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Report to the Colorado General Assembly:

SCHOOL BONDING PRACTICES IN COLORADO

COLORADO LEGISLATIVE COUNCIL

RESEARCH PUBLICATION NO. 100

DECEMBER 1964

LEGISLATIVE COUNCIL

OF THE

COLORADO GENERAL ASSEMBLY

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* * * * * * *

The Legislative Council, which is composed of five Senators, six Representatives, and the presiding officers of the two houses, serves as a continuing research agency for the legislature through the maintenance of a trained staff. Between sessions, research activities are concentrated on the study of relatively broad problems formally proposed by legislators, and the publication and distribution of factual reports to aid in their solution.

During the sessions, the emphasis is on supplying legislators, on individual request, with personal memoranda, providing them with information needed to handle their own legislative problems. Reports and memoranda both give pertinent data in the form of facts, figures, arguments, and alternatives.

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SCHOOL BONDING PRACTICES IN COLORADO

(Colorado-Legislative Council)

Report To The

Colorado General Assembly

Research Publication No. 100
December, 1964

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November 24, 1964

To Members of the Forty-fifth Colorado General Assembly:

As directed by the provisions of House Joint Resolution No. 1030, 1964 regular session, the Legislative Council submits herewith the report of its Committee on Education relating to school bonding practices and the advance refunding of school bonds.

This report was reviewed by the Legislative Council at its meeting on November 23. At that time the Council voted to accept the report for transmission to the members of the Forty-fifth General Assembly.

Respectfully submitted,

/s/ Representative C. P. (Doc) Lamb
Chairman

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November 23, 1964

Representative C. P. (Doc) Lamb
Chairman
Colorado Legislative Council
Room 341, State Capitol
Denver, Colorado

Dear Mr. Chairman:

Your Committee on Education submits herewith its report on school bonding practices and advance refunding of school bonds in Colorado.

The committee's conclusions and recommendations do not involve any changes in the statutes on school bonds or advance refunding.

Respectfully submitted,

/s/ Representative Ruth B. Clark
Chairman, Committee on
Education

RBC/mp

FOREWORD

House Joint Resolution No. 1030, 1964 regular session, directed the Legislative Council to appoint a committee from the membership of the two standing education committees "to review the program of advance refunding of bonds in the school districts of this state, as well as the general practice of the sale of all school bonds."

The following committee was appointed to carry out this and other studies on educational matters: Representative Ruth B. Clark, chairman; Senator Fay DeBerard, vice chairman; Senators Richard F. Hobbs, Roy H. McVicker, and L. T. Skiffington; and Representatives Palmer Burch, Forrest Burns, John L. Kane, Kathleen Littler, John Mackie, John Orcutt, Clarence Quinlan, William Stevens, and C. P. (Doc) Lamb, chairman of the Legislative Council.

The committee wishes to thank the following people who were so helpful in the conduct of this study: Dr. Elbie Gann, State Department of Education; Messrs. Fred Wiesner, Bruce Newman, Harry Lewis and Richard Burkhardt, Boettcher and Company; Mr. Robert Kirchner, Kirchner and Company; Mr. Robert Gerwin, Coughlin and Company, Inc.; Mr. Walter Imhoff, Hanifen, Imhoff, and Samford, Inc.; Mr. W. A. Conklin, Bosworth, Sullivan and Company, Inc.; Mr. Frank Hays, Attorney.

Mr. Fitzhugh Carmichael had the primary staff responsibility for the work of this committee.

Lyle C. Kyle
Director

November 24, 1964

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COMMITTEE FINDINGS AND RECOMMENDATIONS

The Colorado General Assembly, in its 1963 session, adopted legislation which permitted school districts to refinance their debts prior to maturity in order to bring about a saving on interest charges which was made possible by a changing money market -- among other reasons -- and this procedure is called advance refunding.

The enabling legislation for advance refunding was sponsored by the bond houses in Colorado and was backed by various school boards and school administrators.

Between adjournment of the 1963 session and the convening of the 1964 session of the General Assembly approximately $75,000,000 of outstanding school debt was advance refunded.

The school districts of Colorado normally market approximately $35,000,000 of school bonds per year. Prior to passage of the enabling legislation on advance refunding the bond houses in Colorado estimated a refunding potential of approximately $100,000,000 in school bonds.

Recognizing that this amount, roughly three times the normal bond activity in a year, might cause marketing problems, the bond houses of Colorado joined together in a syndicate for the expressed purpose of providing an orderly procedure for marketing advance refunding bonds. This was a unilateral action on the part of the bond houses taken without consultation with school boards, school administrators, the department of education, or the State Board of Education. Since the Colorado School Board Association, the Colorado School Administrators Association, the State Department of Education and the State Board of Education all maintain offices readily available, it appears to the committee that the unilateral action of the bond houses in this instance represents an apparent disregard for those groups who represent the taxpayers of this state, and who had a greater stake in advance refunding than did the bond houses.

The committee recognizes that the volume of financing involved in a relatively short period of time necessitated, from a good business standpoint, that an orderly procedure of marketing the bonds be devised. However, when a school board contacted Colorado bond houses other than the one with which it was negotiating, only to find all Colorado bond houses involved in one syndicate, it left the members perplexed as well as doubtful of the motive of the syndicate. Hindsight is always better than foresight but this committee has confidence that our local school boards would have cooperated in establishing an orderly marketing procedure, whether the one adopted by the bond houses or an alternative procedure, as well as the other groups mentioned, had they been given an opportunity to do so.

The original legislation authorizing advance refunding of school bonds did not limit the number of times a school district could refund its debt. However, in the 1964 session of the General Assembly, amendments were offered and adopted to limit refundings to one time only. The bond houses split ranks on these amendments -- most supporting the proposals and a few vigorously opposing them.

Numerous charges and innuendoes accompanied this disagreement and then tended to create misunderstandings among school officials and legislators. As a result H.J.R. 1030 included a directive to the Legislative Council that it appoint a committee"... to review the program of advance refunding of bonds in the school districts of this state, as well as the general practice of the sale of all school bonds."

Questions considered by the committee in the conduct of this study, together with comments and recommendations, are presented below:

1. Have the school districts of this state received the best interest rate possible on original bond issues as well as advance refunding issues?

The committee has been unable to answer this question; furthermore, it is doubtful that the answer can be obtained short of hiring expert legal and financial counsel to audit each and every bond issue, whether original or advance refunding, authorized by each school board in the state.

The committee has considerable information on the interest rates, savings to school districts and income to bond houses concerning advance refunding issues authorized in the past 18 months.

During the 1964 session of the General Assembly there were rumors circulating in the legislative halls that bond houses had made unreasonable profits from advance refunding issues. One such rumor was that bond houses had made two dollars for each dollar saved the school districts. As can be noted from the accompanying research report this was not the case. The average saving to the school districts per $1,000 advance refunding bond was $50.20 as opposed to an income figure to the bond houses of $15.91 per $1,000 bond. These figures apply to the period preceding March, 1964 during which the several bond houses joined together in a syndicate for the purpose of marketing the advance refunding issues. Comparable figures for the period since March, 1964 for advance refunding issues handled by Boettcher & Co. were $77.09 saving per $1,000 bond and $22.39 income to the bond houses.

2. Should competitive public bidding be required by statute for all original school bond issues?

No. The committee does not feel that competitive bidding should be compulsory. We are in favor of competitive procedures for nearly all original school bond issues, but we feel that local boards of education should be free to sell bonds by negotiation in cases where there is good reason why competitive public bidding is not desirable.

The committee wishes to encourage the use of competitive public bidding as a general practice among school districts, however. It has been our feeling that one of the reasons advance refunding has been quite successful in Colorado, as opposed to other states which have authorized advance refunding, is that interest rates on original bond issues may have been higher than necessary. As indicated in the response to question number one the committee has no definite proof that interest rates have not been the best available; nevertheless, competitive public

bidding on original bond issues will definitely demonstrate to the general taxpaying public that every effort was made to obtain the best interest rate possible.

Often local boards of education are not as well informed about the financial details of their bond issues and the bond market as the representatives of the bond houses with whom they deal. Because it is difficult for the boards of smaller school districts to supply themselves with such technical information, they tend to rely on the bond house representatives. The lack of an independent source of information may place school districts at a disadvantage in their dealings with the bond houses. A similar situation exists for the governing bodies of all types of local governmental units which issue bonds.

The committee recommends that the General Assembly consider the possibility of employing an expert at the state level who could give assistance and advice to school districts and other local units of government on the sale of bonds. We feel that a qualified consulting staff at the state level could provide a valuable service for all types of local districts. If such an office were established, school districts and other types of districts would no longer have to depend on the bond houses for their information. They would have their own financial advisor whose sole concern would be what is best for the district.

3. Should school districts be permitted to advance refund bonds?

Yes. The committee believes there are numerous objectives, in addition to interest savings for taxpayers, that can be accomplished through advance refunding; therefore, we recommend no change in existing law concerning advance refunding.

4. Should competitive public bidding be required by statute for all advance refunding school bonds?

Saving on interest payments is not the only reason for advance refunding of bonds. Debt consolidation, shortening of the term of debt, and relief from debt restrictions are all laudable objectives of advance refundings.

Most school districts do not have available on their staffs the technical competence to work out the objectives and details of advance refundings. Consequently, outside help must be secured either through the retention of a fiscal agent on a consulting basis or through negotiation with a bond house.

Because of the scarcity of fiscal agents available on a consultative basis and also because the committee recognizes that the profit motive encourages bond houses to explore various means of saving money for school districts, we do not recommend competitive bidding on a compulsory basis in the instance of advance refunding.

5. Should school districts be permitted to advance refund bond issues more than one time?

No. As indicated earlier in this report this specific question is apparently the major cause of this study. Some people in the bond house business charged that the reason Chapter 237, 1963 Session Laws

of Colorado was amended in the 1964 session to prohibit more than one advance refunding, was to cover up excessive profits the bond houses made on the first time advance refundings.

The committee has explored this charge thoroughly and finds it without foundation. As indicated in the research portion of this report concerning three successive theoretical advance refundings for the Rangely School District it is very apparent that additional savings can be accomplished by successive refundings. Also, a careful study of that example, as well as others, will demonstrate why the interest rate that is peculiar to the fourth refunding issue could not be achieved in the first advance refunding issue.

6. Did the existence of the bond house syndicate for the period of approximately one year prior to March, 1964 restrict competition in the marketing of advance refunding issues?

Sufficient evidence has been presented to the committee to indicate that the existence of the syndicate did not absolutely prevent competition. There were individual refundings that occurred during the existence of the syndicate where competition from firms other than the ones in the syndicate was achieved.

However, it appears to the committee that the existence of the syndicate tended to make it extremely difficult for school districts to secure competitive bids when such were desired.

SCHOOL BONDING PRACTICES IN COLORADO

To support the foregoing recommendations, results of research by the Legislative Council staff and related materials are presented under headings as follows: Advance Refunding of School Bonds in Colorado, Steps Involved in the Advance Refunding of School Bonds in Colorado by Negotiation, Advance Refunding of Colorado School Bonds Before and After Dissolution of the Colorado Account, Statutory Provisions and Practices With Respect to the Sale and Advance Refunding of School Bonds in States of the United States, Notes Based Upon "Public Sale Versus Negotiation in the Marketing of Municipal Bonds," and Aspects of the Decision of Colorado Municipal Dealers to Syndicate General Obligation Advance Refunding Bond Issues, the latter being a letter from Fred Wiesner, Manager of the Bond Department of Boettcher and Company, to Lyle C. Kyle, Director of the Colorado Legislative Council.

Advance Refunding of School Bonds in Colorado

The Colorado General Assembly in 1963 authorized school districts to refund school bonds, spelling out in some detail conditions under which this may be done. Because the law provides for the refunding of school bonds if same are callable or redeemable within ten years after the date of issuance of the refunding bonds, refunding is permissible in Colorado long before the bonds of original issue can be redeemed. Such refunding is commonly called "advance refunding." Using the term in this sense, the purpose here is to examine some of the concepts, basic considerations, and problems involved in advance refunding. Specifically, this section of the report is concerned with (1) the advance refunding concept as applied to Colorado school bonds, including (for illustrative purposes) an examination of what could be accomplished through successive advance refundings of the Rangely School District bonds if such refundings were permissible, (2) purposes for which school bonds are advance refunded, (3) possible consequences of extensive advance refundings, and (4) appraising the fairness of a refunding agreement.

The Advance Refunding Concept as Applied to Colorado School Bonds

The refunding of school bonds is analagous to the refinancing of any bonded indebtedness. For any of a number of reasons it may be to the debtor's advantage to liquidate the existing debt and replace it by one in which the objectionable features have been ameliorated or eliminated. A common reason for refinancing, in general, is that a change of some kind -- in the money market, for example -- has taken place making it possible to borrow money at a lower interest rate than that of the existing debt. Under these conditions -- assuming callability of the bonds of original issue -- it may be and frequently is sound management to issue refinancing or refunding bonds and use the proceeds to retire the original issue.

Because of the tax-free status of school bonds, it becomes additionally desirable (from the point of view of the taxpayer in the school district in question) to advance refund school bonds. This is

true in accordance with Colorado law (123-12-7), as will be illustrated in following paragraphs. The total bond interest and/or the principal amount of the debt may be reduced substantially by use of the advance refunding device.

The proceeds from refunding are drawn upon to purchase direct Obligations of the U. S. Treasury; and such purchases are made in sufficient amounts and according to a pre-computed schedule synchronized to pay the principal of and the interest on the bonds being refunded, as well as any required prior redemption premiums. When the advance refunding transaction involving Colorado school bonds is complete, all of the required government obligations are placed in an irrevocable trust (escrow) in a bank in Colorado possessing trust powers and FDIC membership.

There is no speculation in this trust; it is composed of non-callable treasury obligations only; and the trustee cannot sell any of these treasury obligations ahead of maturity. Idle cash balances may be invested by the trustee in Treasury Bills so long as maturity of same is such as to satisfy payment of the refunded issues. Income derived from reinvestment by the trustee, if any, accrues to the benefit of the school district at the termination of the escrow. It is further provided that, with the escrow provisions met, the refunded bonds "shall not be deemed outstanding bonds" so far as bonded indebtedness is concerned. Moreover, because of the provision with respect to callability or redeemability noted above, the School Board has freedom to choose an opportune time for entering into a refunding agreement.

To illustrate what can be accomplished by refunding operations, facts pertaining to the actual advance refunding of a $2,380,000 debt of Rangely School District No. RE-4, Rio Blanco County, are presented, together with similar information on three hypothetical successive advance refundings of the Rangely School District bonds.

The bonds of original issue bore an interest rate of 4½% on all maturities. Because this is higher than the yield rate on U.S. Treasury obligations, the cost of the governments for escrow purposes necessarily exceeded the principal amount of the bonds, $2,380,000. The total cost of the governments in this instance, including a financing fee of $2,887.50, was $2,491,096.01. Since the School Board did not provide funds to offset the so-called escrow loss or loss on governments which resulted, said loss of $111,096.01 had to be met by selling the refunding bonds at premiums; and this is true because the principal amount of the refunding issue, by law, cannot exceed the principal amount of the bonds of original issue. Thus, the refunding bonds necessarily bore higher interest rates than would normally be required by the School District so that the underwriters could realize sufficient gross income to offset the escrow loss.[1]

---

1. Under conditions different from those which existed in the Rangely refunding operation, there may be a so-called escrow gain or gain on the governments rather than a loss. If the interest rates on the bonds to be refunded are lower on an average than the yield rates at which governments for like maturities can be bought, the cost of the governments for escrow purposes will be less than the principal amount of the bonds to be refunded. This difference is called an escrow gain or gain on the governments.

Despite the sizable escrow loss on the actual refunding of the Rangely school bonds, the average bond interest rate on the refunding issue was 4.17%, a reduction from 4.50% on the bonds of original issue. The principal amount of this refunding issue was the same as that of the original issue, but the required bond interest payments were decreased by $116,825.

Details of the hypothetical illustration are set forth in Tables I and II (pp. 5-7); they pertain to three consecutive hypothetical refundings of the actual refunding issue dated May 1, 1963, of Rangely School District bonds having a principal amount of $2,380,000. With reference to Table II particularly, note should be taken of the conditions or assumptions underlying the analysis leading to its preparation. Important among them are the following: (1) all government bonds are priced -- for the hypothetical refunding analyses-- as of August 16, 1963, the date of closing of the actual refunding, (2) the offering scales or yields for all hypothetical refundings are the same as those for the actual refunding, and (3) the three different hypothetical refundings have the same maturity schedules as the actual refunding, except that there is a reduction of $49,000 in principal in the final maturity in the last of these refundings.

A further assumption is implicit in the analysis, namely, that the market for Rangely School District bonds would not be impaired by the successive refundings. Upon completion of what corresponds to the third hypothetical refunding -- four refundings in all -- the Rangely School bonds in the hands of investors would be increased by approximately 9½ million dollars. Whether the market would absorb this increase without an increase in the yield rate is questionable.

In the first hypothetical refunding operation (a refunding of the actual refunding bonds), the escrow loss, though still sizable, is greatly reduced; the average bond interest rate is reduced from 4.17% to 3.80%; and the principal amount of the issue remains unchanged.

In the second hypothetical refunding operation (a refunding of the bonds whose average bond interest rate is 3.80%), the escrow loss is small; the average bond interest rate is reduced to 3.45%; and the principal amount of the bonds remains unchanged. It is emphasized, as explained above, that this reduction in average bond interest rate from the first to the second hypothetical refunding is arrived at under the assumption of identical conditions, including those pertaining to yield rates on municipal bonds. Because the bond interest rate reduction is substantial, it is clear that a smaller (though sizable) rate reduction could take place under conditions of considerably larger yield rates on the refunding bonds than on the bonds being refunded.

In the third hypothetical refunding operation (a refunding of the bonds whose average bond interest rate is 3.45%), it was decided to reduce the bond interest rate only slightly and determine to what extent the principal of the debt could be reduced. With a reduction in bond interest rate to 3.40% only, it was found that the principal of the debt could be reduced by $49,000 -- from $2,380,000 to $2,331,000.

The above provides an illustration of an important limitation on what can be accomplished in one refunding operation. If a bond interest

schedule like that of the first hypothetical refunding operation (3.80 per cent for all maturities) had been set for the actual refunding, with no other change in the basic assumptions and conditions, there would have been a loss to the Colorado Account (before overhead) of $4.28 per $1,000 par value of the refunding bonds. This result is arrived at by noting, in Table II, that total direct costs in the "Actual Refunding" column ($120,383) exceed gross income from underwriting in Column A under "Hypothetical Refundings" ($110,188) by $10,195 and then by dividing the latter figure by 2,380. If concessions to selling dealers are assumed to be the same as for the actual refunding ($22,347), an underwriting loss of $32,542 before overhead ($10,195 plus $22,347), or $13.67 per $1,000 par value of the refunding bonds, is obtained. The simple reason for this loss is the fact that the interest rate (3.80 per cent) on the refunding bonds, under the conditions indicated, is not high enough to yield, on the sale of these bonds, the amount of money required to finance the refunding operation.

If the conditions of the second hypothetical refunding had been assumed (3.45% bond interest on all maturities) in the actual refunding, the loss to the Colorado Account (before overhead) -- based upon total direct costs in the "Actual Refunding" column of Table II and gross income from underwriting in Column B under "Hypothetical Refundings" -- would have been $59,686 or $25.08 per $1,000 par value of the refunding bonds. Assuming the same concessions as above to the selling dealers, the underwriting loss (before overhead) would have been $34.47.

The average underwriting and selling profit (before overhead) for the four refunding issues described above is $17.44 per $1,000 par value of the refunding bonds; for the actual refunding operation it was $19.18.

Purposes For Which School Bonds Are Advance Refunded

School bonds are advance refunded for four basic purposes. There is the objective, first, of reducing the burden to the taxpayer arising from debt servicing. Second, there may be the desire to spread maturities over shorter or longer periods, depending upon circumstances, than those of the bonds presently outstanding. Third, it may be necessary to reduce the existing indebtedness to make possible additional borrowing within debt limitations. Fourth, debt consolidation or other corrective measures may be desired for a variety of reasons. Two or more of these objectives can commonly be gained in one refunding operation; each will be examined in following paragraphs.

Examples have already been presented showing how bond interest payments or principal amount of the debt, or both, can be reduced by refunding.

The credit standing of a school district may be adversely affected by the existence of outstanding bonds with maturities extending far into the future. Under such conditions, the refunding operation may be employed to convert the debt to one with maturities extending over a shorter period, thereby improving the district's credit standing to the point conceivably that additional bonds could be sold at lower interest rates than would otherwise be possible.

Table I

PRINCIPAL AMOUNTS OF BONDS (ORIGINAL AND REFUNDING), BOND INTEREST RATES AND YIELD RATES ON REFUNDING: RANGELY SCHOOL DISTRICT No. RE-4, RIO BLANCO COUNTY, COLORADO

Year	Building Bonds Dated May 1, 1959 Principal Due 11/1 (Int. @ 4½%)	Refunding Building Bonds Dated May 1, 1963		Hypothetical Refunding Bonds Dated Aug. 1, 1963 -- Principal Due 11/1			Yield Rate On All Refundings
		Principal Due 11/1	Interest Rate	A (Int.@3.80%)	B (Int.@3.45%)	C (Int.@3.40%)	
1963	$ 140,000	$ 140,000	4.5%	$ 140,000	$ 140,000	$ 140,000	1.80%
1964	140,000	150,000	4.5	150,000	150,000	150,000	2.00
1965	140,000	150,000	4.5	150,000	150,000	150,000	2.20
1966	140,000	150,000	4.5	150,000	150,000	150,000	2.40
1967	140,000	150,000	4.5	150,000	150,000	150,000	2.50
1968	140,000	150,000	4.5	150,000	150,000	150,000	2.60
1969	140,000	150,000	3.5	150,000	150,000	150,000	2.70
1970	140,000	150,000	3.5	150,000	150,000	150,000	2.80
1971	140,000	150,000	3.5	150,000	150,000	150,000	2.90
1972	140,000	150,000	3.5	150,000	150,000	150,000	3.00
1973	140,000	150,000	3.5	150,000	150,000	150,000	3.10
1974	140,000	150,000	3.5	150,000	150,000	150,000	3.20
1975	140,000	150,000	3.5	150,000	150,000	150,000	3.30
1976	140,000	150,000	3.5	150,000	150,000	150,000	3.35
1977	140,000	145,000	4.0	145,000	145,000	145,000	3.40
1978	140,000	145,000	4.0	145,000	145,000	96,000	3.40
1979	140,000						
Total	$2,380,000	$2,380,000	---	$2,380,000	$2,380,000	$2,331,000	----

Table II

RECEIPTS AND DISBURSEMENTS: ACTUAL AND HYPOTHETICAL REFUNDINGS OF RANGELY SCHOOL DISTRICT BONDS

	Original Issue	Actual Refunding	Hypothetical Refundings (A)	(B)	(C)
Effects of Refunding:					
Principal amount	$2,380,000	$2,380,000	$2,380,000	$2,380,000	$2,331,000
Interest to maturity	910,350[a]	793,525[a]	701,100[b]	636,525[b]	601,894[b]
Total principal and interest	3,290,350	3,173,525	3,081,100	3,016,525	2,932,894
Savings:					
Reduction in principal		-0-	-0-	-0-	49,000
Reduction in interest paid to maturity		$ 116,825	$ 92,425[c]	$ 64,575	$ 34,631
Total reduction in principal and interest		116,825	92,425[c]	64,575	83,631
Average rate of interest	4.50%	4.17%	3.80%	3.45%	3.40%
Summary of Underwriter's Receipts and Expenditures:					
Receipts:					
Gross sales price of refunding bonds		$2,488,096	$2,490,188	$2,440,697	$2,384,556
Discounted value of "B" coupons		57,939	-0-	-0-	-0-
Total		2,546,035	2,490,188	2,440,697	2,384,556
Cost of refunding bonds (par)		2,380,000	2,380,000	2,380,000	2,331,000
Gross income from underwriting		$ 166,035	$ 110,188	$ 60,697	$ 53,556
Deduct direct costs					
Escrow bank fee		4,200	4,200	4,200	4,200
Cost of U.S. Treasury obligations in excess of par proceeds of refunding issue		111,096	65,163	5,467	6,376
Beginning cash balance required for escrow		453	806	422	231
Consideration, escrow agreement		10	10	10	10
Approving attorneys' fees		3,207	3,207	3,207	3,166
Bond printing		393	393	393	385
Travel, CPA fees, telephone		1,024	1,024	1,024	1,020
Total direct costs		$ 120,383	$ 74,803	$ 14,723	$ 15,388

Table II
(continued)

	Original Issue	Actual Refunding	Hypothetical Refundings (A)	(B)	(C)
Total profit to underwriters (before overhead)		$ 45,652	$ 35,385	$ 45,974	$ 38,168
Deduct concessions to selling dealers		22,347	22,347	22,347	22,347
Underwriting profit (before overhead)		$ 23,305	$ 13,038	$ 23,627	$ 15,821
Underwriting profit (before overhead) per $1,000 par value of the refunding bonds		$ 9.79	$ 5.48	$ 9.93	$ 6.79
Total profit (before overhead) per $1,000 par value of the refunding bonds		$ 19.18	$ 14.87	$ 19.32	$ 16.37

a. Interest prorated to May 1, 1963.
b. Interest prorated to August 1, 1963.
c. Not fully comparable with other savings shown because of the difference between the "prorated" dates of May 1 and August 1, 1963.

If the problem of credit standing is not involved and there is the desire to spread the burden to the taxpayer over a period of increased length, thereby reducing the annual tax required to service the debt, the refunding issue can be set up to accomplish this objective. This, however, is subject to the limitation (unless voter approval to the contrary is obtained) that neither the average bond interest rate nor total bond interest payments of the refunding issue shall exceed those of the bonds to be refunded. If the maturities are extended too far into the future, the required bond interest payments will be increased.

With reference to the third of the reasons for refunding mentioned above, that of reducing the bonded debt, it is noted that the premiums at which the refunding bonds can be sold are an important determinant of the extent of the possible reduction in the principal amount of the bonds and that the premiums, in turn, are dependent in large part upon the bond interest rates. To make the desired reduction in the bonded debt, therefore, it is necessary to set the bond interest rates as high as feasible, subject to the limitation noted above.

Under conditions that sometimes exist, debt consolidation may be a highly desirable objective. Among the bonds that were refunded for Jefferson County School District R-1, for example, sixteen separate bond issues and eight separate payment dates during the year were represented. It was possible to refund all of these in five refunding issues with only two payment dates during the year, namely, March 1 and September 1. This brought about an obvious potential saving in clerical and administrative costs incident to debt servicing; and the choice of payment dates to agree closely with property tax payment dates means that loss from idle funds being held to service the debt was reduced. Correction of any marked irregularity from year to year that may exist in the tax levies required to service the debt may be accomplished in any refunding.

It is generally desirable for a school district to have its bonds rated by such services as Moody's Investor Service and the Standard and Poor Corporation. Inasmuch as size of the issue has a bearing upon the willingness of these services to rate the bonds, debt consolidation may serve to accomplish this end.

Depending upon circumstances, it may be feasible and desirable to issue refunding bonds in denominations different from those of the bonds currently outstanding. By issuing them in denominations of $5,000 instead of $1,000, for example, it is understood that collection charges may be decreased.

Possible Consequences of Extensive Advance Refundings

Students of public debt management are by no means in complete agreement as to the merits of advance refunding. Although it may be employed to accomplish much-to-be-desired ends, as pointed out in the above discussion of purposes for which school bonds are refunded, cognizance should be taken of possible consequences of extensive use of it.

In an article by John Gerrity in Daily Bond Buyer (February 27, 1964), it is noted that total advance refundings by states and localities increased from $54 million in 1961 to $261 million in 1962 and to $1.2 billion in 1963; and J. Anthony Naylor, in "Advance Refundings" (a publication of B. J. Van Ingen & Co., Inc.), states that the 1963 figure represented "more than 12% of the total volume of municipal financing" for that year.

A major concern over this trend, on the part of what appears to be an increasing number of debt managers, including some at the Federal level, stems from the double use of the tax-exempt privilege. According to John Gerrity in the article referred to above, the title of which is "Treasury Concerned by Refunding Growth; Warns of Peril to Tax-Exempt Privilege," the debt managers of the Treasury "argue that the effect of this practice, arising out of the spread in yields, is to permit states and localities to use their right to issue tax-exempts for the acquisition of income they could not obtain if the tax-immunity on refunding as well as original issues did not exist. This, Treasury officials say, is an abuse, and may lead to restrictive action by Congress, limiting the circumstances under which the traditional tax-immunity may be used, and specifically eliminating refunding issues from that immunity." Moreover, it appears that there are many in the municipal bond fraternity generally who oppose use of the advance refunding device.

Basic to this concern are the facts (1) that many of the bonds, of both original and refunding issues, are commonly expected to remain unredeemed for a period of some years, and (2) that the drain on available investment funds resulting from this double financing of identical projects could conceivably be large enough to increase interest rates on bond flotations. It should be noted in this connection that the Treasury doesn't question refunding if the refunding issue does not precede the maturity or call date of the outstanding issue by an unrealistically long period. And, here, Mr. Gerrity suggests the desirability of self-policing as a means of exercising control.

Other matters of concern to students of public debt management may be stated as follows: (1) the tax-exempt privilege is already under intensified Congressional scrutiny as a "tax loophole" largely because of increasing use of industrial aid financing by state and local governments, (2) refunding is regarded as a risky device when the bonds are sold substantially in advance of the time when use of the proceeds is planned, the thought being that the range of safe prediction rarely exceeds six months, and (3) some contend that tax-immunity is outmoded and challengeable on constitutional grounds.

Appraising the Fairness of the Refunding Agreement

A fair appraisal of a refunding agreement requires consideration of (1) interest rates on the bonds to be refunded, (2) the financial stability or economic base of the district backing the bonds, including size of the bond issue, and (3) the condition of the bond market as of the date of the agreement, including the rates at which government bonds could be bought, and comparative bond maturities.

To determine the comparative fairness of two different refunding agreements from the point of view of bond interest rates alone, much more than a simple comparison of the interest-maturity schedules on the two sets of refunding bonds is required. If the interest rates on the bonds to be refunded are higher than those at which government bonds can be bought, the cost of governments required for escrow purposes will, as already noted, exceed the principal amount of the bonds to be refunded. Because a refunding issue of larger total amount than that of the issue to be refunded is not permissible, this means (unless the School Board provides funds for the purpose) that the refunding bonds will have to carry interest rates high enough to sell at premiums sufficiently large to account for this excess and defray expenses of the refunding operation. Depending upon the interest rates of the bonds to be refunded, therefore -- to say nothing of other considerations -- there may be wide differences among the bond interest rates of refunding issues under conditions of identical return to the bond houses. To obtain fair comparative measures of the returns to the bond houses, mathematical analyses of the refunding operations, as already shown, are needed.

The fact that a sizable real property base with little or no outstanding indebtedness has its impact upon the rating of the refunding bonds and hence upon the yield rates at which the bonds can be sold does not need to be be-labored. To explain why this impact upon yield rates must be reflected in the level of bond interest rates, it is noted (in case of escrow loss on refunding, for example) that sufficient premium must be realized to cover this loss and defray expenses. Because variations in yield rates affect the premiums at which bonds can be sold, this means that differences in bond backing or bond quality should be reflected in bond interest rate differences. Moreover, since overhead costs per bond are generally higher for small than for large bond issues, size of bond issue becomes an item of significance.

There is an obvious close relationship between condition of the bond market (as of the date of the refunding agreement) and the yield rates to be realized on refunding bonds; this is likewise true of rates at which government bonds can be bought; and these facets of the problem, in turn, are closely related to what the interest rates on the refunding bonds should be. So far as bond maturities are concerned, it should be noted that yield rates on bonds with early maturities are generally lower than they are for later maturities and hence that average yield rates are dependent to a degree upon comparative maturities.

In light of the above statements it seems clear that there is no easy, off-the-cuff basis for saying that one refunding agreement is more fair or less fair to the school district than another. A reasonably thoroughgoing analysis of each is required.

<u>Summary</u>

A few of the conclusions drawn from this phase of the study are pinpointed as follows:

1. If interest rates on bonds to be refunded are comparatively high, so also will the interest rates be on the refunding bonds unless funds to cover the escrow loss are available independent of the refunding operation. This is true because the cost of the governments required for escrow purposes will exceed, by a considerable margin, the principal amount of the bonds to be refunded and the interest rates on the refunding bonds will have to be high enough to yield, on sale of them, a total premium sufficiently large to cover this escrow loss and other expenses of refunding. It follows, therefore, that the comparative fairness of two refunding agreements cannot be appraised by a simple comparison of the interest rates on the two issues of refunding bonds.

2. If successive refundings were permissible, the opportunity thus provided to trade repeatedly on the tax-free status of school bonds would make possible savings, on each refunding, to the taxpayers in the school district concerned. The Rangely refundings, for example, could be continued with small reductions in bond interest rates and substantial reductions in the principal amount of the bonds.

3. There are hazards in successive advance refundings which could conceivably outweigh the advantages that might be derived. The added volume of bonds outstanding in the hands of investors could cause substantial advances in the yield rates of municipal bonds, thus increasing the cost of borrowing money; and this abuse of the tax-immunity privilege, as many regard successive advance refunding to be, could lead to adoption of restrictive measures by Congress.

4. These hazards with respect to successive advance refundings are believed by some students of public debt management, including a few at the Federal level, to exist to a degree when only one advance refunding of original issue bonds is permitted. The concern in this instance stems from the fact that states and localities can issue tax-exempts in the double financing of identical projects to acquire income which they could not obtain if the tax-immunity on the original and refunding issues did not exist. It is noted, however, that one advance refunding can serve a highly desirable purpose many times entirely aside from the saving in interest and/or debt reduction. It may be used to spread maturities over longer or shorter periods and to bring about corrections of various kinds, including consolidation of existing debt and reduction of clerical and administrative costs incident to debt servicing.

Steps Involved in the Advance Refunding of School Bonds in Colorado by Negotiation

The procedure followed in the advance refunding of school bonds in Colorado by negotiation involves steps as set forth below. To assist the reader in visualizing what takes place, details of the negotiation in the actual refunding of school bonds for Rangely School District No. RE-4 in Rio Blanco County are presented. The principal amount of the bonds refunded was $2,380,000. The refunding took place in accordance with an agreement between Boettcher and Company and the Board of Directors of the District dated June 24, 1963, and detailed in a resolution adopted by the Board on July 20, 1963.

Step 1. Contact is made between the bond house and the school board. Either party may take the initiative in making the contact. In the large majority of cases to date, however, the contacts have been made by bond houses.

On the initiative of Boettcher and Company, a company representative met with the Board of Directors of Rio Blanco School District No. RE-4 on December 10, 1962, and presented a proposal which, assuming passage of proposed legislation to be introduced to the Colorado General Assembly during January, 1963, called for a statement of intent that Boettcher and Company would be given the opportunity to try to effect the refunding of the bonds. This proposal, agreed to on said date, involved no obligation on the School District's part to contract this refunding with Boettcher and Company; it was merely an understanding that the Company would be given the opportunity to present a plan, or plans, of refunding for the District's consideration. From the point of view of Boettcher and Company, the proposal was entered into for the purpose (1) of gaining support for the proposed legislation and (2) of securing an opportunity to attempt the financing in the event the enabling legislation was passed.

Step 2. The bond house explains generally what can probably be accomplished by advance refunding, setting forth different alternatives but making no firm commitment as to details at this point because the necessary analytical work has not been done. As explained at some length elsewhere, possibilities as to what can be accomplished through advance refunding include (1) reduction of burden to the taxpayer arising from debt servicing, (2) spreading of maturities over shorter or longer periods and equalizing required tax levies from year to year, (3) reduction of existing indebtedness to make possible additional borrowing within debt limitations, and (4) debt consolidation to reduce clerical and administrative expenses incident to debt servicing, or other corrective measures. In the light of extensive discussion of these and related matters with the bond house representative the school board makes a decision as to what it would like to accomplish through refunding; and this decision provides a basis for detailed analysis by the bond house. (Step 2 may require a series of sessions of the bond house representative with the school board.)

On May 14, 1963, Mr. Yaeger, Superintendent of Schools, contacted Boettcher and Company concerning Boettcher's interest in their refinancing program. In preparation for a meeting of the School Board on June 10, 1963, Boettcher and Company made an analysis (believed to be more extensive than is common at this stage of the negotiation) of the refunding possibilities available to the School District. On the basis of this analysis a company representative, in addition to discussing the concept and the potentials of refunding at said meeting, presented several alternative plans of refunding for the Board's consideration. The Board took no formal action at the meeting; it asked for more time to consider the proposals; and it requested that certain revisions be made in the plans submitted.

Step 3. The bond house does the necessary analytical work and firms up a proposal which, in its judgment, would meet the expressed desires of the board. Involved in this analytical work are (1) a determination of the amount of the U.S. Treasury obligations, by maturities, that must be bought to make bond interest and redemption payments (as they come due) on the bonds to be refunded, (2) a check

on the bond market for governments to determine the prices at which the required governments could be bought and the total cost thereof, (3) an examination of the bond market for municipals to determine the probable yield rates (for different maturities) at which refunding bonds issued by the district could be sold, and (4) a determination of the interest rates on the refunding bonds which are necessary, on the sale of these bonds, to yield the amount of money required to support the refunding operation.

Since school boards are generally not staffed to do what is called for in both this step and the preceding, it is noted that a plan whereby public sale of refunding bonds (with competitive bids) would be required would necessitate an arrangement to have this service rendered by some one else. Whether this service were rendered by a private company for a fee or by a state-supported agency, it should be recognized that a highly trained staff would be a prime essential to successful operation. Included in the needs are one or more analysts capable of doing the technical work described above, one or more specialists in market trends as they relate to prices of both municipals and governments, and a means of keeping in close touch with market developments.

It is noted further that the rendering of this service appears to involve both a science and an art. As a science, it is concerned with the technical analytical work and the knowledge of market trends referred to above; the requirements in these respects can probably be met reasonably satisfactorily in the environment of a state agency. On the other hand, tying in with the need for a means of keeping in close touch with market developments, it appears that an art may be involved in making the necessary decisions pertaining to market transactions in the light of these developments. If so -- if gaining and maintaining the needed skill requires extensive day-to-day experience in the handling of these transactions -- a question may be raised as to whether it would be wise to place the responsibility of making such decisions in the hands of a state agency.

Between June 10 and June 24, Boettcher and Company revised its analytical work to comply with the Board's request at the June 10 meeting and extended it to the point of being able to make firm commitment on either of two plans called Plan A and Plan B. After considering the proposals, the School Board (at its June 24, 1963, meeting) accepted refunding Plan A and entered into an underwriting agreement with Boettcher and Company & Associates. Refunding Plan A stipulated a reduction in the average interest rate from 4.5% to 4.175% and a reduction in interest payment to maturity (prorated to May 1, 1963) of at least $115,221.25. This plan actually decreased the School District's average annual debt service requirements as compared to existing debt service requirements. Under refunding Plan B, which was not accepted by the District, the reduction in interest paid to maturity would have been at least $193,920.00. This plan required a slight increase in average annual debt service requirements over a slightly shorter maturity schedule. The District apparently preferred refunding Plan A in order that a slight decrease in the mill levy requirements necessary to service their bonded indebtedness might be effected.

It is noted that, at the meeting on June 24, 1963, the Board received a competitive proposal from an underwriting group comprised of three investment bankers from Kansas City.

Step 4. The proposal prepared by the bond house in Step 3 or some modification of it, as agreed upon by the parties, forms the basis for the refunding agreement. If said proposal is modified significantly, a re-computation in part may be necessary. Before the agreement is finalized, the bond house representative makes clear to the school board what the refunding would accomplish for the school district, including a guaranteed stated reduction in the average bond interest rate (from the bonds to be refunded to the refunding bonds) and a guaranteed amount to be saved.

In line with general business practice, the bond house commonly does not disclose what it expects to make on the refunding transaction; and such disclosure was not made to the Board in the course of the Rangely negotiations. However, for purposes of illustration in this report, the Rangely figure is revealed; as discussed at greater length elsewhere, it is $9.79 per $1,000 par value of refunding bonds (before overhead), from which such items as staff time required to confer with the board and do the necessary analytical work, rental of quarters and equipment, secretarial services, office supplies and expense, and general company overhead must be subtracted. There is no cost accounting for these overhead items.

Immediately following the June 24 meeting of the Rangely Board the analytical work was finalized to yield the details of the refunding agreement which were incorporated in the July 20, 1963 resolution of the Board referred to above. On July 1, 1963, Boettcher and Company wrote the District and advised them that the interest coupons ultimately set on the refunding bond issue resulted in a slightly larger saving to the School District than indicated in the underwriting agreement dated June 24, 1963. The total reduction in interest (prorated to May 1, 1963) amounted to $116,825.00, or $1,603.75 more than the savings originally indicated in the underwriting agreement. The net effective interest rate on the refunding issue, based upon the interest cost reduction of $116,825.00, was 4.166%.

In addition to the interest saving outlined above, the District will realize an additional saving resulting from a law enacted by the 1964 session of the Colorado Legislature which eliminated, effective July 1, 1964, the 1% fee charged by some County Treasurers on the proceeds received from refunding bond escrows. Since the 1% treasurer's fee was provided for in the case of the escrow refunding the District's debt, these funds, totalling $27,271.72, will revert back to the District. Also reverting back to the School District will be the return realized from the reinvestment of idle cash in the escrow. While such a return, if any, cannot be anticipated at the present time, the minimum savings to be realized by the District will be $116,825.00 plus $27,271.72, or a total of $144,096.72.

Step 5. The computations made to determine the amount of the escrow that is needed to meet the bond interest and redemption payments (as they come due) on the bonds to be refunded are verified by a certified public accountant; and the proposed refunding agreement is checked by attorneys to see that it is legal in all respects. Commonly, both the accountant and the attorney are employed by the bond house.

It is noted in this connection that most of the legal work in Denver has been done by Tallmadge and Tallmadge or Dawson, Nagel, Sherman, and Howard.

Subsequent to the execution of the underwriting agreement on June 24, 1963, Boettcher and Company retained a firm of nationally recognized municipal approving attorneys to prepare all proceedings, resolutions and agreements requisite to the issuance of the refunding bonds. A firm of Certified Public Accountants was also retained to verify the proposed transactions in the refunding escrow in accordance with the requirements of the enabling law permitting refundings of this nature.

Tallmadge and Tallmadge had the responsibility for the legal proceedings throughout the refunding operations; and Peat, Marwick, Mitchell and Company verified the escrow requirements. This verification was certified to by letter dated July 17, 1963.

Step 6. The refunding bonds are printed; offering circulars are prepared indicating the yield rates at which these bonds may be bought; and, at the time the bonds are sold, U.S. Treasury obligations are bought and placed in escrow according to the predetermined requirements. Inasmuch as this step is taken subsequent to the time at which the refunding agreement is finalized, some change in the bond market is likely to have taken place in the meantime. The price at which the governments can be bought and the price at which the refunding bonds can be sold tend to move up together or down together. If they move up, for example, the paper loss on the governments tends to be offset by a paper increase in the premium at which the refunding bonds can be sold. The result is that a paper loss (or gain) on one transaction tends to be offset by a paper gain (or loss) on the other. While this offsetting tendency exists, an element of risk to the bond house is involved which may turn in a given instance to the advantage or the disadvantage of the bond house. This, of course, stems from the fact that the bond house has previously entered into a binding contract with the school board.

It should be noted (1) that the underwriter purchases, for his own account, the U.S. Treasury obligations required to effect and establish the refunding escrow and (2) that these governments must be available on the date of closing and delivery of the refunding bonds to the ultimate purchasers before a legal opinion attesting to the validity of the refunding bond issue can be rendered by the municipal approving attorneys. If, for any reason, the transaction is not consummated, the risk involved in the ownership of the governments is the underwriter's only; subsequent resale of them, assuming that the underwriting is not consummated, will ordinarily result in a gain or loss, such gain or loss to accrue to the underwriter. In the purchase of the government obligations, the underwriter arranges all financing and there is no obligation on the part of the School District in this respect.

In the Rangely refunding, the underwriters purchased the required governments between June 24, 1963, and July 10, 1963. The refunding bonds were offered on or about July 1, 1963, in accordance with an offering circular issued shortly prior thereto. The escrow agreement was finalized on August 16, 1963.

The details of the financial transactions involved are set forth as follows:

(a) To meet the escrow requirements, Boettcher and Company bought $2,310,000 par value of government bonds and $158,000 of Treasury Bills at a total cost of $2,491,096.01. This amount includes a financing fee of $2,887.50 (1/8 of 1% on the par value of the government bonds) which was paid by Boettcher and Company to Boettcher Investments, Inc. The latter, it is understood, was not a part of the Colorado Account.

(b) The Rangely School District sold $2,380,000 par value of refunding bonds for a cash outlay to Boettcher and Company of $2,380,000, said refunding bonds having interest rates which averaged 4.17%. See the last paragraph under (c) below.

(c) The Rangely School District paid $2,380,000 to Boettcher and Company in part payment of the governments for the escrow. The selling of the refunding bonds at premiums in (b) above provided additional funds to finance the refunding operation.

According to the terms (Item #3) of the June 24, 1963 contract, the District was required to deposit in the escrow account the $2,380,000 par proceeds, plus $31,237.50, representing the interest accruing from the next preceding interest payment date of May 1, 1963 to the date of closing, August 16, 1963, during which period the District had an actual liability toward its refunded debt. The District received, in addition to the $2,380,000 par payment for its refunding bonds, $27,314.59 in accrued interest on the new issue. The difference between these two interest items is $3,922.91, and the difference occurs in the fact that the rate of accrual of interest on the refunding issue is slightly lower than it is on the refunded issue because of the different arrangements of interest coupons on the two issues. The difference, however, is part of the total interest difference (or interest reduction) of $116,825 when the interest on both issues is figured to maturity.

(d) The Colorado Account, of which Boettcher and Company was the manager, sold the refunding bonds to various members of the Account for a total of $2,465,749.60; and the same were sold by the various members of the Account to the ultimate purchasers for $2,488,096.60. The difference between these two figures, $22,347.00, is the amount of the concessions paid by the Colorado Account to its various members as a selling commission in marketing the bonds.

(e) Attached to the refunding bonds, as printed, were (1) "A" coupons with rates of interest ranging from 3½ per cent to 4½ per cent and (2) "B" coupons of ½ of 1 per cent per annum "for the period November 1, 1963, to November 1, 1973, inclusive, or to the respective maturity dates of the bonds to which said 'B' coupons are attached, whichever is the earliest date." Prior to the sale of the refunding bonds, the "B" coupons were detached, the discounted value of which thereby became additional income to Boettcher and Company. The total amount of these "B" coupons (before discounting) was $78,250. The discounted value of these coupons, at 7% per annum (3½% per six months), calculated from September 1, 1963, amounted to $57,938.75. This discounted value is the income which accrued to the Colorado Account from this source.

(f) The above are the first five items shown in the table of receipts and disbursements (Table III) associated with the Rangely refunding operation, with the three offsetting items discussed in the second paragraph of (c) above disregarded. Presented in it also are other items of expense which are believed to be self-explanatory. The difference between the receipts and the disbursements, $23,305.57, is the underwriting profit (before overhead) to the Colorado Account.

Step 7. Upon completion of the refunding transaction, the bank with which the escrow is placed accepts the responsibility, according to terms of the escrow agreement, of administering the escrow and making bond interest and redemption payments on the refunded bonds as they come due; and the school board has the responsibility of making such payments on the refunding bonds. The refunded bonds have been eliminated from the legal debt of the school district; replacing them are the refunding bonds.

In the Rangely refunding, the escrow is administered by the Denver U.S. National Bank.

As stated above, the underwriting profit realized from the Rangely refunding (before overhead) per $1,000 par value of refunding bonds was $9.79. On the entire issue of $2,380,000, this amounted to an underwriting profit (before overhead) of $23,305.57. To this figure is added $22,347.00, the combined concessions to various dealers, out of which staff salaries (both professional and clerical), telephone costs, shipping and insurance fees, and other costs of doing business were defrayed. The underwriting and selling profit (before overhead) totaled $45,652.57 or $19.18 per $1,000 par value of the refunding bonds. The financing fee of $2,887.50, which represented income to Boettcher Investments, Inc., but not to the Colorado Account, is supplemental to this figure. When this is added to the above, a total income (before overhead) of $48,540.07 to the bond houses, or $20.39 per $1,000 par value of the refunding bonds, is obtained. The saving of the Rangely School District spread over the life of the bonds (with interest prorated to May 1, 1963) will total at least $116,825, or $49.09 per $1,000 par value of the refunding bonds, to which is added the 1% treasurer's fee allowance of $27,271.72.

Table III

RECEIPTS AND DISBURSEMENTS: COLORADO ACCOUNT
REFUNDING OF RANGELY SCHOOL DISTRICT BONDS

Receipts		
From Rangely School District toward escrow requirements	$2,380,000.00	
Sale of refunding bonds to Account Members	2,465,749.60	
Discounted value of "B" coupons	57,938.75	$4,903,688.35
Disbursements		
Purchase of governments for escrow purposes	$2,491,096.01	
Refunding bonds from Rangely School District	2,380,000.00	
Escrow bank fee	4,200.00	

Table III
(continued)

Beginning cash balance required for escrow	453.40	
Consideration, escrow agreement	10.00	
Approving attorney's fees	3,206.44	
Bond printing	393.05	
Travel, CPA fees, telephone	1,023.88	4,880,382.78
Underwriting profit (before overhead)		$ 23,305.57
Concessions to selling dealers (before overhead)		22,347.00
Total profit to underwriters (before overhead)		$ 45,652.57
Underwriting profit (before overhead) per $1,000 par value of the refunding bonds		$ 9.79
Total profit (before overhead) per $1,000 par value of the refunding bonds		$ 19.18

Advance Refunding of Colorado School Bonds Before and After Dissolution of the Colorado Account

In foregoing references to the actual refunding of school bonds for Rangely School District No. RE-4 in Rio Blanco County, facts were presented on saving to the school district, gross income from underwriting, expenses of refunding (including escrow loss), concessions to selling dealers, underwriting profit (before overhead), and total profit to underwriters (before overhead). The purpose of this section of the report is to present similar data for what, it is understood, comprises all refundings of Colorado school bonds by the Colorado Account during the period of its existence and all such refundings -- from dissolution of the Account to August 1, 1964 -- in which Boettcher and Company was involved as the sole bond house concerned or as one of two or more participants. This is done for each of a number of groups according to credit rating of the school district, namely, AA, A, BAA, and non-rated.

Included in this study is a total of $98,022,000 par amount of refunding school bonds. The refundings through the Colorado Account totalled $81,680,000; and those handled by Boettcher and Company and associates in the Post Colorado Account period totalled $16,342,000. Other refunding school bonds in Colorado which have been issued since the enabling legislation was passed in 1963, the total of which is not known precisely, are known to have approximated $22,000,000. This means that the par amount of refunding school bonds issued in Colorado during the period of twenty months from March 1, 1963, to November 1, 1964, totals approximately $120,000,000.

The tabular categories listed above should be described. The <u>saving to the school district</u> consists of reduction in bond interest over the life of the bond issue and/or in par value or redemption price (if different from par value) of the bonds; as reported, it excludes

the 1% County Treasurer's fee which was included in the escrow in refundings which took place prior to passage of the law removing it; it was computed from original proposals made to the districts or in some instances it was taken directly from the authorizing resolutions; and some of the computations and tabulations were made from sources more readily available to save time.

Gross income from underwriting comprises gross sales price of refunding bonds to ultimate purchasers (as projected at the time of "sale" to the selling dealers), discounted value of "B" coupons (if any), and escrow gain (if any) less cost of refunding bonds (at par). Here, it was not unusual, during the period in which the Colorado Account was in existence, for the actual sales price to the ultimate purchasers to be less than the projected sales price, thus having the effect of reducing the selling dealers' income. It is understood that the actual sales price was never greater than the projected sales price. Gross income was computed from offering circulars; in three or four instances, it included undiscounted values of short "B" coupons or supplemental coupons; and all dollar production achieved from the sales was computed from the dates of the refunding issues and not from the actual dates of delivery to the underwriters or to the ultimate purchasers.

Takedowns and concessions to the selling dealers are the difference between the projected sales price and the price at which the bonds were sold to the selling dealers. It is noted (1) that, in view of the above, the reported takedowns and concessions as a whole are an overstatement of the true income in this category to all bond houses combined, (2) that a sizable part of the takedowns and concessions to selling dealers during the Colorado Account period -- roughly estimated to be one-half of the total -- went to dealers outside of Colorado, (3) that the realized takedowns and concessions are before overhead and that the overhead of selling dealers comprises staff salaries -- both professional and clerical -- telephone costs, shipping and insurance fees, and other costs of doing business, and (4) that the figures presented are close approximations, subject to the above qualifications, obtained by deducting expenses of refunding and profit from underwriting (before overhead) from gross income from underwriting.

Expenses of refunding include escrow loss (if any), beginning cash balance required for escrow, escrow bank fee, consideration for the escrow agreement, approving attorneys' fees, bond printing, travel, CPA fees, and telephone costs. Expenses of refunding including escrow loss were taken from the account settlement statements.

Underwriting profit (before overhead) is gross income from underwriting less takedowns and concessions to selling dealers and total expenses of refunding; it was taken from the account settlement statements. Overhead, in this instance, comprises salary items for staff time required to confer with school boards and do the necessary analytical work, rental of quarters and equipment, secretarial services, office supplies and expense, and general company overhead.

The savings to Colorado school districts from a total of twenty-three advance refundings during the Colorado Account period, in principal and interest but exclusive of the 1% County Treasurer's fee, amounted to $4,100,740; and the income (before overhead) to the Colorado

Account resulting therefrom, takedowns and concessions to selling dealers and underwriting profit combined, totalled $1,299,215[2] (Table IV). This means that the savings to school districts spread over the life of the bonds were $3.16 for each dollar of income to the Colorado Account before overhead. The corresponding figures for the period subsequent to dissolution of the Account, based upon eight refundings, are: savings to school districts, $1,259,811; income to the bond houses before overhead, $365,892; and savings to school districts per dollar of income to the bond houses, $3.44.

If the 1% Treasurer's fee is included with principal and interest savings, the total savings to the school district during the Colorado Account period, per dollar of income to the Colorado Account, were $3.92 (instead of $3.16); and, for the period subsequent to dissolution of the Account, they were $3.44 (unchanged by change of the law).

It is noted that the underwriters were instrumental in calling to the attention of the various school officials involved in refunding the additional savings that could be effected by the elimination of the County Treasurer's one per cent collection fee. As a result, the Codification of School Laws Committee recommended the repeal of the law, which recommendation was adopted by the General Assembly in the 1964 session.

In the Rangely refunding the saving to the School District per dollar of income to the Colorado Account was $2.56. This is based upon a saving of $116,825 as reported elsewhere. If the alternative proposal to the Rangely School District calling for a saving of $193,920 had been accepted, the saving per dollar of income to the Account -- assuming the same income as in the actual refunding -- would have been $4.25. This illustration is presented as a caution against drawing hasty conclusions based upon cursory comparisons of the results of one refunding operation with those of another. The greater saving in the Rangely refunding would have required an increase in the tax levy over a comparatively short period; the plan preferred by the Board called for spreading the maturities over a longer period so as to bring about a small reduction in the tax levy.

The results of refunding in the Colorado Account period are compared with those which took place subsequent to dissolution of the Account; this is done in terms of dollars per $1,000 par value of refunding bonds for each credit rating class to which the school districts belong and for all such classes combined (Table V).

Total income to the bond houses (before overhead) per $1,000 par value of the refunding bonds, takedowns and concessions to selling dealers and profit from underwriting combined, were smaller for total refundings of the Colorado Account ($15.91) than they have been since the dissolution of the Account ($22.39). Comparative figures for takedowns and concessions to selling dealers are $5.60 in the Colorado Account period and $8.33 in the Post Colorado Account period; and for

2. As noted elsewhere, a sizable part of this item -- roughly estimated to total $225,000 -- went to dealers outside of Colorado.

Table IV

ADVANCE REFUNDING OF SCHOOL BONDS IN COLORADO BY CREDIT RATING OF THE SCHOOL DISTRICT
(All Data Expressed in Total Dollar Amounts)

Credit Rating	Par Amount Refunding	Principal & Interest Saving	1 Per Cent Treasurer's Fee	Total Saving	Gross Income	Takedowns & Concessions[a]	Expenses Including Escrow	Underwriting Profit Before Overhead	Total Takedowns & Concessions and Underwriting Profit
A. Advance Refunding by the Colorado Account[b]									
AA	$47,713,000	$2,611,648.80	$596,909.32	$3,208,558.12	$ 771,695.62	$143,908.60	$159,171.49	$468,615.53	$ 612,524.13
A	15,924,000	610,924.90	185,853.90	796,778.80	448,467.78	121,987.32	128,702.78	197,777.68	319,765.00
BAA	9,550,000	528,731.64	120,030.71	648,762.35	227,111.50	88,936.17	64,537.93	73,637.40	162,573.57
Non-rated	8,493,000	349,434.40	85,746.89	435,181.29	385,609.47	102,967.04	181,257.25	101,385.18	204,352.22
TOTAL	$81,680,000	$4,100,739.74	$988,540.82	$5,089,280.56	$1,832,884.37	$457,799.13	$533,669.45	$841,415.79	$1,299,214.92
B. Advance Refunding Subsequent to Dissolution of the Colorado Account[c]									
A	$ 9,373,000	$ 909,865.77	$ 0.00	$ 909,865.77	$ 261,861.30	$ 51,925.92	$ 82,547.82	$127,387.56	$ 179,313.48
BAA	6,420,000	314,740.72	0.00	314,740.72	192,194.95	80,491.36	15,476.12	96,227.47	176,718.83
Non-rated	549,000	35,205.00	0.00	35,205.00	15,609.70	3,645.00	5,750.00	6,214.70	9,859.70
TOTAL	$16,342,000	$1,259,811.49	0.00	$1,259,811.49	$ 469,665.95	$136,062.28	$103,773.94	$229,829.73	$ 365,892.01

a. A sizable part of the takedowns and concessions to selling dealers during the Colorado Account period -- roughly estimated to be one-half of the total -- went to dealers outside of Colorado.
b. All advance refundings of school bonds by the Colorado Account.
c. All advance refundings of school bonds in Colorado from dissolution of the Colorado Account to August 1, 1964, in which Boettcher and Company was involved as the sole bond house concerned or as one of two or more participants.

Table V

ADVANCE REFUNDING OF SCHOOL BONDS IN COLORADO BY CREDIT RATING OF THE SCHOOL DISTRICT
(Dollars per $1,000 Par Value of the Refunding Bonds)

Credit Rating and Classification	Colorado Account	Post Colorado Account
Saving to the School Districts		
Principal and Interest		
AA	$54.74	$ ---
A	38.37	97.07
BAA	55.36	49.03
Non-Rated	41.14	64.13
Average	50.20	77.09
One Per Cent Treasurer's Fee		
AA	12.51	---
A	11.67	0.00
BAA	12.57	0.00
Non-Rated	10.10	0.00
Average	12.10	0.00
Total Saving		
AA	67.24	---
A	50.04	97.07
BAA	67.93	49.03
Non-Rated	51.24	64.13
Average	62.31	77.09
Gross Income from Underwriting		
AA	16.17	---
A	28.16	27.94
BAA	23.78	29.94
Non-Rated	45.40[a]	28.43
Average	22.44	28.74
Takedowns & Concessions to Selling Dealers[b]		
AA	3.02	---
A	7.66	5.54
BAA	9.31	12.54
Non-Rated	12.12	6.64
Average	5.60	8.33
Expenses of Refunding, Including Escrow Loss		
AA	3.34	---
A	8.08	8.81
BAA	6.76	2.41
Non-Rated	21.34[a]	10.47
Average	6.53	6.35

Table V
(continued)

Credit Rating and Classification	Colorado Account	Post Colorado Account
Profit from Underwriting (Before Overhead)		
AA	$ 9.82	$ ---
A	12.42	13.59
BAA	7.71	14.99
Non-Rated	11.94	11.32
Average	10.30	14.06
Total Takedowns & Concessions and Profit From Underwriting (Before Overhead)		
AA	12.84	---
A	20.08	19.13
BAA	17.02	27.53
Non-Rated	24.06	17.96
Average	15.91	22.39

a. The expense (including escrow loss) for the non-rated bonds is above average because of a large escrow loss resulting from a high bond interest rate on a large block of refunded bonds and this, in turn, necessitated an offsetting above-average gross income.
b. A sizable part of the takedowns and concessions to selling dealers during the Colorado Account period -- roughly estimated to be one-half of the total -- went to dealers outside of Colorado.

profit from underwriting they are $10.30 and $14.06, respectively.[3] By credit rating classes there are several exceptions to this relationship between the two periods.

It should be noted that the above figures are not fully comparable -- one period with the other -- because of differences in weighting. Since both takedowns and concessions and profit from underwriting are lower for Class AA bonds per $1,000 par value than they are for the average of all classes, the absence of AA bonds in the Post Colorado Account period (in contrast to a sizable volume of such bonds in the Colorado Account period) gives the averages for the Post Colorado Account period an upward bias. It is found, however, that weighting the figures (for the three classes A, BAA, and non-rated for which there are data in both periods) according to the distribution of bonds among these classes in (1) the Colorado Account period and (2) the Post Colorado Account period yields averages for the latter period -- for takedowns and concessions and profit from underwriting combined --

3. These figures do not include the financing fee, an expense to the Colorado Account, which was paid to Boettcher Investments, Inc. This fee of 1/8 per cent on the principal amounts of the government bonds placed in escrow represents additional income, in a sense, to the bond houses.

which are larger than those for the Colorado Account period. For takedowns and concessions alone, this procedure yields somewhat smaller averages for the Post Colorado Account period than for the Colorado Account period; in the case of profit from underwriting, the averages so obtained for the Post Colorado Account period are considerably the larger.

Takedowns and concessions to selling dealers are perhaps the only category shown in the table in which there is a significant relationship between magnitude of the figures and rating class. One would expect the cost of selling AA bonds to be less per $1,000 of par value of the refunding bonds than it would be for A bonds, and similarily for A bonds as compared with BAA bonds and for BAA bonds as compared with non-rated bonds. This relationship did exist in the Colorado Account period and, with one exception, in the Post Colorado Account period. In the case of savings to the school districts, the fact that other objectives than that of maximizing savings are significant tends to blur the picture. Likewise, as already noted, conditions peculiar to a given situation such as high interest rates on the bonds to be refunded may cause the expenses of refunding and hence the gross income from underwriting to be abnormally high.

Because the Rangely refunding has been used for purposes of illustration and the Rangely School District is non-rated, a comparison of the results of refunding in that district with averages for all non-rated districts is of interest. The saving to the District per $1,000 par value of refunding bonds exceeds the average for all non-rated districts in all three categories shown (Table VI); and, if the alternative proposal discussed elsewhere in this report had been accepted, the disparities would have been far greater. Gross income from underwriting for Rangely is comparatively large, but this is necessarily so to offset the large escrow loss which resulted from the fact that the interest rate on the refunded bonds was high. Income to the bond houses per $1,000 par value of the refunding bonds is smaller for Rangely, both in takedowns and concessions and in profit from underwriting (before overhead), than it is for the non-rated group as a whole. The combined income to the Colorado Account (before overhead) per $1,000 of par value is $19.18 for the Rangely refunding, whereas the average for all non-rated districts is $24.06 (Table VI).

Table VI

RESULTS OF THE RANGELY REFUNDING COMPARED WITH THE NON-RATED SCHOOL DISTRICT AVERAGES DURING THE COLORADO ACCOUNT PERIOD
(Dollars per $1,000 Par Value of the Refunding Bonds)

Classification	Rangely	Non-Rated Average
Saving to the School Districts		
Principal and Interest	$49.09	$41.14
One Per Cent Treasurer's Fee	11.46	10.10
Total Saving	60.54	51.24
Gross Income from Underwriting	69.76	45.40
Takedowns and Concessions to Selling Dealers	9.39	12.14

Table VI
(continued)

Classification	Rangely	Non-Rated Average
Expenses of Refunding Including Escrow Loss	$50.58	$21.34
Profit from Underwriting (Before Overhead)	9.79	11.94
Total Takedowns & Concessions and Profit from Underwriting (Before Overhead)	19.18	24.06

Statutory Provisions and Practices with Respect to the Sale and Advance Refunding of School Bonds in States of the United States

Letters were sent to the "chief State School Officers" in the forty-nine states of the United States exclusive of Colorado requesting information on the permissibility of advance refunding and on legislative provisions governing or practices pertaining to the sale of school bonds in their respective states. Facts presented in forty-five replies to these letters are summarized below.[4]

Method of Selling Original Issue School Bonds

Public sale of original issue school bonds is known to be required -- with exceptions in a number of instances -- in twenty-seven states and not to be required in twelve states (Table VII). Many of the exceptions are believed to be worthy of examination; they are described below largely in the words of the respective respondents.

Delaware: Public bidding is required for bond issues, and the school building commission determines the bid to be accepted.

4. In a number of instances there is failure, in these replies, to answer all of the questions; and in others, there is uncertainty as to the facts of the situation. Take the question as to whether advance refunding is permissible as an example. The Attorney General in North Dakota is quoted as saying that refunding is not included among the specified purposes of issue and that there are no court decisions dealing with it. In the letter from Nebraska it is stated that advance refunding is not specifically authorized, but that some legal authorities contend that it is permissible. A statement of similar import appears in the letter from Idaho. In other cases, with no specific statements of this nature, the wording of the letters would appear to leave uncertainty in the reader's mind on this point. From Hawaii comes a statement that issues confronting Hawaii are believed not to be pertinent or applicable to the situation in Colorado; and there are no answers to specific questions.

Florida: Public sale with competitive bids or auction for the bonds is required. However, if all bids for the bonds are rejected, the county school board may negotiate for the sale of the bonds at a price at least as advantageous as that represented by the best bid received. The respondent states that he has never heard of sale by auction in Florida and that the provision for negotiating a sale is rarely, if ever, used at the present time.

Idaho: The sale of bonds is restricted to competitive bidding unless the school district accepts the bid of the Department of Investments.

Iowa: Any or all bids may be rejected and sale may be advertised anew, or the bonds or any portion may thereafter be sold at private sale. In the case of private sale, the bonds shall be sold upon terms not less favorable to the public than the most favorable bid made at the last advertised sale.

Michigan: Bonds totalling less than $10,000 may be sold at private sale.

Minnesota: Exceptions to the public sale requirement are those obligations (1) issued under a home rule charter or a law specifically authorizing a different method of sale, (2) payable wholly or partly from the proceeds of special assessment, (3) payable wholly from the income of revenue-producing conveniences when such obligations do not exceed $50,000, and (4) sold to any board, department, or agency of the United States or of the State of Minnesota.

Montana: The general practice is for the board of trustees of the school district issuing the bonds to receive sealed bids if any are presented at the time set for the sale of the bonds. Whether or not sealed bids have been received the school board then accepts auction bids which in some instances result in considerable competition between or among prospective purchasers of the bonds.

New Jersey: Bonds may be sold at private sale, without giving notice of sale, if the total amount offered for sale is $10,000 or less, or if the sale is to the trustees of the teachers' pension or annuity fund, or to any board, body or official of the State authorized to purchase said bonds. In all other cases bonds shall be sold at public sale.

New Mexico: Bonds must be sold on bids in a public sale unless bought by the State, a practice that has not been in existence for some seven or eight years in New Mexico.

New York: There are two instances when bonds need not be sold at public sale. One instance is when they are sold to the United States Government or to a pension fund or sinking fund of the issuer. The other case when they may be sold at a private sale is when the bonds issued are not in excess of $30,000.

North Dakota: The prescribed procedure relative to calling for bids upon the sale of municipal bonds shall not be required in case bonds are sold to the state board of university and school lands or to the Bank of North Dakota nor in case other trust funds admin-

istered by public officials are invested in them, or they are sold to the United States of America, or any agency or instrumentality thereof.

Ohio: Before selling any notes or bonds of a subdivision, the taxing authority shall offer such notes or bonds at par and accrued interest to the trustees, commissioners, or other officers who have charge of the sinking fund of the subdivision, and such officers shall have the option of purchasing said notes or bonds or rejecting them. If this offer is rejected, then notes having a maturity of one year or less may be sold at private sale at not less than par and accrued interest, and all bonds and notes having a maturity of more than one year shall be sold to the highest bidder, after being advertised once a week for three consecutive weeks on the same day of the week.

Vermont: The provision that bonds must be sold by competitive bidding is qualified by the statement that, if there are no bids on the issue, the legislative branch may sell the bonds at private sale at not less than par and accrued interest.

Wyoming: The provision requiring public sale with competitive bidding is qualified by the statement that the school trustees are authorized to reject any bids and to sell the bonds at private sale, if they deem it for the best interests of the district.

Of those who answered the question as to which method of sale -- public or by negotiation -- of original issue school bonds was considered preferable, the large majority indicated that they considered public sale preferable. However, of the forty-five reporting states, only fourteen indicated a preference; and three of those gave the answer "yes" with the proviso that the bond issues are large.

Advance Refunding of School Bonds

Twelve of the states are known to have provisions for the advance refunding of school bonds and twenty-one are known not to have such provisions. In only eight of these states is it known that advance refunding of school bonds has actually taken place.

Seven of the twelve states reporting provisions for advance refunding of school bonds require public sale of the refunding bonds. In one of these instances the respondent says that all bids may be rejected, whereupon the county school board may negotiate for the sale of the bonds at a price at least as advantageous as that represented by the best bid received. In another instance -- Minnesota -- the exceptions noted above to the public sale requirement for original issue bonds apply to refunding bonds as well. Four of the respondents report that public sale of the refunding bonds is not required.

It appears that five and possibly six of the states have laws permitting advance refunding of advance refunding school or other bonds (i.e. more than one advance refunding); but there is no information available to the Legislative Council staff, from this study or from any other source, indicating that advance refunding of advance refunding school bonds has actually occurred.

Alaska and Tennessee, in their provisions as to method of bond sales, distinguish between bonds of original issue and advance refunding bonds. For bonds of original issue, public sale is required; for advance refunding bonds, sale by negotiation is permitted. This distinction appears to reflect recognition of the fact that determination of what can and should be accomplished in a refunding operation requires far more expertise than is required when bonds of original issue are to be sold. In the latter case, many of the details such as total amount of the issue, schedule of redemptions and provision as to callability, and bond interest rates are commonly determined in advance of taking steps to sell the bonds.

Under these circumstances -- with information on these details in hand and with knowledge of the current condition of the bond market and of the community backing the bonds -- the computations required on the part of bond companies to arrive at a reasonable bid are not extensive; and it is not unreasonable to expect carefully prepared bids from a number of bond houses.

In contrast, it is clear from facts already presented on advance refunding (1) that the objectives of advance refunding are varied, (2) that the desires of the school board must be reflected in the planning of the refunding operation, and (3) that determination of what can be accomplished, consistent with the board's wishes, requires the expertise referred to above. Because school boards are generally not staffed to do the necessary analytical work, some means of collaboration of the board with an expert on the subject appears to be needed when advance refunding operations are being planned. This collaboration may conceivably be had from (1) negotiation as in the past, (2) a bond firm employed by the school district for a fee, (3) a private consultant, or (4) a fiscal agent in the employ of the state.

Table VII

METHOD OF SALE OF ORIGINAL ISSUE SCHOOL BONDS

A. States Known to Require Public Sale*

Alabama	Indiana	Nevada	Ohio	West Virginia
Alaska	Iowa	New Jersey	Oregon	Wisconsin
Arkansas	Maryland	New Mexico	South Dakota	Wyoming
Delaware	Michigan	New York	Tennessee	
Florida	Minnesota	North Carolina	Vermont	
Idaho	Montana	North Dakota	Washington	

B. States Known Not to Require Public Sale

California	Maine	Nebraska	Texas
Connecticut	Massachusetts	New Hampshire	Utah
Kansas	Missouri	Pennsylvania	Virginia

* Included in this group are several states which make exceptions, as noted elsewhere, to the public sale requirement.

Notes Based Upon "Public Sale Versus Negotiation In the Marketing of Municipal Bonds"

The Investment Bankers Association of America issued a Statistical Bulletin (Occasional Paper No. 2) in September, 1962, on "Public Sale Versus Negotiation in the Marketing of Municipal Bonds." Notes based upon this report -- reproduced verbatim in large part -- are presented below.

Municipal bond sales in the United States in 1961, general obligations and revenues combined (as compiled by the IBA and revised to September, 1962) totalled $8,448 million. Those sold by the issuer by publicly inviting bids amounted to $7,312 million or 86.6% of the total; the remainder, $1,136 million, were sold through negotiation. Of the total bonds issued, $6,045 million were general obligation bonds; and $2,403 million were revenue bonds.

Issuers of general obligation bonds used the public sale technique significantly more frequently than did issuers of revenue bonds. Of the general obligation total, 96.9% were sold this way, whereas only 60.6% of the revenue bonds were so marketed.

This pattern for 1961 is essentially the same as it was in two previous years, 1957 and 1958. The tabulation follows:

ISSUES SOLD THROUGH PUBLIC BIDS
(Per Cent of Par Dollar Value)

Year	General Obligations	Revenue
1957	94.4%	65.3%
1958	95.3	72.9
1961	96.9	60.6

In number of issues (instead of dollar volume) the proportion of general obligations sold at public sale in 1961 was 90.2% (instead of 96.9%); and for revenues it was 68.6% (instead of 60.6%).

The reasons for the wide variance between general obligation issues as a group and revenue issues as a group, whether in terms of dollar volume or number of issues, are in part legal. A substantial number of states have laws requiring that general obligation issues be offered for bids. While some revenue bond acts have the same requirement, most do not.

While legal factors no doubt are a major reason why general obligations as a group are sold at public bidding significantly more frequently than are revenues, they are not the only explanation. Successful public offering requires a "market name." Further, small issues are less likely than large issues to be rated and small issues usualy come from small issuers. In addition, certain costs of public offerings, such as the cost of advertising for bids, are relatively independent of the size of the offering. This alone may make negotiation with a local firm the least costly method for a very small issue, even if a public offering is possible.

In the case of general obligation issues, the 1961 results appear to be precisely in line with what one would expect from market and legal factors just discussed.

In the case of revenue issues, one further major factor enters. New issuers are formed to finance specific construction projects, which are often major undertakings -- toll roads, bridges, airports. Since these are not market names, the market must be cultivated both before and after the sale. Among other things, this requires considerable consultation between the issuer and investment bankers in order to tailor the securities to the needs of both buyers and seller. Negotiation seems quite appropriate in these cases.

Since there were a number of extremely large new construction facilities financed through revenue bond issues in 1961, the data on the revenue bond methods of sale for that year also appear consistent with relevant legal and market factors.

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October 27, 1964

Mr. Lyle C. Kyle, Director
Legislative Council, Colorado General Assembly
Room 341, State Capitol
Denver, Colorado

Re: Aspects of the Decision of Colorado Municipal Dealers to
Syndicate General Obligation Advance Refunding Bond Issues

Dear Mr. Kyle:

Refunding is a universally accepted and thoroughly tested aspect of long-term debt financing, employed in every state, and simply stated is the substitution of one bond issue for another, the proceeds of which are used to retire the outstanding or refunded issue. (Multiple issues are commonplace, but for this discussion we will use only a singular issue). The advantages of refunding might be interest savings, debt realignment and revision of security provisions, as well as several other less important advantages.

Advance refunding is refinement of this technique. Refunding bonds are issued to replace existing indebtedness where such indebtedness is not callable for redemption at the time of the refunding. The proceeds of the refunding issue are invested in United States Government securities, which, together with interest, are sufficient to pay when due or called the principal, interest and call premiums on the refunded debt. The advance refunding technique has been employed for nearly thirty years to effect refinancing to prevent default in some instances and to eliminate restrictive covenants which prohibited the issuance of additional debt in others. It has only been in recent years that advance refunding has been employed to effect large reduction in interest (and sometimes principal) requirements, as well as to achieve more liberal repayment provisions. Advance refunding has grown rapidly in the past five years and in 1963 bond issues sold to effect advance refundings amounted to approximately $600 million.

The first major use of advance refunding in this area occurred in New Mexico for municipal issues of revenue bonds. Every major city of New Mexico has advance refunded its revenue debt, attesting to the acceptance and popularity of this procedure. It resulted in substantial saving to the issuers and allowed for the issuance of additional bonds necessary to finance expansion of the utility systems.

Boettcher and Company was a leader in the application of advance refunding techniques in New Mexico and after analyzing desirable ends achieved, studied the possibility of sponsoring legislation in Colorado to provide this same technique to refund general obligation issues of school districts. Study showed a substantial saving could accrue to the taxpayers, and to implement this program, the following steps were taken:

1. Dawson, Nagel, Sherman & Howard and Tallmadge & Tallmadge, recognized bond counsels, were employed to prepare legislation to provide for advance refunding.

2. Members of the Colorado State Legislature were contacted and the desirable goals to be achieved by such legislation were explained.

3. Many school districts were contacted, several of which granted "study contracts" and helped support the necessary legislation.

To compensate for expense and effort, the study contracts provided that Boettcher and Company would be given an opportunity to purchase refunding issues resulting from this program, but the school districts retained the right to reject any proposal submitted and negotiate with other interested parties at a later date, or to reject the proposal in its entirety.

Boettcher and Company contacted school districts prior to the introduction of legislation and obtained "Study Contracts" to analyze the refunding of approximately $60 million of outstanding bonds. At this point, no other municipal dealer was involved in our efforts. As school districts were contacted concerning the proposed study contracts, other municipal dealers became aware of the effort and contacted Boettcher and Company to determine the procedures to implement advance refunding made possible by passage of the enabling legislation. All school districts were potential candidates for refunding and because of the potential volume and the limited staff of Boettcher and Company, other dealers were invited to assist in this effort and to lend support for the proposed legislation. Subsequently when each municipal underwriter joined in this effort, each was allocated a proportionate interest and did not share in any contracts taken prior to that date.

In late October of 1962, joint account arrangements with other municipal underwriters had been made by Boettcher and Company covering perhaps forty issues; these arrangements varied from issue to issue and involved most municipal underwriters in Denver. Some underwriters had a financial interest in only a portion of the "Study Contracts" obtained and that interest depended on the specific allocations made at the time the joint effort was decided.

Colorado school financing has an approximate annual volume, excluding Denver School District No. 1, of $35 million per year under normal conditions. It was evident that, with the anticipated refunding volume of perhaps $100 million in addition to the normal new financing, the underwriters were faced with a serious problem of distributing this enormous increase in Colorado school general obligation issues to banks, insurance companies, trust accounts and individuals who had purchased these issues in the past. This problem indicated the need for the new issues moving to the market at a controlled pace, depending upon market conditions, to allow the market to absorb this volume without a serious adjustment in interest rates. With "Study Contracts" already obtained involving about twenty-five issuers totaling approximately $100 million of bonds, the mormal market for Colorado municipal obligations would be hard pressed, if not completely overwhelmed, by the tremendous volume that would be offered in a relatively short period of time without control.

Timing of underwriting the refunding issues was necessary to maintain interest rates at realistic levels and as a consequence, the "Study Contracts" already obtained by each underwriter were contributed to a common pool with percentage interests as follows:

Boettcher and Company	18.2%
Bosworth, Sullivan & Company	9.6%
Coughlin and Company, Inc.	9.6%
Hanifen, Imhoff & Samford, Inc.	9.6%
Kirchner and Company	8.1%
Stern Brothers and Company	8.1%
Ranson and Company	6.0%
George K. Baum and Company, Inc.	5.0%
Francis I. duPont and Company	4.6%
Hornblower and Weeks	4.6%
Goodbody and Company	4.6%
J. K. Mullen Investment Company	4.0%
Merrill Lynch, Pierce, Fenner & Smith, Inc.	4.0%
Quinn and Company	4.0%
	100.0%

These percentages were agreed to in March 1963, and although the percentages indicated varied slightly from the original agreement, these variations were due to some underwriters discontinuing their municipal activity in the State of Colorado. Percentage interest of each participant was determined after negotiation among the parties concerned and primarily rested on the following factors:

1. Financial status and underwriting ability.

2. The ability of the firm to distribute municipal obligations to ultimate purchasers.

3. The number of "Study Contracts" obtained by the respective members at the time of this agreement.

4. The ability of the individual firms to contribute personnel to the job of calculating the many factors involved in the consummation of any refunding program.

In addition to the necessity for a common effort in underwriting the anticipated volume, substantial out-of-pocket expenses had been incurred, i.e. legal, travel, etc. which had to be shared by the underwriting firms and some method was necessary to determine each member's share of these expenses which were in fact defrayed on the basis of the percentage interests indicated above. It might be pointed out here that at the time it was decided to combine efforts, Boettcher and Company's interest was determined at 18.2%, which percentage of the total was far less than the amount of the "Study Contracts" already obtained by Boettcher and Company. Boettcher and Company's willingness to join this common effort was necessitated by a volume of financing which they individually would have been unable to underwrite and distribute successfully without the necessity of excessively high interest rates and a corresponding reduction in the saving to Colorado school districts.

Upon the successful passage of the proposed legislation, the Colorado dealers involved nominated Boettcher and Company as manager of the group with duties to arrange for the purchase of the refunded issue and the sale of this issue to the ultimate purchaser through the underwriting group which had already been organized. In addition, Boettcher Investment Co., Inc., a wholly owned subsidiary of Boettcher and Company, arranged for the purchase and the financing of the government obligations necessary to effect any refunding program. For these services, Boettcher Investment Co., Inc. was paid $1.25 (1/8 of 1%) per $1,000 of government bonds purchased for the benefit of this group. This fee was paid by all members in proportion to their interest in the account. At one time, Boettcher Investment Co., Inc. either owned or was committed to purchase government obligations with a market value of approximately $50 million. Such commitments require substantial capital, willingness to assume risk to assure some chance of profit. Boettcher and Company was assisted in the management decisions by Coughlin and Company and Stern Brothers & Company. These management decisions concerned primarily determining the price levels for the refunding issues and when the issues were to be offered for sale by the account.

As stated previously, the original agreement which activated this group in the underwriting of advance refunding issues was agreed to in March 1963 and that original agreement provided the account would disband in March 1964 since it was felt that the initial heavy volume of advance refunding would have been achieved by that date and that subsequent thereto, a more normal volume of financing would occur and not require a concerted effort of the entire group of underwriters. The account was formed only for general obligation advance refunding issues and did not extend to new money issues, revenue issues, special obligations issued by the State of Colorado or any political subdivisions. The account was limited to one activity only--general obligation advance refunding bonds; that account was made for a predetermined period of time, namely one year. There was no attempt on the part of the underwriters to conceal the fact that such an account existed. In fact, it was frequently emphasized to issuers. In no instances were out-of-state underwriters asked to participate in this program when such dealers evidenced an interest in Colorado refundings. It was the consensus of opinion of the Colorado group that the purchase of advance refunded issues by a dealer located outside this market would undoubtedly be sold outside this area and hence would present no difficulty insofar as the scheduling of issues coming to market was concerned.

During the 1964 legislative session, various amendments were proposed concerning the existing legislation on advance refunding and these amendments led to considerable misunderstandings about the whole advance refunding program. The 1964 Legislature asked the Legislative Council, Committee on Education, to analyze the subject thoroughly and at that time, Colorado underwriters indicated their wholehearted support and cooperation to the Committee. Mr. Lyle Kyle and Dr. Fitzhugh Carmichael have had free access to our records to assist them in the preparation of reports you have received. Advance refunding is a specialized technique which requires a consideration of not only the outstanding issues, but the cost of government obligations used to retire the outstanding issue and the market acceptance of any proposed new issue. Relative savings to the issuer is dependent on a combination of all three factors and hence the comparison of any two refundings is almost meaningless.

Boettcher and Company's pursuit of legislation to allow advance refundings has resulted in $6.3 million savings to Colorado taxpayers (a summation of this amount has been provided to the Legislative Council). The advance refunding concept was conceived as a method of reducing debt payment requirements, thereby offering a great value to the taxpayers. Such a service on an efficient basis was motivated by our desire to make a profit. The Legislative Council study will indicate that such a service was rendered and profits accruing to underwriting dealers was in an amount which constituted defensible (and perhaps less than commensurate) return for services rendered and risks undertaken.

Very truly yours,

BOETTCHER AND COMPANY

Fred Wiesner

FW/