MUNICIPAL SECURITIES IN IOWA BANKS

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For several years now commercial banks have owned about 30% of all the securities issued by State and local governments. This stands in sharp contract with the condition which prevailed prior to World War II. Over the years 1937-1940 the investment portfolios of the commercial banks accounted for only about 15% to 18% of the outstanding municipals.

The great increase in the relative importance of banks as holders of municipals came about largely because of the expansion in their investment portfolios. As of June 30, 1950 the outstanding volume of municipal securities totaled $23.3 billion, or about 21% more than in 1937. Commercial bank portfolios, however, grew from $2.8 billion to $7.4 billion or 164% in the same period.

From the viewpoint both of the banks and the governmental units that float the security issues, the growth in bank holdings of municipals is a development of basic importance. Since ownership of municipals has leveled off at a substantially higher plateau than prevailed years ago, it is necessary for banks to pay much closer attention to municipal finances than at any time in the past. Municipalities, in the management of their financing as well as in arranging the terms of their security issues, cannot afford to ignore the fact that about one-third of the funds for their capital improvements is furnished by the commercial banking system.

Mutual duties and responsibilities arise out of this situation. The municipalities, for example, can help themselves by helping the banks become informed about the management of their financial affairs. Furthermore, to the extent that it is feasible the municipalities will be well advised to market the type and quality of securities that are suitable for bank investment. Banks, in turn, may be expected to give increasing attention to the practical problems of municipal financing when they seek to develop and apply investment criteria to their portfolios.

I. Dimensions of the Municipal Portfolios

Before embarking on the discussion of the investment criteria for municipal portfolios held by commercial banks and the review of credit analysis techniques, which will be the main concern of my remarks, it may be helpful to summarize the statistics on bank holdings of these securities. A comparison of the data year by year over the period 1934 to 1950, both for all the banks in the United States and for banks in Iowa, reveals trends in growth which are similar in their broad outlines. Moreover, reports on bank commitments in municipals since 1950 show that the portfolios are continuing to grow. Accompanying Tables I and II demonstrate these facts.

TABLE I

STATE, COUNTY AND MUNICIPAL OBLIGATIONS HELD BY
INSURED COMMERCIAL BANKS IN UNITED STATES

December 31	Amount (in millions)	Percent of total assets
1934	$2,411	5.2%
1935	2,658	5.2
1936	2,756	4.9
1937	2,587	4.8
1938	3,011	5.3
1939	3,285	5.2
1940	3,608	5.1
1941	3,652	4.8
1942	3,533	3.7
1943	3,288	2.9
1944	3,424	2.5
1945	3,875	2.5
1946	4,301	2.9
1947	5,131	3.4
1948	5,511	3.6
1949	6,403	4.1
1950	7,959	4.8

TABLE II

STATE, COUNTY AND MUNICIPAL OBLIGATIONS
HELD BY INSURED COMMERCIAL BANKS IN IOWA

December 31	Dollar Amount (in thousands)	Percentages of Total Assets
1934	$ 35,069	7.1%
1935	46,416	8.4
1936	52,828	8.2
1937	52,491	8.4
1938	56,685	8.6
1939	56,445	7.9
1940	58,376	7.5
1941	60,838	6.7
1942	67,395	5.7
1943	73,164	5.0
1944	77,297	4.3
1945	82,409	3.9
1946	93,237	4.2
1947	125,299	5.2
1948	142,045	6.2
1949	149,804	6.5
1950	169,002	6.9

During the war years, the volume of municipal securities held by insured commercial banks in the United States declined slightly. Except for this interruption in growth, however, the portfolios have increased steadily throughout the entire 1934-1950 period. But in Iowa, there was no interruption in the growth of the municipal portfolios. While the rate of expansion in this segment of the Iowa banks' asset accounts decreased somewhat during the war, the dollar amount of the municipal portfolios grew without interruption.

In the years immediately preceding World War II, about 5% of the assets held by commercial banks in the United States consisted of municipal securities. This segment of their asset composition declined in relative importance to a low of about $2\frac{1}{2}\%$ in the course of the war years. The shrinkage was brought about in part by the decline in the volume of municipal holdings, but mostly it reflected the tremendous expansion in the banking system that attended the financing of the war. It was not until 1950 that the municipal portfolio climbed back to the prewar level relative to total assets.

In Iowa, the municipal portfolios have always comprised a somewhat larger portion of total assets than for all commercial banks in the United States. Though the dollar amount of the portfolios has grown very substantially since the end of World War II, the holdings by Iowa banks at the present time have not yet attained the level of relative importance which prevailed in the last half of the 1930's.

The recent growth in municipal portfolios throughout the United States and in Iowa is not at all surprising. To be sure, the portfolios do include a dollar volume of securities very substantially higher than at any time in the past, but the importance of these commitments relative to total assets now is about at the same level as a decade ago. Over the years to come, there is every reason to believe that the portfolios will continue to grow both in dollar amount and relative importance. This development is indicated by the long-run prospect for a large volume of offerings and the fact that municipals are especially attractive as bank investments.

Growth would be necessary if the banks were to follow a pattern of asset distribution similar to the one which prevailed before 1940.

But there are additional reasons for expecting an expansion in municipal portfolios. Students of municipal affairs recognize that the financial requirements of States and their political subdivisions have expanded tremendously in recent years and probably will expand even more in the years to come. The great advance toward a higher standard of living has brought in its train an unprecedented popular demand for capital improvements such as community facilities, schools, roads, transportation systems and the like. Furthermore, the costliness of improvements at the current price level combined with this demand makes for a tremendous amount of potential municipal financing.

Not only do the banks have in prospect a large supply of new municipal flotations, but also these obligations are a type which is especially attractive owing to the tax exemption feature. Banks are in a position to benefit from tax exempt investment income. Their earnings are derived chiefly from the return on loans and securities, and only incidentally in the form of compensation for services.

A somewhat detailed analysis of the individual portfolios of municipal securities held by the insured commercial banks in Iowa discloses a number of important facts regarding their investment policies. Among the 606 banks in the State, there are 78, or about 13% of the total, that do not hold any municipals. At the other extreme, there are 13 banks, or about 2% of the number, whose municipal portfolios amount to more than 20% of their total assets. The latter banks account for 5.7% of the total assets of all banks in Iowa, but their municipal holdings aggregate 18.9% of the total for the State. Details regarding municipal portfolios of these Iowa commercial banks are brought out by accompanying Table III.

TABLE III

MUNICIPAL PORTFOLIOS OF INSURED COMMERCIAL BANKS
IN IOWA - DECEMBER 30, 1950
(Arranged According to Percent of Total Assets)

Municipal Obligations as a Percent of Total Assets	Number of Banks	Cumulative Total	Cumulative Percentage
None	78	78	12.9
Less than 1%	115	193	31.8
1.0% to 1.9%	76	269	44.4
2.0% to 2.9%	47	316	52.1
3.0% to 3.9%	40	356	58.7
4.0% to 4.9%	35	391	64.5
5.0% to 5.9%	26	417	68.8
6.0% to 6.9%	33	450	74.3
7.0% to 7.9%	22	472	77.9
8.0% to 8.9%	19	491	81.0
9.0% to 9.9%	18	509	84.0
10.0% to 10.9%	19	528	87.1
11.0% to 11.9%	12	540	89.1
12.0% to 12.9%	15	555	91.6
13.0% to 13.9%	5	560	92.4
14.0% to 14.9%	5	565	93.2
15.0% to 15.9%	6	571	94.2
16.0% to 16.9%	5	576	95.0
17.0% to 17.9%	5	581	95.9
18.0% to 18.9%	6	587	96.9
19.0% to 19.9%	6	593	97.8
20.0% to 20.9%	2	595	98.2
21.0% to 21.9%	4	599	98.8
22.0% to 22.9%	3	602	99.3
23.0% to 23.9%	1	603	99.5
24.0% to 24.9%	-	603	99.5
25.0% & over	3	606	100.0
Banks below 6.9%(State Average)			73% or 442 banks

For the entire State of Iowa, the insured commercial banks have invested about 6.9% of their assets in municipal securities. Yet analysis discloses that the municipal portfolios of about 75% of the banks, measured as a percentage of total assets are below the State average. Furthermore, about 52% of the banks have less than 3% of their assets committed to municipals.

The foregoing statistics demonstrate rather clearly that the municipal portfolios in Iowa for the most part tend to be rather small and widely distributed among the banks. On the other hand, they emphasize the significant fact that the holdings of a few of the banks are sizable.

II. An Investment Program for the Municipal Portfolio

Generally speaking, well managed banks with relatively large holdings of municipals provide the facilities and the managerial skill necessary to develop and maintain sound portfolios. Based upon a more or less cursory study of the available information, this appears to be the typical situation in Iowa.

However, the data suggest that a considerable number of Iowa banks have more or less drifted into the possession of medium-sized municipal portfolios without realizing fully the implications to management of this new development. It is likely that many of these institutions are only dimly aware of their inadequacies for selecting municipal issues. Nor have they developed a set of policies which would govern their municipal investment program. Moreover, the number of institutions in this position seems to be growing. Accordingly, it may be helpful at this time to review briefly the principal elements in an investment program for the municipal portfolio and to suggest some guides and standards for investment officers.

Attention has already been called to the fact that banks are likely to turn to investments in municipal securities because the income is exempt from Federal taxation. As a result of tax exemption, however, yields on municipals are substantially lower than those which prevail for comparable investments lacking this characteristic. The volume of funds seeking investment in tax-sheltered securities has been one factor in depressing yields.

The starting point in the development of a program for municipal investments is a thorough knowledge of the bank's individual tax position. While portfolio managers cannot be expected to qualify also as tax experts, it is essential that they understand the tax status of their own bank, if they are to interpret correctly the investment opportunities in the municipal market. To a considerable extent, the effective return which a bank may obtain from a given issue depends upon its tax position. Unfortunately the subject of taxation is an exceedingly intricate one. Problems vary from bank to bank, and there is little room for useful generalizations.

In addition to the tax considerations in developing an investment program for the municipal portfolio, it is also necessary for the bank to establish some criteria with regard to the overall size of its commitment in this category of securities. Although it is never easy to forecast the size of the loan portfolio, prospective changes in the amount of loans are of importance in developing boundaries for investment in municipals. Nor can these commitments be thought of as separate and apart from the other earning assets. Basically the problem is one of avoiding exposure to an identical set of risks. For example, a bank may have a portfolio of loans that will not be a source of trouble, yet a moderate expansion of municipal investments may greatly complicate the bank's situation.

To develop a program for the municipal portfolio, it is essential for the investment manager to prepare estimates of the cash in-flow that may be committed appropriately to this type of securities. At times, a decline in deposits is in prospect and this will entail a need for cash, some of which may be withdrawn from the municipal portfolio. A study of the prospective cash in-flow and out-flow for the bank will suggest features to be incorporated in the investment program. If the program makes provision for an appropriate turn-over rate in the municipal portfolio, it may be possible to facilitate the operations of the bank materially.

Maturity Distribution

The problems attending the establishment of standards for the municipal portfolio are particularly knotty. They can be considered intelligently only by reference to an overall management program wherein the objectives are clearly defined. Guides and rules for the municipal portfolio are merely implementation for the larger plan governing all of the bank's loan and investment activities.

Owing to the nature of municipal securities, it is difficult to classify them into sharp and clearcut groupings which indicate readily how they should be handled. In the search for criteria upon which the investment officer may lean for guidance, a standard regarding the maturity distribution promises real advantages. Since maturity dates offer one of the few easy bases for classifying municipal securities, it is advisable to derive a maximum amount of usefulness from these categories.

Municipal flotations afford the investor a wide selection of maturities since practically all of these obligations are issued in serial form. This practice has been exceedingly beneficial to the issuers because it simplifies the arrangements for debt service and offers some safeguard against undertaking impossible financial commitments. The serial maturities are of great help to the portfolio manager in assembling the schedule of due dates best calculated to suit his requirements.

Once a determination has been made regarding the turn-over rate in the municipal portfolio that is appropriate in view of the bank's total situation, it is comparatively easy to develop the necessary maturity schedule. Certainly there will be some place for long term issues but in the main, the short term maturities, i.e. due within five years, are likely to prove especially useful.

There are many advantages to short term maturities. In the first place, it is much easier to judge the prospects for a security that has only two or three years to run than one which is scheduled to mature 20 years hence. Changes for the worse take place rather slowly in the area of municipal credit. If the analyst is only obliged to look forward to future prospects over a period of five years, his task of credit analysis is not too difficult.

But there is a second important advantage to be derived from short maturities in the municipal portfolio. With a satisfactory schedule, it is possible for a bank to avoid the risks of capital loss that may attend liquidation of securities in the market place. In other words, the portfolio can be so adjusted that it furnishes a dependable supply of cash through maturities. In recent years, some of the most unfortunate experiences in connection with municipal securities have stemmed from the price fluctuations associated with long term, low coupon issues which were floated at times when money conditions were easy and security prices were high. Later when interest rates moved upward, the long term issues suffered very substantial declines price-wise, irrespective of the fact that the credit quality was unchanged.

Some facets of the maturity distribution problem are quite technical; for example, using the apparatus of yield curves in portfolio management. Phrased simply, it may be possible at times to acquire an issue maturing in three years on the same yield basis as a five-year maturity. Thus, the portfolio may be improved maturity-wise at no sacrifice in return on the investment. Study of yield curves will be helpful in finding these opportunities. However, a full discussion of yield curves is beyond the scope of these remarks.

Diversification

A well developed program for the municipal portfolio will make provision for balancing the investment uncertainties by spreading the commitments over a variety of situations. This balance is achieved by assembling different issues that are held together by a thread of consistency in their selection. Thus, a diversified portfolio is not a hodge-podge of securities.

The term, diversification, in most discussions of investments refers to individual issues or the geographical location of the issuer. Usually a municipal portfolio is said to be diversified when it is composed of an appropriate variety of obligations floated by issuers situated in a number of different places. No one will deny that spreading the hazards of investments over different issues or a large geographical area may have real advantages. It is commonplace that misfortunes seldom engulf all obligors in a vast area. Some will escape troubles while others are having a sorry time. This is especially true for physical misfortunes stemming, for example, from the vagaries of the weather and crops.

But it is important to remember that a diffusion of risks occurs only when the diversification is real and not just apparent. The investment officer in a bank may, for example, select issues from a large number of communities widely separate geographically and in fact be concentrating his risks in a type of obligation that is especially vulnerable to the misfortunes that affect small cities. On the other hand, substantial blocks of securities issued by communities that have a soundly diversified economy may actually provide all of the needed balance in a municipal portfolio.

With regard to the principle of diversification, at best there are only a few pertinent comments and suggestions. It is futile to seek hard and fast rules. In the first place, the portfolio manager is well advised to avoid exposing his portfolio to an excessive risk, whether that stems from a large number of small issues or a small number of large issues apparently subject to identical economic vicissitudes. In the second place, however, there are practical limitations on the effort to diversify. Information regarding the status of only a small number of issues can be assembled and followed readily. In order to keep himself informed, therefore, an investment officer is obliged to confine his selection to issues about which he can obtain and analyze information.

Rigorous application of the principle of diversification in the municipal portfolio is hampered to some extent by the fact that a bank cannot ignore the financial needs of the governmental subdivisions in the territory it serves. At times, this obligation may distort the portfolio somewhat. However, there are compensating features. Not only is the bank in an excellent position to ascertain the facts regarding the credit status of nearby municipalities, but it also can encourage them to follow sound practices. Thus, commitments which otherwise would appear to involve an unfortunate concentration, may not be serious at all.

Today there are a great many banks in Iowa with small municipal portfolios. Through inadvertence or neglect of attention to sound principles, some of them may build up sizable municipal holdings which are completely out of balance. When issues are added to the investment account without sufficient attention to the net effect on the composition of the entire portfolio, the result may be a heavy and troublesome concentration. Adherence to the principle of diversification will go a long way towards reducing the hazards in any municipal portfolio.

Types of Issues

The variety of issues in municipal finance seems almost endless and the flotations may be grouped into many different categories. Though the lines of demarcation between the types may blur at the borders the groupings are based, nevertheless, upon real distinctions. For purposes of this discussion, it is advantageous to classify securities into groups for which the same methods of analysis are applicable. Such a classification will facilitate the work of selecting issues.

With respect to types of issues responsive to the same analytical methods, municipal securities may be grouped into three principal categories. First of all, there are obligations issued by a State or a political subdivision of government which pledges its full faith and credit as security for performance on the bond. These so-called general obligations are the ones traditionally encountered in the field of municipal finance.

A second type of municipal securities may be readily distinguished from the general obligations. In this group, the issuer is an instrumentality of government but there is no pledge of general credit to service the debt. Funds for the payment of principal and interest on these obligations are derived from the project for which the securities were issued. Typical of the securities in this group are the so-called revenue or enterprise issues floated by authorities created for special purposes; for example, to furnish water, electric or transportation facilities.

In recent years there has been a tremendous increase in the volume of municipal flotations that do not belong definitely in either of the two foregoing groups. These flotations, which make up a third group for purposes of analysis, may or may not carry a pledge of general credit on the part of the issuers. But in any event, the pledge is only of secondary importance. Usually some special and peculiar arrangements are made to finance the servicing of the debt. Regarding classification for analytical purposes, the issues are hybrid in character, and that is the important fact to be remembered.

What types of issues are appropriate for a bank's municipal portfolio? There is no dogmatical answer to that question but there are some suggestions which may be helpful in assembling issues. In the first place, the basic investment quality of the security and not its type group is the controlling fact. The portfolio manager is only interested in securities that will pay out according to schedule. Classification by type can be of genuine help to him when it is relevant to that question.

This offers one simple and effective guide in assembling issues for the investment portfolio. Banks with limited facilities for studying municipal securities can spare themselves much of the trouble and expense involved in appraising issues by confining their selections to type groups that are the easiest to analyze.

More or less standardized procedure has been developed for ascertaining the investment merits of full faith and credit obligations. As a consequence, the portfolio manager needs only to apply a few simple tests in determining whether an issue in this group is suitable for his bank. Similarly, the revenue or enterprise type of issues may be analyzed in accordance with well established procedures. The task, however, may be somewhat more difficult. But the intermediate group of issues that has some of the characteristics of each of the other two groups, the so-called hybrids, is the most troublesome for the portfolio manager to analyze.

Quality

In the management of the municipal portfolio, credit quality is the focal point about which there clusters a number of questions. Leading in importance is the query: What are the qualitative standards for bank investments?

The standards of quality for municipal securities in a bank portfolio are high. This stems from the fact that banks hold the liquid resources of their depositors. Only with assets of top quality is a bank prepared to satisfy the obligations to its customers.

Banks are not a type of financial institution designed for speculative commitments. They furnish a much more pedestrian service to the community and the Nation, but an important one nevertheless. Experimentation with securities whose investment quality is indeterminate can be undertaken only by enterprises with capitalizations and objectives quite different from those of the commercial banks.

High standards of credit quality for municipal investments by commercial banks are dictated by still another fact, namely, the low yields now obtainable from these commitments. Yields now are low regardless of whether they are measured in terms of alternative investment opportunities or viewed in their historical trend pattern. In the 1920's, for example, the yields hovered about the 4% level as compared with 1½% to 2% in recent years. Furthermore, even a cursory study of yields on top grade municipals and those of inferior credit quality suggests that the differential in return is pitifully small. In these circumstances, it follows that a bank cannot expect to set aside any substantial amount of the income for the purpose of absorbing losses. Thus, the bank is obliged to avoid losses by selecting municipal securities that will perform according to the promise of the obligor.

The history of municipal finance in the United States reveals that there have been very few instances of ultimate loss to investors. However, interest payments have been interrupted at times on marginal or poor quality issues, and occasionally bondholders have been subject to drastic refunding operations. Maturities have been extended, and in the past some refundings have given the investor little choice but to accept a downward revision of interest coupons. Banks are not in a position to incur these risks. So far as the investment officer in a bank is concerned, he can easily avoid troubles stemming from lack of credit quality by adhering to very high standards in the selection of items for his portfolio.

The area of municipal investments now is broad enough to include a wide variety of issues whose quality is suitable for bank investment purposes. Furthermore, municipalities have a long run interest in strengthening credit status and maintaining a high standing. Over the years to come, it is to be expected that the volume of bank quality municipals will grow because more and more issuers will come to appreciate the advantages of a strong credit. As the governmental units become increasingly aware of the importance of banks as a source of capital funds, they will tailor their securities to fit banking standards. Municipal securities that fall short of bank investment quality may be quite appropriate for investors with different standards.

III. Analysis for Issue Selection

Previously in this discussion attention was centered on the criteria that may be helpful to a bank in developing a suitable portfolio of municipal securities. The remainder of these remarks will be devoted to suggestions for analyzing individual issues. Essentially, the objective of the analytical process is to appraise credit quality.

A determination that a security is a valid and lawful obligation is a necessary prerequisite for credit analysis. The law applicable to municipal securities is a highly technical subject and a bank's portfolio manager can only rely upon qualified expert opinion. At this point it will be sufficient merely to stress the importance of ascertaining the legal status of an issue. If there is any doubt about its validity, the security is definitely unsuited for bank investment.

Among a group of qualified analysts there is a considerable area of agreement with regard to securities possessing bank quality, as well as the ones which are definitely lacking in this respect. Differences of opinion as to investment quality always are encountered among the so-called marginal issues. The analysis of these issues is concerned with the very difficult task of balancing favorable and unfavorable features. Even expert opinion is likely to differ on borderline cases.

The fact that top grade municipal securities are widely recognized as such provides the investment officer with a useful guide for issue selection. If he confines his investments to these issues, he will avoid much trouble. Since this is an easy rule to apply, it is especially helpful to those who have only limited time to devote to this investment area.

Discussions of methods and procedures for analyzing municipal securities in order to determine the basic investment merits tend to become highly technical. These technicalities, however, are not very helpful to portfolio managers who have only small investment accounts and many other responsibilities. At best they are obliged to rely on a few simple guides in selecting issues.

With respect to full faith and credit obligations, the manager of a municipal portfolio will be able to identify top quality issues if he follows the accepted procedures for analysis and if he insists on sufficient margins of advantage to protect himself from the inadequacies of data. His difficulties are serious only when he attempts to make tenuous distinctions. A careful selection of these general obligations floated by strong municipalities will furnish a solid and dependable core for a bank portfolio.

In the procedure for analyzing the traditional type of full faith and credit obligations, the elements deserving of consideration are well established. While not fool-proof, the procedure does rest upon a solid foundation of experience. However, there are very practical difficulties in evaluating the factors bearing upon credit quality in any particular case. The starting point in credit analysis is an appraisal of the economic resources of the issuer. Whatever the types and varieties of municipal securities outstanding, the credit of an issuer ultimately depends upon its ability to produce the necessary debt service.

Whether the economic resources of a community are adequate to support its outstanding debt is not an easy question to decide. This results largely from the fact that there are no satisfactory measures of economic sufficiency. The literature abounds with various suggestions for judging resources but none of them will produce an answer in a machine-like fashion. The answer to the question involves a qualitative judgment based upon an evaluation of pertinent economic data.

The history of debt payment also occupies an important part in the traditional analysis of general obligations. Owing to the fact that changes take place rather slowly in municipal finance, past performance affords many helpful clues with respect to credit quality. Nevertheless, it is possible that acceleration in the rate of change that has occurred in recent years will destroy some of the usefulness of this test. Populations are shifting rapidly. Some areas of the country seem to be entering a period of unprecedented prosperity, possibly at the expense of others.

Appraisals of municipal credit quality always involve a judgment regarding the debt burden. For the so-called full faith and credit type of issue, the ratio of debt to assessed value is employed customarily as an appropriate measure. As long as municipalities relied largely on the general property tax, this measure was a good one. But again it must be recognized that times are changing and the relative importance of income from the general property tax is declining.

From what has been said thus far, it should not be inferred that issues in the so-called revenue group or the hybrids which possess characteristics of both general obligations and revenue issues are inappropriate for the bank portfolio. Analysis will disclose that securities of very high quality may be found in both of these categories. Once the quality of an issue has been ascertained, decisions regarding its suitability for a municipal portfolio will turn upon the needs of the bank. The fact that a security does not possess a pledge of the full faith and credit of some issuer is only an incidental consideration.

From the viewpoint of the portfolio manager seeking to appraise the credit quality of a municipal issue, the ones which combine some of the features of full faith and credit obligations as well as others more or less typical of the enterprise type of securities are the most difficult to analyze. Each case calls for individual treatment. Some of these issues will be found to be suitable for bank investment purposes. Others will not measure up to the exacting requirements of a bank portfolio. Unless a bank's portfolio requirements are broad and it has extensive facilities for analytical work, it may not be economical to spend the amount of time and effort required to determine the credit quality of such issues.

IV. Summary and Conclusions

The relative importance of banks in financing the activities of States and subdivisions of government has changed materially during the past 15 years. Bank holdings of municipal securities have grown substantially and the commercial banks are furnishing almost one-third of the capital requirements of these borrowers.

When the municipal portfolios of all commercial banks in the United States and of the banks in Iowa are compared year by year over the period 1934 to 1950, the growth trends are similar in the broad outlines. The available evidence suggests that bank portfolios of municipals are likely to grow over the years to come because securities will be available in large volume and they are peculiarly attractive to banks.

A somewhat detailed review of individual portfolios of municipal securities held by the Iowa banks suggests that the holdings tend to be rather small and widely distributed. However, a few of the banks have sizable investments in municipal securities; and others have none.

A well thought out program for portfolio management will enable the banks with relatively small holdings of municipal securities to develop trouble-free investment accounts. Since the officers in these banks can devote only a limited amount of time to the task of selecting securities, they will be well advised to adhere to a few simple rules and guides.

The manager of a municipal portfolio may derive a substantial amount of usefulness from a grouping of issues with respect to maturity. Short term maturities offer many advantages. It is easy to judge the prospects for such issues. Furthermore, an appropriate choice of maturities will furnish a dependable supply of cash without reliance upon markets.

Diversification is an important element in the development of a program for municipal investments. Spreading his commitments over a variety of different situations will enable the manager of a bank portfolio to diffuse economic hazards that might otherwise be excessive. But rigorous application of the diversification principle is subject to many practical limitations.

Expert opinion regarding municipal credit usually is in agreement as to the quality of the best issues. This fact offers a simple guide to the portfolio manager. By avoiding borderline situations and confining his purchases to the top grade of securities that are easy to analyze, he will greatly simplify his task.

Procedures for ascertaining the credit quality of the traditional full faith and credit obligations are well established. Although difficult to evaluate in a given situation, there is general agreement with regard to the factors deserving of consideration, such as the economic resources of the issuer, the history of debt payment and measures of the debt burden. Generally, it is somewhat harder to analyze the credit standing of obligations whose debt service depends entirely upon revenue from specific sources. Furthermore, it is especially difficult to evaluate the credit quality of the bybrid issues that have some of the characteristics of general as well as of revenue obligations.