

SCOMM

101:99

RIEGER PRESENTATION
LONG RANGE FINANCIAL PLANNING COMMISSION
17 JUNE 1995

A). PORTFOLIO MANAGEMENT

- Asset Allocation
- Volatility/Risk Tolerance
- Effect of 5-Year Averaging

B). CONCEPT OF REAL EARNINGS

Total Return is partly "return of capital", partly "real earnings".

Inflation-proofing is reinvestment of the return-of-capital portion. Real return is the rest.

Realized versus unrealized gain is a timing question.

C). Payout Rule: same statutory formula as today.

Exception: calculated on real earnings.

Result: roughly half of real earnings to dividends, half to general fund (or earnings reserve).

Five year average is important.

Some need for earnings reserve account.

D). Link of dividends to performance of fund.

Protects against "directed" investments.

Alaska State Senate

SENATOR STEVE RIEGER
District 1



Senate Finance Committee
Chair, Senate Transportation Committee

Legislative Budget and Audit Committee
Administrative Regulation Review Committee
Legislative Council

During Session:
State Capitol, Room 516
Juneau, Alaska 99801
(907) 465-3879

716 West 4th Avenue, Suite 530
Anchorage, Alaska 99501
(907) 258-8188

SENATE BILL 51

-AN ACT RELATING TO THE INCOME OF THE PERMANENT FUND-

- SPONSOR STATEMENT
- PERMANENT FUND TRUSTEES' POSITION PAPER, 2/25/95
- PERMANENT FUND PROJECTIONS, January, 1995
- ALASKA POPULATION PROJECTIONS, March 1992
- IBBOTSON REPORT- Asset Allocation Study of the Alaska Permanent Fund Report dated January, 1994
- "Real Dollars Now Means Real Dividends Later" by Tim Bradner
Anchorage Daily News, January 8, 1995
- EXECUTIVE SUMMARY - Knowles/Ulmer Policy Transition Teams' Report, dated January, 1995

Alaska State Senate

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SENATE BILL 51

-AN ACT RELATING TO THE INCOME OF THE PERMANENT FUND-

Senate Bill 51 places into statute the concept of "real earnings" and applies that concept to the provisions for the uses of Permanent Fund earnings.

CONCEPT OF REAL EARNINGS:

There are several ways in which income of a fund can be calculated. When all cash receipts are counted without regard to the effects of inflation, the earnings are often referred to as "*nominal earnings*." In contrast, "*real earnings*" are the amount by which nominal earnings exceed inflation.

For any long-term preservation of a fund, and particularly in times of any significant inflation, the concept of real earnings is extremely important to the management of an endowment fund. Any endowment which is designed to last for a sustained period of time must be concerned about its purchasing power and earning power. Inflation tends to erode a fund; to offset this a fund must grow (in nominal terms) at the same rate as inflation just to preserve its purchasing or earning power. In this context, a fund can afford only to pay out earnings which are in excess of the rate of inflation -- real earnings.

APPROPRIATENESS FOR THE PERMANENT FUND:

I believe that voters, in establishing the Permanent Fund, intended for the Fund to be truly permanent in the sense that its purchasing power and earning power should not be eroded over time. In this context, a real earnings approach is most appropriate for the Permanent Fund. The only money which should be put on the table for use each year is real earnings.

SB 51 - An Act relating to the income of the Permanent Fund
Sponsor Statement
Page Two

In contrast, under present statutes all of the *nominal* earnings are put on the table for appropriation each year. The Legislature then allocates the earnings to dividends, inflation-proofing, and the earnings reserve account. With SB 51, the inflation-proofing would be automatic and the Legislature would provide for the allocation of real earnings between the dividends and the earnings reserve account.

EFFECT ON PERMANENT FUND EARNINGS RESERVE:

Since there would be no further need to reserve earnings for inflation-proofing, the required size of the Permanent Fund Earnings Reserve (PFER) is not as great. There would, however, be a reason to retain some amount in the PFER to cover 5-year averaging provisions, such as the payout rule on dividends, regardless of whether the real earnings concept is used. SB 51 is silent on the issue of the PFER and does not require any change from present PFER policy.

EFFECT ON DIVIDENDS:

The bill leaves untouched the underlying formula for calculation of dividends. This formula prescribes a payment of approximately half of earnings. However, since the earnings on which dividends are based are real earnings rather than nominal earnings, the underlying formula will indicate a slower rate of long-term growth in dividends, and could indicate a temporary drop in the amount transferred to the dividend fund, depending on the Permanent Fund's actual performance in the next few years. These transfers are shown under a variety of earnings assumptions in the attached financial forecasts.

It should be pointed out that the amount actually transferred to pay dividends each year has been made by legislative appropriation. Even with SB 51, the legislature maintains its ability to appropriate an amount different from that prescribed by the underlying formula. The legislature may choose to pay an amount higher than the formula indicates, but SB 51 is designed to deter appropriations greater than the fund's *total* real earnings performance.

OTHER CHANGES:

One additional change, although minor, is that the effect of inflation on the fund will be calculated using the average annual balance of the Fund, rather than the Permanent Fund's present practice of using the balance as of the end of the year.

SUMMARY:

The overall effect of SB 51 will be that the Permanent Fund will be made more permanent, because the question of inflation-proofing will be removed from the annual process of allocating earnings. Earnings will be more realistic, as they are reflective of the actual economic earnings of the Fund. However, the effect of converting to a real earnings basis for the annual allocation process will also lower the amount put on the table for appropriation each year. The result of passing SB 51 will be better protection for the Fund, and a better representation to the State of the maximum amount which properly could be used each year.

SENATE BILL NO. 51

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - FIRST SESSION

BY SENATORS RIEGER, Pearce

Introduced: 1/25/95

Referred: STA, FIN

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to income of the permanent fund; and providing for an effective
2 date."

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

4 * Section 1. AS 37.13.140 is amended to read:

5 Sec. 37.13.140. INCOME. (a) Real [NET] income of the fund includes
6 income of the earnings reserve account established under AS 37.13.145. Real [NET]
7 income of the fund shall be computed annually as of the last day of the fiscal year and
8 shall be equal to net income calculated in accordance with generally accepted
9 accounting principles, excluding

10 (1) any unrealized gains or losses; and

11 (2) an amount determined by the corporation to be sufficient to
12 offset the effect of inflation on principal of the fund.

13 (b) The amount calculated under (a)(2) of this section shall be treated as
14 a return of capital to the principal of the fund and shall be transferred by the



RECEIVED 1-20-8 1995

Alaska Permanent Fund Corporation

P.O. Box 25500 Juneau, Alaska 99802-5500

(907) 465-2047

MEMORANDUM

DATE: February 27, 1995

TO: Senator Steve Rieger

FROM: Byron I. Mallott *[Signature]*
Executive Director

SUBJECT: Trustees' Position on SB 51

This is to inform you that the Board of Trustees did discuss Senate Bill No. 51 at their meeting on February 24. They stated that they did not intend to take a position on the bill itself, but that they were supportive of any changes to existing law which would enhance their ability to protect the principal of the Permanent Fund. Certainly, that portion of SB 51 which makes inflation-proofing the highest priority use would be such a change.

There is another portion of the bill which would change the dividend formula by basing it on "real" income rather than "net" income. That proposal falls outside the scope of what previous boards -- as well as the current board -- view as their area of responsibility.

I would request that the Board be given the opportunity to comment again at a later date if the bill undergoes any substantive changes as it moves through the legislative process.

As always, the staff of the Corporation would be pleased to respond to any requests for financial analysis of any legislative proposal relating to the Permanent Fund.

c: Board of Trustees
Pat Pourchot, Governor's Legislative Director
Jim Kelly, Research & Liaison Officer

Alaska State Senate

SENATOR STEVE RIEGER
District I

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Chair, Senate Transportation Committee

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PERMANENT FUND PROJECTIONS:

The attached projections from the Alaska Permanent Fund Corporation show the effect of different earnings assumptions on the size of the Permanent Fund, as well as the amount of each year's earnings and transfers to the dividend fund, through the year 2000.

The first forecasts provided by the Permanent fund Corporation are based on recent investment performance and long-standing assumptions which the Corporation has used regarding nominal earnings and inflation.

At my request, the Permanent Fund Corporation also did additional runs, which reflect the higher earnings assumptions suggested in the Ibbotson Associates' report (enclosed). The Ibbotson report was commissioned by the Legislative Budget and Audit Committee and completed January 1994. This report recommends a target portfolio which is higher-yielding than its present portfolio because of a greater amount of assets invested in higher-yielding securities. This return was estimated by Ibbotson to be 10.31%. The attached projections include assumptions of 10.31% nominal earnings and 6% inflation; and assumptions of 10.31% nominal earnings and 4% inflation. Finally, the projections are stated in nominal dollars and inflation-adjusted dollars.



Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
'8	0		54		54	
'9	54		84		139	
'10	139		344		483	
'11	483	300	385		1,769	
'12	1,769	800	400		2,969	
'13	2,969	400	421	231	4,021	
'14	4,021	300	368	151	4,838	
'15	4,838	300	368	235	5,741	
'16	5,741		323	216	6,281	
'17	6,281	1,264 **	170	148	7,864	
'18	7,864		418	303	8,585	
'19	8,585		228	360	9,173	
'20	9,173		267	454	9,894	
'21	9,894		435	559	10,888	
'22	10,888		338	477	11,703	
'23	11,703	5 ***	315	362	12,385	
'24	12,385	6 ***	210	372	12,973	
'25	12,973	5	212	344	13,534	
'26	13,534	6	198	515	14,253	
'27	14,253	7	194	542	14,996	
'28	14,996	7	185	570	15,757	
'29	15,757	8	169	598	16,532	
'30	16,532	6	160	1,002	17,699	
'31	17,699	6	145	1,071	18,921	
'32	18,921	7	130	1,143	20,201	
'33	20,201	7	117	1,219	21,545	
'34	21,545	8	105	1,299	22,958	
'35	22,958	9	94	1,383	24,444	
'36	24,444	10	87	1,472	26,012	
'37	26,012	11	81	1,566	27,669	
'38	27,669	12	76	1,665	29,421	
'39	29,421	13	70	1,770	31,273	
'40	31,273	14	67	1,880	33,234	

Cumulative Totals Projected

For FY 1995 - 2010: 2,023 18,037

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95-	6.49%	2.61%	3.88%
FY 96-99: ****	8.11%	3.75%	4.36%
2000-10:	3.00%	6.00%	3.00%

USE OF FUND INCOME

Net Income	Distributions			Reserves		FY
	Dividends	Per Capita Dividends	Inflation-Proofing	General Fund	Add (Delete) FY End Balance	
2				1		78
8				7		79
32	12			12		80
150	28			28	59	81
368	71	\$1,000.00		71	185	82
471	108	\$386.15	231	110	110	83
530	175	\$331.29	151		208	84
658	217	\$404.00	235		208	85
1,021	303	\$558.26	216		501	86
1,069	391	\$708.19	148		529	87
789	424	\$828.93	303		62	88
868	460	\$873.16	360	4	44	89
916	487	\$952.63	454	4	(30)	90
1,030	489	\$931.34	559	4	(24)	91
1,036	488	\$931.34	477	5	64	92
1,226	532	\$949.46	362	5	320	93
1,098	558	\$983.90	372	11	151	94
950	558	\$942.00	344	14	298	95
1,252	580	\$956.00	515		151	96
1,325	608	\$979.00	542		169	97
1,402	627	\$988.00	570		199	98
1,483	668	\$1,027.00	598		211	99
1,746	750	\$1,134.00	1,002		(11)	0
1,855	812	\$1,202.00	1,071		(34)	1
1,966	879	\$1,275.00	1,143		(62)	2
2,081	949	\$1,351.00	1,219		(94)	3
2,199	1,023	\$1,428.00	1,299		(132)	4
2,319	1,082	\$1,482.00	1,383		(158)	5
2,445	1,143	\$1,537.00	1,472		(180)	6
2,576	1,208	\$1,593.00	1,566		(208)	7
2,713	1,271	\$1,650.00	1,665		(234)	8
2,857	1,339	\$1,708.00	1,770		(264)	9
3,007	1,410	\$1,770.00	1,880		(297)	10
32,176	14,901	\$21,022	18,037	14		

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

STATUS QUO WITH PER CAPITA DIVIDENDS



Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
78			54		54	
79	54		34		139	
80	139		344		483	
81	483	300	385		1,769	
82	1,769	300	400		2,969	
83	2,969	400	421	231	4,021	
84	4,021	300	368	151	4,838	
85	4,838	300	368	235	5,741	
86	5,741		323	216	6,281	
87	6,281	1,264 **	170	148	7,364	
88	7,364		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		267	454	9,894	
91	9,894		435	559	10,888	
92	9,894		435	559	10,888	
93	11,703		315	362	12,385	
94	12,385		210	372	12,973	
95	12,973	5	212	344	13,534	
96	13,045	5	204	497	13,738	
97	13,241	5	184	479	13,931	
98	13,428	5	174	485	14,110	
99	13,600	7	160	492	14,268	
00	13,460	5	138	486	14,411	
01	13,595	5	123	769	14,534	
02	13,711	5	105	776	14,639	
03	13,810	5	89	781	14,729	
04	13,895	5	76	786	14,806	
05	13,968	5	64	790	14,872	
06	14,031	5	54	794	14,931	
07	14,086	6	47	797	14,983	
08	14,135	6	41	800	15,030	
09	14,179	6	37	802	15,072	
10	14,218	6	32	805	15,110	

Cumulative Totals Projected:

For FY 1995-2010: 1,738 10,683

USE OF FUND INCOME

Net Income	Distributions			General Fund	Reserves		
	Dividends	Per Capita Dividends	Inflation-Proofing		Add (Delete)	FY End Balance	
2				1			
3				7			
12	12			12			
28	28			28	59	59	
71	71	\$1,000.00		71	185	244	
108	108	\$386.15	231	110	110	354	
175	175	\$331.29	151		203	557	
217	217	\$404.00	235		206	763	
303	303	\$556.26	216		501	1,264 **	
391	391	\$708.19	148		529	529	
424	424	\$826.93	303		52	591	
460	460	\$873.16	360	4	44	635	
487	487	\$952.63	454	4	(30)	605	
489	489	\$931.34	559	4	(24)	581	
489	489	\$915.84	559	4	(24)	581	
532	532	\$949.46	362	5	320	965	
556	556	\$983.90	372	11	151	1,117	
950	558	\$942.00	344	14	29	1,146	
1,206	559	\$921.00	497		145	1,250	
1,231	564	\$910.00	479		157	1,362	
1,256	561	\$885.00	485		178	1,490	
1,280	575	\$898.00	492		182	1,519	
1,422	610	\$923.00	486		(9)	1,519	
1,425	624	\$923.00	769		(26)	1,406	
1,425	637	\$924.00	776		(45)	1,282	
1,423	649	\$924.00	781		(65)	1,144	
1,418	660	\$921.00	786		(85)	995	
1,411	658	\$902.00	790		(94)	944	
1,403	656	\$882.00	794		(103)	693	
1,395	653	\$863.00	797		(112)	543	
1,386	649	\$843.00	800		(120)	392	
1,377	645	\$823.00	802		(127)	243	
1,367	641	\$805.00	805		(135)	94	
21,374	9,899	\$14,277	10,683	14			

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95-99	5.49%	2.61%	3.88%
FY 96-99	3.11%	3.75%	4.36%
FY 00-2010	3.00%	6.00%	3.00%

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

STATUS QUO IN REAL 1995 DOLLARS

Constant/Real dollars

In times of any inflation, the value of the dollar erodes over time. Adjusting future nominal amounts to constant 1995 dollars removes the effects of inflation from the future price tags.



Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
78	0		54		54	
79	54		34		139	
80	139		344		483	
81	483	900	385		1,769	
82	1,769	300	400		2,969	
83	2,969	400	421	231	4,021	
84	4,021	300	366	151	4,838	
85	4,838	300	368	235	5,741	
86	5,741		323	216	6,281	
87	6,281	1,264 **	170	148	7,864	
88	7,864		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		267	454	9,894	
91	9,894		435	559	10,888	
92	10,888		338	477	11,703	
93	11,703	5 ***	315	362	12,385	
94	12,385	5 ***	210	372	12,973	
95	12,973	5	212	344	13,534	
96	13,534	6	198	515	14,252	
97	14,252	7	194	542	14,995	
98	14,995	7	185	569	15,756	
99	15,756	8	169	597	16,530	
00	16,530	6	160	1,001	17,698	
01	17,698	6	145	1,071	18,919	
02	18,919	7	130	1,143	20,200	
03	20,200	7	117	1,219	21,544	
04	21,544	8	105	1,299	22,956	
05	22,956	9	94	1,383	24,442	
06	24,442	10	87	1,472	26,010	
07	26,010	11	81	1,566	27,667	
08	27,667	12	76	1,665	29,419	
09	29,419	13	70	1,769	31,271	
10	31,271	14	67	1,880	33,231	

Cumulative Totals Projected:

For FY 1995-2010: 2,023 18,034

USE OF FUND INCOME

Net Income	Inflation-Proofing	Distributions		General Fund	Reserves		FY End Balance	FY
		Dividends	Per Capita Dividends		Add (Delete)	FY End		
2				1				78
3				7				79
32		12		12				80
150		28		28	59	59		81
368		71	\$1,000.00	71	185	244		82
471	231	108	\$386.15	110	110	354		83
530	151	175	\$331.29		203	557		84
658	235	217	\$404.00		206	763		85
1,021	216	303	\$556.26		501	1,264 ***		86
1,069	148	391	\$708.19		529	529		87
789	303	424	\$826.93		62	591		88
868	360	460	\$873.16	4	44	635		89
916	454	487	\$952.63	4	(30)	605		90
1,030	559	489	\$931.34	4	(24)	581		91
1,036	477	488	\$915.34	5	64	645		92
1,226	362	532	\$949.46	5	320	965		93
1,098	372	556	\$983.90	11	151	1,117		94
950	344	521	\$877.00	14	65	1,182		95
1,255	515	490	\$800.00		244	1,426		96
1,336	542	462	\$731.00		326	1,752		97
1,426	569	424	\$650.00		426	2,178		98
1,526	597	441	\$661.00		480	2,658		99
1,820	1,001	427	\$622.00		385	3,043		00
1,966	1,071	443	\$630.00		446	3,489		01
2,123	1,143	461	\$643.00		511	4,000		02
2,291	1,219	483	\$659.00		582	4,582		03
2,473	1,299	508	\$680.00		658	5,240		04
2,668	1,383	556	\$732.00		720	5,960		05
2,876	1,472	608	\$790.00		786	6,746		06
3,098	1,566	665	\$852.00		857	7,603		07
3,335	1,665	727	\$917.00		933	8,535		08
3,589	1,769	793	\$987.00		1,014	9,549		09
3,859	1,880	864	\$1,062.00		1,101	10,650		10

36,589 18,034 8,573 \$12,293 14

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95-	6.49%	2.61%	3.88%
FY 96-99****	8.11%	3.75%	4.36%
FY 2000-10:	9.00%	6.00%	3.00%

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

SENATE BILL NO. 51



CR

Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
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82	1,769	300	400		2,969	
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84	4,021	300	368	151	4,838	
85	4,838	300	368	225	5,741	
86	5,741		323	216	6,281	
87	6,281	1,264	170	148	7,364	
88	7,364		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		267	454	9,894	
91	9,894		435	559	10,888	
92	9,894		435	559	10,888	
93	11,703	5	315	362	12,385	
94	12,385	5	210	372	12,973	
95	12,973	5	212	344	13,534	
96	13,045	5	204	496	13,737	
97	13,241	5	184	478	13,931	
98	13,427	5	174	485	14,109	
99	13,599	7	160	491	14,267	
00	13,459	5	138	486	14,410	
01	13,594	5	123	769	14,533	
02	13,710	5	105	776	14,638	
03	13,809	5	89	781	14,728	
04	13,894	5	76	786	14,805	
05	13,967	5	64	790	14,871	
06	14,030	6	54	794	14,930	
07	14,085	6	47	797	14,982	
08	14,134	6	41	800	15,029	
09	14,178	6	37	802	15,070	
10	14,217	6	32	804	15,109	

Cumulative Totals Projected:

For FY 1995 - 2010: 1,735 10,681

USE OF FUND INCOME

Net Income	Distributions			Reserves		FY End Balance	FY
	Dividends	Per Capita Dividends	Inflation-Proofing	General Fund	Add (Delete)		
2				1			78
3				7			79
32	12			12			80
150	28			38	59	59	81
368	71	\$1,000.00		71	185	244	82
471	108	\$386.15	231	110	110	354	83
530	175	\$331.29	151		203	557	84
658	217	\$404.00	235		206	763	85
1,021	303	\$558.26	216		501	1,264	86
1,069	391	\$708.19	148		529	529	87
789	424	\$826.93	303		52	591	88
868	460	\$873.16	360	4	44	635	89
916	487	\$952.63	454	4	(30)	605	90
1,030	489	\$931.34	559	4	(24)	581	91
1,030	489	\$915.84	559	4	(24)	581	92
1,226	532	\$948.46	362	5	320	965	93
1,098	556	\$983.90	372	11	151	1,117	94
950	521	\$877.00	344	14	65	1,182	95
1,209	472	\$771.00	496		235	1,375	96
1,241	429	\$679.00	478		303	1,528	97
1,277	380	\$582.00	485		381	1,950	98
1,317	381	\$570.00	491		414	2,294	99
1,482	348	\$508.00	486		314	2,478	00
1,510	340	\$484.00	769		343	2,680	01
1,538	334	\$468.00	776		370	2,899	02
1,566	330	\$451.00	781		398	3,132	03
1,595	327	\$438.00	786		424	3,379	04
1,623	338	\$445.00	790		438	3,626	05
1,651	349	\$453.00	794		451	3,872	06
1,678	360	\$461.00	797		464	4,117	07
1,704	371	\$468.00	800		476	4,360	08
1,729	382	\$476.00	802		489	4,602	09
1,755	393	\$483.00	804		501	4,842	10

23,825 6,057 \$8,612 10,681 14

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95:	5.49%	2.51%	3.88%
FY 96 - 99: ****	3.11%	1.75%	4.36%
FY 00 - 2010:	3.00%	6.00%	3.00%

Constant/Real dollars

In times of any inflation, the value of the dollar erodes over time. Adjusting future nominal amounts to constant 1995 dollars removes the effects of inflation from the future price tags.

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

\$B 51 IN REAL 1995 DOLLARS



2A

Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
78	0		54		54	
79	54		34		139	
80	139		344		483	
81	483	900	385		1,769	
82	1,769	300	400		2,969	
83	2,969	400	421	231	4,021	
84	4,021	300	368	151	4,838	
85	4,838	300	368	235	5,741	
86	5,741		323	216	6,281	
87	6,281	1,264	170	148	7,864	
88	7,864		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		267	454	9,894	
91	9,894		435	559	10,888	
92	10,888		338	477	11,703	
93	11,703	5	315	362	12,385	
94	12,385	5	210	372	12,973	
95	12,973	5	212	344	13,534	
96	13,534	5	198	824	14,561	
97	14,561	7	194	885	15,648	
98	15,648	7	185	950	16,790	
99	16,790	8	169	1,018	17,985	
00	17,985	9	160	1,089	19,243	
01	19,243	10	145	1,163	20,560	
02	20,560	11	130	1,241	21,943	
03	21,943	12	117	1,324	23,396	
04	23,396	13	105	1,410	24,925	
05	24,925	15	94	1,501	26,535	
06	26,535	16	87	1,597	28,236	
07	28,236	18	81	1,699	30,033	
08	30,033	20	76	1,807	31,936	
09	31,936	22	70	1,920	33,947	
10	33,947	24	67	2,041	36,079	

Cumulative Totals Projected:
For FY 1995-2010: 2,023 20,813

USE OF FUND INCOME

Net Income	Distributions			Reserves		FY End Balance	FY
	Inflation-Proofing	Dividends	Per Capita Dividends	General Fund	Add (Delete)		
2				1			78
3				7			79
32		12		12			80
150		28		28	59	59	81
368		71	\$1,000.00	71	185	244	82
471	231	108	\$386.15	110	110	354	83
530	151	175	\$331.29		203	557	84
658	235	217	\$404.00		206	763	85
1,021	216	303	\$556.26		501	1,264	86
1,069	148	391	\$708.19		529	529	87
789	303	424	\$826.93		52	591	88
868	360	460	\$873.16	4	44	635	89
916	454	487	\$952.63	4	(30)	605	90
1,030	559	489	\$931.34	4	(24)	581	91
1,036	477	488	\$915.84	5	64	645	92
1,226	362	532	\$949.46	5	320	965	93
1,098	372	556	\$983.90	11	151	1,117	94
950	344	521	\$877.00	14	65	1,182	95
1,614	824	495	\$808.00		289	1,471	96
1,757	885	475	\$753.00		390	1,862	97
1,917	950	448	\$690.00		512	2,374	98
2,097	1,018	480	\$725.00		591	2,964	99
2,291	1,089	506	\$743.00		687	3,651	00
2,502	1,163	563	\$816.00		766	4,417	01
2,728	1,241	628	\$893.00		849	5,267	02
2,971	1,324	697	\$976.00		939	6,206	03
3,231	1,410	773	\$1,065.00		1,034	7,239	04
3,510	1,501	856	\$1,160.00		1,137	8,377	05
3,809	1,597	946	\$1,262.00		1,249	9,625	06
4,130	1,699	1,044	\$1,371.00		1,369	10,994	07
4,475	1,807	1,149	\$1,486.00		1,499	12,494	08
4,845	1,920	1,263	\$1,608.00		1,640	14,134	09
5,243	2,041	1,386	\$1,740.00		1,793	15,927	10
48,069	20,813	12,228	\$16,978	14			

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95-	6.49%	2.51%	3.88%
FY 96-99	10.31%	6.00%	4.31%
FY 2000-10	10.31%	6.00%	4.31%

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

SENATE BILL NO. 51, BUT ASSUMES 10.31% FUTURE RATE OF RETURN AND 6% RATE OF INFLATION.



2-4/R

Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
78			54		54	
79	54		34		139	
80	139		344		483	
81	483	300	385		1,769	
82	1,769	300	400		2,969	
83	2,969	400	421	231	4,021	
84	4,021	300	368	151	4,838	
85	4,838	300	368	235	5,741	
86	5,741		323	216	6,281	
87	6,281	1,264	170	148	7,364	
88	7,364		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		267	454	9,894	
91	9,894		435	559	10,888	
92	9,894		435	559	10,888	
93	11,703	5	315	362	12,385	
94	12,385	5	210	372	12,973	
95	12,973	5	212	344	13,534	
96	12,768	5	200	777	13,737	
97	12,959	5	176	733	13,928	
98	13,138	6	163	743	14,097	
99	13,299	5	147	752	14,246	
00	13,439	7	126	760	14,379	
01	13,565	7	113	767	14,494	
02	13,674	7	96	774	14,593	
03	13,767	8	82	779	14,679	
04	13,848	8	70	783	14,753	
05	13,918	8	59	787	14,817	
06	13,978	9	50	791	14,874	
07	14,032	9	43	794	14,926	
08	14,081	9	38	797	14,973	
09	14,125	10	34	799	15,015	
10	14,165	10	29	801	15,054	

Cumulative Totals Projected:

For FY 1995-2010: 1,836 11,983

USE OF FUND INCOME

Net Income	Distributions			Reserves		FY End Balance	FY
	Dividends	Per Capita Dividends	Inflation-Proofing	General Fund	Add (Delete)		
2				1			78
3				7			79
12				12			80
150	28			28	59	59	81
368	71	\$1,000.00		71	185	244	82
471	108	\$388.15	231	110	110	354	83
530	175	\$331.29	151		203	557	84
558	217	\$404.00	235		206	763	85
1,021	303	\$556.26	216		501	1,264	86
1,069	391	\$708.19	148		529	529	87
789	424	\$828.93	303		52	591	88
868	460	\$873.16	360	4	44	635	89
916	487	\$952.63	454	4	(30)	905	90
1,030	489	\$931.34	559	4	(24)	581	91
1,030	489	\$915.84	559	4	(24)	581	92
1,228	532	\$949.46	362	5	320	965	93
1,098	556	\$983.90	372	11	151	1,117	94
950	521	\$877.00	344	14	65	1,182	95
1,522	467	\$762.00	777		273	1,388	96
1,584	422	\$670.00	733		347	1,557	97
1,610	376	\$579.00	743		430	1,993	98
1,661	381	\$574.00	752		468	2,348	99
1,712	378	\$558.00	760		513	2,729	00
1,764	397	\$575.00	767		540	3,114	01
1,814	417	\$594.00	774		565	3,503	02
1,864	437	\$612.00	779		589	3,893	03
1,912	458	\$630.00	783		612	4,285	04
1,960	478	\$648.00	787		635	4,678	05
2,008	499	\$665.00	791		658	5,071	06
2,052	519	\$681.00	794		680	5,464	07
2,098	539	\$697.00	797		703	5,858	08
2,143	559	\$711.00	799		726	6,252	09
2,188	578	\$728.00	801		748	6,646	10

28,820 7,424 \$10,560 11,983 14

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95:	5.49%	2.61%	3.88%
FY 96-99: ***	10.31%	5.00%	4.31%
FY 00-2010:	10.31%	6.00%	4.31%

Constant/Real dollars

In times of any inflation, the value of the dollar erodes over time. Adjusting future nominal amounts to constant 1995 dollars removes the effects of inflation from the future projections.

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.
 ** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.
 *** Transferred to principal from earnings reserve account per AS 37.13.145(d).
 **** Based on capital market assumptions adopted by the Trustees in March 1994.
 SENATE BILL NO. 51, BUT ASSUMES 10.31% FUTURE RATE OF RETURN AND 6% RATE OF INFLATION; IN REAL 1995 \$.



2B

Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
81	0		54		54	
82	54		34		139	
83	139		344		483	
84	483	500	385		1,769	
85	1,769	300	400		2,969	
86	2,969	400	421	231	4,021	
87	4,021	300	366	151	4,838	
88	4,838	300	368	225	5,741	
89	5,741		323	216	6,291	
90	6,281	1,264 **	170	148	7,864	
91	7,864		418	303	8,585	
92	8,585		228	360	9,173	
93	9,173		267	454	9,894	
94	9,894		435	559	10,888	
95	10,888		338	477	11,703	
96	11,703	5 ***	315	362	12,385	
97	12,385	6 ***	210	372	12,973	
98	12,973	5	212	344	13,534	
99	13,534	9	198	549	14,290	
00	14,290	10	194	579	15,073	
01	15,073	11	185	610	15,879	
02	15,879	12	169	642	16,702	
03	16,702	13	160	675	17,550	
04	17,550	15	145	708	18,417	
05	18,417	16	130	742	19,305	
06	19,305	18	117	777	20,217	
07	20,217	20	105	813	21,155	
08	21,155	22	94	850	22,121	
09	22,121	24	87	888	23,120	
10	23,120	26	81	928	24,155	
11	24,155	29	76	969	25,229	
12	25,229	32	70	1,012	26,342	
13	26,342	35	67	1,056	27,501	

Cumulative Totals Projected:

For FY 1995 - 2010: 2,023 12,143

USE OF FUND INCOME

Net Income	Distributions			General Fund	Reserves		FY
	Inflation-Proofing	Dividends	Per Capita Dividends		Add (Delete)	FY End Balance	
2				1			78
3				7			79
32		12		12			80
150		28		28	59	59	81
368		71	\$1,000.00	71	185	244	82
471	231	108	\$386.15	110	110	354	83
530	151	175	\$331.29		203	557	84
558	235	217	\$404.00		206	763	85
1,021	216	303	\$556.26		501	1,264	86
1,069	148	391	\$708.19		529	529	87
789	303	424	\$826.93		62	591	88
868	360	460	\$873.16	4	44	635	89
916	454	487	\$952.53	4	(30)	605	90
1,030	559	489	\$931.34	4	(24)	581	91
1,036	477	488	\$915.84	5	64	545	92
1,226	362	532	\$949.46	5	320	965	93
1,098	372	556	\$983.90	11	151	1,117	94
950	344	521	\$877.00	14	65	1,182	95
1,514	549	524	\$859.00		532	1,714	96
1,754	579	535	\$858.00		629	2,343	97
1,907	610	543	\$848.00		743	3,086	98
2,075	642	613	\$940.00		809	3,895	99
2,253	675	678	\$1,020.00		887	4,782	00
2,441	708	747	\$1,102.00		971	5,753	01
2,640	742	822	\$1,190.00		1,060	6,813	02
2,852	777	903	\$1,282.00		1,155	7,968	03
3,077	813	989	\$1,378.00		1,256	9,224	04
3,315	850	1,081	\$1,479.00		1,363	10,587	05
3,569	888	1,178	\$1,588.00		1,479	12,066	06
3,839	928	1,283	\$1,698.00		1,602	13,668	07
4,126	969	1,395	\$1,816.00		1,734	15,401	08
4,432	1,012	1,514	\$1,939.00		1,875	17,276	09
4,758	1,056	1,641	\$2,072.00		2,025	19,301	10

45,603 12,143 14,967 520,342 14

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95:	6.49%	2.51%	3.88%
FY 96 - 99: ****	10.31%	4.00%	6.31%
FY 2000 - 10:	10.31%	4.00%	6.31%

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.
 ** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.
 *** Transferred to principal from earnings reserve account per AS 37.13.145(d).
 **** Based on capital market assumptions adopted by the Trustees in March 1994.
 SENATE BILL NO. 51, BUT ASSUMES 10.31% FUTURE RATE OF RETURN AND 4% RATE OF INFLATION.



2B/R

Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of January 31, 1995

GROWTH OF FUND PRINCIPAL

FY	FY Begin Balance	Appropriations	Dedicated State Revenues*	Inflation-Proofing	FY End Balance	Inflation-Proofing Shortfall
78			54		54	
79	54		34		139	
80	139		244		483	
81	483	300	385		1,769	
82	1,769	300	400		2,969	
83	2,969	400	421	231	4,021	
84	4,021	300	366	151	4,838	
85	4,838	300	368	225	5,741	
86	5,741		323	216	6,281	
87	6,281	1,254 **	170	148	7,864	
88	7,864		418	303	8,585	
89	8,585		228	360	9,173	
90	9,173		257	454	9,884	
91	9,884		435	559	10,888	
92	9,884		435	559	10,888	
93	11,703	5 ***	315	362	12,385	
94	12,385	5 ***	210	372	12,973	
95	12,973	5	212	344	13,534	
96	13,013	9	203	528	13,740	
97	13,211	9	183	508	13,936	
98	13,400	10	173	515	14,117	
99	13,574	10	158	522	14,277	
00	13,728	11	139	528	14,425	
01	13,870	11	127	533	14,555	
02	13,995	12	110	538	14,670	
03	14,106	13	95	542	14,773	
04	14,204	14	83	546	14,863	
05	14,292	15	71	549	14,944	
06	14,369	15	61	552	15,018	
07	14,441	16	54	555	15,087	
08	14,507	17	49	557	15,152	
09	14,569	18	44	560	15,212	
10	14,627	20	39	562	15,270	

Cumulative Totals Projected:

For FY 1995 - 2010: 1,799 8,438

USE OF FUND INCOME

Net Income	Distributions			Reserves		FY
	Dividends	Per Capita Dividends	Inflation-Proofing	General Fund	Add (Delete) Balance	
2				1		76
3				7		79
32	12			12		80
150	28			28	59	81
368	71	\$1,000.00		71	185	82
471	108	\$386.15	231	110	110	83
530	175	\$331.29	151		203	84
558	217	\$404.00	235		206	85
1,021	303	\$558.26	216		501	86
1,069	391	\$708.19	148		529	87
789	424	\$826.93	303		52	88
968	460	\$873.16	360	4	44	89
916	487	\$952.63	454	4	(30)	90
1,030	489	\$931.34	559	4	(24)	91
1,030	489	\$915.84	559	4	(24)	92
1,226	532	\$948.46	362	5	320	93
1,098	558	\$983.90	372	11	151	94
950	521	\$877.00	344	14	65	95
1,552	503	\$828.00	528		512	96
1,522	495	\$791.00	508		582	97
1,696	483	\$754.00	515		661	98
1,774	524	\$804.00	522		691	99
1,851	557	\$838.00	528		729	00
1,929	591	\$871.00	533		768	01
2,006	625	\$904.00	538		806	02
2,084	660	\$937.00	542		844	03
2,162	695	\$968.00	546		882	04
2,240	730	\$998.00	549		921	05
2,318	765	\$1,030.00	552		960	06
2,398	801	\$1,061.00	555		1,000	07
2,478	838	\$1,091.00	557		1,041	08
2,560	874	\$1,120.00	560		1,083	09
2,642	911	\$1,151.00	562		1,125	10
32,261	10,573	\$15,022	8,438	14		

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 95:	5.49%	2.51%	3.88%
FY 96 - 99: ***	10.31%	4.00%	6.31%
FY 00 - 2010:	10.31%	4.00%	6.3 %

Constant/Real dollars

In times of any inflation, the value of the dollar erodes over time. Adjusting future nominal amounts to constant 1995 dollars removes the effects of inflation from the future price tags.

* Department of Revenue Fall 1994 Low-Case Revenue Forecast.

** Earnings reserve appropriated to Fund principal by the Legislature July 1, 1987.

*** Transferred to principal from earnings reserve account per AS 37.13.145(d).

**** Based on capital market assumptions adopted by the Trustees in March 1994.

SENATE BILL NO. 51, BUT ASSUMES 10.31% FUTURE RATE OF RETURN AND 4% RATE OF INFLATION; IN REAL 1995 \$\$.

ALASKA POPULATION PROJECTIONS

1990 - 2010

State of Alaska

Walter J. Hickel, Governor

Department of Labor

Nancy Bear Usera, Commissioner

Administrative Services Division

David Teal, Director

**Research and Analysis
Chuck Caldwell, Chief**

Prepared by Demographics Unit

**Gregory Williams, State Demographer
Bob Elliott, Economist
Kristen Tromble, Statistical Technician**

Publications Unit

**J. Penelope Goforth, Editor
Jim Fowler, Graphic Artist
Jo Ruby, Typesetter**

**November 1991
Second Printing March 1992**

Table F.
Annual Projections and Components Of Change
For the Total Population of Alaska, 1990-2010.

Part A. Middle Series

Calendar Year	↓ July 1	Population change July 1 to July 1						
	Population	Net Change	Natural Increase	Births	Deaths	Net Migration	In	Out
1990	553,600	—	—	—	—	—	—	—
1991	574,000	20,400	9,654	11,826	2,172	10,746	57,654	46,908
1992	593,100	19,100	10,017	12,283	2,266	9,083	57,720	48,637
1993	607,500	14,400	10,320	12,676	2,356	4,080	54,733	50,653
1994	622,300	14,800	10,506	12,942	2,436	4,294	56,174	51,880
1995	637,300	15,000	10,690	13,204	2,514	4,310	57,451	53,141
1996	652,500	15,200	10,849	13,437	2,588	4,351	58,769	54,418
1997	668,000	15,500	11,004	13,678	2,674	4,496	60,207	55,711
1998	683,900	15,900	11,194	13,949	2,755	4,706	61,737	57,031
1999	700,000	16,100	11,398	14,241	2,843	4,702	63,088	58,386
2000	716,500	16,500	11,608	14,545	2,937	4,892	64,650	59,758
2001	732,800	16,300	11,853	14,878	3,025	4,447	65,613	61,166
2002	749,000	16,200	12,092	15,217	3,125	4,108	66,664	62,556
2003	764,900	15,900	12,333	15,551	3,218	3,567	67,505	63,938
2004	780,700	15,800	12,572	15,878	3,306	3,228	68,522	65,294
2005	796,200	15,500	12,775	16,182	3,407	2,725	69,365	66,640
2006	811,400	15,200	12,968	16,477	3,509	2,232	70,193	67,961
2007	826,200	14,800	13,169	16,770	3,601	1,631	70,887	69,256
2008	840,700	14,500	13,331	17,034	3,703	1,169	71,685	70,516
2009	854,700	14,000	13,476	17,268	3,792	524	72,274	71,750
2010	868,300	13,600	13,593	17,474	3,881	7	72,947	72,940

Calendar Year	July 1 Population	Rate per 100 mid year population (%)						In	Out
		Average Annual Change	Natural Increase	Births	Deaths	Net Migration			
1990	553,600	—	—	—	—	—	—	—	—
1991	574,000	3.62	1.68	2.06	0.38	1.87	10.04	8.17	
1992	593,100	3.27	1.69	2.07	0.38	1.53	9.73	8.20	
1993	607,500	2.40	1.70	2.09	0.39	0.67	9.01	8.34	
1994	622,300	2.41	1.69	2.08	0.39	0.69	9.03	8.34	
1995	637,300	2.38	1.68	2.07	0.39	0.68	9.01	8.34	
1996	652,500	2.36	1.66	2.06	0.40	0.67	9.01	8.34	
1997	668,000	2.35	1.65	2.05	0.40	0.67	9.01	8.34	
1998	683,900	2.35	1.64	2.04	0.40	0.69	9.03	8.34	
1999	700,000	2.33	1.63	2.03	0.41	0.67	9.01	8.34	
2000	716,500	2.33	1.62	2.03	0.41	0.68	9.02	8.34	
2001	732,800	2.25	1.62	2.03	0.41	0.61	8.95	8.35	
2002	749,000	2.19	1.61	2.03	0.42	0.55	8.90	8.35	
2003	764,900	2.10	1.61	2.03	0.42	0.47	8.83	8.36	
2004	780,700	2.04	1.61	2.03	0.42	0.41	8.78	8.36	
2005	796,200	1.97	1.60	2.03	0.43	0.34	8.71	8.37	
2006	811,400	1.89	1.60	2.03	0.43	0.28	8.65	8.38	
2007	826,200	1.81	1.59	2.03	0.44	0.20	8.58	8.38	
2008	840,700	1.74	1.59	2.03	0.44	0.14	8.53	8.39	
2009	854,700	1.65	1.58	2.02	0.44	0.06	8.46	8.39	
2010	868,300	1.58	1.57	2.01	0.45	0.00	8.40	8.40	

Source: Alaska Department of Labor, Research & Analysis, Demographics Unit



Alaska Permanent Fund Corporation

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January 13, 1994

Senator Randy Phillips
Legislative Budget & Audit Committee, Chairman
State Capitol Building, Room 103
Juneau, AK 99801-1182

Dear Senator Phillips:

Thank you for providing us with Ibbotson's report on the asset allocation of the Alaska Permanent Fund Corporation (APFC). We are pleased to provide this initial response to the report. Communication on this issue will continue as the board commences its annual review of APFC's asset allocation at the February 3 meeting in Juneau.

Since April 1993, the APFC has been involved with a significant portfolio restructuring program under the direction of the Board of Trustees. Upon completion, the APFC will place significantly less emphasis on passive investment and more on active management of the equity securities portfolio. This program has been undertaken with our investment consultant, Callan Associates, Inc. (Callan), providing recommendations and advice at each step of the program. Once completed, a number of the issues mentioned in the Ibbotson Associates Asset Allocation study will have been addressed.

After reading the Ibbotson report, Callan made the following observations:

1. Recent performance has been good because the board and staff have done a good job of adopting sound strategic allocation policies and employing good managers.
2. Movement toward current strategic targets at an accelerated pace may be particularly important since much of the strong performance over the past several years is attributable to extraordinary bond returns which are unlikely to continue given the current low level of interest rates. Obviously, we all agree with this

assessment and you, through significant funding of global portfolios in recent months, have already essentially reached the strategic target allocations.

3. Diversification within the domestic equity portfolio could be improved with a greater commitment to the small and mid-cap sector. Callan shares this view and your staff recognizes the under-representation in this area and plans to address it through the hiring of two small/mid-cap domestic equity managers in the first half of 1994.
4. Diversification within the fixed-income portfolio could be improved with explicit allocations to major segments such as mortgages. As discussed at length at our recent meeting, the effects of statutory limitations on fixed-income management must be carefully considered. The use of derivative securities, lower-rated bonds and non-US\$ denominated bonds are all influenced by current (statutory) restrictions. In addition, managing liquidity to meet annual dividend requirements is increasingly affecting the fixed-income portfolio. Nonetheless, broader diversification of the fixed-income effort warrants further discussion and already has been scheduled for the upcoming board meeting. As an aside, I was pleased to see that Ibbotson recognized the fee savings and good performance that has been achieved to date. It also is important to note that at least over the past several years an allocation to mortgages would have hindered performance.
5. Ibbotson's expected equity returns are extraordinarily high relative to the firm's expected bond returns. While I sincerely hope that they are correct, the very large premiums and the high absolute levels may result in an underestimation of near-term risk associated with more aggressive strategies. Relatedly, we, staff and the board have all acknowledged that heavier equity commitment would result in greater expected returns over the long run but we all also recognize that shorter-term consistency in returns is particularly important to the Fund since the annual dividend is potentially at issue. Finally, it is important to note that the "aggressive" alternative suggested results in full utilization of the statutory equity maximum of 50%.
6. Ibbotson very clearly advises that the board control asset allocation at a more micro level than it has in the past. Specially, the study advises that the board set specific allocations within the fixed-income and domestic equity areas and make extensive use of specialists in the international area. The directions suggested are contrary to the board's movement toward providing less restrictive guidelines to its managers, particularly the global managers. I think that this is an important issue that already has been discussed at length during 1993 and warrants continued close monitoring

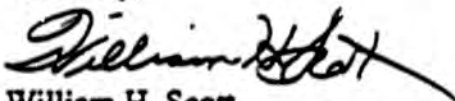
January 13, 1994
Senator Randy Phillips
Page 3

and review as we gain experience with the current structure. My current view is that the board's basic asset allocation plan, while theoretically vulnerable to the actions of the managers, will not be adversely affected. Each manager has indicated that it is highly unlikely that they would make sudden dramatic shifts from domestic to international portfolios. We, therefore, will be able to identify any potential problem before it undermines the program. You are continuing to use some specialists internationally and are planning to add specialists in domestic mid-cap securities. In sum, Ibbotson's management structure comments are important and I agree that the structure, particularly the domestic structure, should be on the board's agenda for 1994.

The staff of the APFC agree with Callan's remarks. Should the Legislative Budget & Audit Committee (LB&A) like to discuss in greater detail these conclusions, we recommend that myself and a representative of Callan Associates, Inc. be invited to appear before the Committee. The APFC would be pleased to make the necessary arrangements.

We would like to express our appreciation for LB&A's efforts and those of Ibbotson in conducting this review. It is always helpful to receive more than one independent view of this most important subject of asset allocation. In addition, we would be pleased to have Ibbotson present their report to the Board of Trustees at its meeting on February 3, 1994 at the APFC offices in Juneau.

Sincerely,



William H. Scott
Executive Director

ASSET ALLOCATION STUDY
FOR
THE ALASKA PERMANENT FUND

Prepared by Ibbotson Associates, Inc.
January, 1994

Summary of Recommendations

Currently, the Alaska Permanent Fund is a well diversified portfolio that has enjoyed tremendous success in recent years. This success is mainly due to the Board's knowledge of the importance of asset allocation and its commitment to diversification. This has resulted in the Fund earning high rates of return at relatively conservative levels of risk. The Fund is well positioned to reap the benefits of diversification, having made investments in many different asset classes, both domestic and international. Also, the Fund appears to be efficiently managed, employing reputable and capable managers for both its equity and fixed income assets. The Fund has been able to manage its substantial fixed income portfolio entirely in-house, keeping administrative costs and outside management fees to a minimum. Several important issues must be addressed, however, in order to ensure the Fund's continued success.

Our analysis suggests the Permanent Fund should alter its asset allocation policy in order for the Fund to enjoy returns similar to those it has earned in recent years. Specifically, the Board should consider the following actions:

- ▶ Revise its current three-year target asset mix to include a larger allocation to domestic mid and small capitalization equities, European, Pacific Rim and emerging market equities, and mortgage-backed securities.
- ▶ Adopt a more aggressive investment style by allocating a larger percentage of Fund assets to equity assets and real estate.
- ▶ Revise its equity management plan by setting specific allocations for international and domestic mid and small capitalization equity managers.
- ▶ Set specific target allocations across fixed income sectors.

By implementing these changes, the Board can help ensure that the Permanent Fund will achieve the highest expected return for its chosen risk level. This will help the Board achieve its statutory goals of maximizing total Fund return and providing the maximum amount of disposable income to Alaska's citizens.

This report presents recommendations concerning the Alaska Permanent Fund. The first section provides background information on the procedures we used to perform the asset allocation study. The second section suggests improvements for those portfolios, and outlines a third portfolio suited to a more aggressive investment philosophy. The final section provides guidance on several important implementation issues.

I. Analyzing an Investment Portfolio

A first step in analyzing an investment portfolio is determining whether the portfolio adequately compensates the investor for taking risk. Ideally, the portfolio is *efficient* in providing return to the investor; i.e., the portfolio provides the most return possible for the amount of risk taken. In reality, however, few portfolios accomplish this objective.

Defining Asset Classes

In order to analyze the Fund's portfolio, we had to decide which assets to include in the Fund's investment universe. Currently, the Fund invests in 12 different asset classes that comprise six main categories. The benchmarks used to represent each asset class in our analysis are listed in Appendix A at the end of this report. The asset classes used in our study are as follows:

U.S. Equity Assets

Large Capitalization
Mid/Small Capitalization

Non-U.S. Equity Assets

Canada
Europe
Pacific
Emerging Markets

Other Assets

Real Estate

Non-U.S. Fixed Income Assets

Intermediate-Term Government/Corporate Bonds
Long-Term Government/Corporate Bonds
Mortgage-Backed Securities

Non-U.S. Fixed Income Assets

Non-U.S. Government Bonds

Cash

U.S. Treasury Bills



Forecasting Return

We also had to forecast three estimates for each asset class: expected return, expected risk (as measured by standard deviation), and expected return correlation between assets. Summary tables of our forecasts are provided in Appendix B. It is important to note that our return, risk, and correlation forecasts are *long-term* – they apply to an investment horizon of 10 years or more. Our forecasts are passive in nature and, therefore, would not change dramatically if we were to recalculate them a year from now. Consequently, the portfolio allocations we recommend will remain stable over a very long time period, and will require few changes over a long-term investment horizon.

The basis for our equity return forecasts is the risk-free rate of return and the historical premium, called an equity risk premium, that is demanded by investors for holding risky assets. We use the historical premium because the amount by which common stocks have outperformed risk-free government bonds has been consistent over time. The long-term equity risk premium for large capitalization domestic equities over the period January 1926 to September 1993 was 7.25 percent. Also, many researchers have found that, as the risk of an investment increases, so does its expected return. For this reason, we forecast the expected return of other equity asset classes, such as domestic small capitalization equities and international equities, to have greater expected returns.

The basis of our fixed income return forecasts is the current risk-free rate of return, as proxied by the current yield on a risk-free government bond with a maturity matching the investment time horizon. Currently, this rate is 6.31 percent, the current yield on 20-year U.S. Treasury bond. To this rate, we add the appropriate maturity premium (additional return required by investors for relinquishing the use of their money for long time periods) and default premium (additional return that compensates investors for buying bonds that have default risk, such as corporate bonds) for each class of bonds for which we are forecasting returns.

For international fixed income assets, we forecast returns as if the assets were denominated in U.S. dollars. Since currency fluctuations are expected to average to zero over time, any short-term currency gains or losses will not affect the long-term return on international assets. Currency fluctuations do increase risk, however, and are accounted for in our risk forecasts of non-U.S. fixed income assets.

Forecasting Risk

When forecasting the risk of an asset, we typically assume that the future will equal the past. Therefore, we forecast risk by calculating the historical standard deviation using a long time period over which we have reliable data, and data that is representative of possible future scenarios. Although investment risk can be quantified in a number of



ways for asset allocation purposes, we believe that risk is best modeled as the annual volatility of returns, and standard deviation provides an estimate of how much actual returns may deviate from the average, expected return over time. We use shorter time periods only when we can identify a permanent and dramatic process shift in the behavior of an asset class, such as the late 1960s when bond market volatility increased noticeably from its observed volatility during the previous 40 years.

Forecasting Return Correlation

Return and risk are not the only factors that determine how a portfolio performs. The correlation between the returns of two assets also plays an important role in portfolio performance. Correlation measures how much the returns of two assets tend to move together or move separately. If the returns move together, the assets are positively correlated. If they move in opposite directions, the assets are negatively correlated. If no pattern can be detected in the way the assets' returns move, the assets have a return correlation of zero.

Portfolios comprised only of assets that have high, positive correlations with each other are not well diversified. This tends to exaggerate both upside and downside volatility, and the risk of the portfolio. On the other hand, portfolios with assets that have low or negative return correlations will provide more stable returns because, even though some assets may perform poorly, other portfolio assets will perform better, serving to reduce portfolio volatility. The benefits of diversification, therefore, are a direct result of relatively low return correlations among portfolio assets.

When forecasting return correlation, we again typically assume that the future will equal the past. The basis for our forecast of return correlation is, therefore, the historical correlation between assets, observed over the longest time period for which reliable data is available.

Determining the Fund's Current Allocation

The amount of the Fund currently allocated to each asset class was determined by using information in the Fund's 1993 Annual Report, with supplemental information provided by William L. Means, the Fund's Chief Investment Officer. Market values of all investments came from the Annual Report, while Mr. Means provided clarification regarding the amount currently invested in equities of domestic companies with capitalizations larger than \$1 billion (large capitalization equities), the amount currently invested in equities of companies with capitalizations of \$1 billion or less (mid and small capitalization equities), and the amount currently invested in domestic government and corporate bonds with maturities ranging from one to seven years (intermediate-term),



and more than seven years (long-term). The Fund's current allocation, and its expected return and standard deviation is given on page 5.

Determining the Fund's Three-Year Target Allocation

The Permanent Fund's investment manual provided information regarding the three-year target allocation, although some guidelines were too broad for our purposes. For example, the manual lists a 10 percent target allocation for international equities, but gives no country-specific allocations. In this case, we assumed the Fund would increase its international equity exposure to 10 percent, while maintaining the current proportion invested among sectors. Also, the target allocation constrains the amount invested in non-domestic fixed income assets to 10 percent or less, but provides no specific number. We assumed the amount invested in international debt would decrease in proportion to the total decrease in the amount allocated to all fixed income assets. The Fund's three-year target allocation, and its expected return and risk, is listed on the following page.

Current and Three-Year Target Portfolios

Asset Class	Current Allocation (%)	3-Year Target Allocation (%)
U.S. Large Capitalization Stocks	21.17	24.00
U.S. Mid/Small Capitalization Stocks	0.65	6.00
Canadian Stocks	0.03	0.04
European Stocks	2.54	4.28
Pacific Region Stocks	2.94	4.97
Emerging Market Stocks	0.42	0.72
Real Estate	6.69	10.00
Cash	4.64	0.00
Intermediate Govt/Corp Bonds	30.86	25.32
Long-Term Govt/Corp Bonds	25.27	20.74
Mortgage-Backed Securities	3.94	3.24
Non-U.S. Government Bonds	0.85	0.69
Expected Return (%)	8.53	9.93
Standard Deviation (%)	7.57	9.91



II. Asset Allocation Recommendations

The next step in our analysis was to improve the Fund's current and target portfolios by increasing their expected return while keeping expected risk at a constant level.

Allocation with Risk of the Current Portfolio

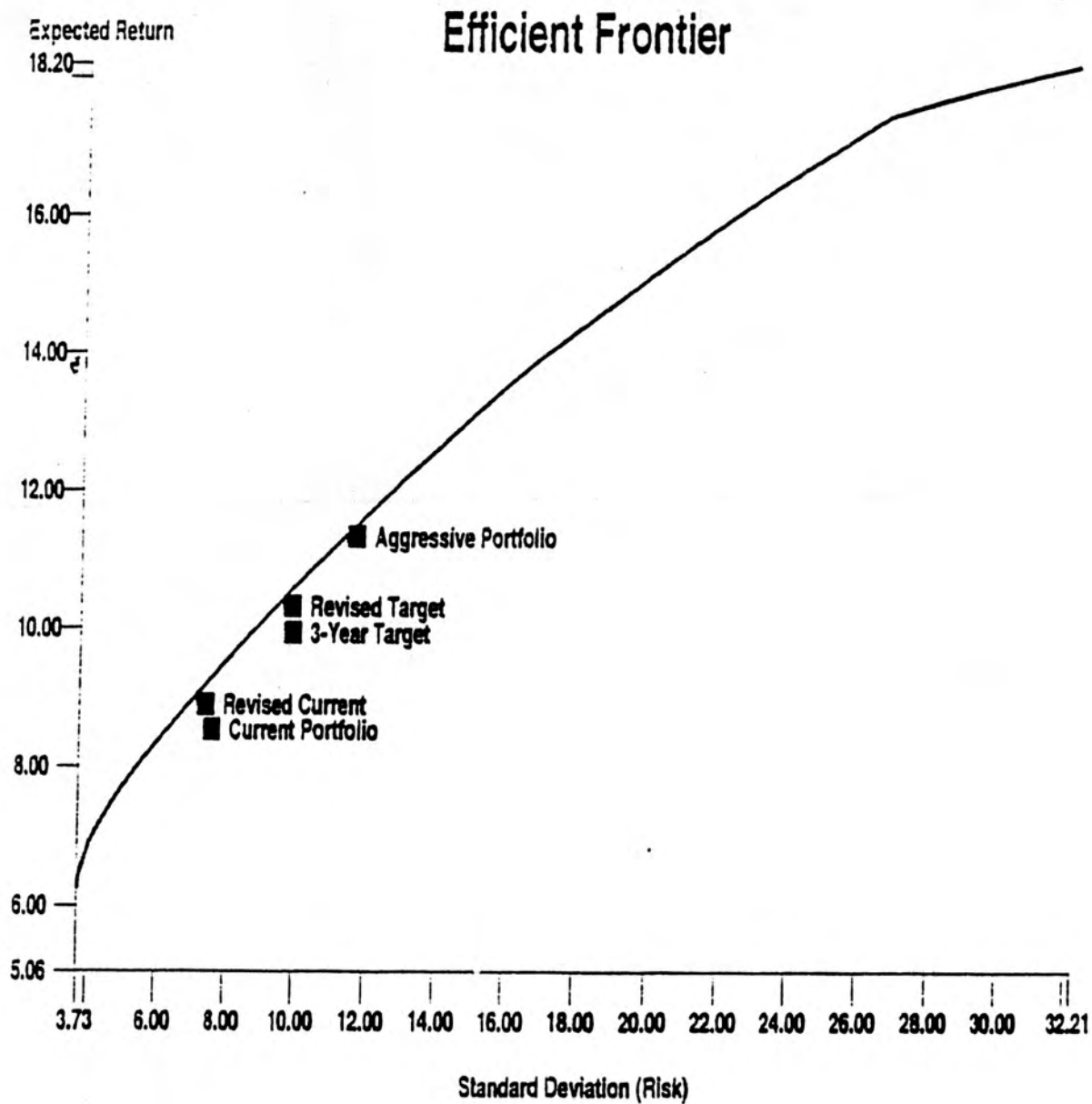
As shown in the graph on page 7, the Fund's current portfolio does not provide the maximum amount of expected return for the amount of risk taken. For example, the portfolio labeled "revised current" provides a higher expected return and slightly less risk than the current portfolio. (The graph is titled "Efficient Frontier" because the line in the graph represents those portfolios which are the most efficient in providing return to the investor; i.e., those portfolios provide the maximum return for a given level of risk.) The allocations for both the current and revised portfolios, as well as their expected returns and standard deviations, are shown on page 8.

The current portfolio need not be drastically changed in order to achieve a higher expected return. In fact, the percent of the portfolio invested in equities (approximately 35 percent, including real estate) and in fixed income assets (approximately 65 percent), is the same in both the current and revised portfolios. Rather, the composition of the equity and fixed income portions need only change. By shifting part of the equity portion from large capitalization stocks to mid and small capitalization and international stocks, and part of the fixed income portion from cash and long-term bonds to intermediate-term bonds and mortgage-backed securities, the Fund can achieve a higher expected return while taking less risk.

Although these changes represent shifts from safer assets to more risky ones, the overall risk of the portfolio actually decreases. This is because domestic mid and small stocks, mortgage-backed securities, and international stocks have low correlations with many of the other portfolio assets.

Allocation with Risk of the Target Portfolio

The graph on page 7 shows that the Fund's target portfolio also does not provide the highest possible expected return for the amount of risk taken. Although both the allocations of the target and revised target portfolios are equally divided between equity and fixed income assets, the revised target portfolio has a significantly higher expected return and less risk. The composition of both portfolios, along with their expected returns and standard deviations, is given on page 8.



Current and Recommended Portfolio Allocations

Asset Classes	Allocations				
	Current Portfolio (%)	Revised Current (%)	3-Year Target (%)	Revised Target (%)	Aggressive Portfolio (%)
U.S. Large Cap Stocks	21.17	11.00	24.00	16.00	18.00
U.S. Mid/Small Cap Stocks	0.65	4.00	6.00	8.00	10.00
Canadian Stocks	0.03	0.00	0.04	0.00	0.00
European Stocks	2.54	3.50	4.28	6.00	7.50
Pacific Region Stocks	2.94	4.00	4.97	7.00	10.50
Emerging Market Stocks	0.42	2.50	0.72	3.00	4.00
Real Estate	6.69	10.00	10.00	10.00	10.00
Cash	4.64	1.00	0.00	1.00	1.00
Intermediate-Term Govt/Corp Bonds	30.86	40.00	25.32	30.00	18.00
Long-Term Govt/Corp Bonds	25.27	12.00	20.74	5.00	6.00
Mortgage-Backed Securities	3.94	12.00	3.24	14.00	15.00
Non-U.S. Govt Bonds	0.85	0.00	0.69	0.00	0.00
Expected Return	8.53	8.89	9.93	10.31	11.33
Standard Deviation	7.57	7.40	9.91	9.89	11.69

The superior tradeoff between risk and return of the revised target portfolio can be accomplished by shifting a larger portion of Fund assets into domestic mid and small capitalization stocks, international stocks, mortgage securities, and real estate. Again, these riskier assets have low correlations with many other portfolio assets, and therefore provide enhanced diversification benefits.

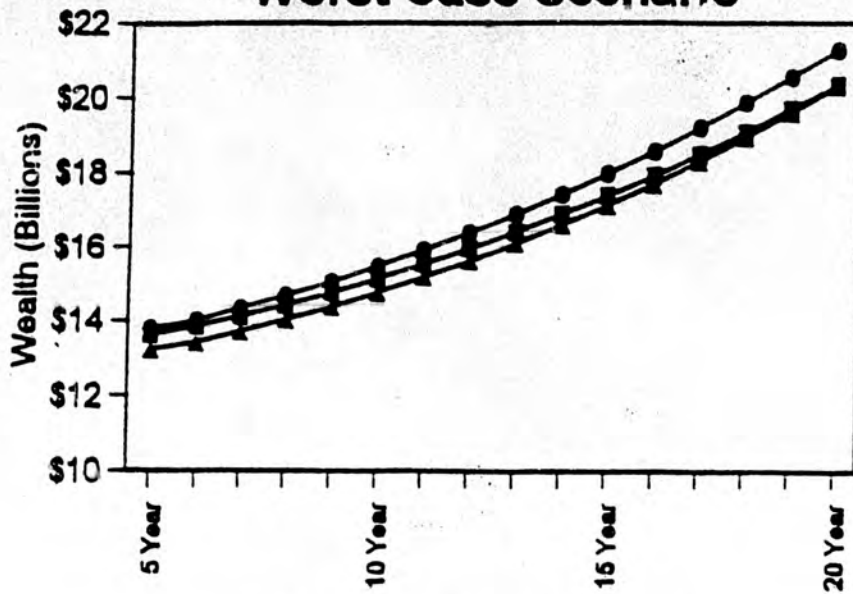
Allocation of a More Aggressive Portfolio

Although we have analyzed and suggested improvements to both the current and target portfolios, we have not yet commented on whether either portfolio is appropriate for the Fund. Ideally, a portfolio provides enough return to meet the goals of the investor while maintaining a level of risk that is comfortable for the investor. By setting a three-year target portfolio that has an increased allocation to equity assets, the Board has indicated that it is comfortable with a more aggressive investment philosophy. In our opinion, such an aggressive investing strategy is appropriate and necessary for achieving the Fund's statutory goals of maximizing total return and providing the maximum amount of disposable income to the citizens of Alaska. Consequently, we believe the Fund should consider the benefits of investing in the "aggressive portfolio," also shown in the graph on page 7.

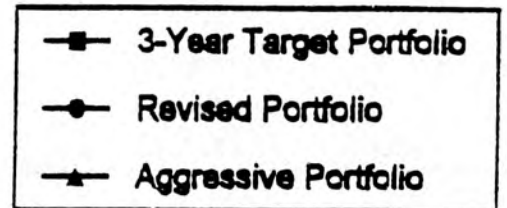
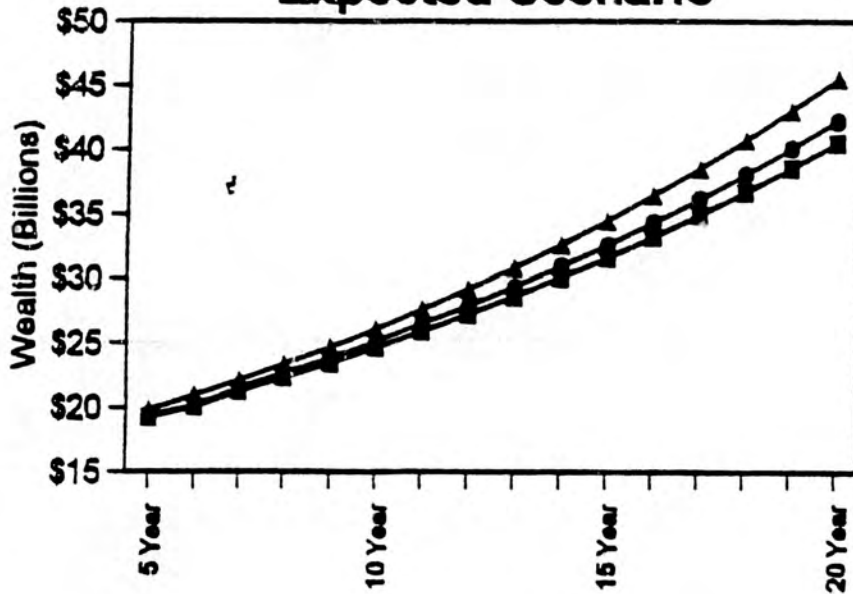
In recent years, the Fund has enjoyed relatively high returns, particularly on its fixed income investments. These high returns were due, in part, to rather unique market conditions, such as a dramatic decline in U.S. interest rates. These market conditions, however, are not expected to continue in the future, as evidenced by the returns expected on the current and target Fund portfolios. The potentially lower returns earned by both these portfolios are important factors to consider, because such low returns will inevitably lead to lower dividend payments to Alaskans. Our recommended aggressive portfolio, however, with its significant allocations to international equities and mortgage-backed securities, has an expected return in the range of the Fund's recent returns. The allocation of this aggressive portfolio, along with its expected return and standard deviation, is provided on page 8.

The graphs on the following page can help to compare the expected performance of each portfolio. The graphs show expected wealth values under the target, revised target, and aggressive portfolios for five-, ten-, and twenty-year investment horizons. Although the Board may consider the aggressive portfolio too risky, the graph shows that the majority of this portfolio's volatility is due to its broad range of possible high, positive returns, not negative ones. For all investment time horizons, the aggressive portfolio has a higher expected wealth value under the best- and expected-case scenarios. Only under the worst-case scenario does the aggressive portfolio underperform the target portfolio, while the revised target portfolio performs better than the target portfolio in all cases.

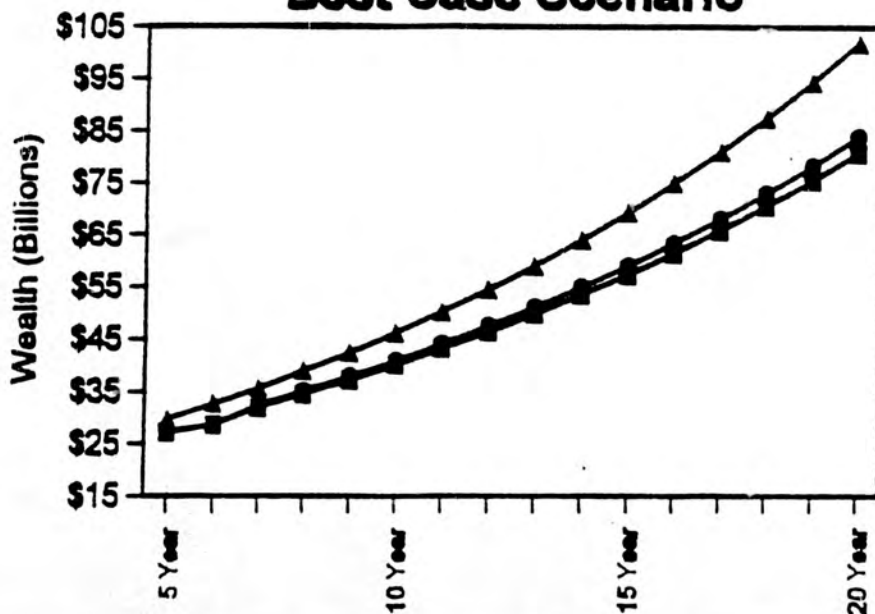
Worst Case Scenario



Expected Scenario



Best Case Scenario



III. Implementation Issues

Whichever portfolio the Board chooses, several issues must be addressed by the Board to ensure maximum Fund performance. The single most important issue is the degree of adherence to the chosen allocation. Research has suggested that the asset allocation decision accounts for over 90 percent of the variability of returns on a portfolio, and is the single largest determinant of portfolio performance.¹ Consequently, individual security selection and active security management, the two factors commonly assumed to contribute the most to the return of a portfolio, actually account for only a small amount of portfolio return variability. Therefore, adherence to the chosen allocation is *crucial* to the future performance of any investment portfolio, including the Permanent Fund. Accordingly, the Board must decide whether the current investment strategy of the Fund accommodates a strict adherence to the chosen allocation. We address this issue separately for equity and fixed income assets in the following two sections.

Equity Assets

As of April 1993, the Board decided to use active managers only for domestic mid/small capitalization stocks and all international equities. Since our recommended portfolios are based on passive benchmarks, we believe that the long-term performance we forecast can be achieved through the use of passive managers, although it is certainly possible for active managers to meet or exceed that performance. For this reason, we believe the Board's decision to retain active managers is appropriate, *as long as each manager is given only that portion of Fund assets that is recommended in the chosen allocation, and is required to invest those assets in the specific, recommended asset class.*

This stipulation is in direct contrast to the Board's new global investment strategy as outlined in the Fund's 1993 Annual Report. The new strategy allows active international equity managers to decide when and where to invest Fund assets, essentially shifting the asset allocation decision from the Board to the manager. As mentioned earlier, asset allocation, not security selection or active market timing, is the largest determinant of portfolio performance. Under the planned strategy, the Fund's equity allocation will shift continuously, violating the most crucial aspect of strategic asset allocation: maintaining a stable asset mix which was chosen based on long-term forecasts and needs of the fund. For this reason, we suggest a slightly modified strategy where the Board hires managers that have a specific style of investing. For example, under this modified strategy, the European equity allocation would be managed by a manager who specializes in European equities. This type of management strategy would allow the Board to retain control over the equity allocation of the Fund.

¹ Gary P. Brinson, Brian D. Singer, and Gilbert L. Beebower, "Determinants of portfolio performance II: An update," *Financial Analysts Journal*, May-June 1991.

The Fund's domestic equity managers also have similar control over the asset allocation decision. Currently, the performance of each domestic equity manager is evaluated by using a benchmark portfolio that consists of 80 percent large capitalization equities and 20 percent mid and small capitalization equities. The equity managers, however, are not specifically required to invest 80 percent of their Fund allocation in large capitalization stocks and 20 percent in mid and small capitalization stocks. A manager could alternate between large cap and mid and small cap stocks, and still *average* an 80 percent large cap and 20 percent mid and small cap investment. This manager could potentially be 100 percent invested in large cap stocks when the return in the mid and small cap market is high, and vice-versa. Again, this causes the overall equity allocation of the Fund to change continuously, and shifts control of the asset allocation decision to individual managers. Because the asset allocation decision is so important to the overall performance of the Fund, we feel the Board should set specific domestic equity allocations, and select managers who specialize in each asset class. This will ensure the maximum expected return for the Fund's equity investments.

Fixed Income Assets

Currently, the Fund's fixed income assets are passively managed in-house by the Fund's Chief Investment Officer, and are generally treated as a single asset class. Our analysis, however, treats the fixed income category as five distinct asset classes, because each contributes unique benefits to the overall portfolio. Treasury bills, for example, provide more liquidity than the other assets, and are, consequently, the least risky. Also, mortgage-backed securities perform differently from government or corporate bonds. For this reason, each fixed income asset class must be considered separately in the asset allocation decision.

Currently, the Board treats all fixed income assets as a single asset class and provides only a broad allocation directive. This essentially shifts the asset allocation decision to the fixed income manager. While the current allocation across fixed income assets may be appropriate when viewed in isolation, that same allocation may be inappropriate when viewed in the context of the overall portfolio. The Board has a comprehensive perspective on the Fund and, as such, should determine the Fund allocation to each asset class. For this reason, we suggest that the Board set specific target allocations for fixed income asset classes. In this way, the Board maintains control over the Fund's asset allocation and ensures maximum overall Fund performance.

Prior to beginning our study, several Board members and senators voiced concern over the Fund having only one manager for the entire fixed income portfolio. We feel that a single, capable manager, such as the current manager, can manage a large, passive fixed income portfolio with few problems, as long as that portfolio has only a small allocation to mortgage-backed securities. However, if a larger proportion of funds was invested in



mortgage-backed securities (as is our recommendation), it may be required to hire additional staff. This is because mortgage-backed securities are more complex to analyze, and the holders of mortgage securities continually receive principal and interest payments which must be accurately recorded. All our recommended portfolios contain substantial allocations to mortgage-backed securities. Consequently, we suggest that the Board hire an outside manager to manage the mortgage portfolio, or, at the very least, hire additional support staff.

Conclusion

Although the Permanent Fund has an excellent performance history, the Fund faces new and uncertain investment challenges in the coming years. The Board, realizing the importance of asset allocation to overall Fund performance, has created a target allocation to meet those challenges. However, as our analysis reveals, the Board can implement a better allocation for the Fund, one that has higher expected return and less risk than the Fund's target portfolio. Also, the Board can implement a new investing policy, one emphasizing an adherence to the chosen allocation. By doing so, the Board will help ensure the maximum expected performance of the Fund over the long-term investment horizon, thereby providing the highest possible income to the State's citizens and fulfilling its obligation to those citizens.

Appendix A: Benchmarks Used in Asset Allocation Study

<u>Asset Class</u>	<u>Benchmark Description</u>
U.S. Large Capitalization Equity	S&P 500: A market capitalization-weighted index of 500 of the largest stocks of companies domiciled in the United States.
U.S. Mid/Small Capitalization Equity	Russell 2000 Index: A market capitalization-weighted index of the stocks of the bottom two thirds of the largest 3,000 publicly traded companies domiciled in the United States.
Canada Equity	Morgan Stanley Capital International Canada Total Return Index: A market capitalization-weighted index of 81 large Canadian stocks.
Europe Equity	Morgan Stanley Capital International Europe Total Return Index: A market capitalization-weighted index of large stocks from Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom.
Pacific Equity	Morgan Stanley Capital International Pacific Total Return Index: A market capitalization-weighted index of large stocks from Australia, Hong Kong, Japan, Malaysia, New Zealand, and Singapore.
Emerging Markets Equity	IFC Emerging Market Composite Index: A broad-based, market capitalization-weighted index of stocks listed in countries with a per capita GDP below an annually-disclosed figure. Currently, 20 countries are represented in the Composite index.
Cash	U.S. 90-Day Treasury Bills: Published by Salomon Brothers in <i>International Bond and Money Market Performance</i> .

IT Govt/Corp Bonds

Lehman Brothers Intermediate-Term Government/Corporate Bond Total Return Index: A portfolio of U.S. government issues (>\$100 million par value) and investment grade corporate debt (>\$50 million par value) with an average maturity of 4.42 years as of November 29, 1993.

LT Govt/Corp Bonds

Lehman Brothers Government/Corporate Bond Total Return Index: A portfolio of U.S. government issues (>\$100 million par value) and investment grade corporate debt (>\$50 million par value) with an average maturity of 10.81 years as of November 29, 1993.

Mortgage-Backed Securities

Lehman Brothers Mortgage-Backed Securities Total Return Index: An index of all fixed-rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC), and the Federal National Mortgage Association (FNMA). The index has an average maturity of 5.39 years.

Non-U.S. Bonds

Salomon Brothers Non-U.S. 1+ Bond Index: A market capitalization-weighted index of bonds from Australia, Canada, Germany, Japan, Netherlands, Switzerland, and the United Kingdom with one year or more to maturity. The average maturity of bonds in the index is 6.95 years.

Real Estate

Wilshire Real Estate Securities Total Return Index: A market capitalization-weighted index of approximately 85 real estate investment trust and real estate operating companies.



Testing Our Recommended Portfolios

To ensure the validity of our recommended portfolios, we tested those portfolios and the Fund's current and target portfolios for *stability*. A stable portfolio is one that performs well under a variety of possible future market conditions; i.e., the portfolio provides adequate return for the amount of risk taken under conditions that differ from our forecasts. We tested the portfolios using "worst-case" scenarios where the return of one or more assets is lower than expected and the risk is higher than expected. The following scenarios were used, both individually and in combination, to test our recommended portfolios:

- U.S. equity risk premium decreases to 5 percent
- Mid and small capitalization equity return decreases to 15 percent
- Europe equity return decreases to 10 percent
- Europe equity standard deviation increases to 26 percent
- Pacific equity return decreases to 10 percent
- Pacific equity standard deviation increases to 34 percent
- Emerging market equity return decreases to 10 percent
- Return between long-term and intermediate-term bonds increases to 1 percent
- Intermediate-term bond standard deviation increases to 6 percent
- Mortgage-backed securities return decreases to 6 percent
- Mortgage-backed securities standard deviation increases to 11 percent
- Real estate standard deviation increases to 25 percent
- Correlation between U.S. stocks and U.S. bonds increases 30 percent
- Correlation between U.S. stocks and non-U.S. stocks increases 30 percent

Under these scenarios, our recommended portfolios provided higher returns with less risk than either the Fund's current or target portfolios. For example, the improved target portfolio had 10 basis points more return and less risk than the current target portfolio when tested under the assumption that all international markets had the lower returns and higher risks outlined above. This indicates that the revised portfolios will perform better over the long run, despite possible extreme underperformance of some markets.

Appendix B: Forecasts Used in Asset Allocation Study

Forecasts of Expected Return and Standard Deviation

Asset Class	Expected Return	Standard Deviation
U.S. Large Cap Stocks	13.56	20.61
U.S. Mid/Small Cap Stocks	18.03	32.95
Canada Stocks	13.73	24.64
Europe Stocks	13.98	22.69
Pacific Stocks	15.11	28.24
Emerging Market Stocks	21.38	47.00
Real Estate	9.90	13.63
Cash	4.61	2.73
IT Govt/Corp Bonds	5.89	4.10
LT Govt/Corp Bonds	6.37	7.22
Mortgage-Backed Securities	7.45	9.28
Non-U.S. Govt Bonds	6.01	14.75

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FRAN OURNER / Daily News file photo

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The Wall Street Journal

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Please see Page C-3
WAL-MART

... mortgage application to 30 days from more than 15 days at present.

Boosting speed is basic to corporate re-engineering, the trendy technique of using technology to reorganize operations. A survey by International Data Corp., of Framingham, Mass., found that of 200 big companies that were re-engineering, 23 percent said shortening cycle times of various processes was their primary goal; 33 percent viewed reducing costs as No. 1.

"You can only cut costs so far," says Paul Johnston, who ran the survey. "Cycle time helps differentiate you."

International Business Machines Corp. now takes an order for a personal computer over the phone and builds and ships the PC within 24 hours. Gillette Co. is accelerating the pace at which new products are unveiled globally to a two-year cycle from three years; it also says it is introducing 20 new products this year, up from 17 last year and fewer than eight a year in the 1980s.

Please see Page C-7. FASTER, FASTER



TIM BRADNER

Real dollars now means real dividends later

One of the most sensible public policy proposals I've heard recently is state Sen. Steve Rieger's idea for requiring the Alaska Permanent Fund to report its annual profits in real, or inflation-adjusted, dollars, rather than the nominal, or inflation-eroded dollars, as is now the practice.

The idea has merit not only because it is sound from a financial point of view — most big endowment funds look at their earnings this way — but it solves some problems in the way the fund must manage its income.

In effect, Rieger's plan would change the procedure the legislature set up more than a decade ago when it passed the law setting out how fund profits are to be used in paying the annual permanent fund dividend to Alaskans and making payments into the corpus of the fund to offset inflation.

The direction legislators gave was for the fund to pay dividends first and inflation-proofing second. Over time, this could cause a shortfall in the amount of profits available for inflation-proofing.

Please see Page C-2. BRADNER

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GOVERNOR TONY KNOWLES
LIEUTENANT GOVERNOR FRAN ULMER

Executive Summary

**KNOWLES/ULMER
POLICY
TRANSITION
TEAMS'
REPORT**

JANUARY 1995

Fiscal Policy

The Knowles/Ulmer Administration asked the Fiscal Policy team to build on the ideas from other public forums to develop guidelines for a responsible fiscal plan to guide the state into the 21st century, and to make recommendations on how to achieve the broad public support necessary for their implementation.

RECOMMENDATIONS

- Continue to articulate a "vision" of the state's financial future—the administration's views on the appropriate role of government and the values and criteria that should guide our public policy decisions—and recognize the threat the fiscal gap poses to ourselves and our children.
 - Make a commitment to develop a plan to bring annually recurring revenues into balance with state spending
 - Integrate the cabinet into the plan and process, i.e., the commissioners should all be speaking in concert and actively involved in the plan's development.
 - Convey the message that sound fiscal management equals good government and good government means good politics.
 - The team emphatically endorses the Knowles/Ulmer campaign pledge to cap total state spending (except for education funding) at the FY 95 level.
 - Continue with an unwavering policy of budget sustainability and develop an annual report card to inform the public about the success of the administration's actions to protect Alaska's fiscal future.
- Give average citizens a direct voice in shaping the future and invite the public to help develop a shared vision for Alaska and the role of government in their lives.
 - Develop a strategy for inviting public input into fiscal decisions and collect baseline information on public attitudes regarding the fiscal gap.
 - Implement a strategy for educating the public on Alaska's fiscal situation and our choices for the future. Effective forums might include: newspaper inserts, town meetings, market research, industry groups, social service groups and local government bodies.
 - Ask the legislature to participate in every step of the outreach process.
 - Make government more open to the public through better use of communication systems, including electronic media (video conference, internet, Alaska Online, etc.).
 - As part of a long-term strategy, the administration should budget for public participation in reexamining the respective roles of state and local governments, setting goals and benchmarks for Alaska, and deciding the role of the Permanent Fund in the state's fiscal future.
- Create an annually updated five-year fiscal plan.
 - Work with and inform the legislature in a timely manner of any changes the administration wishes to make in the FY 96 budget, and announce that a fiscal plan will be in place by the time the FY 97 budget is proposed.
 - Develop a five-year plan and a comprehensive reporting framework that encompasses all aspects of state spending and revenues, including "off-budget items" such as Permanent Fund earnings, Permanent Fund dividends, cash reserves, public corporations, etc. Include deferred maintenance and the operating and maintenance costs of capital projects in the plan.

- Resolve legal questions surrounding the use of the Constitutional Budget Reserve funds, the setting of specific revenue and expenditure targets (including Permanent Fund dividends), development of a debt policy (including school debt reimbursement), an overall reserves policy employing triggers for instituting an income tax, and a cash-flow management plan.
 - Implement the five-year plan and keep the public informed of Alaska's fiscal situation and progress toward reaching fiscal stability. Although no consensus was reached, one approach recommended was to set up a budget commission or blue ribbon task force to act as a conduit between the executive branch, legislature and the public to develop a long-term fiscal strategy for Alaska.
 - Capitalize cash reserves to the greatest extent possible.
 - Pass legislation to automatically inflation-proof the Permanent Fund by distributing only real earnings for dividends.
 - Explore means of controlling personnel costs.
 - Examine various public services for potential privatization.
 - Evaluate all entitlement programs on an ability-to-pay basis.
- Form partnerships for economic development and intergovernmental alliances.
 - Emphasize partnerships between the executive and legislative branches, state and local governments, and the public and private sectors.
 - Create a spirit of cooperation between the state of Alaska and the federal government.
 - Eliminate unfunded mandates on local governments.
 - Reexamine the state's petroleum tax and royalty regime with the intention of maintaining Alaska's competitiveness.
 - Improve federal relations and understanding of Alaska issues, particularly with respect to oil and gas development, and adopt a "Visit Alaska" program to allow members of Congress to see the state in order to make more informed decisions.
 - Maintain the economic viability of resource development by ensuring that efforts aimed at increasing revenues from resource industries are made via an income tax on jobs rather than through increased business taxes. (The team noted that non-petroleum resource development actually ends up costing the state money in comparison to revenues generated.)
 - Make serious efforts at regulatory reform to reduce government red tape.
 - Organize programs to streamline the delivery of state government services.
 - Make state government as cost-efficient as possible by adopting a customer-oriented approach to public service delivery.
 - Develop and begin to implement meaningful, real-world performance measures of the effectiveness of government programs.
 - In order to provide incentives to agencies, commissioners should be allowed to use part or all of their cost savings for investments that will increase future productivity.
 - An employee recognition and cash reward system should be developed and funded for employee ideas that save money.
 - Join in a partnership with local governments to thoroughly evaluate the delivery of services to the public. Ensure that public services are delivered at the most appropriate level of government to meet the needs of the citizenry in the most cost-effective manner possible, even if government roles need redefinition.