance, the National Association of Investment Companies, etc.—publish data as to member holdings of various financial assets. These statistics vary markedly in the completeness of their coverage, the basis of valuation, the frequency of reporting date (monthly or quarterly), and other factors, but the analyst can obtain at least a rough idea of institutional holdings among such broad categories as common and preferred stock, corporate debt (industrial, rail, and utility), State and local debt, United States Government obligations, and other investment outlets. These broad statistics, of course, furnish little indication of the demand for specific issues due to disparity of terms and quality as well as to the shifting fashionableness of companies and industry groups in the market. Of particular interest, since they reflect activity by the individual investor, are the statistics published by the open-end investment companies, which show dollar value of purchases and redemptions of shares by the general public. These statistics also contain detailed lists of portfolio holdings for both closed and open-end companies.

Estimates of holdings of securities by individuals are computed as residuals by the SEC and are published annually as part of the financial assets and liabilities of individuals. This series estimates separately holdings of State and local government issues, of other bonds and notes, of investment company shares, and of other corporate equities. On several occasions the New York Stock Exchange has conducted, in cooperation with the regional exchanges and the companies whose stock is listed, a public ownership survey

intended to show the distribution of common stock in the hands of various investor groups.

Shifts over time in the pattern of market participation by categories of investors are roughly measured by the SEC, which estimates distribution of each year's net additions to the outstanding supply of corporate and foreign securities among the principal classes of institutional investors in debt and equity securities, respectively, as well as individuals. A more detailed analysis of market participation on the New York Stock Exchange is supplied by the Exchange through an annual transactions study in which a 10 per cent sample is drawn from all transactions carried out on two different business days. These surveys occur at differing dates from year to year and are not statistically comparable in a number of respects, but they summarize in both absolute and percentage terms the share of transactions on those days accounted for by members of the Exchange, commercial banks, nonmember brokers and dealers, other institutions or financial intermediaries, and the residual group known as "public individuals." An attempt is also made to distribute transactions by purpose, into classes that the Exchange calls trading, short-term investment, or long-term investment. The most recent of these studies was conducted in September 1958.

TRANSACTION AND PRICE DATA

Stocks. The daily figures on stock prices and volume of transactions with which newspaper readers are familiar are an almost automatic by-product of the organized auction market with its ticker print of individual transactions and prices as they occur. Price and volume figures for individual issues traded on the two major exchanges are those reported on the ticker. Aggregate volume is the sum of these ticker reports. In addition to these figures for round-lot transactions, the two odd-lot dealers registered on the New York Stock Exchange publish daily figures (in number of shares) on purchases and sales effected for odd-lot traders. Daily and weekly summaries for both major exchanges are published by the SEC in its monthly *Bulletin*.

On both the New York Stock Exchange and the American Stock Exchange, ticker volume understates actual transactions by as much as 10 per cent, due principally to the nonreporting of transactions in "stopped" stocks. These occur at the same price as the immediately preceding round-lot sale and need not be printed on the ticker if any member objects.

An additional problem with volume statistics for stock exchange trading as reported daily is that they are stated in number of shares rather than in dollar value; thus, the dollar amount of trading may vary independently of these figures as the "mix" of activity, in high- and low-priced issues shifts. The only data on value of trading are those submitted monthly in conjunction with fees on trading volume levied by the SEC. On the basis of these reports, monthly totals on aggregate value and volume of trading are published for each of the various exchanges.

As is apparent from the foregoing, daily volume data for exchange transactions in listed stocks are imperfect but have the undeniable advantage of supplying a broadly objective and immediately available measure of market activity. In this respect, both members of the exchanges and members of the trading public possess a kind of information that is unavailable to investors and dealers in United States Government securities. On the other hand, no current data are available on volume of transactions in over-the-counter securities once these have been fully distributed. Benchmark estimates relating to total trading for periods in 1949 and in 1951-52 have been published in a study of over-the-counter markets conducted by the University of Pennsylvania.

Price data for individual issues traded on the exchanges are actual transaction prices on which the commission charge is fixed by exchange rules and can readily be computed. Moreover, since ticker quotations show both price and volume on individual transactions in the order in which they occur, it is possible to relate price changes with the concurrent volume of trading.

For over-the-counter securities generally, other than United States Government securities, the problem of obtaining realistic price quotations is considerably more difficult than that for Government issues. Where the market for a particular issue is thin,

spreads may be wide, and actual transactions may occur at such infrequent intervals that unrealistic bid and asked quotations may persist for prolonged periods. Publication of quotations is inadequate. Those published by the press ordinarily show only estimates of the retail prices offered by dealers, and the lists include only the more frequently traded issues.

Issues are quoted on an "inside" price basis by members of the National Association of Securities Dealers in the listings published daily by the National Quotation Service. Each subscriber to this service lists issues in which he wishes to advertise an interest to other brokers and dealers. He may quote prices on either side of the market or both, but for as many as half of his submissions he is allowed merely to indicate interest without specifying a price. These sheets are directly available only to dealers; prospective customers must price the market through brokers and dealers who may carry out transactions either as agents or as principals.

Because of the large number of issues and their disparity as to investment characteristics, price changes in individual issues do not provide a clear indication of aggregate price trends. Measurement of stock prices over time is attempted through various averages and indexes computed, at frequencies ranging from hourly to weekly, by the financial press, the SEC, and the private advisory services. The variety of companies and industries, together with the wide price differences of listed stocks, poses difficulties in selecting and maintaining a representative sample. The most broadly based indexes, such as those computed by Standard and Poor's and the SEC, are composed of 500 and 265 issues, respectively, weighted according to current market value of stock outstanding. Associated with some of these indexes are series computing average yield and price-earnings ratios for the same sample. Also available are separate indexes for various component industrial groups. Several indexes are published to measure price changes in unlisted equities and in groups of stock with specific investment characteristics, but the composition and maintenance of samples suitable for these purposes pose extreme difficulties.

More detailed information on market transactions is confined exclusively to the organized exchanges. Individual exchange mem-

bers on both the New York Stock Exchange and the American Stock Exchange report daily their round-lot sales and purchases to the Exchange, which tabulates the information for the SEC. These data classify separately the following types of transactions: those for the accounts of nonmembers, those by specialists in stocks in which they are registered, those for odd-lot accounts of odd-lot dealers and specialists, and those by members for their own accounts. These last are further distinguished as to whether they originated on or off the floor. Short sales for each type of account are reported separately. Volume is reported by aggregate number of shares rather than value. The SEC publishes these data for both major exchanges with a time lag of rather more than a month.

Also released monthly by the New York Stock Exchange is the aggregate short position (measured in number of shares) in all listed stocks. This report shows positions on the 15th of each month for each issue in which the short interest is either large or volatile.

The publication of this information on exchange transactions and on short positions is largely a by-product of the fact that both the SEC and the exchanges distinguish sharply between transactions undertaken by members as principals and those undertaken by members as agents and between short and long sales. These distinctions are made for regulatory reasons. Procedures to ensure compliance with these rules result in the collection by the exchanges of further details on the individual transactions of floor traders which are not, however, tabulated in any fashion and which are treated as confidential in nature. These reports are submitted daily by all members who have traded for their own account on that day and include the members' initial position in each stock traded, the exact time and nature of each trade, and the price and its relationship to the last preceding price. Individual reports are checked by the exchanges for compliance and are also transmitted to the SEC.

Even greater detail is available to the exchanges on the operations of specialists in the stocks in which they are registered. A rough over-all measure of specialist participation in the market can, of

course, be gleaned from the published transactions figures cited above. The specialist's book, with its detailed record of each transaction and of the bids and offers available at the exact time, is retained by the specialist himself for inspection by exchange officials. Periodic checks are made by the exchange on the operations of each specialist; such informal inspections normally cover operations for a two-week period and reveal clearly the extent to which the specialist has been willing to make markets by assuming positions under various supply and demand conditions.

Another group whose trading is subject to reporting requirements is the so-called "insiders." In addition to the officers and directors of a listed company, this group includes holders of 10 per cent or more of any class of stock, and their acquisitions or disposals of securities in their companies are reported to the stock exchange concerned and become a matter of public record. Periodic publication of these data grows out of SEC procedures for preventing stock market manipulation.

Another category of transactions on which additional information is available in considerable detail includes those in which the size of the trade is notably larger than the standard trading unit. Disposals of very large blocks of stock or, more infrequently, their acquisition, can be carried out under various procedures which take these blocks out of the auction market. The procedures are of three types—special offerings, exchange distributions, and secondary distributions—graduated roughly according to the size of the proposed transaction. Use of such a procedure requires prior approval by the exchange and the filing of complete reports with the SEC. The amount and type of such transactions are published quarterly by the SEC.

Unpublished details collected by the SEC on these transactions include offering price, subsequent prices, commissions, concessions, and net profits to vendor. Details on stabilization and the success of the offering are also required. Aside from their importance in assuring compliance with the regulations under which these distributions are carried out, such reports are of obvious value in assessing the impact of outsize orders on the market and the effectiveness of various procedures for moving large blocks.

Bonds. Only a small fraction of total transactions in corporate bonds occur on the organized exchanges. A high proportion of issues are not listed, and for those that are, trading is likely to be concentrated on certain convertible bonds or securities with a pronounced speculative interest.

On any given day, most listed issues are not traded on the exchange at all, and aggregate volume may be small in relation to total debt issues that change hands. Transaction prices are reported on these issues, and the par-value volume is aggregated, but the existence of data on trading on the organized exchanges adds little to the statistical information available concerning total trading in corporate debt issues. Trading in State and local government issues takes place entirely in the over-the-counter market. Except for occasional studies, no information is available on the volume of trading in outstanding debt issues. The market for debt securities, however, is very largely a market in new issues.

The characteristics of the market and the inadequacy of price data make it difficult to construct statistical series which measure over-all changes in average price or yield for either corporate or tax-exempt issues. The more widely used measures are computed by the various financial advisory services. They are average maturity yields for samples of bonds stratified by quality and type of issuer. Both listed and unlisted issues are included in the samples, and the prices used are daily quotations furnished by selected dealers. These quotations may be hypothetical if no recent transactions have occurred and are usually predicated on very small quantities. An element of judgment is necessarily involved in determining the quality rating of an issue and the significance of indenture variations.

Both Moody's and Standard and Poor's compute daily yield series for the top four grades of corporate bonds; both publish weekly yields for State and local issues, though only Moody's maintains the quality stratification. Separate series are available for industrial, rail, and public utilities issues. To maintain comparability over time, it has been necessary to exclude such issues as convertibles, equipment trust certificates, and other bonds with "unrepresentative" features.

Financing brokers and dealers. Statistics on the financing of securities transactions are difficult to interpret because of the widely overlapping functions of brokers and dealers. Some brokers simultaneously act as brokers on the registered exchanges, extend customer credit, make markets in unlisted corporate securities, maintain large firm positions, underwrite new issues, deal in Government and in tax-exempt issues, and engage as broker or as principal in commodity and arbitrage transactions. Financial statistics, moreover, are fragmentary; the various series cover only parts of this universe and cannot be fully reconciled with each other.

Possibly the basic unit of information on the financial structure of the market for corporate securities (registered and unregistered) is the financial report filed annually with the SEC by each broker and dealer. To the extent that dealers in Government securities (and tax-exempts) are also registered brokers and dealers, they also fall within this universe. The primary function of this report is regulatory, but it discloses important detail on the sources of borrowed funds and on the types of credit extended to customers against various categories of collateral. As such, it could be of extreme value as an annual benchmark in the interpretation of more frequent current reports. Unfortunately the reporting requirement permits submission of the statement as of any date chosen by the independent accountant conducting a surprise audit of the brokerage firm. As a result, reporting dates differ for the various respondents and even vary for the same firm from year to year.

This limitation upon the statistical usefulness of the annual reports is partly offset by the less detailed report submitted to the Federal Reserve by the New York Stock Exchange member firms which carry margin accounts. For this more limited group, simplified balance sheets do supply, as of a uniform reporting date, an annual profile of member borrowing by sources of funds and by type and ownership of collateral. They also furnish information on subordinated borrowing, capital accounts, and repurchase agreements outstanding as of that date. Certain elements in this report

are also supplied monthly as a result of statistical reporting by the New York Stock Exchange.

Current reports on the financing of brokers and dealers come from both borrowers and lenders, but the two types of data do not represent the same universe and cannot be reconciled. The New York Stock Exchange supplies monthly data on borrowing by member firms; certain banks and certain agencies of foreign banks supply weekly data on loans to brokers and dealers. The reporting lenders (the "weekly reporting member banks" of the Federal Reserve System and United States agencies of foreign banks in New York City) do not include all sources of funds available to the reporting stock exchange firms; members of the New York Stock Exchange, in turn, are not the only borrowers from reporting banks and agencies which make brokers' loans to members of other exchanges and to nonmember brokers and dealers. The percentage of all brokers' loans made by banks in the weekly reporting series does not appear to be constant over time and under all monetary conditions.

The "money borrowed" figures collected by the New York Stock Exchange provide certain details of some analytic interest. Separate totals are given for firms carrying margin accounts and those which do not but nevertheless borrow regularly to finance their own operations. For both groups a distinction is made between loans collateralized by United States Government obligations and other securities. The latter are further classified according to ownership—customer or firm collateral. Also available for financing brokerage firms are customers' free credit balances which are reported monthly by New York Stock Exchange firms. Statistics on broker and dealer credit in the stock market, as published in the *Federal Reserve Bulletin,* show money borrowed by members of the Exchange which carry margin accounts and the customers' net free credit balances available for the brokers' use.

Additional, albeit fragmentary, detail is collected by the New York Stock Exchange on several types of credit. Complete monthly reports are available on the credit extended to specialists for financing their positions where these credit arrangements are more favorable than those permissible under Regulation T to margin customers

generally. These data are on an end-of-month reporting date; they are aggregated and transmitted to the Board of Governors of the Federal Reserve System. Weekly reports are also required by the Exchange from all member firms who have actual (or potential) underwriting commitments. These are used primarily to check conformity with capital requirements and contain some double-counting in their implied demand for credit. The relationship of such commitments to actual borrowing, of course, is dependent on payment dates and therefore provides at best a very imperfect indicator of credit needs. These reports are not aggregated and are unpublished.

Financing margin customers. Monthly reports on credit extended to customers by firms carrying margin accounts are collected and published by the New York Stock Exchange. These show net debit balances and also the free credit balances in customer accounts which are currently available for use by the brokerage firm. Banks in the Federal Reserve weekly reporting series report loans to customers (other than brokers and dealers) for the purpose of purchasing and carrying registered stocks. This report is combined with the net debit balance total of the New York Stock Exchange to make up the figure on customer credit in the stock market published in the *Federal Reserve Bulletin*. The figure furnishes at least a rough gauge of the borrowed funds being used by customers to finance stock market positions.

More detailed information on the structure of debit balances in the accounts of margin customers is supplied by the New York Stock Exchange to the Board of Governors of the Federal Reserve System from a sample of about 2,000 margin accounts. This report is still evolving and is subject to limitations, especially for purposes of comparison over time. However, it now furnishes a classification of adjusted debit balances (computed in conformance with margin requirements) by margin class (the customer's equity in his account). These figures are available on an end-of-month basis and show additional data for each margin class including position in securities exempt from the regulations, balances in special accounts, "ledger" or net debit balances, and certain detail on collateral in the accounts. The Exchange also furnishes

an unpublished end-of-month estimate of the number of open margin accounts—margin accounts which currently contain a net debit balance. Other reports concerning margin customers made to the New York Stock Exchange by firms are of regulatory significance only.

FINANCIAL STATUS OF BROKERS AND DEALERS

Both the Securities and Exchange Commission and the organized exchanges have a variety of regulations to assure the creditworthiness and continuing solvency of brokers and dealers. Compliance with these regulations and especially with capital requirements (the maximum ratio between aggregate indebtedness and net worth as computed by SEC and New York Stock Exchange formulae) is monitored through reporting requirements. These involve, at a minimum, the submission to the SEC of an annual financial questionnaire which is essentially a balance sheet disclosing the financial position of the reporting firm. For members of the Exchange (and also most regional exchanges) this balance sheet must be compiled in conjunction with a surprise audit on a date chosen by an independent accountant. Members also submit one interim report to the New York Stock Exchange each year in addition to weekly data on the maximum extent of their underwriting commitments,

Appendix B

Commodity Market Statistics

Commodity futures markets differ in important respects from securities and other organized markets in which public or private debt obligations, corporate shares, or physical commodities are traded. In securities markets, the contract usually calls for virtually immediate delivery and payment of the full contract price in cash at the time of delivery. In the markets for physical commodities, the same requirements often apply, but frequently contracts in such markets provide for delivery several months after the date of the contract. Moreover, sales of physical commodities are often made on credit terms. Under futures contracts concluded in commodity exchange markets, on the other hand, delivery of physical commodities and payment of the contract price rarely occur. Actually, a negligible portion of futures contracts is consummated by delivery. Virtually all contracts, whether entered into for purposes of hedging or speculation, are settled by offsetting against other contracts and the payment merely of cash differences. Many commodity futures markets differ from other organized markets also in that they are international in character and thus more subject to influences originating abroad.

These characteristics of commodity exchange trading are reflected in the statistical information of interest to traders on such exchanges. They are interested not only in the supply of, and demand for, the physical commodity, but also in statistics relating to the position of commodity exchange members and, in some instances, of their customers. The financing requirements of traders on such exchanges differ in many points from those in other markets, largely because contracts are usually settled by cash payments covering merely the difference in the value of two offsetting contracts as pointed out above; no inventories need to be carried to meet future commitments.

Commodity markets reflect, and are sensitive barometers of, a wide range of economic, financial, political, and psychological situations and forces. The statistical information on supply and demand factors that may affect market behavior is, therefore, of a very diverse nature. It covers such a variety of matters as the number of acres exposed to a hurricane in a coastal farming area, the extent of strike compliance by laborers in distant mines, business activity in consuming countries, the speculative position of major traders, and the inventory situation of producers, exporters, importers, dealers, and manufacturers not only in the United States but in many other nations as well. This Appendix would become unmanageable were it to attempt to cover the entire field of statistics that the various interests operating in commodity markets —both spot and futures—make use of at one time or another and that are released by innumerable public and private agencies here and abroad. Its focus is therefore a relatively narrow one: the statistics released by the United States Government and its agencies, as well as by organized commodity markets, primarily for the purpose of furnishing information to those interests that buy and sell futures contracts at commodity exchanges in the United States.

This focus excludes, for instance, the huge amount of information on supply and demand factors made available by the Federal *Market News Service* to terminal and local livestock and grain markets throughout the United States, and a wide range of other local market information released by agencies of the United States Department of Agriculture and by State governments. It also excludes the mass of statistics issued by such United States Government departments and their bureaus and offices as the Department of Commerce, the Bureau of the Census, the Bureau of Mines, the Bureau of Labor Statistics, the Agricultural Marketing Service, and the Office of Foreign Agricultural Service. Nor does it cover the wealth of statistical and related information gathered and released by the Food and Agriculture Organization of the United Nations and other United Nations agencies, by agencies set up under international commodity study groups, and by trade and manufacturers' associations. This report is confined to: (1) the reports and statistical services of the Commodity Exchange Au-

thority; (2) the reports and statistics of the four major commodity futures exchanges operating in New York; and (3) those reports of the Crop Reporting Board of the Department of Agriculture that are of immediate interest to operators in commodity exchanges. The report concludes with some remarks on the absence of statistical information on bank loans to operators in commodity exchange markets.

THE COMMODITY EXCHANGE AUTHORITY

Legal basis. The Commodity Exchange Authority, an agency of the United States Department of Agriculture and formerly known as the Commodity Exchange Administration, is by far the most important source of statistical information to those who deal in agricultural commodities that are traded in commodity futures exchanges subject to regulation under the Commodity Exchange Act. This is the Act of September 21, 1922 (42 Stat. 998), as amended June 15, 1936 and subsequently. This Act covers futures trading on the Chicago Board of Trade, the New York Cotton Exchange, and more than a dozen other commodity exchanges. The purpose of the Authority is to administer and enforce the Commodity Exchange Act. Briefly, the Act provides that all futures transactions in commodities covered by the Act must be made on an exchange designated as a contract market. It prohibits a wide variety of practices and transactions, requires registration of futures commission merchants and floor brokers, provides for the protection of customers' funds, and authorizes the fixing of limits on the amount of speculative purchases or sales by a person in any one day and the amount of his speculative holdings of futures.

Section 8 of the Commodity Exchange Act authorizes the Secretary of Agriculture to undertake any investigation of the operations of exchanges that he considers necessary. He is authorized to "compile and furnish to producers, consumers, and distributors, by means of regular or special reports, or by such methods as he may deem most effective, information respecting the commodity markets, together with information on supply, demand, prices,

and other conditions in this and other countries that affect the markets."

Required reports. The statistical information released by the Commodity Exchange Authority to the public is actually a by-product of a series of required reports from exchange clearing members, futures commission merchants, and large traders. These reports keep the Authority posted on what is happening in the markets regulated by it.

Among these reports are, first of all, daily statements submitted by the members of clearing houses associated with regulated exchanges on the amount of futures transactions and open contracts for customers and their own accounts. The Authority aggregates and balances these figures for all clearing house members.

Of considerable interest in relation to the market in Government securities is the fact that futures commission merchants have to report daily the net position and identity of individual large traders in "reporting status." Traders come into "reporting status" through the accumulation of futures positions of a size specified by regulations under the Commodity Exchange Act.

A third series consists of daily reports by individual traders in "reporting status," as defined above. These reports list contracts bought and sold and long and short open contracts, and show whether the latter reflect speculative (including straddling) or hedging positions.

The Commodity Exchange Authority is authorized to enforce limits on large speculative positions, as fixed by the Commodity Exchange Commission after public hearings. For a number of commodities the Authority has actually fixed limits on the amount of any person's speculative trading during any one business day and the number of speculative open contracts held at any one time. Large traders in such commodities must submit weekly reports pertaining to their cash or spot positions. The purpose of these reports is to determine whether futures positions, reported as hedges by "reporting" merchants and processors, are actually offset by forward sales commitments or by investments in the cash or spot commodity, because hedging transactions and positions

are exempt from the limits on the size of speculative futures transactions and positions.

Statistical releases. The periodic reports issued by the Commodity Exchange Authority comprise, first of all, daily (mimeographed) reports on the volume of trading and of open contracts at the close of trading, that is, contracts for futures delivery that have been entered into but have not yet been liquidated by an offsetting transaction or by delivery of the actual commodity. Such daily reports are issued separately for commodities and markets subject to regulation by the Authority.

Information on the volume of trading provides the trade and the public with one important body of data on market participation; statistics on open contracts provide background information on the trend of the market. If, for instance, both price and "open interest" rise, a technically strong market characterized by aggressive new buying is indicated, while a price increase at a time of declining open interest is likely to reflect aggressive short covering. For the contract month about to terminate, open interest data indicate the volume of the contracts that within a relatively short period will have to be liquidated by offsetting transactions or by delivery of the actual commodity.

For wheat, cotton, and wool and wool tops, the Authority issues in addition monthly reports approximately 10 days after the end of the reporting month. They cover the long and short commitments at the end of the month of large traders in reporting status as well as small traders. For the large traders the information is further broken down according to whether the position is speculative or represents hedging. Speculative holdings are, in turn, shown both for holdings on one side of the market (long or short), and on both sides (straddling positions).

These statistics are based on the daily reports (mentioned above) submitted by individual large traders and futures commission merchants. Data similar to those published monthly for these three commodities are published annually for all regulated commodities in the Commodity Exchange Authority statistical bulletin *Commodity Futures Statistics.* This publication covers commitments not only for the month-end date but also for each midmonth date.

In addition, it contains detailed tabulations on trading volume, open contracts, prices, and other types of statistics on regulated futures markets.

About three weeks after each month-end the Authority issues two publications, entitled *Trade in Grain Futures* and *Trade in Cotton Futures*. They provide for the principal exchanges the daily volume of trading, open contracts, and futures prices.

Trade in Cotton Futures also shows the grade and staple delivered in settlement of the current future delivery as well as the delivery point. It brings out the number of notices of intention to deliver the physical commodity, as well as the number of times such notices have been transferred. Similar information is contained in *Trade in Grain Futures*. Whether notices are readily accepted by the "longs," or whether they are transferred as the longs liquidate their contracts, is a significant indication to traders of the climate of the market.

In order to illustrate further the scope and nature of statistical reporting by the Commodity Exchange Authority, mention should be made of the so-called *Survey of Open Contracts*. Surveys are made on irregular dates when warranted, and involve a special request for information from all futures commission merchants dealing in a particular commodity. These merchants must furnish the name, address, occupation, and amount of open contracts in each account on their books that has a futures position in the particular commodity. Moreover, each account must be classified as speculative (including straddling) or hedging. These surveys include comprehensive questions on the size of traders' positions, the extent of hedging and speculation, and the distribution of traders geographically and by type of business affiliation and occupation.

The surveys are then published and provide a wealth of information on the structure of the market. They show, for instance, the number of traders having long and short positions, and whether these constitute speculative or hedging positions. The distribution of traders and their gross positions are then shown according to size groups, with a further breakdown showing the speculative and hedging positions within the size groups. An additional break-

down of traders by affiliation and occupation, and by speculative and hedging positions, brings out the industry groups in the market (those engaged in or closely affiliated with the production, merchandising, and processing of the cash commodity), and the nonindustry groups, including brokerage firms and their employees, retailers, and other private individuals in various classifications.

A major objective of the statistical releases of the Commodity Exchange Authority is to make basic data equally available to all participants in the trading on organized commodity exchanges. To achieve this objective is actually the primary purpose of the cotton "on call" reports. Cotton "on call" sales are contracts for future delivery of spot cotton of a specified quality on a date usually to be determined by the buyer. The price of such contracts is not fixed but is set at a specified premium over or discount below the price of a designated future prevailing on the day of call. Cotton "on call" data indicate the amount of purchases for future delivery by cotton mills and, thus, reflect the potential demand for cotton. The Authority believed that some cotton merchants, knowing their own call position and obtaining informal indications from other cotton firms on their positions, possessed valuable information not accessible to other traders. To give access to this information to all traders, the Authority began in the late thirties to issue a report under the title *Unfixed Cotton Call Sales and Purchases* which covers sales of spot cotton based on New York cotton futures reported by merchants with future contracts of 5,000 or more in one future, in one market.

THE COMMODITY EXCHANGES

Many commodity exchanges, whether subject to regulation by the Authority or not, publish daily reports showing the volume of trading, open contracts outstanding, and price movements. The daily reports of the exchanges, both regulated and unregulated, usually contain a variety of other statistics of interest to their readers. The major difference as between regulated and unregulated commodity exchanges relates to the statistics on the structure of the market. Exchanges not subject to the Commodity Exchange

Authority do not collect statistics on large-account transactions. Thus there is no information available on the speculative and hedging positions in unregulated markets such as is regularly published shortly after each month-end for wheat, cotton, wool and wool tops, and annually for other regulated commodities.

The daily market reports issued by the commodity exchanges in New York cover virtually all aspects of trading that are suitable for statistical reporting, including statistics that years ago were considered outside the province of legitimate public information. Most of the reports record the prices and volume of trading registered at the "open call" at 10:00 a.m., as well as all quotations for actual sales between the "open call" and the "close" of trading. The total of trading for each option month, but not the actual volume for each transaction at a specific price, is reported. Moreover, the number of open contracts for each option month at the preceding day's close, as reported by clearing members, is shown on the reports. In the early days of some of the exchanges this type of information was a closely guarded secret. Some reports show exchanges of contracts for different option months both as to volume and as regards the premium or discount for each transaction. Transferable notices issued each day for delivery of the actual commodity are also reported. The highs and lows for the day's price range and a variety of related information are also listed.

There are usually tables showing the highest and lowest prices recorded during the current month and the previous month; the highest and lowest prices, together with their dates, during the life of the contract are also indicated.

Some of the reports provide information on stocks of the respective commodities in warehouses of storage companies licensed by the exchange. Such figures usually reflect not only the position for the date of the report, but also that for the preceding day and for the corresponding date in preceding years. Some of these warehouse statistics show the grade and location of stocks.

A large number of tables on subjects not related to market activity, but of great importance in price formation at the exchanges, are also printed in the daily reports. These include

quantities "afloat" to the United States from various areas, arrivals from overseas during the current week, the current month, and during the year to date, plus similar figures for earlier years.

Some commodity exchanges tabulate figures for monthly exports from the major producing areas. They also provide figures for imports into the United States, consumption in this country, and prices at overseas futures markets. Cables dealing with the weather, sales trends and prices in producing countries, and other types of news released in these areas are also reprinted. One exchange issues on specified dates each month its own estimate for consumption in the United States which is released five minutes before the exchange opens.

CROP REPORTING BOARD AND AGRICULTURAL MARKETING SERVICE

The United States Government releases a vast amount of basic commodity production and consumption statistics. Probably no other country has as large a statistical program in this field. This section describes in a cursory fashion some of the more important data that are of immediate interest to traders in organized futures exchanges.

The crop estimates of the United States Department of Agriculture are probably the most important kind of statistics bearing directly on quotations in futures markets. Each December, the hour and minute of the releases by the Department's Crop Reporting Board for the year following are set and announced. Actually, the Board responsible for the estimates operates within locked and sealed quarters until the moment the report is released. These arrangements are made so as to prevent highly valuable data from becoming available to interested parties prior to the release date. The reports are based on replies to questionnaires mailed out to millions of farmers. Estimates for a particular crop during the early part of the growing season are designated as forecasts.

Among reports of particular interest to traders on organized commodity futures exchanges released each year by the Crop Reporting Board are periodic reports on acreage, yields per acre,

prospective plantings, productions forecasts, indicated production, and stocks for all major farm commodities.

A huge mass of data on agricultural production and consumption, and other current information is released by the Agricultural Marketing Service of the United States Department of Agriculture. The Service issues *Market News Reports* on the supply, demand, quality, prices, and movements of all major farm commodities. In addition, it issues situation and outlook reports. For example, the monthly periodical *The Demand and Price Situation* reviews the factors that affect the domestic and foreign demand for farm products. Similarly, the *Commodity Situation Reports*, some of which are issued bimonthly, and others quarterly, semiannually, and annually, analyze the supply, demand, price, and outlook for each of the more important farm products. Needless to mention, these statistics are most valuable in analyzing the supply and demand for commodities, and are extremely useful in forecasting production or consumption trends. But their immediate impact on prices in futures exchanges is minor and bears no comparison with the forecasts of the Crop Reporting Board.

CREDIT IN EXCHANGE TRADING

No statistics are released on the financing of operators on commodity exchanges analogous to the fairly comprehensive figures available on loans extended to brokers, dealers, and others for the purpose of purchasing and carrying securities. Such statistics do not exist for the simple reason that the purchase price for futures contracts does not become due at the time of purchase. The buyer of a futures contract, in effect, obligates himself to make settlement in full of the contract price only at the date of maturity of the contract when documents of title that signify ownership are transferred. Moreover, as pointed out before, the typical futures contract is closed out prior to its maturity, when payment of the price difference between the original and offsetting contract becomes due. Contracts are not carried directly between buying and selling exchange members but by each separately with the Clearing House Association for the commodity in question. This corporation,

which is separate from the exchange, is thus able to clear offsetting contracts centrally. No bank credit is thus required to enable the buyer of a futures contract to pay the contract price at the time of the purchase.

It is true, of course, that all clearing houses require margins in the form of cash deposits from both sellers and buyers of contracts. These margins constitute guaranties that both the buyer and the seller will conform to all commitments set forth in the terms of the agreement. But margin deposits by their very nature do not lend themselves to bank financing. Of course, traders on commodity exchanges may be able to secure bank credit that they employ for financing margin requirements, but the futures contract that gives rise to the margin does not constitute collateral upon which such credit could be established. It should be pointed out, however, that a futures contract representing a hedge of physical commodity holdings actually enhances the collateral value of such holdings. The existence of the futures contract may thus add to the ability of the borrower to obtain bank loans. It is also true that traders in actual commodities ordinarily have at their disposal highly desirable collateral in the form of negotiable bills of lading and negotiable warehouse receipts that they can pledge in order to obtain additional funds for covering margin requirements.

The clearing houses that are affiliated with commodity exchanges impose margin requirements upon their members. The by-laws of such clearing houses actually set the minimum amount of the original margin required per open contract unit. Often these amounts increase with the number of contracts. Subject to by-laws, the houses may call for additional original margins that may become necessary on days of unusually sharp price fluctuations. Original margin requirements are larger for net long or short positions than for straddle operations.

Clearing houses establish daily settlement prices to which each open contract must be adjusted every day or, if necessary, every hour. To ensure that all open contracts are kept fully margined at all times, clearing members have to pay upon call variation or market difference margins, in order to cover any debit position

resulting from the difference between the previous settlement price and the current market or settlement price on their open contracts. Members holding credit positions may draw on the balances arising from payment of such margins. If members are called upon to balance their accounts, they must do so by delivery of a certified check within a specified time. Clearing house members cover such calls with funds ordinarily out of their own cash resources. To the extent that such calls relate to a futures contract entered upon on behalf of a customer, clearing house members may, of course, draw on the margin deposit that they hold in custody for the respective customer.

The rules of commodity exchanges provide that their members call for the deposit of such margins from customers. While the exchange usually sets the minimum original margin requirements, it is left to the discretion of each member to impose higher requirements upon all or some of his customers.

In order to keep the accounts of customers fully margined at all times, exchange members administer original and market difference margins to their customers in much the same way that the clearing house uses in its dealings with its own members.

Cash requirements for futures trading on commodity exchanges are thus confined to the deposit with a clearing house, or with a clearing house member, of margins that by their very nature are not suitable for bank financing; futures contracts do not give rise to documents that reflect actual ownership and, therefore, cannot serve as collateral for bank credit.

2. Margin Requirements

2. Margin Requirements

This special report is concerned specifically with the possibility of Government action to bring about more adequate margins on extensions of credit to purchase or carry United States Government securities. Such credits may finance the temporary holding of such securities by nonprofessional or occasional participants in market speculation. One problem considered here relates to the soundness of credit extensions collateralled with these securities. Another relates to the market effects of this temporary holding and financing.

The purchaser of United States Government securities who hopes to resell them at a profit is a vital participant of the market. Such participation is partly a dealer function, but banks and other investors also perform it in varying degree, helping to give depth and breadth to the market. Since any purchase of securities in the hope of profit may be deemed "speculation," it is important that emphasis here be placed on curbing "excessive" speculation rather than all speculation.[1]

Even the prevention of excessive speculation could, under some circumstances, adversely affect the market structure and its breadth and depth if it involved rules and regulations of such complexity that the free flow of funds in the regular conduct of the market

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[1] In a companion report, "An Organized Exchange or a Dealer Market?" published in Part I of the *Treasury-Federal Reserve Study of the Government Securities Market,* footnote 3 on p. 74, states: "Speculation is, in general, desirable in the market, but it may become excessive at times. . . . Speculative activity may have either a stabilizing or an unstabilizing effect on prices, depending on whether it tends to dampen or to amplify price movements. . . . Unstabilizing speculation tends to become excessive at times, however, particularly if it is supported by credit on thin margins. It may become excessive, for example, if a price increase itself becomes the basis for purchases in expectation of a further price increase in a self-generating spiral. The eventual collapse, which occurs when prices have been carried too far out of line with basic market conditions, may be especially severe if it involves forced liquidation of securities carried on credit."

would be seriously hampered, or the costs of doing business substantially increased.

A need for formal action to strengthen practices in the extension of credit against United States Government securities was suggested by the experience of the market centered around the Treasury financing of June 1958. It seems evident that financing on small margins was one of the complex of factors that resulted in the rapid decline in Government securities prices during the summer of 1958. The large supply of very temporary funds to support this financing came from commercial banks, corporations, and others on collateral loans and repurchase agreements.

SUMMARY

One effect of speculation in United States Government securities on thin margins has been to generate credits which, from the viewpoint of the credit structure, have been unsound assets in the hands of lenders. Another effect, in part deriving from the first, has been to interfere with the orderly working of the market mechanism in these securities.

For their own protection, lenders ordinarily require borrowers to have some equity margin when they obtain credit on securities. However, these margin requirements are not uniformly applied with respect to Government securities, and competition in reducing them, particularly when credit is readily available, has on occasion gone further than desirable. Official action by the bank supervisory authorities to indicate reasonable minimum margin standards for the guidance of banks might therefore be a desirable move in this field.

Minimum margin standards of this kind might also serve to prevent speculators in Government securities from taking positions with unduly thin margins. However, taken alone, their effect in this direction might not be adequate. First, if these margin standards were merely for the purpose of indicating a level adequate to assure the credit soundness of the paper generated, they might not be high enough to inhibit speculators to the degree that might be desirable. Second, if such standard margins were "maintenance

margins," more margin or the liquidation of collateral would be required if prices subsequently declined; in this case they would not protect the market against forced selling due to margin calls in periods of price decline. For the latter purpose, initial margins *higher* than the maintenance margin would be needed.

Two possibilities of such initial margin requirements are explored. One might be through legislation authorizing the issuance of a general regulation along the lines of existing Federal Reserve Regulations T and U. The other might utilize the right of the United States Treasury to impose conditions in connection with its acceptance of subscriptions to new issues: it would contemplate that, when the Treasury offers new bonds in exchange for maturing securities, a certification might be required that the holders applying for the new bonds have some stated minimum equity in the securities. Speculation in 1958 centered in such bonds issued in exchange offerings. This requirement would be analogous to the Treasury's downpayment requirements on cash subscriptions. This device, of course, could not regulate speculation in outstanding issues. A Treasury requirement on new issues might supplement a maintenance standard set by the bank supervisory authorities.

Despite occasional excesses, speculation in fixed-interest securities may be useful to over-all stabilization policy, by channeling short-term bank credit temporarily into long-term investment media in times of recession. Also, official margin requirements might impose some hardships on legitimate participants in the market. In any case, it should be recognized that regular dealers in Government securities, at least to the extent of their market-making function, would need to have preferential treatment with respect to any official or unofficial margin requirements.

PURPOSES OF MARGIN REGULATION

Regulation of margins on credit extensions to finance the purchase and carrying of United States Government securities may be for either of two principal purposes. One purpose relates to credit conditions in this sector of the money lending field: it would be to

prevent the development of unsound conditions in this area. The other purpose relates to the market for Government securities and debt management objectives: it would be to protect or improve this market by preventing purchases by persons who are unable (or unwilling) to deposit the required margins, thus facilitating the distribution of Government securities into the hands of firm holders.

The latter purpose implies that the amounts of margin specified by lenders or required by law or regulation would be greater than the amounts needed merely to assure the soundness of the loans from a purely credit viewpoint. At the same time, the requirement of margins sufficient only for purposes of credit soundness might also serve to exclude some excess speculation.

As a matter of their own protection, lenders in general usually require borrower margins for purposes of assuring the credit soundness of each individual credit collateralled by Government securities except, possibly, in connection with loans against very short-term securities. Such requirements are ordinarily related to the range of potential price decline. The rules of the New York Stock Exchange, for example, require its members to obtain a margin of at least 5 per cent on Government securities financed for their customers regardless of maturity. Margins customarily required by commercial banks vary with the maturity of the security, the term of the loan, the customer, and the purpose of the transaction. Government securities dealers usually receive preferential terms with respect to both margins and interest rates on loans.

The need of flexibility in margins seems greater in the lending business of a bank than in that of a securities broker. The relations of a brokerage firm with its customers consist only in the purchase and sale of securities and related financing. It is a more impersonal relationship, and a loan can be abruptly terminated with less compunction than the bank-customer relationship which may encompass deposit accounts, trust relationships, related financing, or important community considerations. One result of this is that margin standards at banks are not uniformly applied, and competition among banks and from other lenders may cause a weakening of the credit standards generally.

In any event, such margins as are required are "maintenance" margins (minimum margins which are to be regularly maintained). A decline in the price of the pledged security results, fairly promptly, in a "margin call." Such margins do not protect the market from forced liquidation; rather, in the summer of 1958, as we have seen, margin calls contributed to forced selling.

High initial margin requirements, in excess of what might be sufficient for credit soundness, may serve to protect the market in two ways: first, by further limiting the extent to which speculators can enter the market, and second, by requiring speculative positions to be so amply margined that a decline in price will not immediately result in margin calls and forced selling. This latter point suggests that to the extent that a margin requirement is for the purpose of protecting the market against cumulative liquidation resulting from excessive speculation, it should probably be an initial requirement and not a "maintenance" requirement; this question is further discussed later.

To make this discussion more concrete, it may be useful to indicate the kinds of margin figures that might be contemplated. For purposes of credit soundness a minimum margin of 5 per cent might be suggested for loans to anyone except Government securities dealers. This would be comparable to the present New York Stock Exchange rules. Higher margins up to perhaps 10 per cent might be required on longer term bonds. If "initial" margins aimed at curbing excessive speculation were to be required, levels up to 25 per cent, depending on maturity, might be considered.

Maintenance of sound credit conditions. As noted above, the rules of the New York Stock Exchange already oblige its members to require certain minimum margin requirements on the carrying of United States Government securities for their customers. No such uniform minimum standards exist, however, for the maintenance of sound credit conditions in the case of credits extended by banks, by brokers and dealers who are not members of stock exchanges, or by other lenders.

It has been suggested that it would be possible for the authorities of the Federal Government to take action in these other fields. Even though such actions could not prevent all extensions of credit

without adequate margins, they might be able to contribute importantly to the soundness of the credit structure and thereby also, to some extent, to a sounder Government securities market.

Banks. In the field of bank credit, it might be desirable for the Federal supervisory authorities, joined if possible by the National Association of Supervisors of State Banks, to issue a joint statement to the effect that bank lending on Government securities (other than to dealers) with less than a 5-10 per cent margin, depending on maturity, was an "unsound policy." Most bankers would no doubt agree that these were reasonable standards.

Such a statement by the supervisory authorities could have a very salutary effect. It could be supplemented by having examiners look at loans collateralled by Governments with these suggested margin requirements as guides; the existence of a statement would strengthen the hand of the bank examiner in insisting on sound lending policies.

While standards of this kind are laid down by the bank supervisory authorities for the purpose of assuring the financial soundness of the banks, these authorities also consider the effects that a proposed standard would have in protecting the economy in general. In the present case, the effects would include not only the protection of each individual bank from the possible risk of losses on loans, but also the protection of the banking system from unsound and destructive competition in the granting of thinly margined loans. It is also relevant that the use of bank credit to facilitate excessive speculation may tend to discredit the entire banking system, rather than only the few banks which encourage it.

It would seem advantageous, in some ways, that such requirements not have the force of law. There would be occasional cases where Government securities were pledged to secure a loan to a borrower with independent creditworthiness and not for the purpose of purchasing or carrying such securities; in such cases the bank might require less than the standard margin. Also, while a bank would be expected to demand enough margin, in cases of a decline in the market, to maintain the required percentage of margin, it could use reasonable discretion in the timing of the margin call or in taking action if the call were not met.

Corporations. Business enterprises other than banks are another source of credit for carrying Government securities. Credit from this source has been important in the market in recent years, particularly in the financing of Government securities dealers. This credit has been extended by means of so-called repurchase agreements rather than in the form of loans, but the two forms of credit extension are similar in their credit characteristics. The present discussion of margin requirements is intended to be applicable to both of them.

Before and during the June 1958 Treasury financing, a substantial volume of credit from corporations found its way through loan brokers into the financing of speculative holdings of individuals and corporations other than dealers. It seems likely that, if corporate managements were made aware that bank lending on Government securities (or the advancing of funds under repurchase agreement) with less than the stated minimum margins was regarded as an "unsound policy," most managements would not consider it sound for the employment of their own surplus liquid funds.

Should such credit from nonbanking sources, on margins lower than those acceptable to banks, nevertheless become so important as to be a potentially disruptive factor in the market, it might be appropriate to consider whether Section 19 of the Federal Reserve Act, paragraph 7, could not be interpreted (or amended) in such a way as to inhibit such activities. This provision reads:

> No member bank shall act as the medium or agent of any nonbanking corporation . . . in making loans on the security of stocks, bonds, and other investment securities to brokers or dealers in stocks, bonds, and other investment securities.

Dealers. While Government securities dealers do not customarily extend credit to their customers it might be that, if other avenues of credit were closed, dealer extension of credit would become important. Presumably dealers would not, in any case, finance customers on less margin than banks were requiring of the dealers, but with the dealers able to borrow from banks on a preferential margin basis, they might have incentives to extend credit on a similar basis to customers. Therefore, in

order for the margin standards of banks to be adequately effective and to avoid creating an incentive for speculators simply to shift their credit arrangements to dealers, it might be necessary that the dealers require similar margins. If an association of Government securities dealers were to come into existence, it could reasonably be expected to have a rule on the subject of margin requirements similar to that of the New York Stock Exchange.

Other lenders. Other categories of lenders on Government securities are securities brokers and dealers who are not members of a stock exchange, and miscellaneous financing agencies. If these lenders were being required by their basic sources of funds to provide stated minimum margins, it seems most unlikely that credits on thinner margins from them to their customers could become really important.

Speculation without credit. Some speculation takes place on a fully paid cash basis by purchasers who buy securities outright and do not carry them on margin. A great many substantial buyers have been interested in Government securities on this basis because of their safety of principal and relative ease of sale. These buyers include banks and large businesses that customarily hold substantial amounts of highly liquid assets; on occasion they substitute longer term Government securities. Banks, in particular, find themselves under pressure to maintain their income by lengthening maturities in times of falling rates and rising securities prices. This reaching for income may be combined with the hope of profit from temporary holdings and lead to essentially speculative positions.

In considering the possible role of margin regulation for credit extensions in the Government securities market it must be remembered that such regulation would not affect cash speculation. Such speculation, however, is likely to be less damaging to the structure of the market in that it cannot result in forced liquidation when prices decline, although it could play a role in panic-type selling.

Provision of higher initial margins. If it seems desirable to require higher initial margin requirements in order further to limit speculation on thin equity and to protect the market from forced selling in periods of decline, there seem to be two principal ap-

proaches for doing this. One approach would be through the issuance of a general regulation (along the lines of Federal Reserve Regulations T and U) imposing margin requirements for purchasing or carrying Government securities. The other, applicable if it appears that the area requiring regulation is essentially speculation in new issues, would be the issuance of margin standards by the Treasury in connection with the acceptance of subscriptions for new issues.[2] The Treasury now ordinarily requires a deposit in connection with new issues sold for cash. It is suggested that, somewhat analogously, some evidence of minimum equity might be required with respect to issues tendered for exchange.

Under either approach (general regulation or Treasury requirement), initial margins of 10-25 per cent (which would be 5-20 per cent above present customary maintenance margins) might prove sufficient to curb speculative excesses by reducing the possibility of large gains on minimum capital risk.

Such margins could also prevent relatively small amounts of cash from being expanded into unrealistic subscription totals—either by sophisticated speculators or by other buyers of the type whose lack of knowledge of this market contributed so heavily to the 1958 problems. Since many of these subscribers do not expect to become permanent investors, their securities quickly become part of a floating supply awaiting firm buyers. Somewhat as total bank credit expansion is limited by member bank reserve requirements, so the relationship of the floating supply of newly issued Government securities to the underlying reserve of actual buying or carrying power would be limited by required purchase margins.

By reducing the need of forced selling, such margins would help prevent cumulative price declines in new issues. Forced selling feeds on itself, as was clearly evident in 1958. While price declines and liquidation of unwise speculative positions could not have been completely avoided in the face of the greatly revised economic sentiment at the time, the disorganized conditions in the mar-

[2] The term "new issue," as used here, includes both those sold for cash and those being offered in exchange for maturing securities.

ket might have been alleviated if forced selling had not been a factor.

Required initial margins would also contribute to the protection of speculators themselves by limiting the amount of risk that they could assume in relation to the amount of cash margin they furnished. As in Regulations T and U, this would not be an important purpose of regulation in the Government securities market, but it is an additional benefit.

The chance of large gains on small capital investments, which is inherent in a market when the margins required are low or nonexistent, increases the possibility of such gains by persons whom the public may suspect of having access to "inside information." Although there was no evidence—or even rumor—of this possibility in the 1958 experience, nevertheless the danger of such suspicion at some future time is always present. The opportunity for quick profits is itself a temptation to the unscrupulous, which could be avoided if higher margin requirements were in force.

ALTERNATIVE APPROACHES TO INITIAL MARGINS

Assuming some initial margin requirements in the Government securities market were deemed desirable, it would be necessary to decide which approach to the problem (general regulation or Treasury requirement) would be preferable. This would raise the question whether excessive speculation in Government securities arises mainly in the case of new issues or whether it occurs generally in outstanding issues as well. If the former is true, and if margin requirements by the Treasury in this field seem feasible, then such requirements would seem clearly the preferable course, at first at least. Otherwise, a general regulation would need to be considered.

While the difficulties in the Government securities market between June and August 1958 centered around new issues, the interrelationship of issues in the market is such that price movements in any issue inevitably affect related issues, and forced selling at declining prices can lead finally to voluntary liquidation even by strong holders. These factors, together with the possibility

of using long-outstanding, maturing obligations as "rights" to exchange for new issues, bear on the question whether margin requirements could be limited to new issues or whether they would not have to apply to outstanding issues as well.

The rationale and the possible advantages and disadvantages of both approaches are discussed in detail below.

General regulation. General regulation immediately suggests itself in the area of extensions of credit against Government securities because regulation of stock market credit by Federal Reserve Regulations T and U has become an accepted and generally effective method of curbing excessive speculation in stocks financed by credit. At first blush such a general regulation would seem to offer the best vehicle for a broad, comprehensive, equitable, and effective control of excess speculation in the Government securities market. However, while there may seem to be an analogy between the use of credit in the stock market and in the Government securities market, the nature of the markets and purposes of regulation are quite different.

Regulations T and U are designed to prevent the excessive use of short-term credit in speculation based on stock equities. Growth in bullish speculation usually takes place in periods of business expansion, and both reflects and adds to the general optimism of such times, thus tending to lead to unwise investment and excessive speculation—not only in stocks themselves but also in other equity fields. The participation of literally millions of small investors tends to magnify this effect.

Speculation in bonds (both Government and others), on the other hand, would not tend to grow in prosperous periods, nor to add fuel to speculative tendencies in equity investment, since such periods are typically accompanied by rising interest rates and declining bond prices. To the extent that bank loans for speculative purposes involve a "monetization" of the collateral, monetizing of stocks would tend to occur during boom periods when the economic consequences would be more dangerous, as compared with the monetization of fixed interestbearing debt obligations which would more likely take place mainly in periods of recession. Furthermore, stocks fluctuate over relatively wider

price ranges than bonds and, in the absence of margin requirements, the possibilities of pyramiding credit would be much greater, especially since the stock price trend has been upward since the war.

In contrast to the stock market, participants in the bond market ordinarily consist primarily of institutional investors and financially sophisticated individuals who may be less likely to be carried away by a sustained economic enthusiasm. It was partly due to the speculative activity of others in the Government securities market in 1958, however, that the present inquiry arose.

General regulation of credit in the Government securities market would involve a number of specific problems such as those indicated in the following sections.

Need of exemption of dealers. Any margin regulation would presumably need to provide some preferential treatment for the carrying of Government securities dealers' positions. Normal dealer operations involve bank financing of substantial portions of their positions. Margin requirements, if applicable to the dealers, might make the carrying of any substantial position difficult and could disrupt the market. Some sort of formal identification of dealers might be needed for this purpose, however, since any broker or bond house may claim dealership because of occasional or sideline dealer activity.

Classes of lenders to be covered. A margin regulation in the Government securities market would presumably have to cover not only credits extended by banks and brokers and dealers in securities but also those extended by other important lenders. This contrasts with the field of stock speculation, where regulations covering only the credits extended by banks and brokers and dealers have until recently appeared generally adequate. Since brokers are prohibited (by the Securities Exchange Act) from borrowing on listed stocks from nonbank lenders, such an outside lender would have to set up retail loan facilities of its own if it wanted to lend on stocks. This has occurred only marginally; principally at times of high margin requirements. As discussed above, however, lenders other than banks and brokers, principally nonbank corporations, are an important factor in supplying credit to the Government securities market.

Lending on stock and on Government securities differs further in that each credit on Government securities is typically of much larger size, giving rise to larger interest earnings per transaction, so that such lending is attractive to large institutions like business corporations, foundations, etc. From the viewpoint of such lenders, too, buying Government securities under repurchase agreements seems like their other investment activities while lending to stock purchasers would not be so considered.

Level of requirement. If they were to contribute to market stability, required purchase margins would have to be substantially above lenders' maintenance margins, so as to provide a cushion against potential price declines before any maintenance requirement came into play with the resultant possibility of forced selling.

Unduly high purchase margins in the Government securities market, on the other hand, could well discourage participation by informed and adequately financed "speculators" who contribute importantly to the functioning of the market. In times of normal market stability, security price fluctuations and potential premiums on new issues are small. The "speculator" must relate his chance of gain to the funds he is required to use and the length of time he will employ them, and their possible alternative uses, all in the light of the risks he takes.[8]

In any case there would arise the question whether the margin requirement should be varied upward or downward and if so, when, by whom, and upon what considerations. Speculation in Government securities tends to grow in periods of economic recession when upward revisions of margin requirements might be difficult to explain to the public, and the problems of flexible and timely administrative changes could be troublesome. An

[8] As an example of the effect of a 20 per cent margin requirement, if an individual were to put up $20,000 of margin to carry $100,000 of Government securities for six months, borrowing the other $80,000 at the same rate of interest as that borne by the securities, each one per cent rise in the price of the securities would net him $750, after capital gains taxes of $250. Interest for six months on his $20,000 (assuming the rate to be 3 per cent, tax adjusted at 50 per cent) would amount to $150, making a total of $900, or 4.5 per cent of his investment (on the assumption of a one per cent price rise). This makes a rate of 9 per cent per annum, net, for the use of the $20,000.

inflexible requirement, on the other hand, might impede the adequate flow of credit into the market at times when it was needed.

Coverage of other securities. To apply margin requirements to United States Government securities and not to apply them to corporate or municipal bonds, not to mention unlisted stocks, might seem incongruous. People not ordinarily concerned with the securities markets could misunderstand the reasons for imposing margin requirements on Government securities while leaving these other categories exempt. However, the market for Government securities is of such breadth and importance that it can be considered a case apart.

The drafting of a general regulation and its administration would also be difficult, probably arbitrary in some areas, and the problems of interpretation and enforcement would be formidable. In general, the more limited or less restrictive the regulation, the simpler would be the drafting problem but the less effective the result.

Treasury requirements on new issues. The floating supply of Government securities available for speculation is typically very much greater in new issues than in issues that are already outstanding, and there are more possibilities of a profit from purchasing a new issue that may be attractive in relation to the market on outstanding issues. These are reasons why speculation (at times of special interest in Government securities) has been concentrated in new issues, and hence, why it seems likely that margin requirements confined to new issues might prove adequate.

In discussing margin requirement proposals, the category "new issues" can be further circumscribed. Where a new issue is sold for cash, the Treasury now usually does, in effect, impose a margin requirement by requiring that subscribers deposit a cash payment such as 10 or 20 per cent against their subscriptions; and a system of preferential allotments has also helped at times to channel cash issues into the hands of investors rather than speculators. The remaining field for speculation consists of new securities that are being issued by means of an exchange offering. The problem of June 1958 arose in part from shoe-string speculation in this latter field—in new 2⅝ per cent bonds which were being offered

in exchange for maturing issues ("rights") which in turn were being carried in substantial quantities by speculators on little or no margin.

A possibility that may be worth considering, therefore, is that whenever the Treasury offers new bonds in an exchange offering, for a maturing security, it might impose a "margin requirement" by requiring a certification that the beneficial owner, for whom the subscription is entered, has a minimum equity or margin of (for example) 10 per cent of its value. Where the maturing security is held under a repurchase agreement, this requirement could be applied to the beneficial owner. Some sort of special treatment or exemption for dealers would be needed. If a Treasury requirement of this kind were adopted, the Treasury would, of course, announce its intention some time in advance of the first exchange offering where it would become effective. The Treasury could experiment with such a plan under favorable circumstances before adopting it as a regular practice.

A margin requirement imposed by the Treasury on subscriptions would have a number of advantages and a number of disadvantages as compared with a general regulation. The advantages would include:

(1) It would be simpler; and by confining the regulation to a narrower field, it would avoid the imposition of official requirements upon a large volume of ordinary transactions which may not need to be regulated. As a general principle, a regulation should be the least restrictive, and should cover the narrowest field, that seems necessary to accomplish its purposes.

(2) Treasury rules would probably be more acceptable to the financial community. When the Treasury accepts a subscription to a new issue, it is agreeing to sell something that the subscriber wants to buy and on which he hopes to make a profit. Therefore, the imposing of conditions by the Treasury upon the acceptance of such applications would likely seem reasonable to the subscribers. By contrast, more stringent regulations interfering more broadly with the right of one citizen to extend credit to another would certainly be more likely to incur investor resentment which could be damaging to the functioning of the market and to Treasury debt management.

(3) Treasury requirements could be more flexibly administered, being changed from issue to issue as conditions warranted by simple administrative action. The Treasury now changes its downpayment requirements in connection with cash subscriptions in a similar manner.

(4) No new legislation would be needed to enable the Treasury to impose such requirements.

Among the possible disadvantages are:

(1) Requirements of this kind might prove inadequate for dealing with speculation in the field of Government securities.

(2) The reluctance of the financial community to accept something new, or its failure to understand the requirements or attendant procedures, might conceivably lead at first to higher rates of attrition on Treasury exchange offerings. Such requirements presumably would be introduced only in times of high demand for the new securities being offered. On the other hand, the reduction or elimination of such a requirement could boomerang against the Treasury in that it could be interpreted by the market as official expectation of low demand. This reaction could have a pervasive influence and perhaps be a cause of financing failure. This aspect would require further study of the proposal.

(3) Such requirements, like the present cash-payment requirements, would require firmness in administration in an area where fine lines must be drawn. So would a general regulation.

(4) The requirements would necessitate additional paperwork on the part of commercial banks through which the bulk of exchange subscriptions is received. The total cost and inconvenience in this respect, however, might be less than the cost and inconvenience of complying with a general regulation covering all credits on Government securities.

THE CASE AGAINST REGULATION

The wisdom of regulating credit in the Government securities market may be questioned on several grounds. It may be argued that regulation is not needed, that it would not be effective, and that the speculation it aims to curb is helpful to the achievement of over-all economic stabilization.

Lack of need. The critical developments in the Government securities market during the summer of 1958 may be said to have resulted not so much from the absence of margin requirements as from a very unusual combination of circumstances. The speculation at that time had been based on the widespread strong conviction during the spring of 1958 that in a deepening recession bond prices would continue to rise. The market collapse followed the sudden reversal of business sentiment in June, when the realiza-

tion of prospective recovery and higher interest rates had an inevitable result in the sharp decline in bond prices.

The circumstances surrounding the events of June 1958 were unquestionably unusual. Not only was this period an important turning point in business sentiment and price-change expectations; it followed one of the most rapid and extensive declines in short-term interest rates in our history with an attendant surplus of liquid funds in the banking system. The memory of the 1957 rate of 3½ per cent on three-month bills was still fresh in people's minds and the expectation of a longer term inflationary trend had been reflected in rising stock prices since the beginning of the year.

Rising bond prices (and the promotion efforts of some financial intermediaries) had attracted the interest of speculators not accustomed to this market; as a result there seemed to be a lack of awareness on the part of some persons who financed "rights" with loans or repurchase agreements that margins would have to be increased or repayment effected immediately after delivery date.

Because of the reversal of sentiment, bond prices would have fallen substantially after June in any event, and the fall would have been aggravated by the speculative interest that had developed during the spring—even if speculative positions acquired earlier in the year had been reasonably margined. By coincidence, the relation between the timing of the June offering and that of the reversal of general business sentiment was just such as to lead to a maximum of market dislocation. It can, therefore, be argued that the likelihood of any similar combination of circumstances in the future is too small to warrant the imposition of margin regulation.

Possible ineffectiveness. Margin requirements high enough to curb excessive speculation might discourage the initial subscriptions to Treasury new issues needed to assure their successful flotation and to limit attrition on exchange offerings. The speculator serves a necessary function as marginal underwriter. The ultimate price of the issue will inevitably reflect long-range factors of demand and supply which are not subject to control through the imposition of margin requirements.

Relation to over-all stabilization. It is also possible to argue against high initial margin requirements on the ground that speculation in bonds on credit is really helpful to the effectuation of over-all stabilization policy. The argument would run like this:

There is a certain flow of money in any given period of time seeking investment in long-term securities, from current savings and similar sources. This rate of flow depends on the various supply and demand factors, current rates of interest, and so forth. When the amount of credit outstanding to speculators for carrying long-term securities is increasing, this supplements the flow of funds available from these other sources. Such speculation thus makes the total supply of funds available for investment in long-term securities temporarily greater than it would otherwise have been.

Government bonds tend to go up in price, and thus may be attractive for speculation, in times of recession. During a recession, the authorities try to stimulate investment expenditures, and for this purpose, they want an increase in the supply of funds for long-term lending. When speculators borrow short-term funds and use the proceeds to buy longer term securities, they may help to produce exactly the kind of effect that such anti-recession measures are designed to produce.

This contrasts with speculation in stocks which go up in price and are attractive to speculators in times of general prosperity. When speculators use short-term funds to buy stocks in periods of boom, their activities make stabilization policy more difficult.

In recent recessions the Federal Reserve operations have accentuated ease in short-term credit availability relative to that of longer term credit, and market forces have transmitted this ease to the field of long-term investment. When speculators have borrowed these readily available short-term funds to finance speculation in longer term bonds, this has had an effect consistent with stabilization objectives.

3. The Repurchase Agreement

3. The Repurchase Agreement

In the simplest form of repurchase agreement, the holder of a Government security sells the security to a second party and simultaneously agrees with the purchaser to reverse the transaction at a specified price at some future date. In this way, the seller is able to obtain access to funds without surrendering his position in the security, as he would be required to do in the case of an outright sale.

The positions of the buyer and seller are similar in many ways to those of the lender and borrower in a loan collateralled by Government securities, but there are certain differences. The repurchase form does not involve the use of a promissory note; the securities involved are transferred to the buyer outright, rather than being made subject to a lien for the benefit of the lender; and perhaps, most importantly, the arrangement may be looked upon by the extender of credit as an investment rather than a loan.

The payment of interest can be handled in a number of ways. Again, taking the simplest form, involving Treasury bills, the interest for the period of the agreement can be reflected in the difference between the prices agreed upon; that is, the price would be lower for the initial transaction than for the subsequent reversal.[1]

Dealers in Government securities utilize repurchase agreements with banks outside New York City, nonbank corporations, public funds, and other institutions principally to finance inventories of securities or to accommodate the short-term investment needs of customers. Repurchase agreements written by dealers may be for one day only, but are often for several weeks or months. The longer contracts are usually with nonbank corporations who buy securities from dealers under repurchase contracts in an effort to

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[1] For a more detailed description and case illustrations, see *The Federal Funds Market—a Study by a Federal Reserve System Committee*, pp. 50 ff. (Board of Governors of the Federal Reserve System, 1959.)

employ idle balances at the most favorable rate of return and with maturity adjusted to the precise date the funds are needed.

Commercial banks utilize repurchase agreements primarily for day-to-day reserve adjustments in overnight transactions with other banks and Government securities dealers, although they also enter into such agreements to put short-term funds to work with dealers and others for periods of several days or longer. Money brokers, operating as agents, or sometimes as principals, arrange repurchase agreements to provide financing for their clients, including individuals and corporations.

In serving these different participants and varying purposes, the repurchase form has many technical or procedural variations. These differences are reflected in the terminology employed in the market—transactions of this general nature are also referred to as "buy backs," "resale agreements," or "sell backs." Such agreements may be viewed by the participants, and treated for bookkeeping purposes, as either loans or investments, but national and State member banks are instructed to classify them as loans or borrowings. In most cases involving short-term securities, the initial transaction is made at the current market and there is no "margin." Practices vary considerably, however, depending on the participants and the type and maturity of the security involved. A margin is sometimes provided by setting the initial price somewhat below current market, or trading "flat" at both ends; that is, by excluding accrued interest.

In order to provide a background for consideration of possible limitations on the use of repurchase agreements, this supplementary study will attempt to distinguish between those repurchase transactions that serve a useful money market function and those that may represent or encourage undesirable or unsound credit extensions. The final section suggests techniques that might be employed to limit the use of repurchase agreements, if such limitation were deemed necessary or desirable.

ROLE IN THE MARKET

Repurchase agreements serve an important role in the Government securities market as it is presently organized. Their importance,

and the exact nature of their role, is viewed somewhat differently by various market participants. The following discussion undertakes to examine the function of repurchase agreements in the market from the viewpoint of the major participants and under varying conditions.

Nonbank dealers. From the viewpoint of the dealer, repurchase agreements serve three principal purposes in the financing of the Government securities market: (1) to provide some part of the credit needed to finance trading or investment positions at rates of interest lower than New York bank rates; (2) to facilitate financing at a fixed rate for an extended period; and (3) to meet customers' demands for specific maturity dates for which Treasury obligations are not available or are in insufficient supply.

No authoritative information is available on the relative volume of dealer financing with repurchase agreements, as compared to collateral loans, except for the period covered by the statistical surveys made in connection with the present study of the United States Government securities market. Informed market observers have reported in recent years that the proportions vary widely from time to time, but are sizable at all times. Use of repurchase agreements by dealers generally tends to be relatively higher in periods when interest rates are high and the availability of funds is limited. In recent periods when these conditions have prevailed, available information suggests that considerably more than half of all dealer financing has been obtained from banks outside New York City and from nonbank corporations through the use of repurchase agreements.

Data obtained in study surveys of the 1957-58 period tend to bear out these general observations.[2] During the period from the end of October 1957 through the end of December 1958, the total amount of credit outstanding to dealers on Wednesday dates ranged from about $790 million to over $3.3 billion (including the amount of bank funds used by dealer departments of dealer banks). Dur-

[2] Data referred to here and subsequently, relating to study surveys, summarize findings on the use of repurchase agreements set forth in another part of this study. See *Treasury-Federal Reserve Study of the Government Securities Market*, Part II, *Factual Review for 1958*.

ing most of these 14 months funds obtained through the sale of securities under repurchase agreements accounted for about 55-70 per cent of the total amount of credit being used by dealers, although in the late summer and early fall of 1958 this proportion rose as high as 85 per cent. Nonfinancial corporations usually accounted for roughly two-thirds of all repurchase agreements with dealers, although in the early fall of 1958 such corporations held 90-95 per cent of the total. Commercial banks outside New York City were also a major source of repurchase funds, but seldom during the period of the study did they provide more than a quarter of the total. Funds provided to dealers by New York City banks generally took the form of direct loans.

Cost of credit is a critical factor in dealer operations. Use of repurchase agreements results, in large part, from competitive efforts to finance at lowest cost and this has been encouraged by the "negative carry" implied by New York bank rates in many recent years. Rates charged on dealer loans by New York City banks have been above 90-day Treasury bill yields most of the time, and from time to time they have been above yields on all classes of United States Government securities. In easy-money periods, the New York banks tend to be more competitive with other lenders and finance a larger part of the dealers' requirements. In periods of credit restraint, however, lending rates to dealers in New York City may range from one-half point to a full point above rates at which dealers are able to finance with nonbank investors through repurchase agreements.

From time to time nonbank dealers may also obtain financing through repurchase agreements from the Federal Reserve Bank of New York. The rate on such financing is generally at the Bank's discount rate. In periods of credit restraint, this rate generally has been lower than lending rates at the New York City banks, but in conditions of credit ease, it generally has been higher. However, this source of funds is only available at the option of the Federal Reserve Bank and dealers cannot regard it as a continuing source of financing. Hence, a more favorable rate does not have the same significance as if this credit were freely available.

An important consideration in nonbank dealer use of repurchase agreements is that they enable dealers to accommodate customers (primarily corporations) by tailoring investments to customer investment requirements when Treasury obligations with the required maturities do not exist or are not readily available in the market. The corporation is thereby able to employ funds to the precise day when the need for funds is anticipated at a rate of interest comparable, or favorable, relative to the rate on outright investment for a similar term.

Through their repurchase operations, dealers have, in effect, created a new form of financial asset that has been welcomed by many investors as an almost riskless interest-bearing outlet for short-term funds. Therefore, while the instrument was developed principally as an outgrowth of dealers' efforts to find financing and is still used largely for that purpose, it has also assumed a broader market function and dealers sometimes purchase securities for the explicit purpose of tailoring repurchase agreements against these securities to the maturity requirements of investors.

Commercial banks. Repurchase agreements, as was pointed out, have been widely used by commercial banks in recent years in adjusting their reserve positions. In transactions between banks, the majority of banks apparently favor straight overnight unsecured Federal funds purchases or sales, but some banks utilize repurchase agreements involving Government securities as an alternative. The initial popularity of the repurchase form in Federal funds transactions between banks was primarily attributable to the fact that it was not regarded as subject to the limitations imposed on national and State member banks with respect to loans to a single borrower.

Under 1957-58 rulings by the Comptroller of the Currency, repurchases were made subject to the same loan limits applicable to loans collateralled by Government securities, but these are considerably more liberal than in the case of unsecured loans. For this reason the repurchase form still retains an advantage over the unsecured Federal funds transaction in this respect. It also lends itself to arrangements for more than overnight employment of funds, and the fact that the transaction is secured may be regarded as an advantage in some instances.

Alternatively, in using the repurchase agreement form for reserve adjustment purposes, the lending bank may execute the transaction with a dealer rather than another bank. In addition to the advantages of the repurchase form mentioned in connection with bank-to-bank transactions, in the case of a bank-to-dealer repurchase, the bank may obtain a rate above the prevailing Federal funds rate while the dealer still usually enjoys a rate advantage compared with New York City bank loans. Even when the rate on a repurchase agreement is as high as the New York loan rate there may be an advantage to the dealer, deriving from the fact that he receives Federal funds.

Although in many instances such transactions with nonbanks are the equivalent of a Federal funds transaction for the bank, it should be recognized that they are not always at its own initiative. Dealers in search of funds frequently contact banks outside New York City, hoping to find those whose reserve positions will make them ready investors. In such cases, it might be said that the repurchase is simply a convenient instrument used by banks to employ short-term funds.

The extent of the use of repurchase agreements by banks cannot be quantified precisely. Data obtained from a one-month (November 1956) survey of the daily Federal funds transactions of leading banks indicate the repurchase form accounted for about one-fourth of the dollar volume of total Federal funds transactions—ranging in amount from $150 to $300 million on a daily basis. Of these, slightly over one-third apparently were executed with dealers and almost all the remainder with other banks. In the Richmond, Kansas City, Cleveland, and Dallas Federal Reserve Districts this form of transaction accounted for from one-half to three-fourths of the total bank sales of Federal funds in November 1956. Data on bank-to-bank Federal funds transactions were not obtained in connection with the surveys conducted in the course of the current study, but there is some reason to believe that the use of repurchase agreements in Federal funds transactions may have increased since the 1956 survey.

The use of repurchase agreements has not been confined to Government securities but has included, much less frequently, corporate

and municipal securities and even mortgages. The preference of many banks outside New York City for the repurchase form of credit extension, rather than the conventional collateral loan, arises from problems that may be involved in obtaining and handling a note and the higher costs involved in establishing trust arrangements for securities collateral. It may also relate to the fact that the repurchase form has become accepted market practice among banks outside New York City, reflecting the more liberal loan limits which were applied to this form of financing prior to the 1957 ruling by the Comptroller.

Banks that have a specialized department for the purpose of dealing in Government securities sometimes tailor securities to customers' needs in much the same way as nonbank dealers. In a few instances, it appears that other banks have also used the repurchase form to provide customers with investments tailored to their special requirements. Such arrangements, which do not appear to have been at all widespread, involve the sale of securities from the bank's portfolio with an agreement to repurchase them on a date corresponding to the customer's need for funds. The net effect, however, could be regarded as an extension of credit from the customer to the bank.

Nonbank institutions. Corporations and other nonbank institutions enter into repurchase agreements with Government securities dealers, and occasionally with commercial banks or brokers as a means of earning maximum return on temporary funds in a most convenient form. Corporations and others may prefer repurchase agreements to outright purchases of securities, because they find this mechanism gives them specific maturities such as tax dates, dividend dates, and other convenience dates which they may not be able to obtain readily by direct investment. In other words, it provides protection from the market risk which would be involved in purchasing a security with a maturity beyond the date the funds are needed. It may also provide an advantageous rate of return compared with market yields on securities of the term for which the agreement is drawn.

With the exception of the statistics that have been collected for the spring and summer of 1958, there are no comprehensive data

measuring the volume of repurchase transactions involving corporations, but estimates run into many hundreds of millions of dollars. A study reported in *Fortune Magazine* for August 1956 disclosed that, as of November 1955, only 5 of the 276 large corporations covered held securities (mostly Treasuries) under repurchase agreements; three of these corporations which revealed their figures held no less than $644 million.

Study surveys covering the spring and summer of 1958 disclosed that 32 of the 145 large corporations reported purchases of Government securities under repurchase agreements during the period of the study (May 21 through July 30). These companies made 708 such agreements, totaling $4.4 billion. Holdings of Government securities under repurchase agreements for these corporations ranged from $900 million to $1.6 billion on month-end dates from April through July 1958. Nearly two-thirds of the agreements (accounting for about three-quarters of the dollar volume) were made with Government securities dealers. Most of the remainder were made with one New York Stock Exchange member firm, but other member firms and nonmember brokers and dealers were also involved. It is generally agreed that the period covered by the study was atypical in this respect and that normally repurchase agreements with dealers represent a much larger percentage of the total.

Money brokers. Money brokers serving as intermediaries in the financing process customarily do not enter directly into repurchase agreements on their own account—the May-June 1958 experience being a noteworthy exception—but, rather, bring potential lenders and borrowers on repurchase in touch with each other. The use of repurchase agreements in connection with money brokerage to accommodate customers—both bank and nonbank—is not a new development in the market; such transactions were employed incident to their activities in the Federal funds market as early as the 1920's.

The growth of the Federal funds market in the 1950's (and the corollary use of repurchases as a part of that market) was encouraged by the facilities provided by a New York brokerage firm, a member of the New York Stock Exchange. This firm operates

on a national scale and normally deals mostly with banks, although it also handles transactions for other brokers and dealers and even for corporations and individuals. Prior to the spring-summer 1958 experience, this broker handled Federal funds transactions for the most part but occasionally put together repurchase agreements, sometimes for more than one day, especially if the parties concerned were a dealer and a bank.

It should be noted that some New York City banks have also developed a brokerage function in Federal funds for their correspondents and, in addition, assist their correspondents in obtaining or placing funds on a repurchase basis. Some Government securities dealers have also functioned as "money brokers" from time to time acting as principals in offsetting repurchase and resale agreements with corporations and banks.

Repurchases in spring-summer 1958. Preceding discussion has focused on the role of repurchase agreements in the ordinary daily market operations of banks, corporations, dealers, and others. Repurchase agreements have become an integral part of the money market mechanism, serving to facilitate participation in the Federal funds market, as an important instrument in the financing of dealer positions, and as a medium for investing corporate cash funds on a basis closely tailored to investor cash needs. In general, repurchases assist in mobilizing funds for the money market.

The use of the repurchase mechanism in connection with the Treasury's June 1958 refunding merits separate consideration. The purpose of obtaining funds, both through repurchases and collateral loans, in many cases was clearly speculative. Both repurchase agreements and collateral loans were used extensively, and in many cases interchangeably, to finance speculation on credit in Government securities on low or nonexistent margins. There is some evidence, however, that the repurchase agreement form may have lent itself to some unsound financing arrangements for speculation by investors not usually active in Government securities and involving lenders not usually engaged in financing security speculation.

Commercial banks made loan funds readily available to finance the speculative purchases of June "rights"—principally on col-

lateral loans but also on repurchase contracts. The incentive for commercial banks was the attractiveness of the yield on these credit arrangements relative to yields available on short-term market instruments. Data from the bank survey covering loans and repurchases for purchasing and carrying Government securities in this period indicate that approximately two-thirds of the $1.2 billion of "rights" financing by banks between March and June 1958 was on a collateral loan basis, with the remainder on repurchase agreements. Of the $527 million of credit extended by banks in the survey against the new 2⅝'s on June 16, some three-fourths was in collateral loans and one-fourth in repurchase agreements.

The large commercial banks, mostly in New York and Chicago, which customarily finance the operations of dealers in Government securities usually vary their margin requirements to these customers directly with the maturity of the collateral—for example, 5 per cent on long-term bonds, smaller margins (say 3 per cent) on intermediate issues, and only nominal margins, if any, on loans collateralled by short-term securities. The terms available to dealers in Govenment securities are ordinarily somewhat more favorable than those available to brokers and others. In connection with the June 1958 financing, collateral loans by banks against "rights" carried no margins in many cases, and over one-third of loans made were at 1½ per cent margin or less. Logically, higher margins on these loans might have been required in the June 4-6 period when the holder of the maturing security committed himself to exchange for the 2⅝ per cent bond. However, in accordance with customary practice, many lending banks did not require higher margins until Friday, June 13, or June 16 when the "rights" were actually exchanged for the bonds. It is noteworthy, however, that 90 per cent of these loans were to dealers, who had long-established relations with the lending banks.

Thin margins, even after the tender date, were more common in the case of repurchase contracts than of collateral loans. Some 90 per cent of repurchase agreements made by banks on "rights" called for no initial margin. However, since the "rights" carried accrued interest equivalent to about 1¼ points, there presumably was margin of at least this amount on most or all repurchase agree-

ments. The largest part of bank repurchase agreements was apparently made with a money broker as principal, and on these repurchases banks were unaware of either the full extent of the risks involved, or the identity of the ultimate user. These banks, in effect, made credit available indirectly to unknown borrowers on virtually no margin.

A number of nonfinancial business corporations, and to a limited extent, other nonbank institutions, extended credit on repurchase contracts against "rights" during the June refunding because these contracts provided a substantially higher interest return than was available on short-term market paper. Such institutions included in the survey reported a peak total of approximately $365 million repurchase agreements against "rights" (on June 14), practically all of which was accounted for by the nonfinancial business corporations (24 of the 145 in the survey reported repurchases against "rights"). This total compares with about $135 million repurchases on "rights" on that date by banks included in the survey, and the combined bank-nonbank total of $500 million of repurchases compares with almost $660 million of collateral loans by banks against "rights." The largest part of these nonbank repurchase agreements was with Government securities dealers, but about 40 per cent, largely arranged through one money broker, was to finance securities purchases by individuals and others.

Some large business corporations had regularly invested funds with Government securities dealers under repurchase contracts. Of total repurchase agreements written by these corporations in May-July 1958, more than 90 per cent were with dealers, and the largest part of the agreements against "rights" also was with dealers. It was an easy matter, however, under the incentive of attractive rates of interest to adapt the repurchase agreement to contracts with other brokers not regularly active in the Government securities market. Under many of the repurchase contracts arranged by one money broker in the June 1958 refunding, the borrower agreed to pay to the lender all or most of the interest earnings on the securities involved (after deduction of the broker's fee), thereby assuring the corporation a much higher return than could have been obtained on an outright investment. (The "rights" had coupons of 2⅜ and

2⅞ per cent, in comparison with short-term bill rates below one per cent). Most agreements were made on an open basis, that is, they could be terminated any time after June 16 at the option of either party.

In making these repurchase contracts with a money broker, nonbank lenders failed to take into account the fact that these agreements, involving "rights" that were to be exchanged for bonds due in 1965, became far more risky than their customary contracts with regular dealers, when they ran beyond the tender date. These investors did not require margin in their usual contracts with dealers, and in most cases apparently did not see the need to require a margin against "rights" in the June 1958 refunding, in spite of the significant difference in the underlying conditions. It is reported that in many cases margins were not called for even after the exchange to bonds.

Dealers in United States Government securities entered into repurchase agreements on a broad scale in the spring and summer of 1958. Repurchase agreements of all types with banks and other lenders outstanding on June 4 and June 11 amounted to more than $1.7 billion, with nonfinancial business corporations accounting for 80 per cent of the total. During the subsequent week, however, there was a sharp temporary increase in the volume of collateral loans obtained by dealers, and at the peak level of dealer positions on June 18, they reported $1.8 billion in loans outstanding and $1.5 billion of repurchase agreements.

It was pointed out earlier that money brokers normally do not write repurchase agreements for their own account. In fact, money brokers ordinarily write very few repurchase agreements, and even fewer for more than one day. The firm mentioned earlier, which had been most active in arranging Federal funds transactions, departed from this standard practice in connection with the June 1958 Treasury refunding. A number of other New York Stock Exchange firms were also instrumental in mobilizing the interest of speculators who do not normally trade in Treasury issues, but this firm was most active in obtaining the funds to facilitate the transactions for other brokers as well as for its own customers. It accounted

for virtually all of the repurchase agreements against "rights" entered into by members of the New York Stock Exchange.

Since this firm had conducted a money brokerage business for many years it was normal for it to act strictly as a broker, placing the financing on a collateral loan in the customer's name where it was feasible to do so. However, the combination of the accepted status of repurchase agreements against Government securities as a short-term investment outlet for banks and corporations, the relatively attractive coupons on the "rights," and the difficulty that might have been encountered if some of the customers had attempted to borrow in their own name the sums of money that were involved, led the broker to place much the largest part of the borrowing he arranged to finance speculation in the June 1958 refunding on a repurchase basis. This broker had nearly $400 million repurchase agreements against "rights" outstanding on June 11, 1958, of which about one-half were with banks and the balance divided between nonfinancial corporations and others.

EVALUATION OF REPURCHASE AGREEMENTS

In most cases, a repurchase agreement is one of several alternative forms that a particular financial transaction may take. Therefore, a limitation upon the use of repurchase agreements may not necessarily eliminate the transaction but simply change the form it takes without having significant effect upon the volume of such transactions or the underlying purpose they serve. In evaluating the uses of repurchase agreements, an attempt is made in the following analysis to distinguish those cases in which the form itself has contributed to unsound or undesirable practices, or might encourage them in the future, and to indicate the extent to which such uses might find alternative media if repurchase agreements were limited.

Use by banks. In the "normal" commercial bank use of repurchase agreements, essentially a form of Federal funds transaction, the larger size of loans available to a single borrower makes for wider participation in the Federal funds market than would occur if transactions were confined to unsecured Federal funds operations. Through this arrangement some banks find it possible to improve the management of their reserve account, in the sense

of remaining more fully loaned and invested. The higher limit on loans collateralled by United States Government securities, which applies whether the transaction takes the form of repurchase agreement or a loan, is the permissive factor enabling banks to participate more actively in the funds market. The use of repurchase agreements, therefore, adds to the volume of Federal funds activity only to the extent that the repurchase arrangement is more convenient than a collateral loan.

A number of issues are raised with respect to commercial bank usage of repurchase agreements, even where the commercial bank is interested only in reserve adjustment. These issues generally relate to those cases where the agreement, although entered into by a bank for reserve adjustment purposes, is something other than a Federal funds transaction between two banks. First, unless the agreement is adequately margined, it is not truly riskless if the maturity of the collateral is significantly longer than the maturity of the agreement. Second, the form itself may lead banks to lend on smaller margin or to apply less rigid credit standards than would be the case if the transaction were in the form of a collateral loan. Even though the purpose of the lending bank is, simply, short-term employment of excess reserves, and the risk of loss to the bank is very small, the over-all effect may be undesirable if the funds are channeled into unsound uses or the other party to the transaction is overextended.

Another issue arises from the use of "reverse" repurchase agreements by a bank with a nonbank institution (sometimes referred to as "reverse" buy-backs). Whether a dealer appears as the principal or the agreements are made directly with nonfinancial corporations, such agreements raise a question as to whether the repurchase form is being employed to avoid the prohibition on the payment of interest on demand deposits, and even broader questions as to the desirability of Federal funds transactions with nonbanks. Any short-term borrowing by commercial banks from nonbank sources raises these conceptual problems, especially if there is an understanding, expressed or implicit, that the lender may have access to the funds on demand. And in fact, the line between demand deposits and other short-term liabilities of banks actually

may be clearer in the case of "reverse" repurchase agreements, which generally have fixed maturities, than certain other arrangements between banks and nonbank corporations; for example, some time deposits.

At the same time, the potential extent to which commercial banks, under strong competitive pressures for corporate balances, might employ repurchase agreements against Government securities as a means of avoiding the prohibition upon interest on demand deposits, should be noted. The available evidence suggests that not many banks currently employ "reverse" repurchase agreements with nonbanks, and the total dollar volume of such agreements probably is not large. However, the growing familiarity with the repurchase agreement as a regular money market instrument, the availability of Government securities in bank portfolios that might be employed for this purpose, and the increasing pressure to develop interest-earning money substitutes—all suggest the existence of at least a potential problem for bank supervision.

Use by nonbank institutions. Dealers in Government securities employ repurchase agreements principally for two purposes: to finance a trading or investment position they wish to carry, or to tailor maturities to investors' requirements. A third usage might be distinguished in those cases where a dealer as principal, in effect, operates as a money broker through the use of offsetting repurchase and resale agreements.

Repurchase agreements between dealers and nonbank investors have tended to make the supply of short-term investment securities more adaptable to changing investor requirements. However, the uses which Government securities dealers have made of repurchase agreements with nonbank investors do raise several questions.

Have business corporations been encouraged to become lenders and, if so, is this, in any sense, an unsound financial development? Have dealers been able to carry larger positions relative to capital funds—thus incurring undue risk exposure—than they would have carried if they had been limited to bank financing? Do dealers' commitments to repurchase large amounts of Governments on important tax and dividend dates during the year carry a risk of increasing internal strain in money and securities markets when these

securities are returned in block to the market and must be refinanced? Does the present use of repurchase agreements result in or add to a tendency toward economy-wide pyramiding of credit instruments upon too narrow a cash base, and so risk disorderly liquidation if the structure comes under progressive strain?

The suggestion has been advanced from time to time that repurchase agreements against Government securities should be restricted, in some fashion, because they "make lenders out of nonfinancial corporations." This suggestion appears to overlook the fact that such corporations have always had access to a variety of similar instruments for the temporary placement of liquid funds, one of the oldest and most highly respected being the bankers' acceptance. They have also employed short-term funds in the purchase of commercial paper and finance company paper. In the case of paper issued by large consumer finance companies, "tailoring," similar to that done by Government securities dealers through repurchase agreements, has been a common practice for many years. Thus, while dealer repurchase agreements may have operated to broaden the range of opportunities open to nonfinancial corporations, the practice does not seem to differ significantly from these other investing and lending arrangements.

One potential danger in dealer repurchase agreements with both bank and nonbank investors that should be recognized is the possibility that a dealer may allow the spread to become too wide between the maturities on the securities and the shorter maturities on the repurchase agreements he has outstanding, thus incurring risk of substantial loss if the market should move significantly. Since most investors view repurchase agreements with dealers as investments rather than loans, they may fail to apply as strict credit standards with respect to such arrangements as they would on a collateral loan. Consequently, it is conceivable that a dealer bent on swelling his earnings could finance a more extended and riskier position in longer term securities through repurchase agreements than he would be able to finance on collateral loans.

The fact that conventional accounting practice does not provide an explicit procedure for handling the contingent liability involved

in repurchase transactions tends to accentuate this danger. For accounting purposes a repurchase agreement is generally handled in the same way as an outright sale, and the extent of the contingent liability associated with it is not reflected directly in the balance sheet. While sound practice requires a full disclosure of all contingent liabilities through appropriate notation, this practice has not been followed consistently in connection with repurchase agreements.

There is, finally, the question of the extent to which the repurchase mechanism as it has been developed over the years might contribute, in some measure, to a general tendency toward a dangerous pyramiding of short-term liabilities on too narrow a money base. The speculative overtones that develop on occasion in financial markets, the proliferation of financing devices to support such speculation when it occurs, and the apparent spreading of "sharp pencil" attitudes through the money and securities market, at least suggest a potential problem. To some extent the repurchase agreement form seems capable of contributing to such development, and abuse of this instrument, such as occurred in the 1958 experience, might add to future problems.

In considering repurchase agreements in this context, it should be pointed out that some problems may also be associated with their "normal" money market use. For example, the clustering of repurchase maturities at tax and dividend dates might contribute to a weak technical condition in the money market. However, this clustering only constitutes a part of the demand for cash on such occasions and a demand for financing of comparable size might appear in the market, whether or not repurchase agreements were involved. Avoidance of weak technical situations in the market in these periods is fundamentally contingent on the availability of adequate information to the monetary authorities about the prospective demands for money arising from maturing commitments of all kinds, including repurchase agreements.

Use in the 1958 speculation. The use of repurchase agreements to finance speculation by individuals in Government securities in May-June 1958 was a departure from the customary use of this

financial form. While many other developments contributed to the excesses surrounding the Treasury's June refunding, the evidence suggests that the characteristics of the repurchase agreement facilitated its use in some particularly unsound credit extensions.

Commercial banks generally required no margin or only nominal margin on the initial loan to finance "rights," whether the transaction was in the form of repurchase agreement or collateral loan, but the complete absence of margins and very low margins were more common in the case of repurchase agreements than collateral loans. Also, some commercial banks may have extended credit on repurchase agreements, directly or indirectly, to borrowers whom they would not as readily have financed on collateral loans. Therefore, as regards commercial bank financing of speculation, while the form that the lending took probably was not material in many cases, lending practices on repurchase agreements at some banks were apparently less prudent than on collateral loans.

Repurchase agreements, as a form of financing, contributed to unsound credit extension to support speculation principally through their use by a small number of nonbank lenders and a few commercial banks in arrangements with a New York Stock Exchange firm that was active in promoting these transactions. Margin typically was not required on these agreements, either on the initial contract or after "rights" had been exchanged for the new bonds. In many, perhaps most cases, the presumption is that the instrument as used by the money broker concerned, obscured to the lender the true nature of the transaction being financed. This firm was subsequently fined and censured by the New York Stock Exchange for various aspects of its activities, including the failure to comply with Stock Exchange margin requirements.

The preference for repurchase agreements, particularly in those cases where the broker served as a "middleman-principal," suggests that some of the speculation financed through repurchase agreements could not have been financed through bank loans. To the extent this occurred, there was a clear weakening of credit standards. It is not possible to measure the extent to which the repurchase agreement form of financing resulted in credit being extended

against June 1958 "rights" by lenders not aware of the true nature of the transaction they were financing. Nor is it possible to estimate what part of the speculation financed through nonbank repurchase agreements would have been financed through collateral loans at banks on substantially the same terms if the repurchase agreement form, as such, had not been available. As pointed out, the one money broker most active in providing the financing for speculation in the June "rights" and the 2⅝'s of 1965 relied almost wholly on repurchase agreements and accounted for almost all such agreements written by New York Stock Exchange member firms. It needs to be remembered in connection with the 1958 experience, however, that there was a great deal of speculation financed in other ways.

It is likely that the availability of repurchase agreements added at least marginally to the volume of speculation in the Treasury's June 1958 refunding. It also seems clear that the use of repurchase agreements embodied essentially unsound financing practices in some cases, and these practices should be guarded against, without regard to whether a particular transaction might as easily have been arranged on a collateral loan basis. Finally, the extent to which the use of repurchase agreements enabled brokers and their customers to avoid normal channels for financing speculation in securities might at least be considered a warning of the possibilities for the future. On the other hand, there is little doubt that the memory of the unfortunate experiences of mid-1958 will, by itself, tend to prevent some institutions from participating in similar arrangements in the future.

Apart from uses of the repurchase form which might be regarded as unsound in themselves, the survey data obtained on the mid-1958 experience suggest that the clustering of repurchase agreement maturities in a short period may have contributed to the heavy strain that developed in the market at that time. It was, perhaps, an almost unique occurrence for a large volume of repurchase agreements to fall due around the same time as the settlement dates for substantial Treasury financing, but this experience supports the suggestion that adequate information is needed on the volume of such commitments outstanding.

POSSIBLE LIMITATIONS ON REPURCHASE AGREEMENTS

Possible limitation of repurchase agreements can be considered on the basis of either of two broad assumptions—(1) that no other form of credit extension for the purchasing or carrying of Government securities is to be limited or regulated, or, (2) that there will be some more or less inclusive standards, either regulatory or supervisory, governing extensions of credit for such purposes.

To justify the selective regulation of repurchase agreements only, it would be necessary to establish a relationship between this form of financing and some important type of undesirable speculative activity or unsound financial practice. It would also be necessary to establish that repurchase agreements for such purposes could be distinguished from uses which contribute to the breadth and fluidity of the money and Government securities markets and, therefore, serve the public interest.

Present limitations. The New York Stock Exchange has, for a long time, applied uniform margin restrictions on loans by its member firms to customers to purchase Government securities. On October 16, 1958, in response to developments during the preceding spring and summer, the Board of Governors of the New York Stock Exchange clarified its margin rule (Rule 431) to emphasize that a 5 per cent margin must be obtained when the credit extension is in the form of a repurchase agreement. The amendment to New York Stock Exchange Rule 431 is given in Appendix A on page 92.

The Comptroller of the Currency has ruled that repurchase agreements against United States Government securities entered into by national banks shall be treated as loans, and the Board of Governors of the Federal Reserve System has adopted this ruling to apply to State member banks of the Federal Reserve System. These banks are allowed to lend to a single borrower an amount no more than 25 per cent of their capital and surplus on loans collateralled by Government securities of more than 18 months maturity, but this limitation does not apply where the collateral is Government securities maturing within 18 months. From the standpoint of a borrowing national bank, "reverse" repurchases are limited to the amount of its capital, in the same way as any other borrowing.

Limitation of repurchase agreements only. From study of mid-1958 market developments, it appears that there is at least a limited area in which repurchase agreements were used to finance speculative activity where adherence to the more conventional collateral loan procedures might have led to sounder financing and, in turn, to fewer undesirable repercussions in the Government securities market. If it were determined that the correction of this specific abuse were the only action necessary, and that the problem was sufficiently important and likely enough to recur to justify a request for legislative authority, a selective limitation on repurchase agreements directed specifically toward this type of speculative use would seem feasible. Such an action might, for example, be so directed as to prevent anyone other than banks or Government securities dealers from borrowing on repurchase agreements. It would not prevent others from lending to banks or dealers on repurchase agreements, or interfere with loans collateralled by Government securities.

Still another approach to the limitation of repurchase agreements might be related to the risk exposure involved. It has been suggested that when the interest rate curve is steeply sloped, so that interest rates increase markedly at each step toward longer maturity, the difference between interest rates at different maturities may provide a strong incentive to seek profits by employing relatively longer term maturities in "tailoring" repurchase agreements of substantially shorter term. This would tend to extend the period between the maturity of the repurchase agreement and the maturity of the security involved, or the "tail" as it is sometimes called, and increase, in turn, the amount that the market value of the security might fall below the repurchase price if market rates moved adversely during the period for which the repurchase agreement is written. Recognizing that the same incentives apply in the case of collateralled loans, it may be that there is less tendency on the part of lenders to require adequate margining, and/or information on the total financial commitments of the borrower, in the case of repurchase agreements involving a "long tail" than comparable collateralled loans.

Such a development might be met by more specific attention to

such arrangements on the part of the supervisory authorities, and special efforts to bring to the attention of unsupervised lenders the nature of the risks involved. If the danger were to become more serious, it could be approached by legislation and regulation directed to this specific problem.

Inclusion of repurchase agreements in a broader approach. It appears that any limitation of repurchase agreements might more logically be a part of a broader regulation of the use of credit for purchasing or carrying Government securities in defined circumstances.

As is pointed out in the study on pages 47-64 of this volume, there are at least two general approaches to the application of margin requirements to credit transactions in Government securities generally. A first approach might be a statement on the margins which should be obtained on extensions of such credit by supervised lenders. Lenders who are not subject to specific regulation might be encouraged to follow parallel policies in their own self-interest. Another approach would be to require by regulation margins on extensions of credit for the purpose of purchasing or carrying Government securities which are, in turn, secured by Government securities. This is substantially the same type of approach now employed by Regulations T and U in connection with the requirement of margins on purchases of listed stocks.

Such a regulation could be imposed under statutory authority, which would require new legislation, or perhaps through self-regulation not unlike the margin requirements on transactions in Government securities, now imposed by the regulations of the New York Stock Exchange. It should be noted, however, that any such self-regulation would have to encompass a much broader group than Government securities dealers. It would have to extend to all institutions which make, arrange, or finance transactions in Government securities, including many commercial banks as well as other dealers and brokers.

If margins were to be required on all credit to purchase or carry Government securities, it would be necessary to define "extensions of credit" to include repurchase agreements. There seems to be no insurmountable difficulty involved in such a definition. Under

such a definition repurchase agreements not otherwise excluded would have to be written for less than the current value of the securities by a percentage equal to whatever margin would be required on collateral loans. More liberal treatment of certain transactions by banks and dealers, regardless of the form used, could be provided if it were determined to be necessary and desirable.

With such provisions it would not appear that the inclusion of repurchase agreements, by definition, in a broader approach to margining extensions of credit on Government securities would raise any special problems not covered in the supplementary study on margin requirements. The fact that the margin requirements study suggests, on other grounds, that any limitation of this type would be in terms of an initial rather than a maintenance margin, simplifies its application to repurchase agreements. The application of required maintenance margins to repurchase agreements would present serious technical difficulties.

An objection to any requirement for margining of repurchase agreements might be based on the supposition that it would interfere with the "tailoring" transactions described earlier. It is true that margining would complicate these transactions and would be confusing to those who regard them as investments rather than loans.

While complete information on the extent of this kind of business and on the types of securities employed is not available, it appears that a large part of the repurchase agreements written by dealers involves short-term securities. Hence, if margins were not required on dealers' transactions involving short-term securities, they should not interfere with the bulk of "tailoring" operations.

Another related problem which has been suggested is that a general definition of repurchase agreements as "extensions of credit" or "loans" would inhibit or prevent some transactions by nonbank participants, even though no margin was required on a particular transaction, or it could be margined without serious inconvenience to either party. Repurchase agreements entered into by nonfinancial business corporations with dealers are cited as an example. The boards of directors of most large nonfinancial business corpora-

tions authorize their treasurers to invest idle funds, but they generally do not extend this authority to the making of loans, even on a secured basis. There is considerable doubt that such authority would be granted in many instances.

It has been argued, on the other hand, that the very transactions which would be inhibited by such a definition are those where the essence is most clearly a loan rather than an investment and that if focusing attention on that fact would tend to inhibit one of the parties, there is at least a presumption that such inhibition may be desirable. An example would be a two- or three-day agreement between a dealer and a nonbank corporation, initiated by the dealer for the purpose of financing his position. Those who hold this view feel that, if the corporation involved regards such a transaction as anything substantially different from a secured loan to the dealer, reconsideration of the nature of the transaction on the part of the directors would be constructive. Nevertheless, this effect of defining repurchase agreements as either "loans" or "extensions of credit" would probably be viewed by those who find repurchase agreements a convenient market mechanism as a major objection to this approach.

Limitation in refunding operations. As an alternative approach, an official requirement of margins applicable only in connection with exchange offerings by the Treasury has been suggested in the supplementary study on margin requirements, on the ground that most of the difficulty to date has been in connection with refundings. This suggestion would apply such margins to credit extended through repurchase agreements as well as in other forms. Whether such a requirement were the sole limitation or a supplement to other action that might be taken under existing authority, there appears to be no difficulty in the inclusion of repurchase agreements.

"Reverse" buy-backs. Question has been raised about the implications of the use of repurchase agreements to effect short-term extensions of credit from nonbank corporations to banks.

The basic issue would appear to be whether an individual bank in adjusting its reserve position should be permitted to borrow, in effect, from nonbank sources, resulting in what some would consider as the payment of interest on corporate balances. The ques-

tion of whether the generation of interest-bearing short-term liabilities by commercial banks should be subject to further limitation or regulation extends well beyond the use of repurchase agreements and the scope of this study.

CONCLUDING OBSERVATIONS

From a technical point of view, there do not appear to be any major problems in limiting the use of repurchase agreements, other than those implicit in selective limitation on credit extensions for the purpose of purchasing and carrying Government securities generally. There is nothing in the nature of a repurchase agreement which prevents it from being "margined." In fact, many are now made on this basis, either explicitly or through the practice of not including accrued interest. There would undoubtedly be some technical problems which would develop in practice, but there is no reason to assume that these problems should not be susceptible to reasonable solutions.

On the other hand, if it is determined that it is not necessary or desirable to limit all forms of credit extensions for purchasing or carrying Government securities, there is some question as to whether repurchase agreements should be singled out for special limitation, and as to whether such an approach would be effective over a period of time. The available information indicates that as much of the speculation in "rights" in mid-1958 was financed by collateral loans as by repurchase agreements, although such loans were generally less thinly margined.

Appendix A

Amendments to New York Stock Exchange Rule 431 (Effective October 17, 1958)

RULE 431—MARGIN REQUIREMENTS

Under caption "Initial Margin Rule," page 3751, Volume 2, New York Stock Exchange Guide, Rule 431 (a), insert directly following the first paragraph the following definition of "customer":

For the purpose of this Rule, the term customer shall include any person or entity for whom securities are purchased or sold or to whom securities are sold or from whom securities are purchased whether on a regular way, when issued, delayed or future delivery basis. It will also include any person or entity for whom securities are held or carried. The term will not include a broker or dealer from whom a security has been purchased or to whom a security has been sold for the account of the member organization or its customers.

Under the caption "Exceptions to Rule," page 3751, New York Stock Exchange Guide, Volume 2, insert on page 3752 after subparagraph (2) (B), a new subparagraph designated (C) as follows:

(C) Cash Transactions with Customers—Special Provisions.

When a customer purchases an issued "exempted" security from or through a member organization, in a cash account, full payment shall be made promptly. If however, delivery or payment therefor is not made promptly after the trade date, a deposit shall be required as if it were a margin transaction, unless it is a transaction with a bank, trust company, insurance company, investment trust or charitable or nonprofit educational institution.

In connection with any net position resulting from any transaction in issued "exempted" securities made for a member organization, or a nonmember broker-dealer, or made for or with a bank, trust company, insurance company, investment trust or charitable or nonprofit educational institution, no margin need be required and such net position need not be marked to market. However, where such net position is not marked to the market, an amount equal to the loss at the market in such position shall be considered as cash required to provide margin in the computation of the net capital of the member organization under the Exchange's capital requirements.

4. An Association of Dealers?

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The market for United States Government securities is pivotal in the economy's financial organization. Short-term Government securities serve as a primary liquidity instrument for business corporations and financial institutions. Longer term Government securities serve as the central investment asset that is free of credit risk. Market yields on these securities serve as guideposts for interest rates on many forms of private and public financing. The Treasury must also conduct its huge financing operations through this market almost continuously. The functioning of this market, moreover, determines the degree of freedom possessed by the Federal Reserve in execution of open market policy. The market, finally, is a transmission belt for information; it signals Treasury debt management policies and Federal Reserve monetary policies to the public. In turn, the market influences the formulation of such policies.

The Government securities market is informally organized and decentralized. Trading is carried on by professional specialists linked by telephone and other means of communication under an informal code of conduct evolved through time and experience.[1] It is variously described as an over-the-counter market, a dealer market, or a negotiated market to contrast it with formally organized markets such as stock exchanges and commodity markets. Its central core consists of a dozen specialist nonbank firms, five large banks that maintain separate trading departments specializing in Government securities, and a handful of inter-dealer brokers.

Many nonbank dealers maintain a network of offices through the country and the bank dealers accomplish national coverage through

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[1] This market is more fully described in "An Organized Exchange or a Dealer Market?," published in Part I of the *Treasury-Federal Reserve Study of the Government Securities Market*, pp. 71-108. (Board of Governors of the Federal Reserve System, 1959.)

their correspondent bank relationships. Many banks over the country receive orders from customers and transmit them through nonbank as well as bank dealer channels and a number of banks in major centers maintain limited trading facilities to help execute customer orders. Like other markets, the major function of the Government securities market is to bring together buyers and sellers in an effective manner, to execute transactions at prices which clear the market, and to perform this service expeditiously and cheaply.

If one takes the long view of economic events, the primary dealers can be thought of primarily as agents for expression of fundamental economic influences. In the short run, however, the character and extent of dealers' operations exert a vital influence on the market's condition and tone. From a practical standpoint, Treasury financing, Federal Reserve actions, and investor transactions are significantly influenced by these short-run factors.

Various suggestions were received in connection with this study for making the Government securities market mechanism more responsive to the many demands on it. One of the suggestions advanced was that an organization of Government securities dealers might improve the functioning of the market. Those making this suggestion appear to have been prompted by varying objectives. Some believe that standardization of trading practices and strengthening of dealer functioning in making markets with each other and with customers would improve the market and that a dealers' organization could help in their accomplishment. Others emphasize the lack of current statistical information about the market, especially as regards its volume, recording of prices on transactions, and the use of credit, and stress the role an organization might play in assembling and publishing useful information. Still others seem chiefly to have had in mind some regulative role that a dealers' organization might play in helping to curb speculative activity if it should threaten to become excessive. Finally, some believe a dealers' organization might serve as a means of identifying dealers in effectuating selected market functions, such as bank financing of dealers or dealer underwriting of Treasury issues, and in that way might make the market function more effectively.

An effective organization of Government securities dealers prob-

ably could not limit itself nor sustain itself for long on the basis of one functional objective. It is in the nature of such organizations that functional objectives are multiple, as are likewise the specific activities in which they actually engage. Therefore, this exploration of the potentials of an association of Government securities dealers provides first an inventory of specific functions which such an organization might undertake to perform. Alternative forms for such an organization are then considered in a subsequent section. A final section of the study raises and discusses briefly possible objections to the formation of a dealers' organization.

POSSIBLE FUNCTIONS

The type and range of functions that a dealers' organization would be expected to perform would determine the type of organization needed. If the functions planned for such an organization were simple ones that avoided legal complications, such as possible conflicts with anti-trust legislation, the organization could be informal. If the functions planned for such an organization were, however, relatively complex and sensitive, the type of organization—its formality and authority—would have to be equal to its larger tasks. A more formal organization would likely require some sanction of law. It follows, therefore, that the range of possible functions must be reviewed before the alternative forms of organization can be canvassed.

This inventory of specific functions that a dealers' organization might perform has been drawn from many sources, including the consultations with market observers and participants made as one phase of the study. No claim need be made that the list is complete, since the purpose here is merely to suggest a range of possible functions.

Advising on Treasury financing. A dealers' organization might be a helpful instrument in assembling and transmitting to the Treasury Department accurate and up-to-the-minute advice on Treasury financing operations. Present consultative arrangements of the Treasury with market participants include some dealers through their membership on the Investment Bankers Association advisory

committee to the Treasury, but some of these dealers have at times felt their views were submerged in group presentations of this type.

Underwriting Treasury financing. In its financings, the United States Treasury does not employ a professional underwriting group with a committed interest. Government securities dealers and banks subscribe to new cash issues or buy "rights" for exchange offerings when the terms seem attractive, or submit bids in auctions for Treasury bills or other short-term securities, but the participation of individual dealers in these financings varies and on occasion has been limited. A dealers' organization might conduct studies of dealer underwriting activities to their mutual benefit and also to that of the Treasury.

Improving knowledge of market. The current inquiry has pointed up the gaps in information about this market and the problems of filling the gaps. Knowledge of trading volume, transactions prices, and credit use, as well as about many trading practices, is incomplete.[2] Market activity and practices change rapidly and the lag in understanding is appreciable.

A dealers' organization could collect the kind of data on volume of trading, shifts in aggregate dealers' positions, and ranges of quoted prices or prices in actual transactions that would illuminate this market. Prompt and reliable reporting of aggregate data might offset the potential adverse effects of rumors and would also serve valuable purposes in economic analysis and decision making by the Treasury, the Federal Reserve System, professional traders and investors, and analysts generally. The public interest would seem to be served if accurate, useful information and statistics on the Government securities market were more generally available. This informational function, at least in part, might appropriately be carried out by a dealers' organization either as a voluntary activity on its part or in conformity with any required reporting program, if authorized.

Finally, many aspects of this market are not as fully disclosed as they are in other markets. In formally organized markets, disclosure of relevant financial facts has come to be recognized as an

[2] See "Adequacy of Market Statistics," pp. 1-44 in this volume.

important protection against malpractices. The Securities and Exchange Commission and the New York Stock Exchange enforce a number of rules requiring disclosure of relevant facts to the public or to duly designated authorities. Comparable rules of disclosure of public interest matters do not apply to firms that deal only in Government securities. Such dealers are not required to report financial positions to a public agency regularly on a standard accounting basis.[3]

Some participants in the market appear to believe that disclosure of information about the market to the public might at times accentuate speculative activity or have adverse effects on the availability of financing to the market. Some would not favor publicizing the market with more aggregate statistics simply because it functions efficiently, in their view, on the basis of existing data. If there is a general dealer concern about the publication of additional information about the market, it probably relates more to the time lag with which reports might be made available than to the information itself; a very short time lag might expose activities of individual dealers to competitors and other market participants.

Improving market service. The great financial institutions and nonfinancial corporations that buy and sell in large volume in this market almost universally praise the character and quality of service they receive from dealers and agree that it is rendered at reasonable cost. At the other extreme many of the small orders that flow into this market through brokerage houses and banks are apparently executed in prompt and almost routine fashion at spreads only moderately wider than for large transactions and, in many instances, below the cost of transacting this business.

Nevertheless, some established institutions and individuals allege that they have been unable on occasion to obtain execution of orders for what they consider to be reasonable amounts within price spreads then prevailing in the market. The explanation may be, in part, that in this personalized over-the-counter market, customer relationships have been assiduously developed. The occa-

[3] Reports are given voluntarily to the Federal Reserve Bank of New York on a confidential basis.

sional participant, or even the investment institution or large investor who uses the market infrequently, may not have had the customer status to obtain execution of orders expeditiously and at prices that seemed equitable to the buyer from his appraisal of market conditions at the time.

Criticism has also been leveled at the market on occasion for its handling of some small or odd-lot orders. Execution of these orders is costly in relation to volume and dealer practice evidently varies with regard to their handling and the size of spreads applicable to them. In any case, it appears that some dealers, as wholesale specialists, take little interest in small orders while other dealers feel that they have a special obligation to see that small orders are efficiently serviced.

To the extent that there is a problem of equitable execution of customer orders and of spreads and charges on small or odd-lot orders, a dealers' organization could provide a mechanism for establishing general rules or standard practices concerning these matters.

Inter-dealer trading. Trading among dealers presumably helps to tie the various segments of the market together. Such trading, which is effected primarily directly and in a lesser degree through inter-dealer brokers, helps to spread supply and demand pressures through the market. In this way, it tends to result in less variation of price quotation which, in turn, tends to increase investor satisfaction with the market process. At times of rapid change, moreover, the size of many transactions in Government securities makes it impossible for a dealer to take them on, except on an order basis, without risking insolvency. On some occasions, spreading these large orders around the market through inter-dealer trading might facilitate their execution.

Trading agreements between dealers, under which they obligate themselves to make firm markets to each other for specified amounts of given issues, were a feature of the market for a number of years prior to 1956, but around that time they virtually disappeared. Some regret their disappearance and contend that re-establishment of the system of inter-dealer trading agreements would improve the market. They believe that trading agreements furnished a useful vehicle for both spreading risk and unifying the price structure in

the Government securities market. The usefulness of such agreements, however, is doubted by others. They believe that trading agreements expose dealers to raids by other dealers, and can be employed as an instrument of competitive annoyance by tying up the time of traders, and provide a device that facilitates manipulated price movements.

Inter-dealer transactions are also negotiated to a small extent through brokers. Such brokers trade almost exclusively with the relatively small number of primary dealers in Government securities. They also report the volume and terms of most of their trades to their customers, thereby providing a quotation service. Opinions of primary dealers differ with respect to the usefulness of brokers, as they do about the system of trading agreements. Most dealers, especially the smaller ones, view brokers' services as useful. Other dealers appear to resent the necessity of sharing, in effect, their commission with independent brokers.

A dealers' association could have two functions in the inter-dealer trading area as follows: (1) general supervision of trading agreements if they were to be reactivated, including the specification of principles under which they might be drawn; and (2) the formulation of rules appropriate to the use of broker services. With respect to this latter function, one dealer has suggested that it might be advantageous for dealers to establish jointly a central brokerage and quotation facility. Another role of such a facility might be to render an odd-lot brokerage service to all dealers.

Other trading practices. The market for Government securities is technically complex and constantly evolving. In devising and enforcing codes of trading practices, an association of dealers might have various advantages. An association's standards could be flexible enough to permit the use of various trading or financing techniques while limiting their abuse. Trading codes established by the industry itself might be particularly effective in preventing competitive pressures from forcing dealers to participate in trading practices which they themselves considered unsound.

Areas in which trading rules might be helpful and which would probably be explored by an association would include: trading in securities on a "when-issued" basis, trading for deferred delivery,

delivery rules and procedures in event of failure to deliver, and hours of trading. It might concern itself with the spreads between bid and asked quotations or deal with the spreads on small-lot transactions.

One of the trading practices that might be covered in any code worked out by a dealers' association would be the fair and equitable treatment of customer orders which might conflict with the execution of purchases or sales for a dealer's own position. Sophisticated customers of dealers appear to recognize this conflict of interest and consider it as one of the unavoidable characteristics of this market. They expect that dealers, in order to protect their capital, must give priority to shifts in their own positions. Other customers allow for no such latitude and expect dealers to handle their transactions promptly even though they are piled on top of similar transactions dealers are making for their own account. A code of trading practices of a dealers' association might give all customers more confidence with respect to the way in which this delicate issue would be resolved when it arises.

Identifying dealers. Identification of dealers is essential for them to be given access to Federal Reserve credit, for any program of standard or required margins, or for the dealer market to be used more effectively in the underwriting and secondary distribution of new Treasury issues. It would also be important if any special functional responsibilities were to be assigned to dealers as a class. An association whose criteria for membership were carefully defined in terms of dealer function could serve as an objective basis for identifying professional dealers. If used for such a purpose, it would be important, of course, that the membership should include all primary dealers in the market and allow for entry of new firms.

Improving dealer financing. When credit restraint was experienced for the first time in almost a generation in the early 1950's, dealers were less able to arrange low-cost financing accommodations within the central money market, and found it advantageous to seek out less expensive financing from commercial banks outside New York City and from nonfinancial business corporations. Considerable differences exist with respect to the facility with which dealers are able to arrange financing. Some dealers report existing financing

arrangements to be quite satisfactory; a few report problems. In the establishment of new firms in this business it could be that the ability to arrange financing is virtually as critical as the procurement of skilled personnel. A dealers' organization might be able to help arrange more continuous and dependable bank financing of dealers. At the very least, it might facilitate bank appraisal of dealer financial positions by encouraging standard accounting practices among dealers, standard patterns of financial statements, and standard financial ratios revelatory of dealer risk exposure.

Facilitating securities borrowing. Short sales facilitate the making of markets in United States Government securities since a dealer may be able to supply only by this means a particular issue that is in demand. Short selling also permits a dealer to purchase a particular issue when offered in the market without increasing his net long position if he is able to make a hedging or offsetting short sale of a similar issue or issues. Facilities for borrowing securities, which are a necessary condition if short selling is to be practical, are limited. A dealers' organization might develop new sources for loans of securities.

Maintaining dealer solvency. In a market as strategically important to the orderly functioning and liquidity of the entire financial organization as the Government securities market, the continuing solvency of all of the dealers in the market is a matter of vital concern. Indeed, the suspension of activity of an individual dealer because of financial embarrassment could, in a highly sensitive market situation, disrupt confidence in the market and jeopardize its orderliness. Dealers not only have an interest in their own solvency but, as a group, they have an interest in the solvency of each member of it.

To minimize the risks to solvency, a dealers' organization might establish and enforce standard capital ratios. Capital ratios in the Government securities market would, of course, need to be specially tailored to dealer patterns as they exist in the markets—for example, existence of both nonbank and bank dealers—and standards of adherence would probably need to be flexible. But experience of the New York Stock Exchange in applying capital ratios for the protection of member solvency is available to draw

upon, and there would seem to be little reason why the capital ratio approach could not be usefully applied in this specialized securities market. In fact, the dealer firms which are also members of the New York Stock Exchange are already subject to Stock Exchange capital ratios.

Avoiding speculative excesses. While a dealers' association could not eliminate undesirable speculation in the Government securities market by the general public, there are steps that an association might take to help reduce it. For example, a dealers' association could concern itself with the kind of representations dealers made to their customers either through market letters or word-of-mouth communication by salesmen. The National Association of Securities Dealers and the Securities and Exchange Commission concern themselves with the representations made to customers by dealers and brokers even in the case of high-grade securities. Similar supervision of promotional representations could be applied in the Government securities market through a dealers' organization.

In addition, it might also serve to reduce any undue speculation engaged in by dealers themselves which may on occasion contribute to market instabilty. One approach to limiting speculation by dealers lies in the use of capital ratios, mentioned above, which set upper limits to dealers' securities positions; such ratios would, to some extent, limit their ability to speculate beyond prudent bounds.

A dealers' association would not eliminate all dealer speculation; nor is it desirable that it should. Dealers clearly need some space for speculative operations. If they are to perform effectively their dealer role of making markets, their inventory positions will, from time to time, lead to losses. If they are to stay in business and continue to furnish service, they need to make offsetting profits at other times. The maintenance of dealer positions in the Government securities market involves speculation, but it is essential to the making of markets to customers.

ALTERNATIVE FORMS

The ability of a dealers' organization to perform any selected group of the functions set forth in the foregoing inventory would depend on

many things: the inclusiveness of its membership, the pertinence of its codes, its relationship (formal or informal) with some regulatory authority or with other public agencies having a special interest in the market's functioning, and the degree to which compliance with its standards could be attained. These factors are intimately interrelated.

The form appropriate for a dealers' organization, if it should be thought useful, would depend on the range of functions it would be expected to perform. Alternative forms include: (1) a purely voluntary organization, (2) an organization comprehending dealers identified by some public agency such as the Federal Reserve, (3) an organization formed under the Maloney Act, or (4) an organization established under new permissive legislation. These alternatives are reviewed in this section.

Voluntary association. The original dealers' organization, known as the "Government Security Dealer Group," was formed under the informal auspices of the Federal Reserve Bank of New York during World War II, and was voluntary in principle although in practice it embraced all primary dealers. This association effected certain minor improvements in market practices and procedures, such as technical revisions in trading practices (for example, trading certificates on a yield rather than a price basis; adoption of the Treasury's method of computing interest on Treasury bonds), and the adoption of a four o'clock closing rule. Fear of conflict with anti-trust laws militated against the adoption by the Group of formal rules on trading practices and tended to restrict actions to relatively noncontroversial matters.

It appears probable that a reactivated voluntary group would follow a pattern similar to the one set by this earlier association. Even if dealers could agree voluntarily on some reasonable code of trading practices, the Group might have limited power to enforce such a code. In other respects, it might also be weak. For example, it could, like most trade associations, collect only such statistics as members were willing to supply.

The by-laws of the earlier informal Group required two years of full-scale experience for admission of new members but permitted the executive committee to waive this requirement when it

had confidence in the operating skill and standards of the new firm, and thought its capital adequate. Criteria for membership were rather general.

More explicit and possibly quantitative criteria for membership—defined objectively in terms of dealer function and not unduly restricting entry into the field—would be essential for an effective voluntary organization. This would be especially important if the membership list were to serve as a basis for exemption from future regulations or supervisory standards (such as those applying to credit margins) or for identification to assure dealer compliance. An informal voluntary association would encounter difficulty in setting membership standards that balanced the requirements of free entry, safety, and market performance judicially.

If a voluntary organization were to exercise even mild disciplinary influence over its members, it would have to offer its members significant privileges as an inducement for joining and retaining membership in good standing. If these privileges arose from the outside (for example, the privilege of trading with the Federal Reserve System, preferential treatment in allotments of new securities on direct issue from the Treasury, exemption from standard or required margins on loans collateralled with Government securities, or improved access to financing), it could well be questioned whether such an association was, in fact, voluntary.

A voluntary dealers' association, able to meet the test of disciplining its members effectively, would face a problem of compliance with anti-trust laws. This might not prove to be an insurmountable barrier, provided its codes and rules did not restrain trade or limit entry into the business. Apprehension with respect to possible anti-trust action might, however, limit the effectiveness of such an organization.

Association of officially identified members. The identification of dealers could be accomplished on the basis of objective standards applied by either the Federal Reserve or the Treasury. Since the Federal Reserve is constantly transacting business in the market, it necessarily has a general understanding of which firms perform as true dealers and which ones do not. Management of the public debt requires the Treasury Department to keep in close touch with the

market structure. For example, firms who purport to be primary dealers could be expected to offer to the Federal Reserve at regular intervals during the trading day to buy and sell given securities at satisfactory price spreads in amounts that would be considered reasonable in relationship to their basic capital. Those who regularly offered and consistently performed on their offers could be certified as dealers.

The problem of dealer identification is regularly faced by the Federal Reserve and the Treasury Department. Dealers who are known to perform as such may, with Treasury consent, participate in the weekly bill auctions for amounts related to their financial position without making a cash deposit. The conduct of open market operations and the making of funds available through repurchase agreements require identification of dealers by the Federal Reserve which is done by their history in making markets, their capital, and their reputation for responsible business conduct.

If dealers were identified by an official agency, it is conceivable that a voluntary association might be furnished a ready-made formula for membership which could go some distance in satisfying anti-trust statutes with regard to limitation of entry. It might not, however, satisfy anti-trust conflicts that could arise out of any trading or customer service code adopted by the association. In addition to this reservation, some feel that Federal Reserve conduct of open market operations and Treasury management of the public debt require an impersonal approach to the market and that neither should be entangled with a supervisory relationship to this market.

A sponsor of this particular approach to the problem of determining membership scope for a possible dealer organization has suggested the following general objectives for such an association:

(1) To provide a defensible, realistic, and publicly known basis for Federal Reserve recognition of dealers' unique function as professional specialists in making a market for Government securities and thereby strengthening their claim to (a) credit availability at reasonable rates, and (b) the widest availability of securities for borrowing.

(2) To improve general accountability to the Treasury and the Federal Reserve System in their respective areas of market interest.

(3) To protect and unify ethical standards.

(4) To facilitate individual dealer acceptance of trading practices and procedures.

Organization under the Maloney Act. The only present legal basis for permitting a dealer organization to enjoy any degree of regulatory power (subject to appropriate restriction) exists in the Maloney Act, a permissive amendment to the Securities Exchange Act (Section 15A) which allows organizations of securities dealers to register as national associations with the Securities and Exchange Commission if they satisfy certain requirements set forth in the Act. The Act was intended to promote formation of a national association of dealers in corporate securities and did, in fact, do so: the National Association of Securities Dealers, already mentioned. The Maloney Act apparently was not intended to apply to the market in United States Government securities.

A liberal legal interpretation of this Section might conceivably make it possible for an association of Government securities dealers to be formed.[4] However, even if ingenious legal invention should resolve all legal issues satisfactorily the Maloney Act would provide a questionable framework for the type of institution such an association would need to be. Several reasons may be advanced for this view:

(1) This Act's emphasis on the broadest possible definition of eligibility for membership might raise difficulties in formulating realistic membership criteria in a concentrated and highly specialized market.

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[4] This possibility arises from the fact that the provisions relevant to the proposed association are mainly those governing its formation and the SEC powers to pass upon its membership and rules. A serious bar to this possibility, however, is that basic SEC legislation specifically and unambiguously exempts transactions in Government securities. It is hard to see how a meaningful trading code could circumvent this clear exemption. Another problem would be the inclusion of dealer banks as members. The Securities Exchange Act employs the terms "broker" and "dealer," and explicitly excludes banks from the definition of these terms, so dealer-banks would appear to be ineligible for membership in any association set up under Section 15A. This obstacle might be overcome since the Act does not prohibit an association formed under Section 15A from admitting additional members, or possibly some kind of "associate members" who are not brokers or dealers as defined.

(2) The Maloney Act furnishes protection against anti-trust prosecution through Sub-section (n) which holds an association exempt from legal prosecution for acting in accordance with any provision of this Act even though such action conflicts with a previous law. Thus the exemption is limited to performance of those functions (or exercise of those privileges) explicitly authorized by the Act itself.

(3) The Maloney Act prescribes a number of objectives for registered associations including the following: ". . . to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to provide safeguards against unreasonable profits or unreasonable rates of commissions or other charges, and, in general, to protect investors and the public interest. . . ." The abuses enumerated are not uniformly applicable to the Government securities market and a code of trading practices which would be relevant to this market might not fit readily into the framework of the Act.

(4) The Maloney Act does not deal with capital requirements and debt-capital ratios. All firms dealing in corporate securities are already covered by SEC regulation.

(5) The choice of the official sponsoring agency involves questions of both practice and principle. Under the Maloney Act the SEC would be the sponsoring agency.

Association under new legislation. It is not the function of this paper to judge the need for a dealers' organization. If, however, an organization were deemed desirable in the public interest, and if the foregoing alternatives should be thought so unsatisfactory that new legislation should be needed, the following points might be considered in the drafting of such legislation:

(1) The range of membership and its identification;

(2) The kind of code of trading practices and customer service appropriate for this field;

(3) The types of practices deserving exemption from anti-trust prosecution;

(4) The types of information to be reported to official agencies and the types of information to be made public;

(5) The identity of the sponsoring public agency, if any; and

(6) The relationship of the association created to other proposed measures of public regulation of this market.

Whether simple or complex in function, whether voluntary or mandatory, the establishment of such an organization would be open to various objections. Some of them are given below.

Lessening competition. The formal organization of a small group of dealers dominating the Government securities business, if it achieved privileged status under the anti-trust laws, doubtless would be viewed with strong misgivings in some quarters. The presently constituted Government securities market has been characterized by one critic as "the most closed market that was ever invented" and by another as "less competitive than desirable." These criticisms might multiply. Some might also feel that due to the smallness of the central or primary dealer group, self-regulatory activities might not be as effective as in a much larger more impersonal group such as the National Association of Securities Dealers. Finally, some fear that trading codes could become vehicles for restraint of competition and that the dealers might use such a group (or even blocs within the group) to improve their bargaining position vis-a-vis the Treasury in the determination of terms on its financings. This general line of objection to a dealers' organization might be alleviated, of course, by sanctions for an association provided through permissive legislation.

Limiting entry into business. The establishment of a dealers' organization might tend to restrict entry into this kind of business in spite of its framers' effort to guard against this effect. The limited number of persons with "know-how," lack of access to credit sources, and erratic profitability seem to explain the infrequency with which new firms have been formed to enter this market more than unavailability of capital. A dealers' organization might encourage the inflow of new blood into the business, but it might, in unexpected ways, close the portals of entry a little more tightly.

Rigidifying market practices. Establishment of a dealers' organization could tend to rigidify market practices. While one of the proposed objectives of the organization would be to encourage new techniques to improve the functioning of the market, it is not certain that innovations and adjustments in the market to changing conditions would develop as rapidly as under the present un-

regulated setup. On the other hand, the introduction of undesirable innovations probably would also be inhibited.

Grudging participation. The National Association of Securities Dealers may have succeeded because a majority of securities dealers wished to outlaw the dubious practices of an unethical fringe and welcomed such an organization as a means of accomplishing this goal. Similar practices do not seem to exist in the United States Government securities market. Since dealers hold this opinion strongly, many of them probably would be reluctant participants in such an organization, even a voluntary one, and all would appear to be opposed to the formation of an organization that would require legislation. Against this background, a dealers' organization might not attract and install the kind of leadership that would be required to perform that combination of specific functions regarded generally as desirable, nor elicit the full cooperation of the more aggressively competitive firms now active in this market.

CONCLUDING COMMENT

An organization of Government securities dealers, viewed from the public standpoint, would be warranted, if it could be demonstrated that (1) the market's general efficiency and (2) public confidence in equitable treatment accorded all buyers and sellers who enter the market, were in need for improvement; and that some kind of regulation would help to effect this improvement. Further it would need to be demonstrated that self-regulation by a dealers' organization would be more flexibly adaptable to market needs than a more formal and official regulatory mechanism under legislative mandate. Whether these prerequisite conditions can be demonstrated is a matter of individual judgment.

The usefulness of such an organization would be difficult to measure. It would depend in part upon the complex of specific functions which the dealer organization undertook, in part upon the extent to which dealer members cooperated wholeheartedly in the programs of the organization, and in part upon the existence

of other possible public regulatory programs that gave indirect support to the dealers' organization. Even if these conditions were met, some uncertainty would remain because success probably would be evaluated by investors in the market and by the public generally in terms of market performance and developments that had little to do with the workings and arrangements of the organization itself.

Market experience suggests that a purely voluntary organization of dealers probably would perform only a limited range of functions and that all of these functions might not be executed with full effectiveness. A voluntary association, evolved under a system of official certification of dealers for membership and official sponsorship or legal sanction of group activities, might exercise a somewhat wider range of functions and responsibilities. An association having status under legislation authorizing its activities could undertake an even wider range of regulatory functions and group activities. A dealers' organization, informal or formal in constitution, probably could not provide an instrument for curbing excessive speculation in the Government securities market; it could only serve as one tool in a program working toward this end.
