STATE OF ALASKA

THE LEGISLATURE

BUDGET AND AUDIT COMMITTEE

FINANCE DIVISION
POUCH WF-STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

M E M O R A N D U M

DATE: January 22, 1981

TO: Honorable Al Adams
House of Representatives
Alaska State Legislature

FROM: Milt Barker, Fiscal Analyst
Legislative Finance Division

Defease State G.O. Bonded Debt

The Department of Revenue estimates the total cost to defease all state G.O. bonds in FY 82 at $905 million. This is made up of three items:

Defease $720 million of outstanding G.O. bonds	$570 million
Cash out all authorized but unissued bonds	463 million
Delete FY 82 debt service	(128 million)
	$905 million

The $570 million would be paid over to bond trustees to purchase securities whose term and value at maturity matched the $720 million in bond maturities to be paid by the state. The AG does not believe authorizing legislation for this is necessary. However, there is no mention of such action in AS 37.15, the state bonding act, so it might be a good idea to have authorizing legislation.

The $463 million in cash would be to fund the capital projects that would have been funded with bond proceeds. The state's bond counsel says there would be trouble with the IRS if we defeased outstanding bonds and then subsequently issued new bonds within a few years time.

31.01LH

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JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

M E M O R A N D U M

DATE: June 23, 1980

TO: Honorable Russ Meekins, Chairman
House Finance Committee

FROM: Milt Barker, Fiscal Analyst
Legislative Finance Division

SUBJ: Refunding G.O. Debt

In the attached letter of April 7, 1980 from Bache Halsey, it is claimed that refunding the outstanding general obligation indebtedness of the state will result in savings in debt service on a present value basis. This does not appear to be the case.

If the refunding debt is issued at 8.5% as in the Bache projection, then the average rate of earnings on general or permanent fund investments should be around 11.5%.[1]

If the debt service schedules for outstanding debt[2] and refunding debt are discounted at 11.5%, which more properly represents the alternative earnings rate on funds that would be used for debt service, i.e. their opportunity cost, the existing schedule of debt service has the lowest present value, i.e. least cost to the state.

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1. See attached Table 1 and yield chart which indicate that the average interest differential over the past five years between municipal and corporate Aa bonds has been 3.05%.

2. Bache's total for existing debt service of $831 million appears to be total debt service for fiscal years 1981 through 2000 exclusive of the debt service on the 1979 Bond Series B. See attached schedule from the "official statement" for the 1979 sale.

Only if the discount rate is reduced to 10%, representing arbitrage earnings of only 1.5% between state G.O. debt and other market instruments, does the present value cost of the refunding debt service roughly equal the present value cost of existing debt service.

	Present value of Debt Service ($ millions)	
	@ 10%	@ 11.5%
Existing	444.3	412.2
Refunding		
5 year maturity	443.9	427.4
8 year maturity	449.7	426.2

The point here is that as long as the state can earn arbitrage because of the lower tax-exempt rates on its bonds, the state profits by having more debt outstanding over a longer period of time. Shortening the state's debt structure is not of financial benefit.

If an improvement in the state's bond rating is desired by committing funds to pay off the bonds, the Nuveen approach described in the attached Memo of February 6, 1980 is a better alternative in that there is no shortening of the state's debt structure and thus no reduction in the arbitrage earnings that will accrue to the state.

attachments

MB:bf

Bache

Bache Halsey Stuart Shields Incorporated
Bache Plaza, 100 Gold Street
New York, N.Y. 10038 (212-791-3688)

Samuel L. Plaia
First Vice President

April 7, 1980

Mr. Peter A. Bushre
Deputy Commissioner of Revenue
State of Alaska
Department of Revenue
State Office Building
Juneau, Alaska

Re: Alaska Debt Reorganization

Dear Mr. Bushre:

Preparatory to making a detailed presentation to the State Bonding Commission relative to the above subject, we thought we should give you a summary of the two variations on the refunding program and some selected data on each.

For calculation purposes, we have chosen an 8 1/2% rate and one bond issue dated June 1, 1980, with principal retirements beginning June 1, 1981, and a final maturity of June 1, 1988. The other issue will be dated the same but have its final maturity on June 1, 1985.

Total debt service on the outstanding bonds is $863,523,203 and accrued debt service at June 1, 1980, will be $32,338,362 (will have been paid) leaving a net of $831,184,841 to be provided for by the escrowed proceeds of the refunding bonds plus the earnings of the escrowed funds.

The two refunding issues will comprise the following debt service schedules:

Issue "A" - 8 1/2%

Date	Principal	Interest	Total Debt Service
6.1981	$ 43,910,000	$ 40,424,300	$ 84,334,300
6.1982	47,645,000	36,691,950	84,336,950
6.1983	51,690,000	32,642,125	84,332,125
6.1984	56,085,000	28,248,475	84,333,475
6.1985	60,855,000	23,481,250	84,336,250
6.1986	66,025,000	18,308,575	84,333,575
6.1987	71,640,000	12,696,450	84,336,450
6.1988	77,730,000	6,607,050	84,337,050
Totals	$475,580,000	$199,100,175	$674,680,175

Gross Savings

Net Outstanding Debt Service	$831,184,841
Refunding Bonds Debt Service	674,680,175
Gross Savings	$156,504,666

Present Value Savings

Net Outstanding Debt Service Present Value @ 8.5%	$488,608,900
Refunding Debt Service Present Value @ 8.5%	-475,580,000
Present Value of Difference	$ 13,028,900

Issue "B" - 8 1/2%

Date	Principal	Interest	Total Debt Service
6.1981	$ 77,895,000	$ 39,233,875	$117,128,875
6.1982	84,520,000	32,612,800	117,132,800
6.1983	91,705,000	25,428,600	117,133,600
6.1984	99,500,000	17,633,675	117,133,675
6.1985	107,955,000	9,176,175	117,131,175
Totals	$461,575,000	$124,085,125	$585,660,125

Gross Savings

Net Outstanding Debt Service	$831,184,841
Refunding Bonds Debt Service	585,660,125
Gross Savings	$245,524,716

Present Value Savings

Net Outstanding Debt Service Present Value @ 8.5%	$488,608,900
Refunding Debt Service Present Value @ 8.5%	-461,575,000
Present Value of Difference	$ 27,033,900

The "A" issue plan drains an extra $167,894,416 over an eight-year period from the general funds of the State; this being over and above the existing debt service. In other words an additional average of $21,000,000 per year is committed to debt service.

The "B" issue plan drains an extra $266,017,994 over a five-year period from the State's general funds compared to outstanding debt service, or an average of in excess of $53,000,000 annually. Obviously, this latter plan is more "dramatic" and also produces an extra $14,000,000 in present value savings.

The merits of both plans can be discussed in detail at a formal presentation. At that presentation to the State Bond Committee, in a form as suggested by Anselm Staack, the escrow investment income will be demonstrated to provide the necessary funds to fully extinguish the State's outstanding debt.

We look forward to hearing from you as to when we might return to Juneau for a formal presentation. At that time, we will be accompanied by representatives of Haynes & Miller, special counsel on the debt reorganization.

Sincerely,

Samuel S. Plia

SLP:lh

cc: Mr. Anselm Staack, Department of Revenue
Rep. Hugh Malone, House of Representatives
Mr. Jim Rhode, Rep. Malone's Aide
Rep. Russ Meekins, House of Representatives
Mr. Mike Doogan, Rep. Meekins' Aide

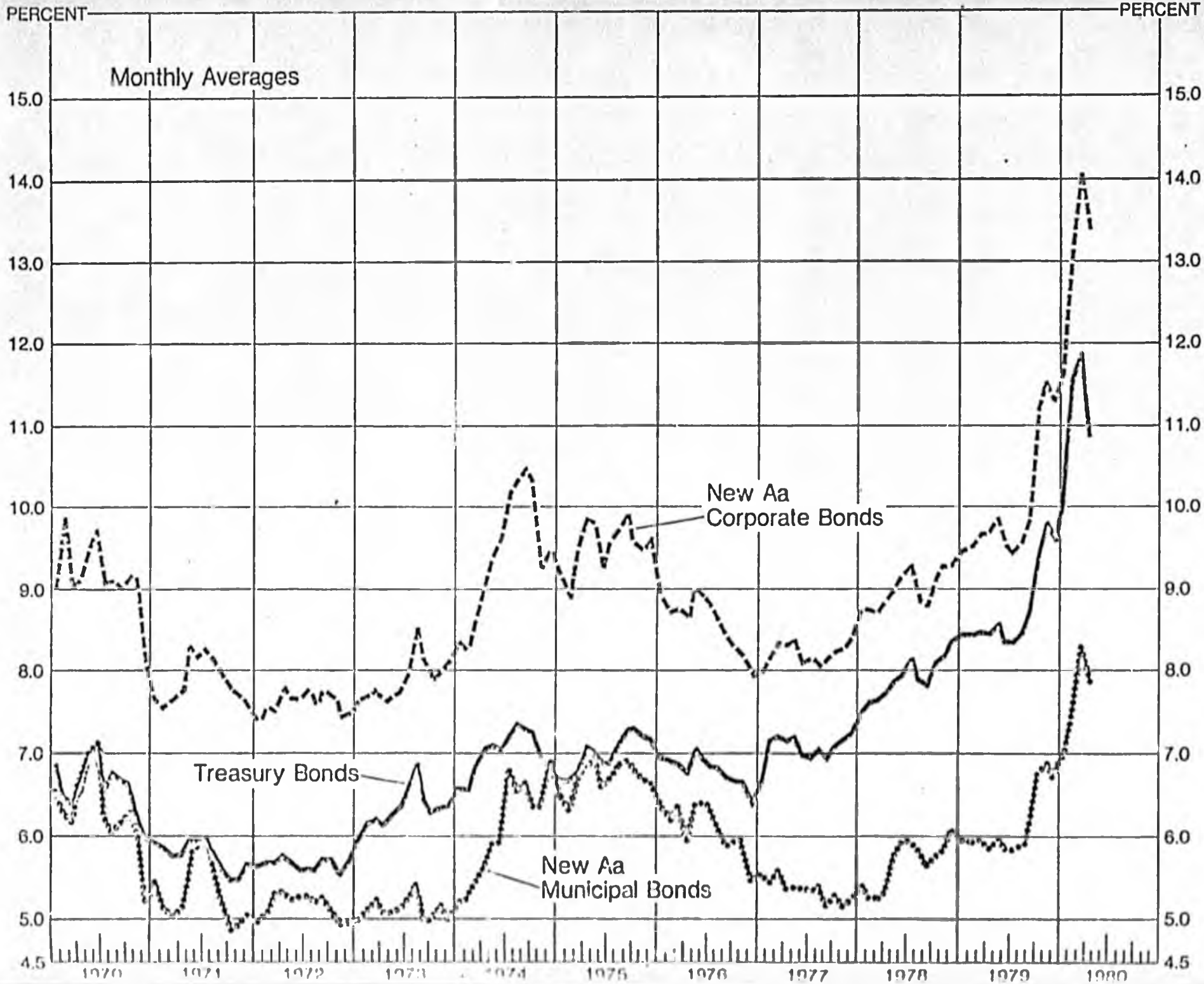
TABLE 1

INTEREST RATES ON BONDS
OF TWENTY YEAR OR GREATER MATURITIES

YEAR	Aa CORPORATE	Aa MUNICIPALS	DIFFERENCE
1979	9.77	6.00	3.77
1978	8.98	5.65	3.33
1977	8.20	5.34	2.86
1976	8.59	6.09	2.50
1975	9.51	6.70	2.81
		Five-year Average	3.05

Source: November 1979 Treasury Bulletin

AVERAGE YIELDS OF LONG-TERM TREASURY, CORPORATE, AND MUNICIPAL BONDS



DEBT SERVICE REQUIREMENTS

The annual debt service requirements on all outstanding State of Alaska general obligation bonds are shown below, together with the estimated annual debt service requirements on the State of . laska 1979 Bonds, Series B, assuming interest at 6%.

Fiscal Year Ending June 30	Debt Service on Outstanding Bonds			1979 Bonds Series B			Estimated Debt Service Total
	Principal	Interest	Total	Principal	Interest	Total	
1979	$ 25,710,000	$ 33,177,202	$ 58,887,202	$ —	$ —	$ —	$ 58,887,202
1980	38,780,000	33,825,273	72,605,273	6,000,000	3,600,000	9,600,000	82,205,273
1981	37,045,000	31,604,607	68,649,607	6,000,000	3,240,000	9,240,000	77,889,607
1982	40,265,000	29,432,781	69,697,781	6,000,000	2,880,000	8,880,000	78,577,781
1983	40,500,000	27,147,922	67,647,922	6,000,000	2,520,000	8,520,000	76,167,922
1984	40,945,000	24,894,165	65,839,165	6,000,000	2,160,000	8,160,000	73,999,165
1985	40,830,000	22,624,860	63,454,860	6,000,000	1,800,000	7,800,000	71,254,860
1986	42,235,000	20,340,763	62,575,763	6,000,000	1,440,000	7,440,000	70,015,763
1987	41,350,000	18,071,221	59,421,221	6,000,000	1,080,000	7,080,000	66,501,221
1988	41,665,000	15,815,505	57,480,505	6,000,000	720,000	6,720,000	64,200,505
1989	36,717,000	13,509,721	50,226,721	6,000,000	360,000	6,360,000	56,586,721
1990	28,550,000	11,581,590	40,131,590	-0-	-0-	-0-	40,131,590
1991	28,989,000	9,958,430	38,947,430	-0-	-0-	-0-	38,947,430
1992	29,849,000	8,303,425	38,152,425	-0-	-0-	-0-	38,152,425
1993	25,063,000	6,656,987	31,719,987	-0-	-0-	-0-	31,719,987
1994	20,598,000	5,219,975	25,817,975	-0-	-0-	-0-	25,817,975
1995	19,096,000	3,987,625	23,083,625	-0-	-0-	-0-	23,083,625
1996	18,610,000	2,864,412	21,474,412	-0-	-0-	-0-	21,474,412
1997	14,865,000	1,800,419	16,665,419	-0-	-0-	-0-	16,665,419
1998	13,380,000	1,008,194	14,388,194	-0-	-0-	-0-	14,388,194
1999	8,640,000	368,931	9,008,931	-0-	-0-	-0-	9,008,931
2000	2,531,000	69,081	2,600,081	-0-	-0-	-0-	2,600,081
Total	$636,213,000	$322,263,069	$958,476,069	$60,000,000	$19,800,000	$79,800,000	$1,038,276,069

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FINANCE DIVISION
POUCH WF–STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

MEMORANDUM

TO: Hon. Leo Schaeffer
House Finance Committee

DATE: February 6, 1980

FROM: Milt Barker MB
Fiscal Analyst

SUBJ: Paying off State Bonds

Outstanding state general obligation bonds of $670,503,000 could be paid off with an appropriation of $546 million according to item 2 of the attached letter from John Nuveen & Co., the state's financial advisor.

The prefunding approach suggested by Nuveen would not cost the state any lost interest as would paying off the bonds immediately. In other words, the state hangs on to its cash, invests it at taxable rates, say 10%, while continuing to pay off bonds at only 6% or so, thus earning a net of 4% interest which it would not earn if the bonds were simply paid off.

Yet, the prefunding approach does assure bondholders of being paid off. This has two effects. One, existing bonds would immediately get improved ratings; the state would not benefit on this account but the bondholders would as there would be an immediate increase in the value of their bonds should they wish to sell them. Sterling Gallagher of Nuveen & Co. has suggested the state try to capture some of the increase in bond prices that would occur by making the prefunding contingent on bondholders turning in their existing bonds in exchange for new bonds with a lesser coupon or interest rate. We could split the difference of the price increase with them.

The second effect of prefunding would be to improve the ratings for any future bonds the state issues. Here, the state would get the full benefit of the effect. However, as the attached tables indicate the maximum reduction in the interest rates would normally be no more than thirty basis points or .3% This is based on the state going from its present A1 or A+ rating to Aaa. On $100 million of bonds with an average 5 year maturity, this would thus save the state at most $1,980,000 in interest costs over the life of the bonds.

Sterling Gallagher has also suggested that prefunding only the later maturities of the bonds could have the same effect on the interest cost to the state of future bond issues. In other words, the state's revenues on Prudhoe Bay production in the near-term would provide maximum security for bonds while prefunding

would serve the same function after Prudhoe begins to decline. Mr. Gallagher estimates only $100 million in prefunding would be required to prefund the tail end of outstanding state GOB's.

If you wish to seriously consider an appropriation for prefunding, we should request a legal opinion from state bond counsel as to whether such prefunding would cause any IRS arbitrage problems. In other words, the guarantee fund established by prefunding could result in the IRS finding that the prefunded bonds are arbitrage bonds and taking away the federal income tax exemption allowed on interest received by the bondholders. This would have no direct cost to the state, but the bondholders would undoubtedly prefer that prefunding not be done in that case.

In the attached letter from Orrick, Herrington, the state's bond counsel, a preliminary judgment is made that "establishment of the fund (prefunding account) probably could not affect the tax status of interest on bonds issued before the fund is established".

MB:kw

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MB:kw

nuveen
John Nuveen & Co. Incorporated 209 South LaSalle Street, Chicago, Illinois 60604 (312) 621-3000

January 21, 1980

Milt Barker
Fiscal Analyst
Alaska State Legislature
Budget and Audit Committee
Finance Division
Pouch WF - State Capitol
Juneau, Alaska 99811

Dear Milt:

This letter responds to the questions posed in your letter of January 2 regarding policies affecting management of the State's debt.

1. Should the State bond or pay cash for future capital improvements?

In today's tax-exempt market, Alaska can borrow funds at interest rates ranging from 6.20% to 7.1% depending on maturities. Currently, the State can invest surplus revenues in a variety of high quality money market instruments at yields of 10 to 13% or more. So long as Alaska continues to pursue a policy of prudent growth in its outstanding indebtedness, it can and should continue to benefit from the favorable interest rate differential that exists between the rate at which it borrows and the rate at which it can invest. The credit standing of the State is not so much affected by the means chosen to finance capital improvements as it would be by the magnitude of capital improvement programs in relation to the State's long-term sources of revenue.

2. Could retirement of all or part of Alaska's outstanding indebtedness improve its credit rating?

Alaska's outstanding general obligation debt of approximately $670-million could be prefunded by the creation of a special investment account, the principal and interest of which would be used exclusively to meet interest and principal payments on the debt. A deposit of $546-million to be invested in appropriate U.S. Government Securities at today's market yields would generate sufficient cash to meet principal and interest on the $670-million outstanding general obligation debt. This deposit is $124-million less than the cost of simply paying off the debt. Whether the State prefunds the debt or

simply retains a portion of the surplus in high quality, liquid investments the financial result is the same, but the transaction will have a favorable impact on the State's rating. But should the debt remain outstanding and the surplus in the general fund be dissipated then the financial condition of the State will be less favorable than it would have been had the debt been prefunded. In short, prefunding is a means of committing the State to a conservative financial policy and accomplishes this objective without sacrificing the arbitrage presently available to it.

The ultimate impact on the State's credit ratings will depend upon what steps are subsequently taken to control the renewed growth of State debt. Zero debt is impressive, but the rating services will want to know how long the State will remain in this condition and what future debt issuance is planned.

3. Is there a more efficient way to improve on credit ratings than paying off existing debts such as municipal bond insurance, the G.O. debt guarantee fund (mentioned in our letter of October 15th) or some other means?

Municipal bond insurance is generally not available for general obligation issues particularly, of the size that one might expect would be required for Alaska's general obligation debt. A guarantee fund is an attractive idea but, if the State creates a contractual right to the guarantee fund in favor of the bondholders the plan will violate IRS rules and regulations. Without a contractual right to the guarantee, the guarantee is significantly less valuable to the bondholder.

4. Are there any advantages to be gained by the State's prepaying or funding municipal general obligation debt?

The State, through state aid to education, currently pays approximately 80% of the debt service on locally issued school obligations. School debt, in turn, accounts for the largest single component of local general obligation debt. In addition, the locally issued school debt must pay higher rates on the tax-exempt market because the issuers carry a lower rating and are less well known than the State of Alaska itself. Advance refunding these obligations or prefunding them from State surplus would generate benefits similar to

those to be derived from a prefunding of the State's general obligation debt. In addition, the credit standing and debt capacity of local governments in Alaska would be substantially improved. During my visit to Juneau this week, we will assemble the data necessary to provide a preliminary estimate of the cost and potential financial advantage to be derived from a prefunding of the outstanding school debt.

I look forward to an opportunity to meet with you later this week.

Sincerely,

Anthony T. Dean
Assistant Vice President

ATD:lw

TABLE 3

DIFFERENCES BETWEEN ANNUAL AVERAGES OF YIELDS ON 20-YEAR, GENERAL OBLIGATION BONDS, BY RATING
(Basis Points)

	Differential Between Grades		
Year	Aa minus Aaa	A minus Aaa	Baa minus Aaa
1945	25	58	79
1950	19	54	75
1955	14	47	96
1956	21	50	99
1957	22	65	105
1958	22	59	92
1959	14	50	81
1960	16	51	82
1961	14	34	61
1962	11	25	52
1963	8	20	43
1964	7	19	42
1965	7	19	40
1966	9	25	49
1967	10	26	55
1968	10	31	63
1969	13	37	42
1970	26	47	63
1971	28	53	67
1972	15	34	52

Source: Moody's Series: Annual average of monthly differences.

TABLE 4

INTEREST COST DIFFERENTIALS AMONG RATING CLASSES
(Basis Points)

	Study (Period)		
Differential Between Grades	Phelps[1] (1957–58)	Kessel[2] (1959–67)	Peterson[3] (1964–1971)
Aaa-Aa	21	15	13
Aa-A	33	21	19
A-Baa	33	25	30
Baa-Ba	—	—	35
Item:			
Aaa-Baa	87	61	62

[1]Charlotte DeMoss Phelps, "The Impact of Tightening Credit on Municipal Capital Expenditures in the United States," *Yale Economic Essays*, Vol. 1 (Fall 1961) p. 430. In Phelps's equation, interest cost differentials between rating classes vary in proportion to the Federal Government's long-term bond rate. The figures shown were calculated upon the assumption that the long-term bond rate was 3 percent.

[2]Reuben A. Kessel, "A Study of the Effects of Competition in the Tax-Exempt Bond Market," *Journal of Political Economy* (Sept. 1971). Instead of using the net interest cost of the issue as the dependent variable in his equation, Kessel used the difference between the twenty-year offering yield and "Bond a Yield of 100, Standard & Poor's ratings were used instead of Moody's. Kessel's data sample included more than 9000 bond issues that appeared between 1959 and 1967, with virtually complete coverage of competitively offered issues that were larger than $1,000,000.

[3]John E. Peterson, "A Note on the Determinants of Municipal Bond Net Interest Cost" (unpublished), 1972. See summary of study at end of this chapter.

SOURCE: The Rating Game, John E. Petersen, Kraus Reprint, New York, 1974

OFFRICK, HERRINGTON, ROWLEY & SUTCLIFFE
COUNSELORS AND ATTORNEYS AT LAW
ELEVENTH FLOOR
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SAN FRANCISCO, CALIFORNIA 94111
TELEPHONE (415) 392-1122
CABLE "OFFRICK"
TELEX 34-0873

October 30, 1979

Mr. J. H. Hogan
Director
Legislative Finance Division
State of Alaska
Pouch WF, State Capitol
Juneau, Alaska 99811

Dear Mr. Hogan:

In response to the questions in your letter of October 15:

1. This question will need considerably more elaboration before I can answer it with any reasonable assurance. I am not sure whether the suggested fund is to be used to guaranty debt service on general obligation bonds of the State or debt service on general obligation bonds of local governments in the State. I do not know the source of the moneys to be put into the fund, but I assume that those moneys will not come from any proceeds of bonds. On that basis, I do not think that a proper interpretation of the Internal Revenue Code would result in any arbitrage yield restrictions on the fund, because the applicable Code provision relates to the use of the proceeds of bonds.

However, the Internal Revenue Service has stretched and distorted the term "proceeds" in the Treasury Regulations and rulings thereunder. The result appears to be that, if the State deposits moneys from any source into a fund to be used to pay the debt service on general obligation bonds of the State or on general obligation bonds of local governments, or which fund is pledged as security for any such debt service, the Internal Revenue Service would consider the fund to be "proceeds" subject to arbitrage yield restrictions. This is indicated by Rev. Rul. 78-302 and Rev. Rul. 78-348, a copy of which is enclosed.

Even on this basis, the establishment of the fund probably could not affect the tax status of interest on bonds issued before the fund is established or before it was expected

to be established. Moreover, if the amount in the fund considered allocable to bonds hereafter issued, together with any other amounts chargeable under arbitrage rules to the "minor portion" of the proceeds of those bonds which is not subject to arbitrage limitations, do not aggregate more than 15% of the face amount of those bonds, the investment of the fund should not be subject to arbitrage yield restrictions.

The foregoing is all subject to further qualifications and complexities, but I think there is no point in pursuing them here. If you can give me a complete description of the workings of the proposed fund, I will try to give you a more definitive answer as to the federal income tax results. If there is any special need or desire for such a fund, I might suggest requesting a ruling from the Internal Revenue Service as to their treatment of the specific facts, and possibly an appeal from that ruling to the Tax Court in the quite possible event that we consider the ruling to be contrary to the law.

In any event, I am somewhat mystified as to the purpose of or need for the proposed fund, particularly if it is to relate to general obligation bonds of the State.

2. The issuance of bonds by the State in the presence of a "massive general fund surplus" should not result in taxability of the interest on the bonds, and it surely would not. This conclusion appears to be supported by Rev. Rul. 78-302 (enclosed). However, your phrasing of the question in terms of "a possible arbitrage problem with the IRS" prompts me to note that the IRS has gone so far in its pursuit of "arbitrage" that I would not be entirely surprised at anything that organization might contend.

In connection with all of the foregoing, I urge you and others in the State government to support the bill sponsored by the Municipal Finance Officers Association and about to be introduced in Congress to cure problems like these and to prevent further excesses.

Sincerely yours,

C. Richard Walker

Enclosure

STATE OF ALASKA

THE LEGISLATURE

BUDGET AND AUDIT COMMITTEE

FINANCE DIVISION
POUCH WF–STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

M E M O R A N D U M

DATE: January 18, 1980

TO: Honorable Terry Gardiner, Speaker
Alaska State House of Representatives

FROM: Milt Barker, MB Fiscal Analyst
Legislative Finance Division

SUBJ. Bonding Policy

This Memo is in response to a number of questions you posed regarding bonding and capital projects, some of which were addressed by Jay Hogan in his November 14, 1979 Memo to you (attached). The remaining questions and my comments follow.

1. WHAT ARE THE PRO'S AND CON'S OF PAYING CASH OR BONDING FOR CAPITAL IMPROVEMENTS?

Pragmatism and Equity

Most state and municipal governments most of the time do not have the luxury of this choice; borrowing is often the only pragmatic and equitable way of funding capital improvements.

Taxing for Cash

Most governments which would attempt to fund major capital spending for the first time by cash would be compelled to raise taxes, always a decidedly unpopular move, or perhaps reduce operating expenditures. Certainly the question presumes that if Alaska were to pay cash it would do so from the large surpluses it is enjoying, rather than a tax increase or budget reductions. So, unless a decision is made to pay over the entire surplus to all Alaskans, the option of cash for capital projects would be viable.

Accumulating Cash

Project Delay

Conceivably, a government could pay cash by taking a rather small additional tax bite each year and accumulating it until sufficient funds were available. However, this means postponing the project until the cash is in hand, whereas borrowing permits immediate enjoyment of the project's benefits.

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This attraction of borrowing is not merely a desire for early realization of project benefits but may involve pragmatic considerations as well; certain types of projects such as schools may be needed now but not necessarily twenty years from now. Fortunately for Alaska, paying cash need not mean delay.

It is not unknown for governments to accumulate cash for projects. Where project cost is relatively small paying cash will not result in a large tax bite or undue delay as, for example, when Juneau financed its swimming pool and ski area from sales tax surcharges. Or cash can be an option if politically acceptable ways of generating relatively large cash flows can be found, as Texas has in using royalty proceeds for university construction.

Of course, Texas' method involves a non-tax source of funds. It could be argued that even without its large surplus, Alaska is obligated to pay cash for a sizable amount of projects because of a situation similar to Texas'. That is, AS 37.05.-157 creates a "reserve for capital outlay" account in the general fund while AS 37.05.158 creates a "reserve for energy facilities development" account which are to receive respective allocations of 25% and 5% of mineral bonuses, rentals and royalties. This would be respectively $268.4 million and $53.6 million for FY 81 at a minimum based on current oil prices, and could arguably be increased since no funding of capital projects has been designated as coming from these two accounts since their inception on October 15, 1978.

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Equity considerations normally favor bonding, the more so that bond payments are scheduled over the life of the project so that those who enjoy its benefits are the ones to pay for the project. If a government were to pay cash for a capital improvement program that varied significantly in amount from year to year, those arriving just after major improvements were made would be getting a free ride, while those leaving just after would be paying for something for nothing.

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As well as for transiency, there is an intergenerational equity problem, since older persons may pay for but not live to enjoy the benefits of a cash-funded capital improvement, while many younger persons not yet paying taxes will nevertheless be around to enjoy the benefits.

To the extent capital budgets were constant in real terms, there would be no equity problems. Also, the equity considerations for transients would tend to be ameliorated if other governments were funding capital improvement programs with cash.

Oil Revenues & Equity

This normal equity picture is somewhat different from Alaska's situation. Since so much of the state's wealth comes from oil revenues, very little of any cash paid for present capital projects would come from the ordinary taxpayer's pocket. In the future, when the oil revenue is gone and in the absence of windfall revenues on the same scale from some other source, projects funded by bonding might very well be paid out of taxpayers pockets.

Of course, this is not inconsistent with the idea that the users pay; it's just that the early users get off relatively easy. This is appealing to many Alaskans who because of high transiency feel no particular allegiance to the state's future constituents,and also wish to reward the "pioneers" who have been here a long time. On the other hand, those who expect themselves or their children to be here for the duration, which probably includes most natives, may have more concern for the possible tax burdens on the citizenry in the future. It may be though that with ever-brightening revenue projections, the day of significant tax burdens on the Alaskan citizenry is receding far enough into the future to be of uncertain probability or minimal concern.

Balancing all these equity considerations, as well as the other points considered so far might lead to funding a significant portion of capital projects with cash as well as bonding for the remainder so that future users do pay for something.

Bond Maturity

However, the state's method of bonding is more equivalent to the cash proposition in regards to equity considerations; most debt service for current projects will be funded by oil revenues, not taxpayers. This is because the maturities on most recent debt issues of the state have been scheduled before the late 1980's when Prudhoe production is expected to decline (this is reflected in the attached debt service schedule from the "1979 Annual Financial Report"). Early maturities have been scheduled in an effort to improve the state's bond ratings; the financial community will see a more or less assured revenue stream from Prudhoe sufficient to fund debt service.

Bonding with early maturities both secures better bond ratings and helps balance out equity between current and future Alaskans. Of course, cash for projects would enhance bond ratings all the more. Thus, cash or bonding with early maturities for the major portion of capital projects would seem equally desirable from the standpoint of pragmatism and equity.

Arbitrage

Turning to financial considerations though, bonding is to be preferred to paying cash because of interest arbitrage. That is, instead of paying cash, the state could invest its surplus at taxable market rates of interest and use these invested funds and earnings to pay off bonds issued at lower rates of tax-exempt interest, and pocket the difference in interest rates.

Table 1 shows that the average spread in interest rates between Aa rated long-term corporate and municipal bonds averaged 2.5% to 3.77% during the last five years, with a recent differential of 4.46% for October 1979. Chart 1 traces these rates back to 1969.

As Table 2 shows, rates for ten year maturities which typify Alaskan issues are about .5% lower than the twenty year maturities.[1]

Also, Alaskan bonds are rated A1 by Moody's and A+ by Standard and Poor's, thus selling at about .1% higher than the Aa bonds. All told, this means a spread in rates between 3% and 5% between Alaskan bonds and the market. The attached December 31, 1979 letter from John Nuveen & Co., the state's financial advisor, corroborates this information.

A 3% minimum spread or 4% average spread would mean the state could earn respectively $19.2 million or $26.4 million in interest arbitrage over the life of $100 million in bonds issued with a five year average maturity. Presumably, active portfolio management can improve arbitrage earnings beyond the average spread.

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The amount of arbitrage could also be increased by issuing bonds with longer maturities. A longer payback means we hang onto our cash longer and pocket the difference in earnings longer; it means greater outstanding bonded indebtedness in total.

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[1]This lesser rate for shorter maturities is partially a reduction in risk premium, since a lender's funds are not exposed as long, as well as a reduction in the liquidity premium that is largely due to the greater presence of banks in the short-term municipals market. Banks have to balance short-term liabilities (checking and passbook savings) with short-term assets.

As mentioned previously, there is normally an interest penalty of .5% for twenty year maturities in comparison with ten year maturities. In Alaska's case, the penalty would be even greater because our credit is really based on the somewhat shorter period of prolific Prudhoe production. Assuming that the amount of indebtedness projected to be outstanding in the post-Prudhoe period is not so large as to make a bond unmarketable, the potential arbitrage on a $100 million issue with an average life of ten years would be $28.8 million or $43.2 million respectively for spreads of only 2% minimum or 3% on average. Certainly, there has to be room for some lengthening of Alaska maturities, either in new issues or in refinancing of old ones, based on the doubling of world oil prices in the last six months and the decontrol of Prudhoe oil which began January 1980 -- if there is also restraint in spending decisions in relation to the revenues that will be available, sufficiently so to impress the bond market.

Effects on Spending

In fact, the postulated arbitrage gains may be completely hypothetical depending on the effects bonding has on spending and investment decisions of the state.

It may be argued that the bonding method assures greater political consensus, if not restraint, on the projects to be undertaken since referendums are required. Some feel that capital spending is greater under the bonding process than through appropriations because of the need to regionally balance bond proposals to assure voter approval. In the last three general elections, four out of thirty bond propositions have failed, counting the new capital bond issue.

A possible greater inducement to increased spending through the bonding process is the amount of cash that is freed up. Instead of being invested and earning arbitrage it may be appropriated as well, for operating budgets if not capital -- if not in the current session, then the next. On the other hand, cash for capital projects has as one of its main attractions the attribute of being a brake on the operating budget, if not the capital budget. In the case of capital, cash for projects would preserve unused debt capacity that could be "banked" for use in future sessions. Also, an enunciated policy of cash for projects may seem to be an implied endorsement of spending all the cash on capital projects.

The choice of the method of financing may not be the most critical factor affecting the level of expenditures. Financing choices cannot substitute for policy determinations as to what the expenditure level should be nor for a good capital and

operating budgeting process to inform such policy decisions. Certainly some particular expenditures will have benefits outweighing any arbitrage earnings.

Other Opportunity Costs of Cash for Projects

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To the extent cash left on the table from bonding for capital projects is used for cash payments to individuals or investment in other than the money and bond markets, the arbitrage argument may still be valid.

Certainly, if an individual receives a cash payment, he can invest it at the higher taxable market rates and thus earn the arbitrage on his own account. Of course, he may spend it instead; though presumably he is judging his present consumption to have greater utility than possible future consumption augmented even at market rates of interest.

Where this alternative really falls short in relation to state arbitrage with payment of the earnings to individuals is the federal tax bite that would be taken out of principal if it is given to individuals. Instead, the money could be loaned to individuals at the tax-exempt cost to the state and in that way retain the arbitrage argument's validity; this, of course, removes the possibility of expenditure of the principal by individuals.

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The arbitrage argument can certainly be enhanced if the state or individuals with state loans can make investments which yield even greater returns than the money and bond markets. If these are development projects in Alaska, there may be other benefits besides a higher rate of return. The state's fiscal position may be benefited, its bond ratings possibly improved, etc., from the expanded tax base if inmigration is not pronounced or state budgets do not swell as a result. Incomes and employment will increase, hopefully for the long-run if the project is economically viable. Of course, there is always a danger that the state will be providing consumption disguised as investment.

Bonding During Periods of High Interest Rates

One final consideration as to whether to bond or pay cash would be the possibility of avoiding bonding during periods of high interest rates. Referring to Chart 1 again, one can see that municipal bonds' interest rates have varied from 5% to 7% during the 1970's. Thus, paying cash would save at most 2% based on recent experience, while foregoing the opportunity to earn 3% to 4% in arbitrage. Moreover, careful timing of actual bond sales by the administration may help

keep interest costs down. Lags in the political process would make it difficult to attempt to take advantage of swings in interest rates from the legislative end of things anyway.

Revenue Bonds

The discussion heretofore of cash vs. bonding as a financing method for capital projects is for the most part applicable to general obligation and revenue bonds. However, paying cash or using general obligation bonds where a revenue bond can be used results in a shifting of the costs of benefits for a particular group from that group to the general populace and is usually judged to be unacceptable.

If the equity considerations are not overriding, general obligation bonds are certainly cheaper than revenue bonds; recent sales have had a .7% to 1.5% advantage over revenue bonds. Of course, siginficant increases in indebtedness on account of this would eventually have adverse effects on interest costs on all new GOB's. Regardless of equity considerations, revenue bonds would still offer arbitrage opportunities whether the cash alternative has state funds or user income as its source. Any shift away from revenue bonding might necessitate review of the policy for user charges and accrued surpluses.

2. WHAT ARE THE PRO'S AND CON'S OF PAYING OFF OUR PRESENT DEBT SERVICE?

Equity — Given the short maturity structure of our present debt, the equity situation would not be much changed by paying it off since either way it appears that it will be oil revenues, not individual taxpayer dollars, that will be used to pay it off.

Arbitrage — By not paying it off, the state can in theory continue to earn arbitrage. However, this depends on to what alternative use the potential bond redemption funds are put as discussed under question 1; if they are spent on budget items there is no arbitrage.

Effect on Bond Ratings — As discussed in the John Nuveen & Co. letter and also the attached April 3, 1978 White Weld letter, Alaska compares unfavorably against the traditional yardsticks used to rate bonds, i.e. debt per capita, debt as a percent of personal income, etc. Paying off our debt would dramatically improve our statistics, including the one deemed most relevant in our case, debt service as a percent of general fund revenues.

However, this action would do nothing to overcome the lack of diversification in the economy and the almost complete dependence of state revenues on a single source, Prudhoe Bay. Besides, there is no assurance that in following years bond authorizations might not be sought which would put indebtedness back at traditional levels. Thus, paying off existing indebtedness might lessen interest costs on future issues and possibly improve the state's bond ratings if the redemption is seen as part of a long-range policy of fiscal restraint and convincingly documented in long-range capital budget plans.

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However, as indicated in Tables 3 and 4, the maximum reduction in interest costs should the state be upgraded to the highest rating (Aaa) would normally be no more than thirty basis points or .3%. This would be one-tenth the amount that could be earned, 3%, in arbitrage if the funds were invested instead of used to pay off the bonds. Thus, paying off $680 million in outstanding debt would require the issuance of $6.8 billion in new debt for interest savings to make up the lost arbitrage. Undoubtedly, our interest differential would be erased long before that level of indebtedness was reached. Although some improvement could also be expected in rates and ratings for other Alaska municipals which track somewhat with the state, this method of paying off indebtedness would still not be an attractive investment, but would be a method of budgetary restraint.

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An alternative that would possibly be a good investment though not absorb as much funds is to pay off the tail end of the state's debt service, i.e. the longer maturity bonds. Sterling Gallagher of Nuveen & Co. estimates that possibly $100 million so spent would have almost the same impact as paying off all indebtedness.

3. WHAT ARE THE PRO'S AND CON'S OF PAYING OFF PRESENT MUNICIPAL DEBT?

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Considering the state as a whole, the arguments here are the same as for question 2. The potential arbitrage from retaining indebtedness is almost as great since the Municipal Bond Bank Authority carries an A rating, only slightly below the state's. Of course, looking at it solely from the municipalities point of view, payoff is desirable since the cash comes from the state, not the municipality. This would be an expenditure from the state's point of view, whereas paying off its own liabilities does not change its net worth.

Interest Costs

The improvement in interest costs should be about the same magnitude as that for the state, thus putting the amount of new debt required to realize savings in interests costs equivalent to the foregone arbitrage at odds with the idea of reduced levels of indebtedness to secure better interest rates. Again though, paying off the tail end maturities might be a good investment.

Equity

Any such program to payoff municipal debt would not benefit individuals in unorganized areas or municipalities with no debt. If the proposal is a blanket payoff of 100% of outstanding debt, some municipalities will benefit more than others, even on a per capita basis. "Alaska Taxable 1979" indicates that municipal debt per capita varies from $120 to $26,751. Payoff of equal amounts on a per capital basis would be more equitable than payoff of all or a percentage of total indebtedness.

Municipal Spending

There would be no assurance that municipalities would pass on the savings in debt service to taxpayers rather than increasing other budget expenditures. Direct payments or credits to taxpayers might be superior in this regard. If a municipal debt redemption program is to be considered, it might also be appropriate to consider ceilings on municipal indebtedness.

4. AT WHAT LEVEL SHOULD WE BOND FOR CAPITAL IMPROVEMENTS? BY WHAT LOGIC?

Recommended Levels

The John Nuveen & Co. letter suggests $175 to $225 million per year, which would be $350 to $450 million in authorizations this session. The Governor reputedly will insist on no more that $300 million in authorizations this session because of concerns that the rising level of debt service will leave little room for increases in other operating items within his long-range budget growth ceilings. The possibility of stretching out maturities based on improved revenue projections might permit the Governor to increase debt and debt service and still meet his budget growth objectives. Authorizations in the 1978 session totaled $275 million exclusive of the $966 million new capital bond issue.

Standards

According to the White Weld memo, debt service could be as high as 16% of general fund revenue before the state would experience significant interest penalties. In the judgment of John E. Petersen, Director of the Government Finance Research Center of the Municipal Finance Officers Association (MFOA), as quoted in his book, The Rating Game, "a ratio of ten percent is felt to be the separation between better and lesser creditworthiness, fifteen percent warrants concern, and it should never exceed twenty to twenty-five percent."

Potential Levels

Ten percent of the $3,052.2 million estimated as FY 80 unrestricted revenue in the Department of Revenue's "Revenue Sources" would be $300 million in debt service. $300 million a year in debt service over a ten year period would amortize $2,252.3 million at 6% interest. Thus, the state could theoretically increase its current total indebtedness of $680 million several times over, this session, if future bonding were to be cut back considerably.

Market Limits

In reality, the market limits are more likely determined "by intangible, psychological, perhaps even irrational factors and attitudes" according to the Nuveen letter, which further states that "no one can accurately predict what level of debt will trigger a reaction leading to a negative shift in market sentiment". (Should it be desired Legislative Finance can readily run long-range computer projections of debt service in relation to revenues based on a given pattern of bond authorizations.)

It appears there are no ready-made rules for the level of debt; by the above standard the state has tremendous unused capacity -- by other standards such as debt per capita there is no excess capacity. The state can always find the limits by testing the water. Needless to say, budgetary restraint and sound management of the state's portfolio will increase its debt capacity in relation to a given level of revenues.

UPDATE

5. WHAT IS OUR PRESENT MUNICIPAL DEBT?

As of July 1, 1979 the general obligation bonded debt of municipalities was $768,508,903.

ADDENDUM

You may note that in our letter to Nuveen we wondered if a guarantee fund for general obligation bonds would improve interest costs or ratings. Nuveen felt it would raise more questions than it would be worth.

STATE OF ALASKA

GENERAL OBLIGATION BONDS
Debt Service by Fiscal Years
June 30, 1979

Fiscal Year	Principal	Interest	Total Debt Service To Maturity	Redemption Reserve	Net Cash Required By Fiscal Year
1959	$	$ 65,635.00	$ 65,635.00	$	$ 65,635.00
1960	30,000.00	99,212.69	129,212.69		129,212.69
1961	93,000.00	90,650.75	183,650.75		183,650.75
1962	311,000.00	737,998.50	1,048,998.50		1,048,998.50
1963	566,000.00	856,632.00	1,422,632.00		1,422,632.00
1964	587,000.00	1,299,202.50	1,886,202.50		1,886,202.50
1965	877,000.00	1,353,038.00	2,230,038.00		2,230,038.00
1966	1,202,000.00	1,307,483.50	2,509,483.50		2,509,483.50
1967	1,248,000.00	1,477,588.50	2,725,588.50		2,725,588.50
1968	1,778,000.00	2,877,017.05	4,655,017.05		4,655,017.05
1969	3,761,000.00	4,058,305.75	7,819,305.75	9,000.00	7,810,305.75
1970	3,770,000.00	5,535,721.95	9,305,721.95	85.00	9,305,636.95
1971	7,971,000.00	7,330,703.05	15,301,703.05		15,301,703.05
1972	9,705,000.00	9,793,394.20	19,498,394.20		19,498,394.20
1973	11,365,000.00	12,146,937.95	23,511,937.95		23,511,937.95
1974	12,352,000.00	14,029,974.80	26,381,974.80		26,381,974.80
1975	13,018,000.00	17,126,040.40	30,144,040.40		30,144,040.40
1976	12,500,000.00	22,615,109.85	35,115,109.85	10,924.13	35,104,185.72
1977	12,915,000.00	28,968,934.75	41,883,934.75	24,689.87	41,859,244.88
1978	18,795,000.00	31,233,034.75	50,028,034.75	92,852.08	49,935,182.67
1979	25,710,000.00	34,314,202.90	60,024,202.90	228,019.75	59,796,183.15
1980	38,790,000.00	36,292,273.50	75,072,273.50	1,276,687.99	73,795,585.51
1981	43,045,000.00	34,743,607.70	77,788,607.70		77,788,607.70
1982	46,265,000.00	32,187,781.50	78,452,781.50		78,452,781.50
1983	46,500,000.00	29,531,922.80	76,031,922.80		76,031,922.80
1984	46,945,000.00	26,922,165.35	73,867,165.35		73,867,165.35
1985	46,830,000.00	24,322,860.40	71,152,860.40		71,152,860.40
1986	48,235,000.00	21,714,763.60	69,949,763.60		69,949,763.60
1987	47,350,000.00	19,118,221.25	66,468,221.25	3,050.00	66,465,171.25
1988	47,665,000.00	16,532,505.00	64,197,505.00	66,950.00	64,130,555.00

GENERAL OBLIGATION BONDS
Debt Service by Fiscal Years
June 30, 1979

Fiscal Year	Principal	Interest	Total Debt Service To Maturity	Redemption Reserve	Net Cash Required By Fiscal Year
1989	42,717,000.00	13,894,721.25	56,611,721.25		56,611,721.25
1990	34,550,000.00	11,746,590.00	46,296,590.00		46,296,590.00
1991	28,989,000.00	9,958,430.00	38,947,430.00		38,947,430.00
1992	29,849,000.00	8,303,425.00	38,152,425.00		38,152,425.00
1993	25,063,000.00	6,656,987.50	31,719,987.50		31,719,987.50
1994	20,598,000.00	5,219,975.00	25,817,975.00		25,817,975.00
1995	19,096,000.00	3,987,625.00	23,083,625.00		23,083,625.00
1996	18,610,000.00	2,864,412.50	21,474,412.50		21,474,412.50
1997	14,865,000.00	1,800,419.75	16,665,419.75		16,665,419.75
1998	13,380,000.00	1,008,194.75	14,388,194.75		14,388,194.75
1999	$ 8,640,000.00	$ 368,931.25	$ 9,008,931.25	$	$ 9,008,931.25
2000	2,531,000.00	69,081.25	2,600,081.25		2,600,081.25
Totals	$809,057,000.00	$504,561,713.19	$1,313,618,713.19	$1,712,258.82	$1,311,906,454.37
Paid as of 6/30/79	138,554,000.00	197,316,818.84	335,870,818.84	365,485.83	335,505,333.01
Remaining Liability as of 6/30/79 (St. #67)	$670,503,000.00	$307,244,894.35	$ 977,747,894.35	$1,346,772.99	$ 976,401,121.36

TABLE 1

INTEREST RATES ON BONDS
OF TWENTY YEAR OR GREATER MATURITIES

YEAR	Aa CORPORATE	Aa MUNICIPALS	DIFFERENCE
1979	9.77	6.00	3.77
1978	8.98	5.65	3.33
1977	8.20	5.34	2.86
1976	8.59	6.09	2.50
1975	9.51	6.70	2.81
		Five-year Average	3.05

Source: November 1979 Treasury Bulletin

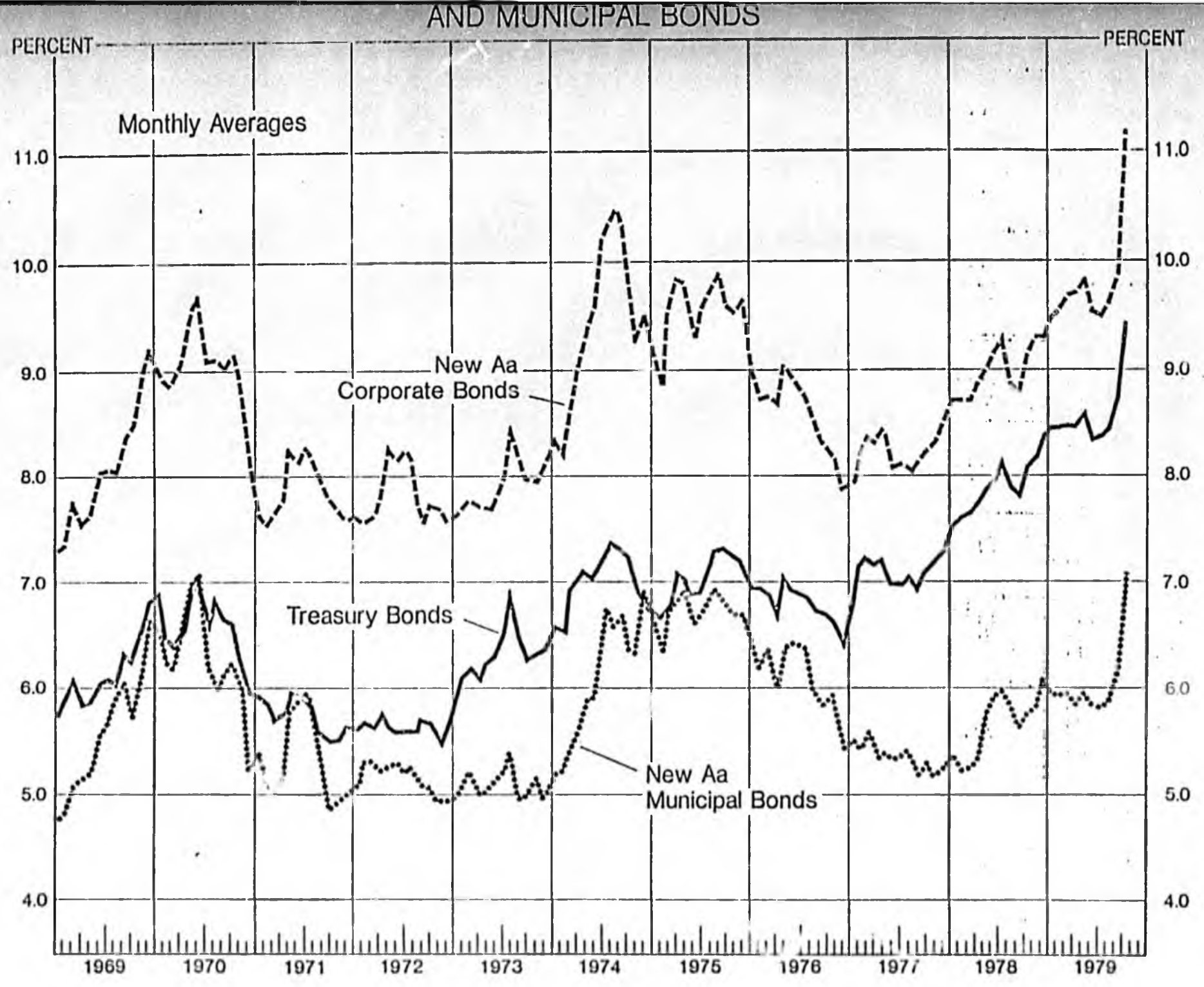
AND MUNICIPAL BONDS
PERCENT
PERCENT
Monthly Averages
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
New Aa
Corporate Bonds
Treasury Bonds
New Aa
Municipal Bonds
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979

CHART 1

TABLE 2

REPRESENTATIVE TAX-EXEMPT YIELDS
(Based on major new issue offerings for week ending December 14, 1979)

Maturity	Aaa	Aa	A
1980	6.00	6.10	6.20
1981	6.00	6.10	6.20
1982	6.00	6.10	6.20
1983	6.00	6.10	6.25
1984	6.00	6.10	6.25
1985	6.00	6.10	6.30
1986	6.00	6.10	6.30
1987	6.00	6.10	6.35
1988	6.05	6.10	6.35
1989	6.10	6.15	6.35
1994	6.35	6.45	6.60
1999	6.60	6.75	6.85

	Municipal Bond Averages		
Week Ending	Nuveen Index	Bond Buyer	Dow-Jones
November 23	7.99	7.38	7.76
November 30	7.92	7.26	7.63
December 7	7.78	7.17	7.53
December 14	7.86	7.26	7.62

JOHN NUVEEN & CO INCORPORATED

TABLE 3

DIFFERENCES BETWEEN ANNUAL AVERAGES OF YIELDS ON 20-YEAR, GENERAL OBLIGATION BONDS, BY RATING
(Basis Points)

	Differential Between Grades		
Year	Aa minus Aaa	A minus Aaa	Baa minus Aaa
1945	25	58	79
1950	19	54	75
1955	14	47	96
1956	21	50	99
1957	22	65	105
1958	22	59	92
1959	14	50	81
1960	16	51	82
1961	14	34	61
1962	11	25	52
1963	8	20	43
1964	7	19	42
1965	7	19	40
1966	9	25	49
1967	10	26	55
1968	10	31	63
1969	13	37	62
1970	26	47	63
1971	28	53	67
1972	15	34	52

Source: Moody's Series: Annual average of monthly differences.

TABLE 4

INTEREST COST DIFFERENTIALS AMONG RATING CLASSES
(Basis Points)

	Study (Period)		
Differential Between Grades	Phelps[1] (1957-58)	Kessel[2] (1959-67)	Petersen[3] (1964-1971)
Aaa-Aa	21	15	13
Aa-A	33	21	19
A-Baa	33	25	30
Baa-Ba	—	—	35
Item:			
Aaa-Baa	87	61	62

[1]Charlotte DeMonte Phelps, "The Impact of Tightening Credit on Municipal Capital Expenditures in the United States," *Yale Economic Essays*, Vol. 1 (Fall 1961), p. 300. In Phelps's equation, interest cost differentials between rating classes vary in proportion to the Federal Government's long-term bond rate. The figures above were calculated upon the assumption that the long-term bond rate was 3 percent.

[2]Reuben A. Kessel, "A Study of the Effects of Competition in the Tax-Exempt Bond Market," *Journal of Political Economy* (Sept. 1971). Instead of using the net interest cost of the issue as the dependent variable in his equation, Kessel used the difference between the twenty-year reoffering yield and White's Yield of 100. Standard & Poor's ratings were used instead of Moody's. Kessel's data sample included more than 9000 bond issues that appeared between 1959 and 1967, with virtually complete coverage of competitively offered issues that were larger than $1,000,000.

[3]John E. Petersen, "A Note on the Determinants of Municipal Bond Net Interest Costs" (unpublished), 1972. See summary of study at end of this chapter.

SOURCE: The Rating Game, John E. Petersen, Kraus Reprint, New York, 1974

M E M O R A N D U M

DATE: November 14, 1979

TO: The Honorable Terry Gardiner
Speaker of the House

FROM: J. H. Hogan, Director
Legislative Finance Division

SUBJ: Financial Questions

This Memo is a preliminary response to your questions given to me several weeks ago. Some of the answers are based on information from documents that will be updated. As I mentioned earlier, I will provide you with current information as it becomes available.

1. What is our present state debt? The outstanding Alaska general obligation bond debt as of April 10, 1979 (the date of the last general obligation bond sale) is $1,038,276,089.

2. What is our present municipal debt? As of January 1979 the general obligation bond debt of municipalities was $545,227,664. ("Alaska Taxable" will be republished in January 1980, and new figures will be available then.)

3. What is our present annual debt service? The current year's general obligation bond debt service is $82.2 million and the amount for FY 81 is estimated at $77.9 million.

4. What are the pro's and con's of paying cash or bonding for capital improvements?

5. What are the pro's and con's of paying off our present debt service?

6. What are the pro's and con's of paying off present municipal debt?

Milt Barker is preparing an analysis of these questions. We have also written the state's bond counsel and the state's financial advisor regarding certain questions on this subject. Milt will incorporate these responses in his Memo.

7. At what level should we bond for capital improvements? By what logic? Since Alaska currently has a level of general obligation bond indebtedness that exceeds the normal measures or standards applied to other states, we cannot use "traditional yard-sticks" to answer this question. The question of whether or not to bond is an economic and political question. The economic portion will be discussed in Milt's Memo.

   If the Legislature were looking for a rule of thumb for bonding, perhaps the best one that comes to mind would be limiting the use of general obligation bonds to fund new program starts; for example, new schools, new armories, new fish hatcheries and new state buildings could continue to be funded by the general obligation bond route. In this way you would have "public approval" for new capital program starts. Repairs and maintenance could be funded from cash appropriation sources; for example, highway repairs, ferry system repairs, airport repairs and building repairs could be funded from general appropriations under the assumption that once the public has approved a new capital project, the Legislature can presume they want their investment maintained and repaired so that the facility can continue to provide adequate public use or service.

8. How much capital improvement funds could we actually spend in a single year with our present level of state government? The answer to this question is difficult because it is hard to separate administrative/organizational problems from policy decisions not to spend. The enclosed letter from the Chairman of the Budget and Audit Committee to the Governor sets out the Committee's concern with the apparent lack of effort to complete bond projects already approved by the Legislature. Other research by our office indicates that of the 408 capital projects approved by the Legislature last Session in the General Appropriations Act, 302 have h had no expenditure from the accounts as of October 1. (The capital projects portion of the budget took effect on June 2, 1979.) Looking at it another way, of the $192 million appropriated in the capital budget, only $11 million had actually been spent by October 1. This next Session the Legislature might wish to hold hearings in an effort to determine whether policy decisions not to spend are responsible for this, or organizational overload of various state agencies.

9. What federal funds are projected to be available in the next two years? What are the matching requirements of state funds? The enclosed copy of "Lateline Washington", a National Conference of State Legislatures publication, contains one of several recent

articles which indicate that the President and the Federal Government intend to reduce Federal expenditures on State grant programs in future budgets. In addition to this general pattern of reduced spending on state programs, we can expect that wherever possible Federal agencies will chip away at Alaska's entitlements due to Alaska's very strong financial position. For arguments sake, let's assume continued Federal funding at the current year budget level, approximately $254 million. The matching requirements vary from program to program. For new grants that are received in mid-budget year, they can be 100% of the funding requirements. Current programs range down from there to 90%/10%, 75%/25%, 50%/50%, to an eventual phase out where the program becomes entirely State funding.

enclosures

JHH:bf

October 15, 1979

John Nuveen & Co. Incorporated
209 South La Salle Street
Chicago, Illinois 60604

In preparation for the upcoming session, legislative leaders have requested that we gather certain information for their review prior to the session. As the State's financial advisor, I would appreciate your response to the following questions:

1. What is the average spread in interest rates between tax-exempt municipal bonds of Alaska's rating and the typical investments of Alaska's general fund, i.e., corporate and U.S. Treasury securities, bank CD's, bankers' acceptances, etc.?

2. What level of G.O. bodding can Alaska achieve without altering its ratings or adversely affecting its interest rates?

3. What greater level could be achieved without wiping out the spread between our tax-exempt rate and taxable rates?

4. What rules of thumb can be used in judging the amount of bonds that can be issued without adverse consequences? The 8% or 16% debt service in relation to general fund revenues mentioned in the White, Weld & Co. memo? (copy attached)

5. How much could our tax-exempt rate be reduced by depositing up to 15% or whatever the IRS arbitrage limit is in a G.O. Debt Guarantee Fund?

Sincerely,

J. H. Hogan, Director
Legislative Finance Division

JHH:pw
Enclosure

January 2, 1980

Tony Dean
John Nuveen & Co.
209 South LaSalle Street
Chicago, Illinois 60604

Dear Tony:

As we discussed on the phone, our office would appreciate your comments on the following questions:

1. Should the state bond or pay cash for future capital improvements?

2. Could retirement of all or part of Alaska's outstanding indebtedness improve its credit rating?

3. Is there a more efficient way to improve our credit rating than paying off existing debt such as municipal bond insurance, the G.O. debt guarantee fund mentioned in our letter of October 15, or some other means?

Yours truly,

Milt Barker
Fiscal Analyst

MB:bf

nuveen
John Nuveen & Co. Incorporated 209 South LaSalle Street, Chicago, Illinois 60604 (312) 621-3000

December 31, 1979

J. H. Hogan
Director
Legislative Finance Division
The Alaska Legislature
Pouch "WF"
State Capitol
Juneau, Alaska 99811

Dear Mr. Hogan:

This letter responds to your request dated October 15th that in our capacity as financial advisor to the State we respond to a series of questions regarding Alaska's capacity to issue general obligation debt. To simplify the presentation, I have restated the original questions, occasionally combining questions, and then provided our response.

1. What is the average spread in interest rates between tax-exempt municipal bonds of Alaska's rating and the typical investment of Alaska's General Fund, i.e. Corporate and U.S. Treasury Securities, Bank C.D.'s, Bankers' Acceptances, etc.?

   The approximate $680 million of outstanding Alaska general obligation bonds have an estimated average yield of 5.30% and General Fund balances are currently invested in a variety of short term money market instruments to return a yield of approximately 10.2%. When the most recent series of bonds were issued on April 10, 1979, $60 million in par value were sold for a net interest cost of 5.5920%. The bonds had an average life of 5 years, 9 months and yields on comparable maturities of U.S. Government Securities at that time were approximately 9.25%. The net spread at the time of the April sale of 3.66% is typical of the 3 to 5 percentage points which usually separates yields on comparable maturities of Alaska's G.O. Bonds and Federal Securities.

2. What level of G.O. bonding can Alaska achieve without altering its ratings or adversely affecting its interest rates?

   What rules of thumb can be used in judging the amount of bonds that can be issued without adverse consequences; the 8% or 16% debt service in relation to General Fund revenue mentioned in the White Weld & Company memo?

In the last decade Alaska's standing as a borrower in the tax-exempt markets has steadily improved. Recognition of this fact has been reflected in the improvement in ratings which occurred in 1974 and 1975. For investors this has been an enviable situation since their investments have experienced steady appreciation with the growing credit quality of the State.

Dramatic increases in natural resource production, most notably petroleum and natural gas, have been key features of this steady growth in market acceptance. Other factors have included population growth and economic diversification. On the negative side, the rating agencies perceive Alaska to have a heavy debt load on a per capita basis and as a per cent of personal income. In addition, the State is expected to have a continuing and substantial need to borrow over the immediate future. Operating expenses for state government have risen dramatically in the last decade. While there has been a move to diversify Alaska's economy, the State still is heavily dependent on petroleum revenues which are subject to short term interruption and long term uncertainty.

The general obligation debt of the State is currently rated "A1" by Moody's and A+ by Standard and Poors. An upgrade to AA by either agency would enhance the marketability of the State's debt and lower the average interest cost. In addition, other state agencies and major local issuers would be likely to receive improved ratings following assignment of a "AA" to the State. In fact, several months after the last upgrade for the State, ratings for 12 Alaska municipalities were also revised upward. Achieving the "AA" will almost surely require the State to moderate growth in General Fund expenditure and to enact legislation providing financially sound management of the Permanent Fund.

By the standard criteria for financial analysis, Alaska ranks below the other states and to a significant extent, it is relying on a single major source of revenue. Consequently, the market perception of Alaska is colored by intangible, psychological, perhaps even irrational factors and attitudes. In the recent past the market has been positive in its judgments regarding Alaska, but no one can accurately predict what level of debt will trigger a reaction leading to a negative shift in market sentiment.

In the last ten years, the annual general obligation borrowing of the State has grown from $24.4 million in 1970 to $100 million in the most recent 12 months. Maturities have been keyed to the expected life of Prudhoe Bay petroleum revenues. Each bond sale has been characterized by healthy bidding interest by at least 4 different syndicates. In view of the continuing improvements in state revenue, the momentum of a steadily improving credit it would be possible to consider annual issuance of $175 to $225 million over the next few years. Each bond sale will provide additional insights regarding the continuing growth of the State's debt capacity.

3. What greater level of G.O. borrowing could be achieved without wiping out the spread between the State's tax-exempt rate and taxable rates?

While in theory it would appear possible to trade much higher yields for increased borrowing, in practice there are institutional and psychological constraints which limit the growth of the State's indebtedness. The reaction of rating agencies, investors, underwriters and the financial press will begin to narrow the market for the State's general obligation debt, eventually leading to a situation similar to that of New York City, in which the market is closed to Alaska, regardless of the yield it is prepared to pay.

4. How much could our tax-exempt rate be reduced by depositing up to 15% or whatever the IRS arbitrage limit is in a G.O. debt Guarantee Fund?

A reserve fund as contemplated in the question would have a negligible impact on the State's cost of borrowing. A reserve fund is usually associated with revenue bond issues and incorporating it in a G.O. issue would probably raise more questions about what weakness it was meant to correct as opposed to what strength it was supposed to contribute. For a $100 million issue, arbitrage earnings in excess of the cost of borrowing the reserve would be less than 3% of annual debt service.

If you have additional questions or need further information, don't hesitate to call me. I and several of my collegues will be with Sterling Gallagher in our Juneau office during the week of January 7 through 11. At that time I would be available to meet with you and your staff.

Sincerely,

JOHN NUVEEN & CO., INCORPORATED

Anthony T. Dean
Assistant Vice President

ATD:Lmc

cc: Thomas K. Williams
Commissioner of Revenue

WHITE, WELD & CO.
INCORPORATED

ONE LIBERTY PLAZA
91 LIBERTY STREET, NEW YORK, N.Y. 10006

THEODORE P. SWICK
FIRST VICE PRESIDENT
212/288-2153

CABLE ADDRESS-"WHITEWELD"

April 3, 1978

Report To
Alaska House and Senate Finance
Committees on Relocation of the
State Capital

In accordance with our contract with the State of Alaska Legislative Budget and Audit Committee on behalf of the House and Senate Finance Committees, we herein submit our report on financial questions arising from the plan for relocation of the Alaska State Capital. The report comments (I) specifically on the "Impact on State Bonding Capacity and Annual State Budget" (Impact Report), prepared for the Alaska Capital Site Planning Commission and (II) in a more general way on large capital raising programs and the demands of investors in considering lending funds to such programs in the form of purchasing bonds.

I. The Impact Report addresses itself to: "(1) the impact upon the State's capacity to issue bonds for purposes other than the new capital; (2) the ability of the State to fund the cash requirements of the Financing Plan from General Fund revenues and (3) the impact upon the marketability of all tax-exempt debt issued by Alaskan issuers".

In making our comments we have not attempted to evaluate the assumptions clearly enumerated in the Impact Report. We accept these assumptions as reasonable, particularly, the inflation rate of 8% used throughout and the "Base Case" economic development report by the University of Alaska regarding the growth rates for General Fund revenues, both petroleum related and non-petroleum related, population, income, economic development, etc.

(1) Bonding Capacity

The bonding capacity of any issuer is measured by its ability to sell bonds at reasonable rates and its ability to have access to the market when the need to borrow exists. The Impact Report states

that after examination of traditional indices of credit worthiness and bonding capacity any judgement is highly subjective. We are in full agreement with this observation and also point out that when these traditonal indices are applied to Alaska and its divisions of local government the picture for Alaska is bleak. However, the rating agencies, the bond underwriting community and, to a lesser degree, the investors in tax-exempt bonds have rightly recognized that Alaska must be evaluated on its own because of its special characteristics which makes it distinct from its forty-nine sister states.

There is no doubt that credit ratings placed on issues by the rating agencies have a tremendous impact on the costs of raising capital funds. The rating agencies in a general sense, and rightfully so, depend to a large degree on comparisons, medians, relationships, etc., in comparing one issuer to another. In applying this criteria of creditworthiness to Alaska and its municipalities, Alaska comes out badly in practically every category. Nevertheless, there are many examples where analysis and independent investigations by investment bankers and investors have led to investment decisions which have caused bond issues to be sold at less cost than similarly rated credits because of the strengths peculiar to the issuer.

Security analysts in evaluating Alaska, after recognizing the special problems such as its brief history as a State, its widely scattered and small population, its high costs of practically everything and its limited economic development, perceive its strengths, as represented by such things as its vast natural resources, oil, gas, coal, minerals, timber and fish, the private capital represented by the Native Corporations, State Fiscal Affairs, such as the creation of the Permanent Fund and the prospect of an expanding broad based economy with due regard for the quality of life, as insuring a bright future for the State. Nothing intrigues an investor more than lending to a government which is improving its credit position and so have his investment grow in relative value as time goes by.

The Impact Report places its principal measurement of bonding capacity on the ratio of annual debt service for all projected State needs, both related to the capital move and other needs, and projected General Fund revenues. We agree that this is a valuable and useful index, but do not agree with setting an 8% limit on the ratio of debt service to General Fund revenues. We can see this ratio as high as 16% without having an appreciable effect on the cost of raising funds in the capital market at reasonable rates when it is needed.

(2) Ability to meet cash requirements

The "business" of government at the state level is easily simplified to embrace three general areas of activity. They are education, transportation and what can be summarized as "social services" which would include such activities as health care, protection, justice and development of natural resources. As the Impact Report illustrates, even if the cost of the capital move as measured as a percentage of general fund revenues substantially exceeds 8%, said costs are minor compared to the three principal activities of state government.

(3) Marketability

As stated in the Impact Report, there is a volume restraint on investors based on an issuers location in a state or region. However, in the past five to ten years there are numerous examples where seemingly unmanagable amounts of bonds have been marketed without cost penalty by issuers for a single huge project or by issuers located in a limited geograpohic region. One of the earliest was an issue of $1.6 billion voted in the early 1960's in California to finance the "Feather River Water Project". At that time the underwriting community scoffed at the huge program and predicted it couldn't be financed except at a large penalty in terms of cost of borrowing. However, the project was financed successfully at no penalty in cost and as the project neared completion was able to raise additional capital by issuing revenue bonds for final completion and some expansions. Another more recent example was the authorization for the Municipal Electric Authority of Georgia to issue $2 billion bonds, over a period of years, to finance the Authorities ownership share in large electric generating projects, jointly with other owners, to serve 47 towns in Georgia with a combined population approximately the same as the population of Alaska. This authorization is being sold periodically now with great success in terms of borrowing costs. The Washington Water and Power Supply System is in a financing cycle and will eventually have outstanding approximately $7 billion in debt. Again the program continues successfully. Similar results were accomplished last year when City of Atlanta decided to finance a major airport expansion by issuing all the bonds at one time in the form of a $[illegible] million issue.

A slightly different circumstance with equally successful results occurred when three major issuers in Nebraska, Nebraska Public Power District, Omaha Public Power District and Lincoln,

Nebraska Electric Authority all announced and sold large issues totalling some $300 million in a brief four week period. There are many other successes of this kind which are being financed at favorable borrowing costs and which are not having any adverse effect on the borrowing costs of other issuers in the same state or region.

The expansion of the amount of tax-exempt bonds being offered each year and the ability of the market place to absorb them at reasonable costs to the borrower has been dramatic in the last five years and well conceived and aggressively marketed "over-sized" issues and projects have been readily absorbed by the market place. It is not our intent to imply that there is no limit to the ability of the market to absorb at reasonable borrowing costs any and all potential bond issues. The discipline of the market will be selective in evaluating the economic need, the proper purpose, the ability and willingness to pay, the state and region basic economics, etc., and projects not meeting the tests will be penalized or ignored. There is a limit which can't be quantified, but we are of the opinion that the financial needs of the capital move combined with the projected need for borrowing by the State and its subdivision of government, based on the circumstances peculiar to Alaska can be met by the bond market at reasonable borrowing costs at the times the funds are needed.

II. Large capital raising programs

As discussed briefly above, major funding programs involving hundreds of millions and often billions of bonds are being successfully financed today. The key is a well planned, extensive and aggressive marketing program. Prior to the marketing program itself being initiated, project costs should be determined and announced publically in terms of both today's costs and inflated costs to cover an extensive construction time table. When financing by general obligation debt to be authorized by public vote, the entire bonding program should be voted upon by the constituants. They should be completely informed as to total costs as well as bonding requirements. Put the whole plan out in the open and right up front so that the public support is based on facts.

Investors will make judgements to lend funds to a project through the purchase of bonds when they can make an analysis that goes far beyond the mere citing of economic statistics and traditional ratios. Areas for examination include such things as the willingness to pay in addition to the ability to pay, the quality

of leadership and abilities of those entrusted with management of the financial affairs of the issuer, the need for the project, both from an economic and social point of view and the support of the people of the impacted area, (the business and banking community, the academic community and the public interest groups, including environmentalists). The marketing program will demonstrate public support, a determination to initiate and complete the project and the ability and resources to accomplish the task.

Such a marketing program includes a "road-show" of State officials, banking and business leaders, legislative and administration representatives holding high office telling the story of Alaska and the project to be financed at a series of meetings in the chief financial centers of the lower 48.

The principal sources of investment capital to purchase tax-exempt bonds are institutions (casualty insurance companies), banks, (commercial banks for their own investment needs and trust banks for their managed funds), tax-exempt mutual funds and unit trusts and individual investors. Each of these groups can be reached by the marketing program which will be orchestrated to telling the Alaska story from several points of view including Chamber of Commerce type promotional material, economic and financial facts, administration, legislative, business and public support and a clear demonstration that the program will fill a real need and that the issuer has the determination, resources and support to make it work.

In summary, it is our opinion that the State of Alaska, through the issuance of General Obligation bonds and the allocation of General Fund revenues, can finance the proposed Capital Move, as contemplated in the Financing Plan for the New Capital City of Alaska as discussed in the addendum thereto, "Impact on State Bonding Capacity and Annual State Budgets", in a timely manner at reasonable rates. This can be accomplished without increasing the cost of borrowing of the State and other issuers for non-capital move purposes and without causing General Fund revenues for all State needs being overwhelmed by the Capital Move requirements.

Significant unique characteristics of Alaska will be perceived to require analysis as to creditworthiness outside the traditionally used investment criteria. These characteristics will more than over come the low stature Alaska achieves by the traditional evaluation techniques.

Investors can be attracted to lend capital to large projects by complete and factual up-front disclosure of dollar requirements, by the demonstration of public support by obtaining voter approval of not only bonding requirements, but all costs, and by an extensive marketing program structured to demonstrate not only the ability, but the willingness to complete the project and repay the borrowed costs of its creation.

Theodore P. Swick

October 15, 1979

C. Richard Walker
Orrick, Herrington, Rowley & Sutcliffe
600 Montgomery Street
San Francisco, California 94111

In preparation for the upcoming session, legislative leaders have requested that we gather certain information for their review prior to the session. As the State's bond counsel, I would appreciate your responses to the following questions:

1. How much could be placed in a General Obligation Debt Guarantee Fund subject to IRS arbitrage limits?

2. Will the State have a possible arbitrage problem with the IRS if it continues to issue tax-exempt debt while building up a massive general fund surplus?

Sincerely,

J. H. Hogan, Director
Legislative Finance Division

JHH:pw

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STEVEN A. BRICK
JOHN F. SEEGAL

October 30, 1979

Mr. J. H. Hogan
Director
Legislative Finance Division
State of Alaska
Pouch WF, State Capitol
Juneau, Alaska 99811

Dear Mr. Hogan:

In response to the questions in your letter of October 15:

1. This question will need considerably more elaboration before I can answer it with any reasonable assurance. I am not sure whether the suggested fund is to be used to guaranty debt service on general obligation bonds of the State or debt service on general obligation bonds of local governments in the State. I do not know the source of the moneys to be put into the fund, but I assume that those moneys will not come from any proceeds of bonds. On that basis, I do not think that a proper interpretation of the Internal Revenue Code would result in any arbitrage yield restrictions on the fund, because the applicable Code provision relates to the use of the proceeds of bonds.

However, the Internal Revenue Service has stretched and distorted the term "proceeds" in the Treasury Regulations and rulings thereunder. The result appears to be that, if the State deposits moneys from any source into a fund to be used to pay the debt service on general obligation bonds of the State or on general obligation bonds of local governments, or which fund is pledged as security for any such debt service, the Internal Revenue Service would consider the fund to be "proceeds" subject to arbitrage yield restrictions. This is indicated by Rev. Rul. 78-302 and Rev. Rul. 78-348, a copy of which is enclosed.

Even on this basis, the establishment of the fund probably could not affect the tax status of interest on bonds issued before the fund is established or before it was expected

to be established. Moreover, if the amount in the fund considered allocable to bonds hereafter issued, together with any other amounts chargeable under arbitrage rules to the "minor portion" of the proceeds of those bonds which is not subject to arbitrage limitations, do not aggregate more than 15% of the face amount of those bonds, the investment of the fund should not be subject to arbitrage yield restrictions.

The foregoing is all subject to further qualifications and complexities, but I think there is no point in pursuing them here. If you can give me a complete description of the workings of the proposed fund, I will try to give you a more definitive answer as to the federal income tax results. If there is any special need or desire for such a fund, I might suggest requesting a ruling from the Internal Revenue Service as to their treatment of the specific facts, and possibly an appeal from that ruling to the Tax Court in the quite possible event that we consider the ruling to be contrary to the law.

In any event, I am somewhat mystified as to the purpose of or need for the proposed fund, particularly if it is to relate to general obligation bonds of the State.

2. The issuance of bonds by the State in the presence of a "massive general fund surplus" should not result in taxability of the interest on the bonds, and it surely would not. This conclusion appears to be supported by Rev. Rul. 78-302 (enclosed). However, your phrasing of the question in terms of "a possible arbitrage problem with the IRS" prompts me to note that the IRS has gone so far in its pursuit of "arbitrage" that I would not be entirely surprised at anything that organization might contend.

In connection with all of the foregoing, I urge you and others in the State government to support the bill sponsored by the Municipal Finance Officers Association and about to be introduced in Congress to cure problems like these and to prevent further excesses.

Sincerely yours,

C. Richard Walker

Enclosure

income shall be included in the gross income for the taxable year in which received by the taxpayer, unless, under the method of accounting used in computing taxable income, such amount is to be properly accounted for as of a different period.

Section 1.451-2 of the regulations provides, in pertinent part, as follows:

(a) *General rule.* Income, although not actually reduced to a taxpayer's possession is constructively received by him in the taxable year during which it is credited to his account, set apart for him, or otherwise made available so that he may draw upon it at any time, or so that he could have drawn upon it during the taxable year if notice of intention to withdraw had been given. However, income is not constructively received if the taxpayer's control of its receipt is subject to substantial limitations or restrictions. * *

If a life insurance policy provides that proceeds will be paid to the beneficiary of record upon receipt of due proof of death, and the insurance company determines in good faith that such a policy is payable (whether that determination is based on facts and circumstances indicating death or on a presumption of death under applicable state law), then the proceeds will be an amount paid by reason of death of the insured for purposes of section 101(a)(1) of the Code. Compare Rev. Rul. 76-468, 1976-2 C.B. 202, which states that for purposes of sections 2(a)(3), 112, 692, 6013, and 7508, the date of death of a member of the Armed Forces or a civilian employee, reported as missing in action or a prisoner of war and later declared to have been killed in action, is the Secretarial determination date of death, unless a later actual date of death is subsequently established. Rev. Rul. 76-468 refers to the Secretarial determination date of death as the date of death determined under 37 U.S.C. section 555 or 556. Rev. Rul. 76-468 is clarified so that any reference therein to the Secretarial determination date of death instead refers to the date on which the determination of death is made under those sections.

HOLDING

The payment of life insurance proceeds to *A* in 1977 is fully excludable from *A*'s gross income under the provisions of section 101(a)(1) of the Code. However, if *A* had deferred claiming the death benefit payment until a later year, any portion of the payment attributable to accumulated interest would be includible in *A*'s gross income under the provisions of sections 61(a)(4) and 101(c). Pursuant to section 1.451-2(a) of the regulations, the interest would be includible in the taxable year accumulated to the extent that *A* could have drawn upon it if *A* had submitted a claim for the proceeds.

See section 101(d) of the Code and the regulations thereunder with respect to computing the exclusion for proceeds held by an insurer under an agreement provided for in the life insurance contract, and paid other than as a single sum at a date later than death.

See section 2042 of the Code and the regulations thereunder with respect to the inclusion of the proceeds of life insurance in the value of a decedent's gross estate. For purposes of the federal estate tax, the date of death is the Secretarial determination date of death unless a later actual date of death is established.

EFFECT ON OTHER REVENUE RULINGS

Rev. Rul. 76-468 is clarified.

Section 103.—Interest on Certain Governmental Obligations

Arbitrage bonds; fund established for indirect payment of principal or interest. Examples illustrate whether the arbitrage yield restrictions of section 103(c) of the Code apply to amounts accumulated in funds established in connection with the issuance of local government obligations that are not used directly for the payment of principal or interest.

Rev. Rul. 78-302 [1]

ISSUE

Will amounts accumulated in certain funds be subject to arbitrage yield restrictions?

FACTS

Situation 1.

Authority *A* proposes to issue dormitory revenue refunding bonds. The refunding bonds will mature serially over 20 years. The proceeds of the refunding bonds will be deposited in an escrow fund to secure payment of the prior issue and to defease the lien of the prior issue on revenues of the authority. A portion of *A*'s dormitory revenues will be deposited in a "reserve fund." Amounts in the "reserve fund" will be pledged as security for the bonds.

Situation 2.

City *B* proposes to issue $5.5 million of 33-year sewer revenue bonds. Two and a half million dollars of the revenue bonds will mature serially over the first 30 years. In addition, $1 million of term bonds will mature in each of the last three years.

B's sewer revenue will be used as follows (in order of priority):

(1) to pay operating expenses,

(2) to pay all debt service on the revenue bonds, and

(3) to make deposits in a "renewal fund."

B covenants to maintain sewer rates high enough to pay all necessary operating expenses and to make all scheduled payments of debt service and all scheduled deposits in the "renewal fund." However, it would be impracticable for *B* to raise sewer rates high enough to meet the balloon payments due in years 31-33 solely out of revenues.

[1] Also released as News Release IR-2018, dated July 30, 1978.

The "renewal fund" is not pledged as security for the revenue bonds. Moreover, amounts held in the "renewal fund" can in no event be used directly to pay principal or interest on the revenue bonds. However, *B*'s use of the "renewal fund" is restricted by covenants contained in the indenture for the revenue bonds. In particular, *B* is required to invest the "renewal fund" in Treasury bonds that will mature approximately 30-33 years after the revenue bonds are issued. Further, *B* will have only one practicable way to meet the balloon payments due in years 31-33. It will have to use the "renewal fund" to pay necessary operating expenses during these years. This will enable *B* to meet the balloon payments out of current sewer revenues.

Pending use, the amounts in the "renewal fund" will be invested at a yield that is materially higher than the yield on the sewer revenue bonds. Moreover, these amounts will at times exceed 15 percent of the original proceeds of the bonds.

Situation 3.

City *C* proposes to issue $10 million of general obligation bonds. While the bonds are outstanding, *C* will deposit a portion of its tax revenues in a separate "investment fund." The investment fund will be established and maintained at *C*'s discretion solely to enhance *C*'s general credit rating. It will not be specially pledged as security for the general obligation bonds, and *C*'s use of the "investment fund" will in no way be restricted by covenants contained in the bond indenture. Further, *C* does not reasonably expect to use amounts in the "investment fund" (directly or indirectly) to pay principal or interest on the general obligation bonds.

LAW AND ANALYSIS

Section 103(a)(1) of the Internal Revenue Code of 1954 provides that gross income generally does not include interest on obligations of a state or a political subdivision thereof.

Section 103(c)(1) of the Code provides that, with certain minor exceptions, the interest on an arbitrage bond is not excludable from gross income.

Section 103(c)(2) of the Code provides that the term "arbitrage bond" means any obligation all or a major portion (more than 15 percent) of the proceeds of which are reasonably expected to be used directly or indirectly (A) to acquire securities or obligations that may be expected to produce a yield over the term of the governmental issue that is materially higher than the yield on such issue; or (B) to replace funds that were used directly or indirectly to acquire securities or obligations described in (A).

Section 1.103-13(g)(2) of the proposed Income Tax Regulations published in the Federal Register on May 8, 1978 (43 FR 19675), provides that amounts accumulated in a sinking fund for an issue are treated as proceeds of the issue. Section 1.103-13(g)(3) provides that the term "sinking fund" includes a debt service fund, or any similar fund, to the extent that the issuer reasonably expects to use the fund to pay principal or interest on the issue. With certain exceptions, subparagraphs (2) and (3) apply to bonds sold after May 2, 1978.

In Situation 1, the "reserve fund" will be pledged as security for the bonds. Therefore, the "reserve fund" will be treated as a sinking fund, and amounts accumulated in the "reserve fund" will be treated as bond proceeds.

In Situation 2, the specific amounts accumulated in the "renewal fund" will be used to pay operating expenses rather than to pay principal or interest on the bonds. However, *B* will use amounts held in the "renewal fund" to replace sewer revenues, and will use the sewer revenues thus freed up to pay principal or interest. Therefore, the amounts accumulated in the "renewal fund" will be used indirectly to pay principal or interest on the bonds. Consequently, the "renewal fund" will be treated as a sinking fund, and the amounts accumulated in the "renewal fund" will be treated as bond proceeds.

However, in Situation 3, *C* will not use the "investment fund" (directly or indirectly) to pay principal or interest on the general obligation bonds. Accordingly, the "investment fund" will not be treated as a sinking fund, and amounts accumulated in the fund will not be treated as bond proceeds.

HOLDING

Amounts accumulated in the "reserve fund" in Situation 1 and in the "renewal fund" in Situation 2 will be subject to arbitrage yield restrictions as provided by section 103(c) of the Code. Because these amounts will be invested at a materially higher yield, the bonds will be arbitrage bonds and interest received by the bondholders will not be excluded from their gross incomes under section 103(a)(1). On the other hand, amounts accumulated in the "investment fund" in Situation 3 will not be subject to arbitrage yield restrictions.

Arbitrage bonds; third party securities pledged as collateral. Examples illustrate whether the arbitrage yield restrictions of section 103(c) of the Code apply to securities pledged by a third party as collateral for state or local government obligations.

Rev. Rul. 78-348 [1]

ISSUE

Will certain securities pledged as collateral for municipal bonds be subject to arbitrage yield restrictions?

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[1] Also released as News Release IR-2028, dated August 23, 1978.

FACTS

Situation 1.

State *A* proposes to sell $1 million of general obligation bonds the proceeds of which will be loaned to Corporation *B*, a nonprofit corporation, that will use the proceeds to construct a hospital. In addition, *B* owns a federally insured mortgage note worth $1 million that will be pledged as collateral for the bonds. Under the terms of the pledge, the bondholders are reasonably assured that this collateral will be available if needed to pay debt service, even if *A* and *B* encounter financial difficulties. The yield on the mortgage note will be materially higher than the yield on the bonds.

Situation 2.

County *C*, a political subdivision of State *D*, proposes to sell $50 million of general obligation bonds. *C* will use the bond proceeds to finance the construction of various county buildings. Taxes and other revenues will be used to retire the bonds serially over 25 years.

D has a surplus fund that will be invested in Treasury bonds. Certain Treasury bonds worth $50 million will be pledged as collateral for *C*'s bonds. Under the terms of the pledge, *D* cannot dispose of any of the Treasury bonds while *C*'s bonds are outstanding (except to pay holders of the bonds in the case of default). Thus, the bondholders are reasonably assured that this collateral will be available if needed to pay debt service, even if *C* or *D* encounter financial difficulties. However, *D* does not reasonably expect to use the Treasury bonds (or interest thereon) directly or indirectly to pay debt service (payment of principal or interest) on *C*'s bonds. The yield on the Treasury bonds will be materially higher than the yield on *C*'s bonds.

LAW AND ANALYSIS

Section 103(c)(2) of the Internal Revenue Code of 1954 provides that the term "arbitrage bond" means any obligation all or a major portion (more than 15 percent) of the proceeds of which are reasonably expected to be used directly or indirectly (A) to acquire securities or obligations that may be expected to produce a yield over the term of the governmental issue that is materially higher than the yield on such issue; or (B) to replace funds that were used directly or indirectly to acquire securities or obligations described in (A).

Section 103(c)(2)(B) of the Code applies to an issue of obligations if the proceeds are used to replace funds invested in securities having a yield that is materially higher than the yield on the obligations. This section does not apply in every case in which the higher-yielding securities could have been liquidated as an alternative to issuing the bonds. However, the requisite nexus or sufficiently direct relationship between the bonds and the higher-yielding securities does exist where the securities are pledged as collateral for the bonds. An issuer that borrows to invest in higher-yielding securities and one that borrows against such securities already owned are in virtually the same economic position. Compare section 265(2) relating to interest paid to earn tax-exempt income, and see especially section 3.03 of Rev. Proc. 72-18, 1972-1 C.B. 740, citing *Wisconsin Cheeseman v. United States*, 338 F.2d 420 (7th Cir. 1968). The same principles apply when the higher-yielding securities pledged are held by any third party who will substantially benefit from the bond issuance.

For purposes of section 103(c)(2)(B) of the Code, a pledge of collateral need not be cast in a particular legal form. Thus, for example, the bondholders need not take actual or constructive possession of the collateral. However, there must be a reasonable assurance that the collateral will be available if needed to pay debt service, even if the issuer encounters financial difficulties. Thus, for example, an arrangement will not have the effect of a pledge of collateral if the issuer has discretion to defeat the "pledge" merely by liquidating the "collateral" and disposing of the proceeds.

In both Situations 1 and 2, securities (the federally insured mortgage note and the $50 million of Treasury bonds) are pledged as collateral for municipal bonds. Moreover, the yield on these securities is materially higher than the yield on the municipal bonds. Therefore, all or a major portion of the proceeds of the proposed bonds are reasonably expected to be used directly or indirectly to replace funds that were used to acquire securities at a materially higher yield.

HOLDING

The securities to be pledged as collateral for the proposed bonds described in Situations 1 and 2 will be subject to the arbitrage yield restrictions as provided by section 103(c) of the Code. Because the securities pledged as collateral will produce a yield materially higher than the yield on the bonds, the bonds (in both Situations 1 and 2) will be arbitrage bonds and the interest received by bondholders will not be excludable from their gross income under section 103(a)(1). Further, in Situation 1, the hospital bonds will be arbitrage bonds even if they are issued to finance the construction of a for-profit hospital.

Arbitrage bonds; funds established in connection with local government obligations. Examples illustrate whether the arbitrage yield restrictions of section 103(c) of the Code apply to amounts accumulated in certain funds established in connection with the issuance of local government obligations; Rev. Rul. 78-302 clarified.

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

POUCH S
JUNEAU, ALASKA 99811

April 2, 1981

The Honorable Vic Fischer
Chairman
Senate State Affairs Committee
Room 205 - Behrends Building
Juneau, Alaska

Dear Senator Fischer:

Re: Senate Bill No. 296 and Senate Bill No. 297

Senate Bill No. 296, an Act prohibiting the sale of certain general obligation bonds, was introduced in the Senate on March 17, 1981 and was referred to the Senate State Affairs; Senate Transportation and Finance Committees.

Senate Bill No. 297, an Act making special appropriations for capital projects for which general obligation bonds have been authorized but not issued and for defeasance of outstanding general obligation bonds, was introduced in the Senate on March 17, 1981 and was referred to the Senate Resources; Transportation and Finance Committees.

For the consideration of the Senate State Affairs Committee, I am enclosing a copy of a Fiscal Note prepared by Mr. Anselm Staack, Treasury Comtroller, Department of Revenue concerning both bills.

Sincerely,

R. D. Stevenson
Special Assistant

RDS/rdh

cc: The Honorable Bill Ray
Chairman
State Transportation Committee

The Honorable Don Bennett
The Honorable M. E. Dankworth
Co-Chairmen
Senate Finance Committee

The Honorable Bettye Fahrenkamp
Chairperson
Senate Resources Committee

Joseph K. Donohue
Deputy Commissioner
Department of Revenue

Anselm Staack
Tresaury Comptroller
Department of Revenue

04-D2LH

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

SB 296, 297

I. REQUEST

Bill/Resolution No. SENATE BILL NO. 296 & 297

Title Prohibiting the sale of certain general obligation (GO) bonds, special appropriation ~~Requested by~~ for GO bonds that have been authorized but not issued and for defeasance of outstanding GO bonds. Date 3/17/81

Requested by Senate State Affairs & Resources Committees

II. FISCAL DETAIL

Agency Affected Department of Revenue, State Bond Committee

Program Category Affected General Fund

BRU, Program, or Subprogram(s) Affected

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL						

FUNDING (~~Thousands~~ of Dollars) ALL FIGURES IN MILLIONS OF DOLLARS

→ MILLIONS ←						
(1) GENERAL FUND		1,036.9				
(2) Debt Service Cost Reduction		(97.8)	(94.6)	(91.7)	(88.3)	(86.3)
(3) Defeasance Savings		(155.7)				
(4) Opp. Cost Post 5/78 issued		8.4	9.6	11.0	12.1	13.4
(5) Opp. Cost New Debt Not Issued		8.0	17.6	23.4	27.2	30.9
(6) PV Opp. Cost of Defeasance		8.9	16.4	22.8	28.0	32.7

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

(1) Appropriated funds to "cash-out" all remaining authorized but unissued bonds, defeasance of all outstanding/issued GO bonds. Defeasance portion based on interest rates in effect second week of March, 1981.

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

(2) This is the annual debt service related to the $718.2 (6/1/81) in bonds that would be due in the years indicated. The cash flow of the escrow set aside makes t ese payments when they become due.

(3) The savings in principal due to investments allowed on escrow set aside as part of defeasance.

(4) Opportunity cost related to the post-May 1978 outstanding debt as this debt is subject to defeasance at a restricted yield basically equal to the rate paid on the bonds.

(5) Opportunity cost of not using the favorable low interest rate obtainable on issuing GO bonds for new projects; rather, using all cash up front.

(6) Because debt service payments can be made later with "cheaper dollars" this is the Present Value difference due to early payment of annual debt service.

THE AMOUNT REQUIRED FOR DEFEASANCE IS BASED UPON INTEREST RATES AVAILABLE AT THE TIME THE TRANSACTION TAKES PLACE. ACCORDINGLY, FOR EACH 10% DROP IN INTEREST RATES, THE AMOUNT NECESSARY FOR DEFEASANCE GOES UP APPROX. 6.7%.

IV. DATE March 30, 1981

PREPARED BY Angela C. Staack, Treasury Comptroller

AGENCY Dept. of Revenue/Treasury Division

PHONE 465-2351

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

Angela C. Staack

33-001 (Rev. 12/80)

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. SB 297 and SB 296
Title Special appropriations for capital projects; defeasance of general obligation bond
Requested by _____ Date 3/18/81

II. FISCAL DETAIL
Agency Affected Department of Fish and Game
Program Category Affected NRMEC
BRU, Program, or Subprogram(s) Affected F.R.E.D.
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-	-0-	-0-	-0-
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

No problems are envisioned if the appropriated general funds are available immediately after the prohibition of bond sales.

Two bond funds are affected:

CH 91/SLA 80, $7,718.8, which includes completion of Ship Creek, Trail Lakes, and Beaver Falls hatcheries; and
CH 140/SLA 80, $3,865.0, for development of Ship Creek, Sattisham, Kotzebue, and Main Bay hatcheries

IV. DATE March 27, 1981 PREPARED BY Janet B. Green
AGENCY Department of Fish and Game
PHONE 465-4120

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/80