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SELECTED ANALYSES OF THE "CREMO PLAN"

PREPARED BY

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Revenues Available: Different Transitional Withdrawal Rates

The first 2 figures show how the revenues available for appropriation under the Cremo Plan during the transition period are influenced by changing the withdrawal percentage. (All spreadsheet analyses follow the text.)

Figure 1. shows the amount available each year from the fund (in 1993 billion \$) if the assumptions used in the demonstration of the plan (attachment A) prove correct. These include a 10% nominal return on the fund with 4% inflation, initial balance of \$16.3 billion, and Alaska Department of Revenue Fall 1993 Midcase petroleum revenue projections. After falling for a decade, the amount available from the fund begins to increase in 2007. (Case 1.)

Figure 2. shows how a different transitional withdrawal rate changes available revenues. There is a tradeoff between how low the annual withdrawal goes before "bottoming out", and the subsequent withdrawal that can be maintained. The case in Figure 2. "bottoms out" about \$ 50 million higher than the demonstration case depicted in Figure 1., reducing the fiscal squeeze in the mid years of the next decade. The cost of this is a slightly lower withdrawal amount in all subsequent years (about \$25 million lower in 2010). (Case 2.)

This suggests the transitional withdrawal rates should be chosen with explicit recognition of this tradeoff.

Revenues Available: Unexpected Revenues

Figures 3 and 4 show how available revenues are impacted if the Cremo Plan is implemented on the assumption of moderate resource revenues and resource revenues turn out to be larger than expected.

Figure 3. repeats the annual withdrawal from Figure 1. and contrasts it with available revenues in the event that the Department of Revenue high case scenario for petroleum revenues proved to be correct. (Neither analysis includes future petroleum settlement money.) This shows that with higher petroleum revenues the geometrical transitional withdrawal rate results in higher annual withdrawals. However the "bottoming out" becomes more pronounced, and a smoother transition might be preferable. (Case 3.)

Figure 4. shows the transitional rates adjusted for a smoother transition, again at the price of slightly lower annual withdrawals in subsequent years. Furthermore the transitional rates used to create the smoother transition in Figure 4. are not the same as those used in Figure 2. (Case 4.)

This suggests that transitional withdrawal rates based upon one set of revenue assumptions may

not work well if revenue projections prove incorrect. Furthermore it may not be possible to establish a set of withdrawal rate rule that works under a broad range of potential future revenue scenarios.

The Budget Gap Remains with the Cremo Plan

Figure 5. compares the revenues that would be available with adoption of the Cremo Plan with "Maintenance Spending", and shows that a substantial GAP remains. The "Income budget" represents annual revenues under the Cremo plan if all assumptions used in developing the proposal prove to be correct. These include the DOR Fall 1993 Midcase petroleum revenue projections, a 10% nominal fund return, 4% inflation, and 12% annual growth in conventional revenues. The assumption on the growth in conventional revenues requires a policy change. (Case 1.)

"Maintenance Spending" consists of both general fund spending (operating, capital, etc.) and the Permanent Fund dividend. It is assumed to grow at the rate of inflation plus the rate of population increase, here assumed to be 1 percent annually.

The Budget Gap is More Sensitive to the Conventional Tax Assumption Than the Return on Investment Assumption

Figure 6. shows the sensitivity of the "Income budget" and the GAP to the assumptions about the growth in conventional revenues and the real rate of return (nominal return minus inflation) on the fund. The top "Income budget" is a repeat of the line from Figure 5. The next lower "Income budget" assumes that there are no new tax initiatives and consequently tax revenues increase at the historical growth rate of 3 percent (nominal \$). (Case 5.) The size of the GAP is quite sensitive to this assumption. The lowest "Income budget" assumes no new taxes and also that the return on the Permanent Fund is 5 percent real (after inflation) rather than 6 percent. This is consistent with the historical experience of the fund. (Case 6.) The size of the GAP over the next 15 years is less sensitive to this assumption than the tax revenue growth assumption.

If the Oil Price Stays Low, the Cremo Plan May Provide Little Discipline

Figure 7. compares available revenues with adoption of the Cremo Plan with recurring revenues currently projected by the Alaska Department of Revenue in their fall 1993 Lowcase. The inflation, rate of return and dividend payout assumptions come from the Alaska Permanent Fund Corporation December 1993 Financial Projections. (Case 7.)

In the early years there would be more revenues available under the Cremo Plan than would be available from recurring revenues. (Recurring revenues includes petroleum revenues now deposited annually in the general fund but does not include fund balances, earnings deposited into the earnings reserve of the Permanent Fund, or conventional revenues as defined by Cremo.) For the next several years less revenue would be available.

Figure 8. shows that by the end of the transition phase the Permanent Fund is no larger with the Cremo Plan than it would be if current policies continue. In this case where we assume low petroleum revenues, the two policies have different time patterns of constraint but both get to essentially the same spot by 2010.

If the Oil Price Rebounds, the Cremo Plan Provides More Discipline But it Comes Later

Figure 9. compares available revenues with adoption of the Cremo Plan with recurring revenues currently projected by the Alaska Department of Revenue in their fall 1993 Midcase. The inflation, rate of return and dividend payout assumptions are from the Cremo proposal. (Case 8.)

In the first year there would be more revenues available under the Cremo Plan than would be available from recurring revenues. (Recurring revenues does not include fund balances or earnings deposited into the earnings reserve of the Permanent Fund.) Starting in 1998 the Cremo Plan would impose more discipline because available revenues in that year fall below recurring revenues.

Figure 10. shows that in this case the Permanent Fund grows larger with the Cremo Plan than it would if current policies continue (even with deposit of all available reserves at the start of 1996).

Data from the Department of Revenue and the Permanent Fund Corporation used in these analyses is included as attachment B.

FIGURE 1
WITHDRAWAL FROM FUND

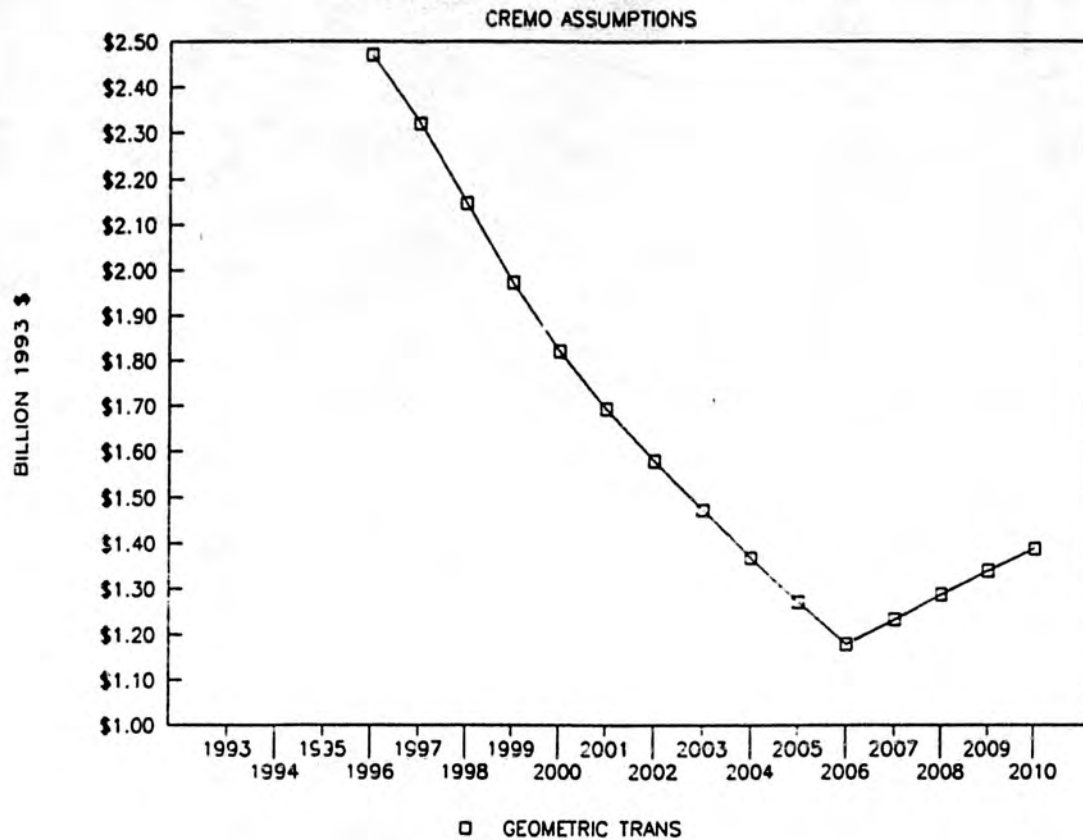


FIGURE 2
WITHDRAWAL FROM FUND

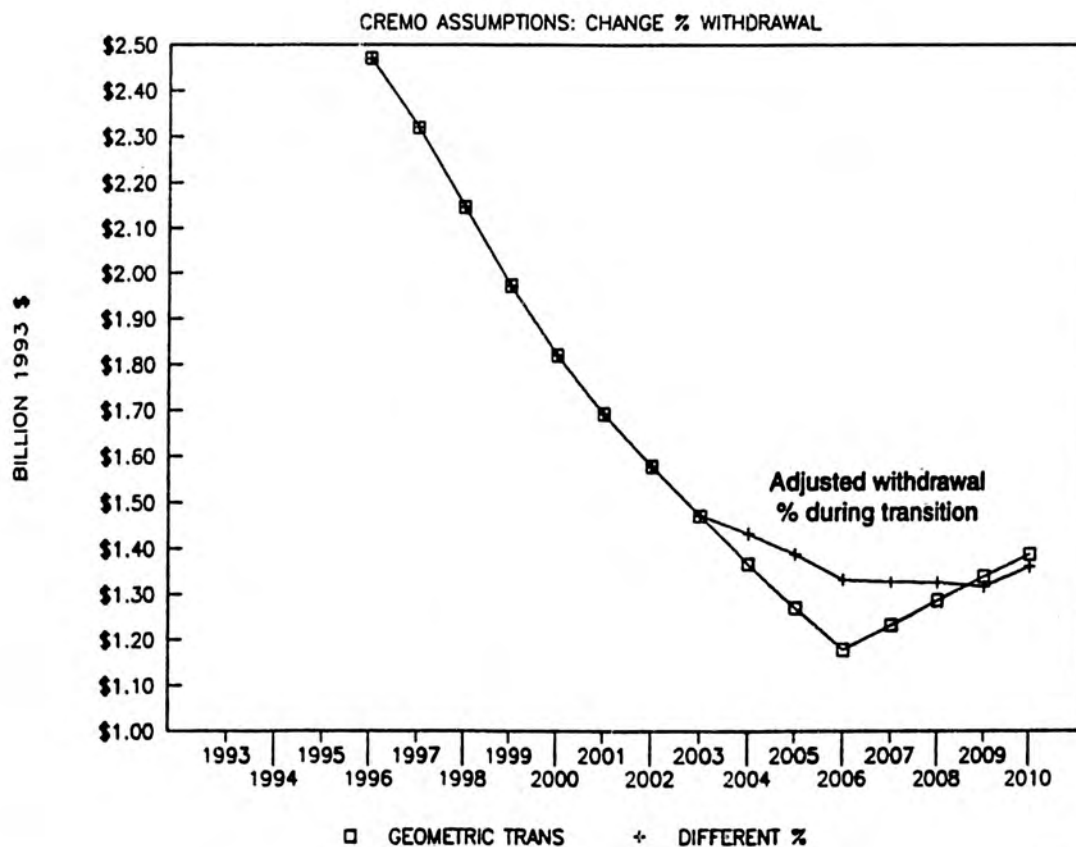


FIGURE 3

WITHDRAWAL FROM FUND: UNEXPECTED \$\$\$\$\$\$

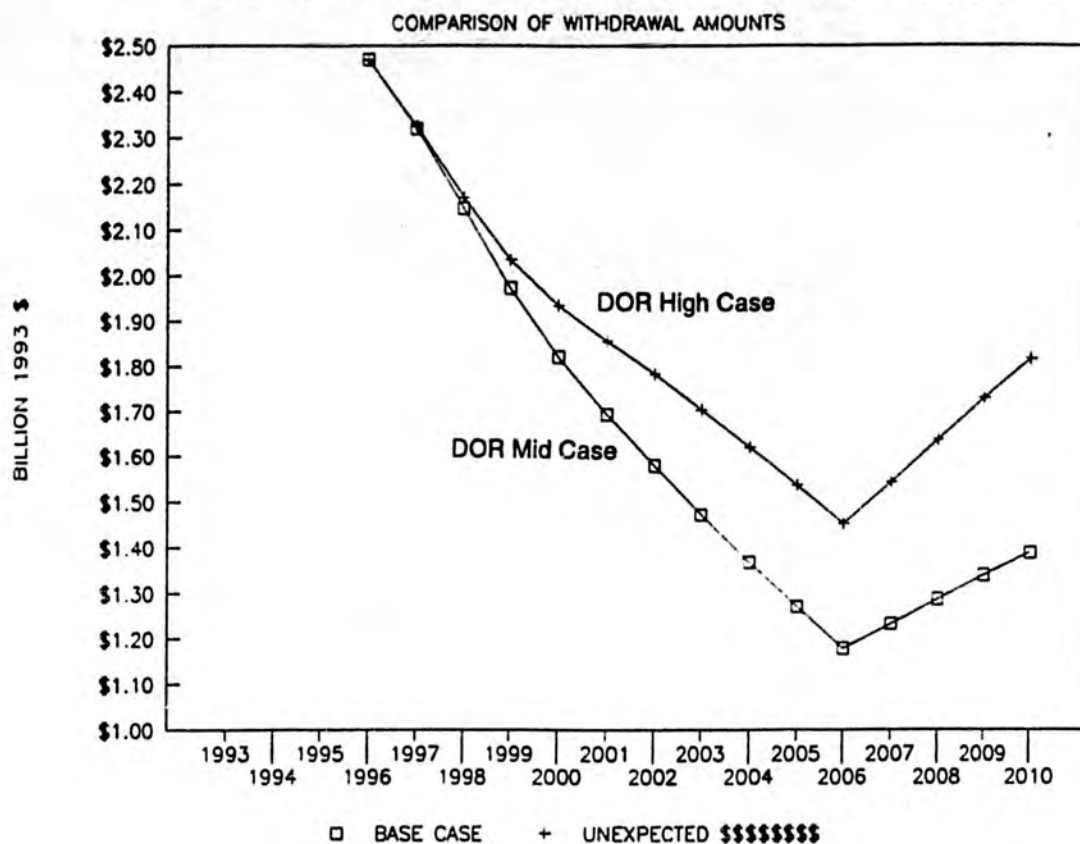


FIGURE 4

WITHDRAWAL FROM FUND: UNEXPECTED \$\$\$\$\$\$

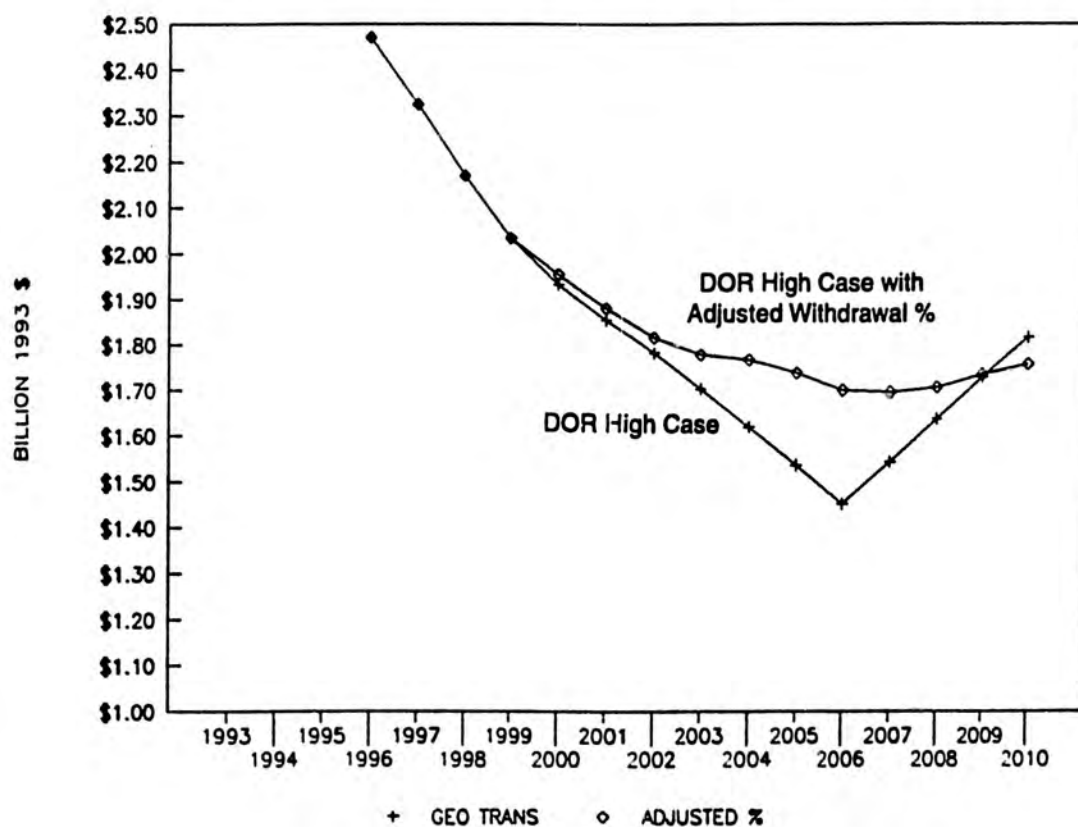


FIGURE 5
BUDGET GAP WITH PF DIVIDEND

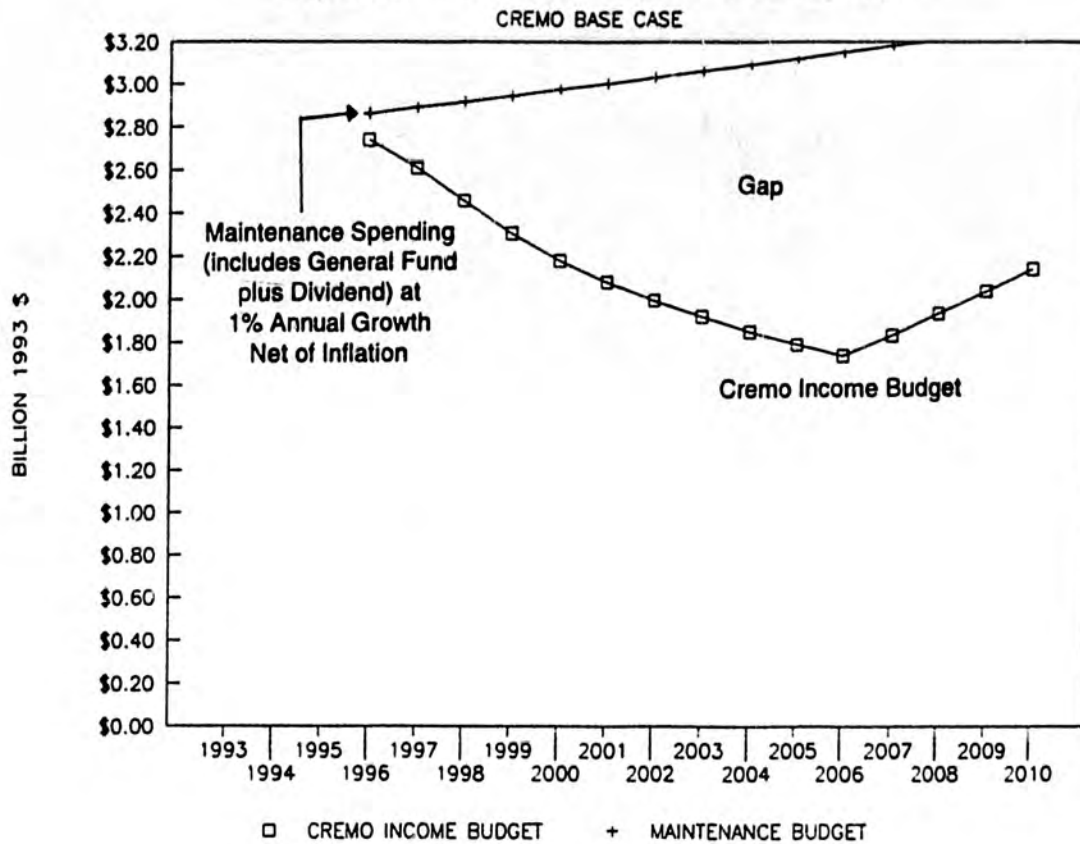


FIGURE 6
BUDGET GAP INCLUDING PF DIVIDEND

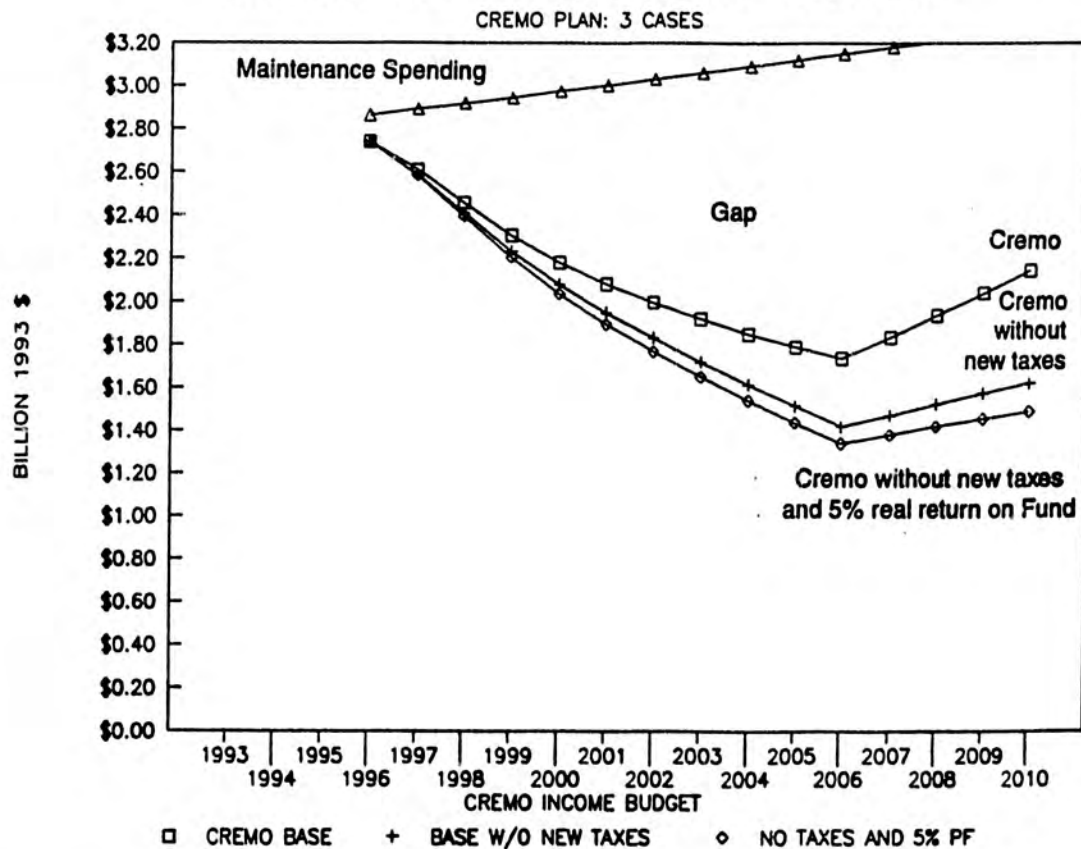


FIGURE 7
BUDGET GAP INCLUDING PF DIVIDEND

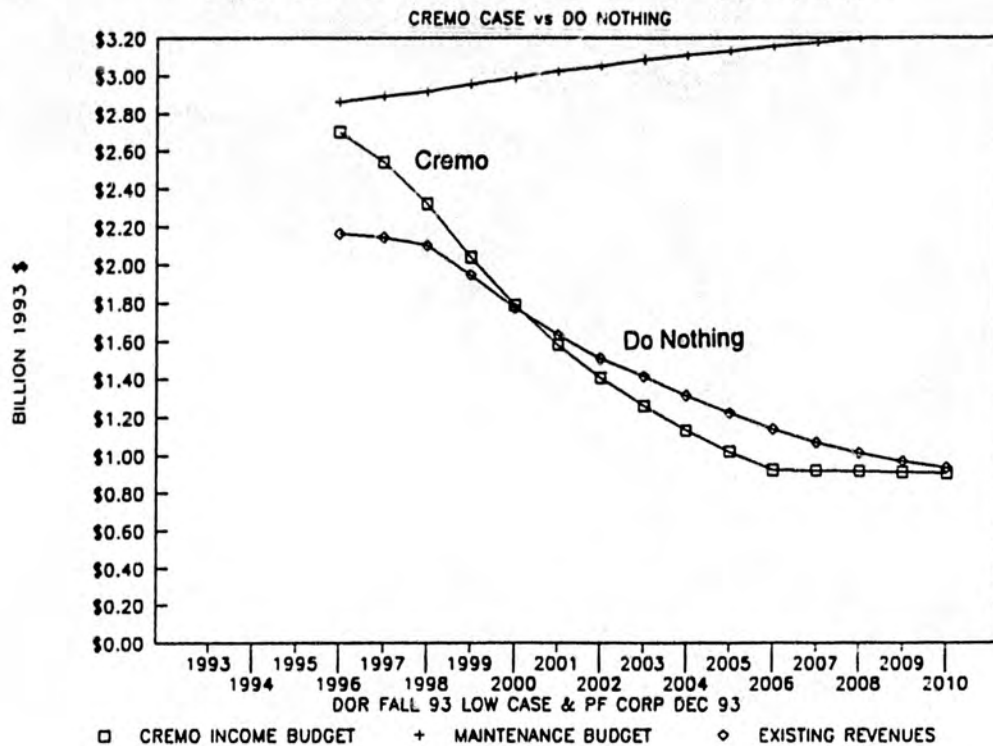


FIGURE 8
PERMANENT FUND BALANCE

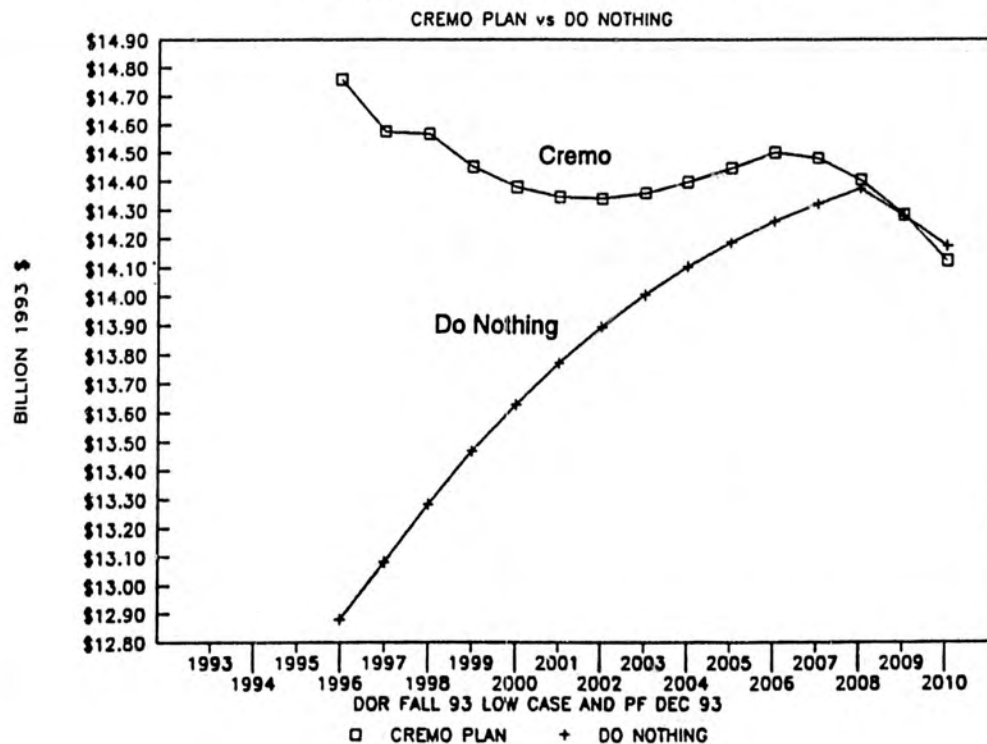


FIGURE 9
BUDGET GAP INCLUDING PF DIVIDEND

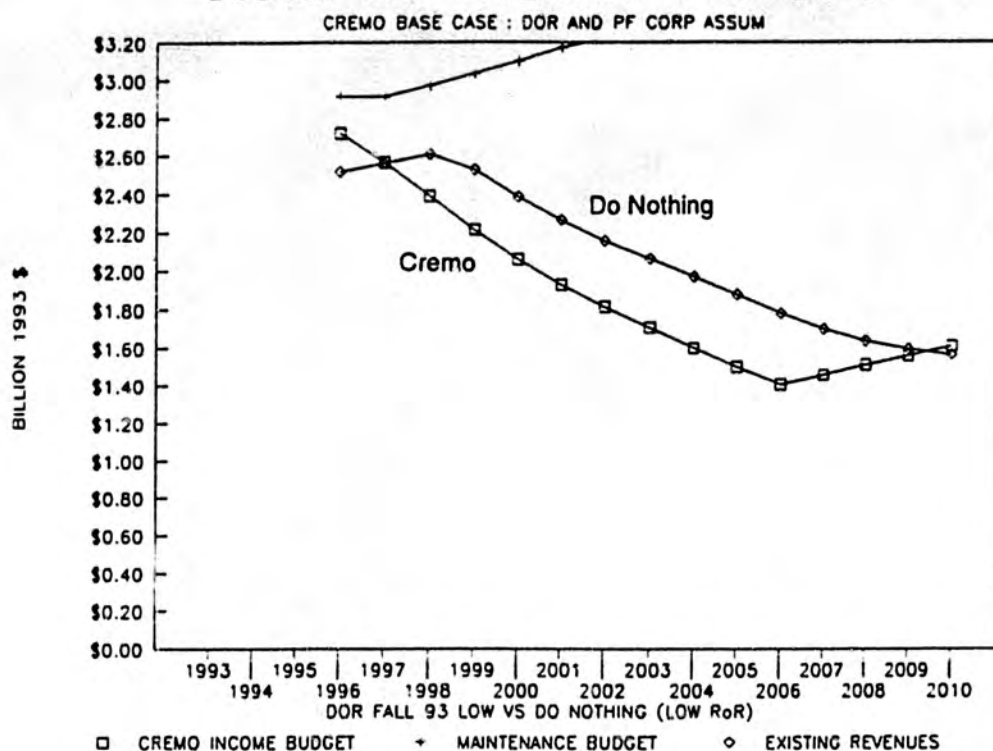
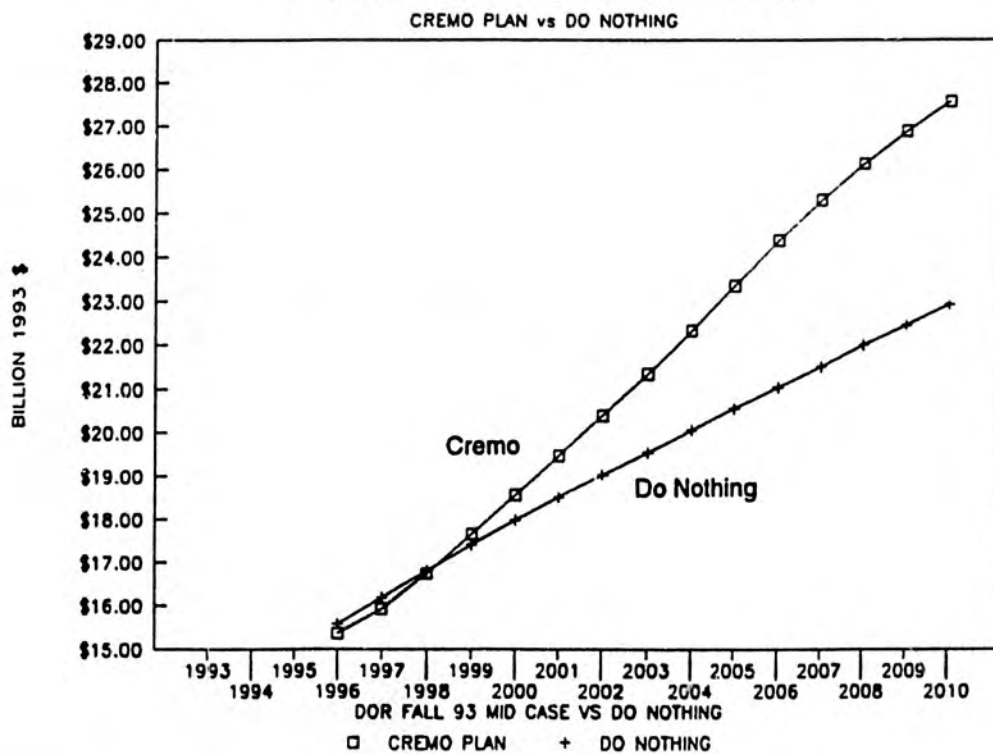


FIGURE 10
PERMANENT FUND BALANCE



\$ 2.5 billion = 93 budget
 1.8 rev (full 92)
 \$ 700 shortfall

unrealized
 gain
 705' net
 (38) land
 782 debt
 \$ 1450

Date: Dept. of Revenue (projections: fall, 1993, mid case)
 = Permanent Fund Corp. (projections: October 31, 1993, mid case)
 Transitional withdrawal: 20% in initial year to permanent % in 2006
 Permanent withdrawal: 6%
 Total return: 10%
 Reserves: 2,500

4.90 inflation

Proposed State Financial System (millions of dollars)

\$ 12,385

Fiscal Year	Deposit	Year Begin	2nd Qtr Begin	3rd Qtr Begin	4th Qtr Begin	Year End	Avg Prior Bal	Wdr %	Withdrawal
1993 =		11,911.33	12,238.08	12,564.83	12,891.58	13,218.33			
1994 =		13,426.67	13,735.42	14,044.17	14,352.92	14,661.67			
1995 =		14,870.00	15,221.75	15,573.50	15,925.25	16,277.00			
1996	2,117.12	16,277.00	16,514.25	16,757.44	17,006.70	17,262.19	13,896.29	20.00	2,779.26
1997	2,295.33	17,262.19	17,586.35	17,918.61	18,259.17	18,608.25	15,308.75	17.73	2,714.45
1998	2,416.40	18,608.25	19,024.06	19,450.27	19,887.13	20,334.91	16,597.68	15.72	2,609.17
1999	2,354.71	20,334.91	20,808.15	21,293.22	21,790.41	22,300.04	17,879.28	13.94	2,491.82
2000	2,175.06	22,300.04	22,802.17	23,316.86	23,844.42	24,385.16	19,351.89	12.36	2,391.12
2001	2,008.86	24,385.16	24,916.66	25,461.45	26,019.85	26,592.22	21,121.66	10.95	2,313.76
2002	1,883.00	26,592.22	27,164.51	27,751.10	28,352.37	28,968.66	23,106.11	9.71	2,244.03
2003	1,754.37	28,968.66	29,585.50	30,217.75	30,865.82	31,530.08	25,242.23	8.61	2,173.42
2004	1,626.18	31,530.08	32,196.66	32,879.90	33,580.22	34,298.05	27,523.42	7.63	2,101.02
2005	1,486.83	34,298.05	35,016.69	35,753.30	36,508.32	37,282.22	29,973.73	6.77	2,028.52
2006	1,321.81	37,282.22	38,051.51	38,840.03	39,648.26	40,476.70	32,616.75	6.00	1,957.00
2007	1,175.92	40,476.70	41,244.66	42,031.83	42,838.67	43,665.69	35,465.44	6.00	2,127.93
2008	1,057.16	43,665.69	44,436.30	45,226.18	46,035.81	46,865.67	38,499.19	6.00	2,309.95
2009	965.92	46,865.67	47,644.49	48,442.78	49,261.03	50,099.73	41,648.15	6.00	2,498.89
2010	892.22	50,099.73	50,891.33	51,702.71	52,534.38	53,386.84	44,847.48	6.00	2,690.85

1773
 1788
 812

2536

ATTACHMENT A

PF simulated 1p

add 2 years of revenues & inflation
 proofing

16,735 at constant values
 15,285 at cost

94 207 500 = 700
 15 207 500 = 700

add reserves at end of 1995
 \$ 1.5 billion

Low Scenario Detailed Revenue Projections (Millions of Dollars)

Table 22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
FY	SEVERANCE TAX	PROPERTY TAX	OIL & GAS INC TAX	GROSS ROYALTIES	MINERAL RENTS	BONUS SALES	INCOME FROM PRIOR YEARS	TOTAL PETROLEUM REVENUES	NON-PETR NON-INTR REVENUES	GEN FUND INTEREST REVENUES	TOTAL REVS W/PERM FND DEDICATION
1981	1170.20	143.00	860.10	1501.60	7.90	14.10	0.00	3696.90	186.10	227.80	4110.80
1982	1581.70	142.70	668.90	1553.20	26.40	10.30	0.00	3983.20	209.00	324.70	4516.90
1983	1493.70	152.60	236.00	1447.40	54.20	73.10	0.00	3457.00	228.60	375.80	4061.40
1984	1393.10	131.00	265.10	1409.00	21.90	16.70	0.00	3236.80	245.80	282.70	3765.30
1985	1389.40	128.40	168.60	1390.30	23.70	23.60	0.00	3124.00	283.00	233.50	3640.50
1986	1107.90	113.50	133.90	1098.20	44.50	70.10	460.70	3028.80	222.40	195.20	3446.40
1987	648.50	102.50	120.40	591.60	29.10	1.00	85.20	1578.30	243.00	161.90	1983.20
1988	818.70	96.20	158.00	953.50	24.20	11.30	329.00	2390.90	223.60	132.60	2747.10
1989	698.80	89.70	166.00	818.70	18.00	23.00	259.70	2073.90	245.10	100.70	2419.70
1990	1001.60	89.80	117.20	1004.43	21.00	0.00	156.80	2390.83	271.33	117.90	2780.06
1991	1284.80	85.00	185.10	1292.83	21.30	38.30	398.59	3305.92	291.04	125.00	3721.96
1992	1053.20	69.00	165.50	1021.32	17.10	5.25	362.07	2693.44	353.40	101.80	3148.64
1993	1017.60	66.90	834.70	982.62	20.30	76.60	75.82	3074.54	325.58	70.90	3471.02
1994	877.20	63.20	156.90	781.80	21.85	1.10	9.40	1911.45	253.39	32.40	2197.24
1995	791.80	60.20	106.00	785.70	20.76	0.00	9.40	1773.86	261.67	5.00	2040.53
1996	778.10	56.70	106.00	803.70	19.72	0.00	9.40	1773.62	262.29	5.00	2040.91
1997	779.00	53.10	90.00	833.30	18.73	0.00	13.40	1787.53	270.16	27.38	2085.08
1998	774.70	49.90	87.00	869.50	17.80	0.00	13.40	1812.30	278.26	27.54	2118.10
1999	688.60	46.00	83.00	837.70	16.91	0.00	13.40	1685.61	286.61	27.90	2000.12
2000	592.50	42.80	78.00	769.80	16.06	0.00	13.40	1512.56	295.21	26.24	1834.01
2001	514.60	39.80	71.00	712.10	15.26	0.00	13.40	1366.16	304.07	24.03	1694.25
2002	450.80	36.80	69.00	667.60	14.50	0.00	0.00	1238.70	313.19	22.18	1574.07
2003	388.30	34.10	64.00	623.50	13.77	0.00	0.00	1123.67	322.58	20.77	1467.03
2004	329.20	31.50	58.00	577.20	13.08	0.00	0.00	1009.98	332.26	19.36	1360.60
2005	272.90	29.60	52.00	524.50	12.43	0.00	0.00	891.43	342.23	17.95	1251.61
2006	214.20	27.70	45.00	473.80	11.81	0.00	0.00	772.51	352.50	16.54	1141.54
2007	164.50	26.10	41.00	432.00	11.22	0.00	0.00	674.82	363.07	15.10	1052.99
2008	126.70	24.70	38.00	398.00	10.66	0.00	0.00	598.06	373.96	13.95	985.97
2009	104.20	23.30	35.00	366.50	10.12	0.00	0.00	539.12	385.18	13.09	937.39
2010	89.20	21.80	31.00	338.20	9.62	0.00	0.00	489.82	396.74	12.49	899.04

(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	TOTAL REVS W/ PERM FND	PUB SCH	NPR-A	OTHER	PERM FUND	CONSTITUTIONAL BUDGET RESERVE	NET GEN FUND UNRESTRD REVENUES	
FY	DEDICATION	FUND	FUND	FUNDS	DEDICATN	FUND	NOM \$	REAL 1992\$
1981	4110.80	7.50	0.00	74.30	385.10	0.00	3718.20	
1982	4516.90	8.00	0.00	0.00	400.50	0.00	4108.40	
1983	4061.40	9.40	0.00	0.00	421.00	0.00	3631.00	
1984	3765.30	9.00	0.00	0.00	366.20	0.00	3390.10	
1985	3640.50	7.10	5.40	0.00	368.00	0.00	3260.00	
1986	3446.40	6.50	41.00	0.00	323.40	0.00	3075.50	
1987	1983.20	3.30	9.90	0.00	170.60	0.00	1799.40	
1988	2747.10	6.60	1.00	15.80	417.90	0.00	2305.80	
1989	2419.70	4.30	0.80	0.00	228.40	0.00	2186.20	
1990	2780.06	5.13	0.60	0.00	267.10	0.00	2507.23	
1991	3721.96	8.83	0.37	0.00	435.00	291.20	2986.56	
1992	3148.64	15.04	0.13	0.00	337.80	333.07	2462.60	2462.60
1993	3471.02	6.80	0.19	0.00	315.30	67.13	3081.60	2991.84
1994	2197.24	4.02	0.40	0.00	209.02	0.00	1983.80	1886.40
1995	2040.53	4.03	0.30	7.00	209.20	0.00	1820.00	1695.05
1996	2040.91	4.12	0.10	7.00	213.60	0.00	1816.09	1654.19
1997	2085.08	4.26	0.00	7.00	221.02	0.00	1852.80	1650.56
1998	2118.10	4.44	0.00	10.00	230.16	0.00	1873.50	1632.34
1999	2000.12	4.27	0.00	10.00	221.69	0.00	1764.16	1503.31
2000	1834.01	3.93	0.00	10.00	203.85	0.00	1616.23	1347.00
2001	1694.25	3.64	0.00	10.00	188.68	0.00	1491.93	1215.50
2002	1574.07	3.41	0.00	10.00	176.94	0.00	1383.72	1102.04
2003	1467.03	3.19	0.00	0.00	165.31	0.00	1298.53	1010.98
2004	1360.60	2.95	0.00	0.00	153.12	0.00	1204.53	916.75
2005	1251.61	2.68	0.00	0.00	139.28	0.00	1109.65	825.58
2006	1141.54	2.43	0.00	0.00	125.97	0.00	1013.14	736.86
2007	1052.99	2.22	0.00	0.00	114.97	0.00	935.80	665.34
2008	985.97	2.04	0.00	0.00	106.01	0.00	877.92	610.18
2009	937.39	1.88	0.00	0.00	97.70	0.00	837.81	569.23
2010	899.04	1.74	0.00	0.00	90.22	0.00	807.08	536.05

Table 23

Mid Scenario Detailed Revenue Projections (Millions on Dollars)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
FY	SEVERANCE TAX	PROPERTY TAX	OIL&GAS INC TAX	GROSS ROYALTIES	MINERAL RENTS	BONUS SALES	INCOME FROM PRIOR YEARS	TOTAL PETROLEUM REVENUES	NON-PETR NON-INTR REVENUES	GEN FUND TOTAL REVS INTEREST W/ PERM FND REVENUES DEDICATION	
1981	1170.20	143.00	860.10	1501.60	7.90	14.10	0.00	3696.90	186.10	227.80	4110.80
1982	1581.70	142.70	668.90	1553.20	26.40	10.30	0.00	3983.20	209.00	324.70	4516.90
1983	1493.70	152.60	236.00	1447.40	54.20	73.10	0.00	3457.00	228.60	375.80	4061.40
1984	1393.10	131.00	265.10	1409.00	21.90	16.70	0.00	3236.80	245.80	282.70	3765.30
1985	1389.40	128.40	168.60	1390.30	23.70	23.60	0.00	3124.00	283.00	233.50	3640.50
1986	1107.90	113.50	133.90	1098.20	44.50	70.10	460.70	3028.80	222.40	195.20	3446.40
1987	648.50	102.50	120.40	591.60	29.10	1.00	85.20	1578.30	243.00	161.90	1983.20
1988	818.70	96.20	158.00	953.50	24.20	11.30	329.00	2390.90	223.60	132.60	2747.10
1989	698.80	89.70	166.00	818.70	18.00	23.00	259.70	2073.90	245.10	100.70	2419.70
1990	1001.60	89.80	117.20	1004.43	21.00	0.00	156.80	2390.83	271.33	117.90	2780.06
1991	1284.80	85.00	185.10	1292.83	21.30	38.30	398.59	3305.92	291.04	125.00	3721.96
1992	1053.20	69.00	165.50	1021.32	17.10	5.25	447.61	2693.44	353.40	101.80	3148.64
1993	1017.60	66.90	834.70	982.62	20.30	76.60	75.82	3074.54	325.58	70.90	3471.02
1994	942.80	63.20	189.90	851.20	21.85	1.10	9.40	2079.45	275.69	36.30	2391.44
1995	921.70	60.20	139.00	926.40	20.76	0.00	9.40	2077.46	280.11	27.20	2384.77
1996	924.90	56.70	139.00	967.40	19.72	0.00	9.40	2117.12	280.86	27.20	2425.18
1997	1011.70	53.10	127.00	1071.40	18.73	0.00	13.40	2295.33	289.29	32.20	2616.82
1998	1052.10	49.90	119.00	1164.20	17.80	0.00	13.40	2416.40	297.96	34.55	2748.91
1999	994.80	46.00	111.00	1172.60	16.91	0.00	13.40	2354.71	306.90	36.15	2697.76
2000	888.20	42.80	109.00	1105.60	16.06	0.00	13.40	2175.06	316.11	35.33	2526.50
2001	793.20	39.80	105.00	1042.20	15.26	0.00	13.40	2008.86	325.59	33.02	2367.47
2002	726.50	36.80	99.00	1006.20	14.50	0.00	0.00	1883.00	335.36	30.91	2249.26
2003	649.10	34.10	94.00	963.40	13.77	0.00	0.00	1754.37	345.42	29.50	2129.30
2004	574.20	31.50	89.00	918.40	13.08	0.00	0.00	1626.18	355.79	27.88	2009.85
2005	498.60	29.60	84.00	862.20	12.43	0.00	0.00	1486.83	366.46	26.29	1879.57
2006	406.60	27.70	79.00	796.70	11.81	0.00	0.00	1321.81	377.45	24.57	1723.83
2007	326.90	26.10	76.00	735.70	11.22	0.00	0.00	1175.92	388.78	22.50	1587.19
2008	265.60	24.70	71.00	685.20	10.66	0.00	0.00	1057.16	400.44	20.71	1478.31
2009	226.20	23.30	67.00	639.30	10.12	0.00	0.00	965.92	412.45	19.29	1397.67
2010	200.90	21.80	62.00	597.90	9.62	0.00	0.00	892.22	424.83	18.28	1335.32

(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	TOTAL REVS W/ PERM FND	PUB SCH	NPR-A	OTHER	PERM FUND	CONSTITUTIONAL BUDGET RESERVE	NET GEN FUND UNRESTRD REVENUES	
FY	DEDICATION	FUND	FUND	FUNDS	DEDICATN	FUND	NOM\$	REAL 1992\$
1981	4110.80	7.50	0.00	74.30	385.10	0.00	3718.20	
1982	4516.90	8.00	0.00	0.00	400.50	0.00	4108.40	
1983	4061.40	9.40	0.00	0.00	421.00	0.00	3631.00	
1984	3765.30	9.00	0.00	0.00	366.20	0.00	3390.10	
1985	3640.50	7.10	5.40	0.00	368.00	0.00	3260.00	
1986	3446.40	6.50	41.00	0.00	323.40	0.00	3075.50	
1987	1983.20	3.30	9.90	0.00	170.60	0.00	1799.40	
1988	2747.10	6.60	1.00	15.80	417.90	0.00	2305.80	
1989	2419.70	4.30	0.80	0.00	228.40	0.00	2186.20	
1990	2780.06	5.13	0.60	0.00	267.10	0.00	2507.23	
1991	3721.96	8.83	0.37	0.00	435.00	291.20	2986.56	
1992	3148.64	15.04	0.13	0.00	337.80	333.07	2462.60	2462.60
1993	3471.02	6.80	0.19	0.00	315.30	67.13	3081.60	2991.84
1994	2391.44	4.37	0.40	0.00	228.07	0.00	2158.60	2032.71
1995	2384.77	4.74	0.30	7.00	246.83	0.00	2125.90	1941.73
1996	2425.18	4.94	0.10	7.00	257.24	0.00	2155.90	1895.76
1997	2616.82	5.45	0.00	7.00	284.09	0.00	2320.28	1964.35
1998	2748.91	5.91	0.00	10.00	308.03	0.00	2424.97	1976.56
1999	2697.76	5.95	0.00	10.00	309.99	0.00	2371.82	1861.27
2000	2526.50	5.61	0.00	10.00	292.31	0.00	2212.58	1676.20
2001	2367.47	5.29	0.00	10.00	275.57	0.00	2076.61	1509.86
2002	2249.26	5.10	0.00	10.00	265.99	0.00	1968.17	1377.14
2003	2129.30	4.89	0.00	0.00	254.65	0.00	1869.76	1259.02
2004	2009.85	4.66	0.00	0.00	242.74	0.00	1762.45	1142.08
2005	1879.57	4.37	0.00	0.00	227.93	0.00	1647.27	1027.25
2006	1723.83	4.04	0.00	0.00	210.70	0.00	1509.09	905.65
2007	1587.19	3.73	0.00	0.00	194.65	0.00	1388.81	802.08
2008	1478.31	3.48	0.00	0.00	181.34	0.00	1293.49	718.90
2009	1397.67	3.25	0.00	0.00	169.24	0.00	1225.18	655.30
2010	1335.32	3.04	0.00	0.00	158.32	0.00	1173.96	604.26



Alaska Permanent Fund Corporation

FINANCIAL PROJECTIONS (in millions)

as of December 31, 1993

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		84		139	
80	139		344		483	
81	463	900	385		1,769	
82	1,769	800	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	209	372	12,971	
95	12,971	5	209	527	13,713	
96	13,713	5	214	557	14,489	
97	14,489	5	221	589	15,304	
98	15,304	6	230	622	16,161	
99	16,161	4	222	983	17,370	
0	17,370	4	204	1,055	18,633	
1	18,633	4	189	1,130	19,956	
2	19,956	4	177	1,208	21,345	
3	21,345	5	165	1,291	22,806	
4	22,806	5	153	1,378	24,342	
5	24,342	5	139	1,469	25,955	
6	25,955	5	126	1,565	27,651	
7	27,651	5	115	1,666	29,438	
8	29,438	5	106	1,773	31,322	
9	31,322	6	98	1,552	32,977	334
10	32,977	6	90	1,629	34,702	355
Cumulative Totals Projected For FY 1994 - 2010:						
			2,777	19,365	689	

USE OF FUND INCOME

Net Income	Distributions		Reserves		FY End Balance	FY
	Dividends	Inflation-Proofing	General Fund	Add (Delete)		
2			1			78
8			7			79
32	12		12			80
150	28		28	59	59	81
368	71		71	185	244	82
471	108	231	110	110	354	83
530	175	151		203	557	84
658	217	235		206	763	85
1,021	303	216		501	1,264 **	86
1,069	391	148		529	529	87
789	424	303		62	591	88
868	460	360	4	44	635	89
916	487	454	4	(30)	605	90
1,030	489	559	4	(24)	581	91
1,036	488	477	5	64	645	92
1,226	532	362	5	320	965	93
1,075	555	372	5	139	1,104	94
1,239	589	527		118	1,221	95
1,314	619	557		133	1,355	96
1,394	656	589		144	1,498	97
1,478	683	622		168	1,667	98
1,691	747	983		(44)	1,623	99
1,800	806	1,055		(65)	1,558	0
1,912	869	1,130		(91)	1,467	1
2,027	935	1,208		(121)	1,346	2
2,147	1,006	1,291		(155)	1,192	3
2,269	1,066	1,378		(180)	1,012	4
2,396	1,129	1,469		(207)	805	5
2,528	1,194	1,565		(236)	569	6
2,665	1,261	1,666		(267)	303	7
2,808	1,330	1,773		(300)	2	8
2,957	1,402	1,552		(2)		9
3,112	1,477	1,629				10
34,812	16,322	19,365	5			

REALIZED RATE OF RETURN ASSUMPTIONS:

	Nominal	Inflation	Real
FY 94:	7.81%	2.95%	4.86%
FY 95 - 98: ****	8.37%	4.00%	4.37%
FY 99 - 2010:	9.00%	6.00%	3.00%

* Department of Revenue Fall 1993 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 April 1993.

STATUS QUO

CASE 1 CREMO BASE CASE

	DEPOSIT		PERMANENT FUND	PF AVERAGE	WITHDRAWAL		CONVENTIONAL	INCOME BUDGET	PRESENT VALUE OF \$1 (1993)	PRESENT VALUE IN 1993 \$				CREMO GAP	
	UN-EXPECTED	EXPECTED	YEAR END	12 PRIOR QUARTERS	%	AMOUNT	REVENUES			FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$2,117	\$2,117	\$17,279	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,361	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$2,295	\$18,638	\$15,311	17.73%	\$2,715	\$336	\$3,051	\$0.85	\$15,932	\$2,320	\$287	\$2,608	\$329	\$282
1998	\$2,416	\$2,416	\$20,370	\$16,607	15.72%	\$2,611	\$376	\$2,987	\$0.82	\$16,743	\$2,146	\$309	\$2,455	\$562	\$462
1999	\$2,354	\$2,354	\$22,339	\$17,899	13.94%	\$2,495	\$421	\$2,917	\$0.79	\$17,655	\$1,972	\$333	\$2,305	\$810	\$640
2000	\$2,175	\$2,175	\$24,429	\$19,382	12.36%	\$2,396	\$472	\$2,868	\$0.76	\$18,564	\$1,820	\$359	\$2,179	\$1,045	\$794
2001	\$2,008	\$2,008	\$26,644	\$21,158	10.95%	\$2,317	\$529	\$2,845	\$0.73	\$19,469	\$1,693	\$386	\$2,079	\$1,263	\$923
2002	\$1,883	\$1,883	\$29,032	\$23,147	9.71%	\$2,248	\$592	\$2,840	\$0.70	\$20,397	\$1,579	\$416	\$1,995	\$1,474	\$1,036
2003	\$1,754	\$1,754	\$31,606	\$25,290	8.61%	\$2,177	\$663	\$2,841	\$0.68	\$21,352	\$1,471	\$448	\$1,919	\$1,689	\$1,141
2004	\$1,626	\$1,626	\$34,390	\$27,580	7.63%	\$2,104	\$743	\$2,847	\$0.65	\$22,339	\$1,367	\$483	\$1,849	\$1,909	\$1,240
2005	\$1,486	\$1,486	\$37,392	\$30,042	6.77%	\$2,034	\$832	\$2,866	\$0.62	\$23,355	\$1,270	\$520	\$1,790	\$2,128	\$1,329
2006	\$1,321	\$1,321	\$40,608	\$32,699	6.00%	\$1,962	\$932	\$2,894	\$0.60	\$24,388	\$1,178	\$560	\$1,738	\$2,350	\$1,411
2007	\$1,175	\$1,175	\$43,828	\$35,565	6.00%	\$2,134	\$1,044	\$3,177	\$0.58	\$25,310	\$1,232	\$603	\$1,835	\$2,328	\$1,344
2008	\$1,057	\$1,057	\$47,070	\$38,619	6.00%	\$2,317	\$1,169	\$3,486	\$0.56	\$26,136	\$1,287	\$649	\$1,936	\$2,295	\$1,274
2009	\$965	\$965	\$50,355	\$41,794	6.00%	\$2,508	\$1,309	\$3,817	\$0.53	\$26,885	\$1,339	\$699	\$2,038	\$2,253	\$1,203
2010	\$892	\$892	\$53,704	\$45,029	6.00%	\$2,702	\$1,466	\$4,168	\$0.51	\$27,570	\$1,387	\$753	\$2,140	\$2,206	\$1,132

DOR FALL 1993 MID CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00%

10.38%

12.00%

1.00%

CASE

CURRENT SPENDING TREND					CURRENT REVENUE STRUCTURE				CURRENT POLICY FISCAL GAP	
GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$	GENERAL FUND	PERM FUND	SUM	SUM IN 1993 \$	NOM \$	1993 \$	
1993										
1994										
1995										
1996	\$2,600	\$619	\$3,219	\$2,862	\$2,155	\$619	\$2,774	\$2,466	\$445 \$396	
1997	\$2,730	\$650	\$3,380	\$2,889	\$2,320	\$650	\$2,970	\$2,539	\$410 \$350	
1998	\$2,867	\$682	\$3,549	\$2,917	\$2,424	\$682	\$3,106	\$2,553	\$443 \$364	
1999	\$3,010	\$717	\$3,726	\$2,945	\$2,371	\$717	\$3,088	\$2,440	\$639 \$505	
2000	\$3,160	\$752	\$3,913	\$2,973	\$2,218	\$752	\$2,970	\$2,257	\$942 \$716	
2001	\$3,318	\$790	\$4,108	\$3,002	\$2,076	\$790	\$2,866	\$2,094	\$1,242 \$908	
2002	\$3,484	\$830	\$4,314	\$3,031	\$1,968	\$830	\$2,798	\$1,965	\$1,516 \$1,065	
2003	\$3,658	\$871	\$4,529	\$3,060	\$1,869	\$871	\$2,740	\$1,851	\$1,789 \$1,209	
2004	\$3,841	\$915	\$4,756	\$3,089	\$1,762	\$915	\$2,677	\$1,739	\$2,079 \$1,351	
2005	\$4,033	\$960	\$4,994	\$3,119	\$1,647	\$960	\$2,607	\$1,628	\$2,386 \$1,491	
2006	\$4,235	\$1,008	\$5,243	\$3,149	\$1,509	\$1,008	\$2,517	\$1,512	\$2,726 \$1,637	
2007	\$4,447	\$1,059	\$5,506	\$3,179	\$1,388	\$1,059	\$2,447	\$1,413	\$3,059 \$1,766	
2008	\$4,669	\$1,112	\$5,781	\$3,210	\$1,293	\$1,112	\$2,405	\$1,335	\$3,376 \$1,875	
2009	\$4,903	\$1,167	\$6,070	\$3,241	\$1,225	\$1,167	\$2,392	\$1,277	\$3,678 \$1,964	
2010	\$5,148	\$1,226	\$6,373	\$3,272	\$1,173	\$1,226	\$2,399	\$1,231	\$3,975 \$2,041	

DIVIDEND FROM PF CORP DECEMBER 1993 REPORT--GROWTH AT 1% ABOVE INFLATION
GF SPENDING FOR 1996 ESTIMATED--GROWTH AT 1% ABOVE INFLATION
GR REVENUES FROM DOR FALL 1993 MID CASE

CASE 2 CREMO BASE CASE WITH REVISED TRANSITIONAL WITHDRAWAL RATE

DEPOSIT			PERMANENT FUND	PF AVERAGE 12 PRIOR QUARTERS	WITHDRAWAL		CONVENTIONAL REVENUES	INCOME BUDGET	PRESENT VALUE OF \$1 (1993)	PRESENT VALUE IN 1993 \$				CREMO GAP	
UN-EXPECTED	EXPECTED	TOTAL	YEAR END		%	AMOUNT				FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$2,117	\$2,117	\$17,279	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,361	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$2,295	\$18,638	\$15,311	17.73%	\$2,715	\$336	\$3,051	\$0.85	\$15,932	\$2,320	\$287	\$2,608	\$335	\$287
1998	\$2,416	\$2,416	\$20,370	\$16,607	15.72%	\$2,611	\$376	\$2,987	\$0.82	\$16,743	\$2,146	\$309	\$2,455	\$563	\$462
1999	\$2,354	\$2,354	\$22,339	\$17,899	13.94%	\$2,495	\$421	\$2,917	\$0.79	\$17,655	\$1,972	\$333	\$2,305	\$840	\$664
2000	\$2,175	\$2,175	\$24,429	\$19,382	12.36%	\$2,396	\$472	\$2,868	\$0.76	\$18,564	\$1,820	\$359	\$2,179	\$1,099	\$835
2001	\$2,008	\$2,008	\$26,644	\$21,158	10.95%	\$2,317	\$529	\$2,845	\$0.73	\$19,469	\$1,693	\$386	\$2,079	\$1,342	\$980
2002	\$1,883	\$1,883	\$29,032	\$23,147	9.71%	\$2,248	\$592	\$2,840	\$0.70	\$20,397	\$1,579	\$416	\$1,995	\$1,579	\$1,110
2003	\$1,754	\$1,754	\$31,606	\$25,290	8.61%	\$2,177	\$663	\$2,841	\$0.68	\$21,352	\$1,471	\$448	\$1,919	\$1,824	\$1,232
2004	\$1,626	\$1,626	\$34,284	\$27,580	8.00%	\$2,206	\$743	\$2,949	\$0.65	\$22,271	\$1,433	\$483	\$1,916	\$1,958	\$1,272
2005	\$1,486	\$1,486	\$37,079	\$30,029	7.40%	\$2,222	\$832	\$3,054	\$0.62	\$23,160	\$1,388	\$520	\$1,908	\$2,108	\$1,317
2006	\$1,321	\$1,321	\$39,997	\$32,626	6.80%	\$2,219	\$932	\$3,150	\$0.60	\$24,021	\$1,332	\$560	\$1,892	\$2,279	\$1,369
2007	\$1,175	\$1,175	\$42,983	\$35,351	6.50%	\$2,298	\$1,044	\$3,341	\$0.58	\$24,822	\$1,327	\$603	\$1,930	\$2,367	\$1,367
2008	\$1,057	\$1,057	\$46,065	\$38,185	6.25%	\$2,387	\$1,169	\$3,555	\$0.56	\$25,579	\$1,325	\$649	\$1,974	\$2,444	\$1,357
2009	\$965	\$965	\$49,288	\$41,120	6.00%	\$2,467	\$1,309	\$3,776	\$0.53	\$26,315	\$1,317	\$699	\$2,016	\$2,528	\$1,350
2010	\$892	\$892	\$52,581	\$44,153	6.00%	\$2,649	\$1,466	\$4,115	\$0.51	\$26,994	\$1,360	\$753	\$2,113	\$2,510	\$1,288

DOR FALL 1993 MID CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

4.00%

10.38%

12.00%

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

1.00%

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

SE

CURRENT SPENDING TREND

GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$
-----------------	----------------	-----	-------------------

1993			
1994			
1995			
1996	\$2,600	\$619	\$3,219
1997	\$2,730	\$656	\$3,386
1998	\$2,867	\$683	\$3,550
1999	\$3,010	\$747	\$3,757
2000	\$3,160	\$806	\$3,966
2001	\$3,318	\$869	\$4,187
2002	\$3,484	\$935	\$4,419
2003	\$3,658	\$1,006	\$4,664
2004	\$3,841	\$1,066	\$4,907
2005	\$4,033	\$1,129	\$5,162
2006	\$4,235	\$1,194	\$5,429
2007	\$4,447	\$1,261	\$5,708
2008	\$4,669	\$1,330	\$5,999
2009	\$4,903	\$1,402	\$6,305
2010	\$5,148	\$1,477	\$6,625

CASE 3 CREMO WITH UNEXPECTED REVENUES

DEPOSIT				PERMANENT FUND	P.F.	WITHDRAWAL		CONVENTIONAL REVENUES	INCOME BUDGET	PRESENT VALUE IN 1993 \$				CREMO GAP		
UN-EXPECTED	EXPECTED	TOTAL	YEAR END	AVERAGE 12 PRIOR QUARTERS	%	AMOUNT				PRESENT VALUE OF \$1 (1993)	FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218							\$1.00						
1994			\$14,661							\$0.96						
1995			\$16,277							\$0.92						
1996	\$2,117	\$242	\$2,359	\$17,531	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,585	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$552	\$2,847	\$19,482	\$15,341	17.73%	\$2,720	\$336	\$3,056	\$0.85	\$16,654	\$2,325	\$287	\$2,612	\$330	\$282
1998	\$2,416	\$708	\$3,124	\$22,007	\$16,794	15.72%	\$2,640	\$376	\$3,016	\$0.82	\$18,088	\$2,170	\$309	\$2,479	\$533	\$438
1999	\$2,354	\$842	\$3,196	\$24,938	\$18,465	13.94%	\$2,574	\$421	\$2,995	\$0.79	\$19,709	\$2,034	\$333	\$2,367	\$761	\$602
2000	\$2,175	\$845	\$3,020	\$28,021	\$20,580	12.36%	\$2,544	\$472	\$3,016	\$0.76	\$21,294	\$1,933	\$359	\$2,292	\$951	\$722
2001	\$2,008	\$875	\$2,883	\$31,287	\$23,188	10.95%	\$2,539	\$529	\$3,068	\$0.73	\$22,861	\$1,855	\$386	\$2,242	\$1,120	\$818
2002	\$1,883	\$927	\$2,810	\$34,819	\$26,125	9.71%	\$2,537	\$592	\$3,129	\$0.70	\$24,463	\$1,782	\$416	\$2,198	\$1,290	\$907
2003	\$1,754	\$961	\$2,715	\$38,634	\$29,292	8.61%	\$2,522	\$663	\$3,185	\$0.68	\$26,099	\$1,704	\$448	\$2,152	\$1,479	\$999
2004	\$1,626	\$989	\$2,615	\$42,771	\$32,675	7.63%	\$2,493	\$743	\$3,236	\$0.65	\$27,783	\$1,619	\$483	\$2,102	\$1,672	\$1,086
2005	\$1,486	\$1,012	\$2,498	\$47,252	\$36,319	6.77%	\$2,459	\$832	\$3,291	\$0.62	\$29,513	\$1,536	\$520	\$2,055	\$1,872	\$1,169
2006	\$1,321	\$1,042	\$2,363	\$52,102	\$40,263	6.00%	\$2,416	\$932	\$3,348	\$0.60	\$31,291	\$1,451	\$560	\$2,010	\$2,082	\$1,250
2007	\$1,175	\$1,074	\$2,249	\$57,072	\$44,534	6.00%	\$2,672	\$1,044	\$3,716	\$0.58	\$32,958	\$1,543	\$603	\$2,146	\$1,992	\$1,150
2008	\$1,057	\$1,066	\$2,123	\$62,141	\$49,126	6.00%	\$2,948	\$1,169	\$4,116	\$0.56	\$34,505	\$1,637	\$649	\$2,286	\$1,883	\$1,046
2009	\$965	\$1,073	\$2,038	\$67,346	\$53,965	6.00%	\$3,238	\$1,309	\$4,547	\$0.53	\$35,957	\$1,729	\$699	\$2,428	\$1,758	\$938
2010	\$892	\$1,048	\$1,940	\$72,678	\$58,971	6.00%	\$3,538	\$1,466	\$5,004	\$0.51	\$37,311	\$1,816	\$753	\$2,569	\$1,620	\$832

DOR FALL 1993 HIGH CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00%

10.38%

12.00%

1.00%

CASE

CURRENT SPENDING TREND

	GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$
1993				
1994				
1995				
1996	\$2,600	\$619	\$3,219	\$2,862
1997	\$2,730	\$656	\$3,386	\$2,894
1998	\$2,867	\$683	\$3,550	\$2,917
1999	\$3,010	\$747	\$3,757	\$2,969
2000	\$3,160	\$806	\$3,966	\$3,014
2001	\$3,318	\$869	\$4,187	\$3,060
2002	\$3,484	\$935	\$4,419	\$3,105
2003	\$3,658	\$1,006	\$4,664	\$3,151
2004	\$3,841	\$1,066	\$4,907	\$3,188
2005	\$4,033	\$1,129	\$5,162	\$3,224
2006	\$4,235	\$1,194	\$5,429	\$3,261
2007	\$4,447	\$1,261	\$5,708	\$3,296
2008	\$4,669	\$1,330	\$5,999	\$3,331
2009	\$4,903	\$1,402	\$6,305	\$3,366
2010	\$5,148	\$1,477	\$6,625	\$3,401

CASE 4 CREMO WITH UNEXPECTED REVENUES AND REVISED TRANSITIONAL WITHDRAWAL RATE

	DEPOSIT			PERMANENT FUND	PF AVERAGE	WITHDRAWAL		CONVEN-	INCOME BUDGET	PRESENT VALUE OF \$1 (1993)	PRESENT VALUE IN 1993 \$				CREMO GAP	
	UN-EXPECTED	EXPECTED	TOTAL	YEAR END	12 PRIOR QUARTERS	%	AMOUNT	TIONAL REVENUES			FUND	WITH-DRAWAL	CONVEN-TIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993				\$13,218						\$1.00						
1994				\$14,661						\$0.96						
1995				\$16,277						\$0.92						
1996	\$2,117	\$242	\$2,359	\$17,531	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,585	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$552	\$2,847	\$19,482	\$15,341	17.73%	\$2,720	\$336	\$3,056	\$0.85	\$16,654	\$2,325	\$287	\$2,612	\$330	\$282
1998	\$2,416	\$708	\$3,124	\$22,007	\$16,794	15.72%	\$2,640	\$376	\$3,016	\$0.82	\$18,088	\$2,170	\$309	\$2,479	\$533	\$438
1999	\$2,354	\$842	\$3,196	\$24,938	\$18,465	13.94%	\$2,574	\$421	\$2,995	\$0.79	\$19,709	\$2,034	\$333	\$2,367	\$761	\$602
2000	\$2,175	\$845	\$3,020	\$27,991	\$20,580	12.50%	\$2,573	\$472	\$3,045	\$0.76	\$21,271	\$1,955	\$359	\$2,314	\$922	\$700
2001	\$2,008	\$875	\$2,883	\$31,218	\$23,184	11.10%	\$2,573	\$529	\$3,102	\$0.73	\$22,811	\$1,880	\$386	\$2,267	\$1,085	\$793
2002	\$1,883	\$927	\$2,810	\$34,693	\$26,106	9.90%	\$2,585	\$592	\$3,177	\$0.70	\$24,375	\$1,816	\$416	\$2,232	\$1,243	\$873
2003	\$1,754	\$961	\$2,715	\$38,381	\$29,243	9.00%	\$2,632	\$663	\$3,295	\$0.68	\$25,929	\$1,778	\$448	\$2,226	\$1,369	\$925
2004	\$1,626	\$989	\$2,615	\$42,257	\$32,573	8.35%	\$2,720	\$743	\$3,463	\$0.65	\$27,449	\$1,767	\$483	\$2,249	\$1,445	\$938
2005	\$1,486	\$1,012	\$2,498	\$46,350	\$36,116	7.70%	\$2,781	\$832	\$3,613	\$0.62	\$28,950	\$1,737	\$520	\$2,257	\$1,550	\$968
2006	\$1,321	\$1,042	\$2,363	\$50,676	\$39,871	7.10%	\$2,831	\$932	\$3,763	\$0.60	\$30,435	\$1,700	\$560	\$2,260	\$1,667	\$1,001
2007	\$1,175	\$1,074	\$2,249	\$55,222	\$43,834	6.70%	\$2,937	\$1,044	\$3,980	\$0.58	\$31,890	\$1,696	\$603	\$2,299	\$1,727	\$998
2008	\$1,057	\$1,066	\$2,123	\$59,969	\$48,015	6.40%	\$3,073	\$1,169	\$4,242	\$0.56	\$33,299	\$1,706	\$649	\$2,355	\$1,757	\$976
2009	\$965	\$1,073	\$2,038	\$64,937	\$52,417	6.20%	\$3,250	\$1,309	\$4,559	\$0.53	\$34,670	\$1,735	\$699	\$2,434	\$1,746	\$932
2010	\$892	\$1,048	\$1,940	\$70,139	\$57,035	6.00%	\$3,422	\$1,466	\$4,888	\$0.51	\$36,008	\$1,757	\$753	\$2,509	\$1,737	\$892

DOR FALL 1993 HIGH CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00%

10.38%

12.00%

1.00%

CASE

CURRENT SPENDING TREND

GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$
-----------------	----------------	-----	-------------------

1993			
1994			
1995			
1996	\$2,600	\$619	\$3,219
1997	\$2,730	\$656	\$3,386
1998	\$2,867	\$683	\$3,550
1999	\$3,010	\$747	\$3,757
2000	\$3,160	\$806	\$3,966
2001	\$3,318	\$869	\$4,187
2002	\$3,484	\$935	\$4,419
2003	\$3,658	\$1,006	\$4,664
2004	\$3,841	\$1,066	\$4,907
2005	\$4,033	\$1,129	\$5,162
2006	\$4,235	\$1,194	\$5,429
2007	\$4,447	\$1,261	\$5,708
2008	\$4,669	\$1,330	\$5,999
2009	\$4,903	\$1,402	\$6,305
2010	\$5,148	\$1,477	\$6,625

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CASE 5 CREMO BASE CASE WITH 1.) HISTORICAL GROWTH RATE FOR CONVENTIONAL REVENUES (NO NEW TAXES)

DEPOSIT			PERMANENT FUND	PF AVERAGE 12 PRIOR QUARTERS	WITHDRAWAL		CONVENTIONAL REVENUES	INCOME BUDGET	PRESENT VALUE IN 1993 \$					CREMO GAP	
UN-EXPECTED	EXPECTED	TOTAL	YEAR END		%	AMOUNT			PRESENT VALUE OF \$1 (1993)	FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$2,117	\$2,117	\$17,279	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,361	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$2,295	\$18,638	\$15,311	17.73%	\$2,715	\$309	\$3,024	\$0.85	\$15,932	\$2,320	\$264	\$2,585	\$362	\$310
1998	\$2,416	\$2,416	\$20,370	\$16,607	15.72%	\$2,611	\$318	\$2,929	\$0.82	\$16,743	\$2,146	\$262	\$2,407	\$621	\$510
1999	\$2,354	\$2,354	\$22,339	\$17,899	13.94%	\$2,495	\$328	\$2,823	\$0.79	\$17,655	\$1,972	\$259	\$2,231	\$934	\$738
2000	\$2,175	\$2,175	\$24,429	\$19,382	12.36%	\$2,396	\$338	\$2,733	\$0.76	\$18,564	\$1,820	\$257	\$2,077	\$1,233	\$937
2001	\$2,008	\$2,008	\$26,644	\$21,158	10.95%	\$2,317	\$348	\$2,665	\$0.73	\$19,469	\$1,693	\$254	\$1,947	\$1,523	\$1,113
2002	\$1,883	\$1,883	\$29,032	\$23,147	9.71%	\$2,248	\$358	\$2,606	\$0.70	\$20,397	\$1,579	\$252	\$1,831	\$1,813	\$1,274
2003	\$1,754	\$1,754	\$31,606	\$25,290	8.61%	\$2,177	\$369	\$2,546	\$0.68	\$21,352	\$1,471	\$249	\$1,720	\$2,118	\$1,431
2004	\$1,626	\$1,626	\$34,390	\$27,580	7.63%	\$2,104	\$380	\$2,484	\$0.65	\$22,339	\$1,367	\$247	\$1,614	\$2,423	\$1,574
2005	\$1,486	\$1,486	\$37,392	\$30,042	6.77%	\$2,034	\$391	\$2,425	\$0.62	\$23,355	\$1,270	\$244	\$1,515	\$2,737	\$1,710
2006	\$1,321	\$1,321	\$40,608	\$32,699	6.00%	\$1,962	\$403	\$2,365	\$0.60	\$24,388	\$1,178	\$242	\$1,420	\$3,064	\$1,840
2007	\$1,175	\$1,175	\$43,828	\$35,565	6.00%	\$2,134	\$415	\$2,549	\$0.58	\$25,310	\$1,232	\$240	\$1,472	\$3,159	\$1,824
2008	\$1,057	\$1,057	\$47,070	\$38,619	6.00%	\$2,317	\$428	\$2,745	\$0.56	\$26,136	\$1,287	\$238	\$1,524	\$3,254	\$1,807
2009	\$965	\$965	\$50,355	\$41,794	6.00%	\$2,508	\$441	\$2,948	\$0.53	\$27,885	\$1,339	\$235	\$1,574	\$3,356	\$1,792
2010	\$892	\$892	\$53,704	\$45,029	6.00%	\$2,702	\$454	\$3,156	\$0.51	\$27,570	\$1,387	\$233	\$1,620	\$3,469	\$1,781

DOR FALL 1993 MID CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00%

10.38%

3.00% BASED ON \$222 IN 1986 AND \$299 ESTIMATED FOR 1995 (DOR)

1.00%

CASE

CURRENT SPENDING TREND

GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$
-----------------	----------------	-----	-------------------

1993			
1994			
1995			
1996	\$2,600	\$619	\$3,219
1997	\$2,730	\$656	\$3,386
1998	\$2,867	\$683	\$3,550
1999	\$3,010	\$747	\$3,757
2000	\$3,160	\$806	\$3,966
2001	\$3,318	\$869	\$4,187
2002	\$3,484	\$935	\$4,419
2003	\$3,658	\$1,006	\$4,664
2004	\$3,841	\$1,066	\$4,907
2005	\$4,033	\$1,129	\$5,162
2006	\$4,235	\$1,194	\$5,429
2007	\$4,447	\$1,261	\$5,708
2008	\$4,669	\$1,330	\$5,999
2009	\$4,903	\$1,402	\$6,305
2010	\$5,148	\$1,477	\$6,625

CASE 6 CREMO BASE WITH 1.) HISTORICAL GROWTH RATE FOR CONVENTIONAL REVENUES (NO NEW TAXES), 2.) HISTORICAL RATE OF RETURN ON PERMANENT FUND

DEPOSIT			PERMANENT FUND	PF	WITHDRAWAL		CONVEN-		PRESENT VALUE IN 1993 \$				CREMO GAP		
UN-				AVERAGE			TIONAL		PRESENT	CONVEN-					
EXPECTED	EXPECTED	TOTAL	YEAR	12 PRIOR	%	AMOUNT	REVENUES	INCOME	VALUE	FUND	WITH-	TIONAL	INCOME	NOM \$	1993 \$
			END	QUARTERS				BUDGET	OF \$1		DRAWAL	REV	BUDGET		
									(1993)						
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$2,117	\$2,117	\$17,107	\$13,896	20.00%	\$2,779	\$300	\$3,079	\$0.89	\$15,208	\$2,471	\$267	\$2,737	\$140	\$124
1997	\$2,295	\$2,295	\$18,270	\$15,290	17.73%	\$2,711	\$309	\$3,020	\$0.85	\$15,617	\$2,317	\$264	\$2,581	\$366	\$313
1998	\$2,416	\$2,416	\$19,785	\$16,505	15.72%	\$2,595	\$318	\$2,913	\$0.82	\$16,262	\$2,133	\$262	\$2,394	\$637	\$523
1999	\$2,354	\$2,354	\$21,517	\$17,648	13.94%	\$2,460	\$328	\$2,788	\$0.79	\$17,005	\$1,944	\$259	\$2,203	\$969	\$766
2000	\$2,175	\$2,175	\$23,350	\$18,928	12.36%	\$2,340	\$338	\$2,677	\$0.76	\$17,744	\$1,778	\$257	\$2,034	\$1,289	\$980
2001	\$2,008	\$2,008	\$25,281	\$20,481	10.95%	\$2,243	\$348	\$2,590	\$0.73	\$18,472	\$1,639	\$254	\$1,893	\$1,597	\$1,167
2002	\$1,883	\$1,883	\$27,350	\$22,225	9.71%	\$2,158	\$358	\$2,516	\$0.70	\$19,215	\$1,516	\$252	\$1,768	\$1,903	\$1,337
2003	\$1,754	\$1,754	\$29,564	\$24,098	8.61%	\$2,075	\$369	\$2,444	\$0.68	\$19,972	\$1,402	\$249	\$1,651	\$2,221	\$1,500
2004	\$1,626	\$1,626	\$31,938	\$26,089	7.63%	\$1,991	\$380	\$2,371	\$0.65	\$20,747	\$1,293	\$247	\$1,540	\$2,537	\$1,648
2005	\$1,486	\$1,486	\$34,473	\$28,215	6.77%	\$1,910	\$391	\$2,302	\$0.62	\$21,531	\$1,193	\$244	\$1,438	\$2,861	\$1,787
2006	\$1,321	\$1,321	\$37,156	\$30,491	6.00%	\$1,829	\$403	\$2,233	\$0.60	\$22,315	\$1,099	\$242	\$1,341	\$3,196	\$1,920
2007	\$1,175	\$1,175	\$39,786	\$32,923	6.00%	\$1,975	\$415	\$2,391	\$0.58	\$22,976	\$1,141	\$240	\$1,381	\$3,317	\$1,916
2008	\$1,057	\$1,057	\$42,381	\$35,485	6.00%	\$2,129	\$428	\$2,557	\$0.56	\$23,533	\$1,182	\$238	\$1,420	\$3,442	\$1,911
2009	\$965	\$965	\$44,959	\$38,108	6.00%	\$2,287	\$441	\$2,727	\$0.53	\$24,004	\$1,221	\$235	\$1,456	\$3,578	\$1,910
2010	\$892	\$892	\$47,539	\$40,732	6.00%	\$2,444	\$454	\$2,898	\$0.51	\$24,405	\$1,255	\$233	\$1,488	\$3,727	\$1,913

DOR FALL 1993 MID CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00%

9.31% BASED ON 5 PERCENT REPORTED IN PF ANNUAL REPORT

3.00% BASED ON \$222 IN 1986 AND \$299 ESTIMATED FOR 1995 (DOR)

1.00%

CASE

CURRENT SPENDING TREND				CURRENT REVENUE STRUCTURE				CURRENT POLICY FISCAL GAP	
GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$	GENERAL FUND	PERM FUND	SUM	SUM IN 1993 \$	NOM \$	1993 \$
1993									
1994									
1995									
1996	\$2,600	\$619	\$3,219	\$2,862	\$2,155	\$619	\$2,774	\$2,466	\$445 \$396
1997	\$2,730	\$656	\$3,386	\$2,894	\$2,320	\$656	\$2,976	\$2,544	\$410 \$350
1998	\$2,867	\$683	\$3,550	\$2,917	\$2,424	\$683	\$3,107	\$2,554	\$443 \$364
1999	\$3,010	\$747	\$3,757	\$2,969	\$2,371	\$747	\$3,118	\$2,464	\$639 \$505
2000	\$3,160	\$806	\$3,966	\$3,014	\$2,218	\$806	\$3,024	\$2,298	\$942 \$716
2001	\$3,318	\$869	\$4,187	\$3,060	\$2,076	\$869	\$2,945	\$2,152	\$1,242 \$908
2002	\$3,484	\$935	\$4,419	\$3,105	\$1,968	\$935	\$2,903	\$2,040	\$1,516 \$1,065
2003	\$3,658	\$1,006	\$4,664	\$3,151	\$1,869	\$1,006	\$2,875	\$1,942	\$1,789 \$1,209
2004	\$3,841	\$1,066	\$4,907	\$3,188	\$1,762	\$1,066	\$2,828	\$1,837	\$2,079 \$1,351
2005	\$4,033	\$1,129	\$5,162	\$3,224	\$1,647	\$1,129	\$2,776	\$1,734	\$2,386 \$1,491
2006	\$4,235	\$1,194	\$5,429	\$3,261	\$1,509	\$1,194	\$2,703	\$1,623	\$2,726 \$1,637
2007	\$4,447	\$1,261	\$5,708	\$3,296	\$1,388	\$1,261	\$2,649	\$1,530	\$3,059 \$1,766
2008	\$4,669	\$1,330	\$5,999	\$3,331	\$1,293	\$1,330	\$2,623	\$1,456	\$3,376 \$1,875
2009	\$4,903	\$1,402	\$6,305	\$3,366	\$1,225	\$1,402	\$2,627	\$1,403	\$3,678 \$1,964
2010	\$5,148	\$1,477	\$6,625	\$3,401	\$1,173	\$1,477	\$2,650	\$1,360	\$3,975 \$2,041

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CASE 7 CREMO CASE: LOW OIL \$ WITH 1.) DOR PROJECTED CONVENTIONAL REVENUES (NO NEW TAXES), 2.) PF CORP PROJECTED RATE OF RETURN ON PERMANENT FUND

DEPOSIT			PERMANENT FUND	PF AVERAGE 12 PRIOR QUARTERS	WITHDRAWAL		CONVENTIONAL REVENUES	INCOME BUDGET	PRESENT VALUE IN 1993 \$					CREMO GAP	
UN-EXPECTED	EXPECTED	TOTAL	YEAR END		%	AMOUNT			PRESENT VALUE OF \$1 (1993)	FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$1,773	\$1,773	\$16,602	\$13,896	20.00%	\$2,779	\$262	\$3,041	\$0.89	\$14,759	\$2,471	\$233	\$2,704	\$178	\$158
1997	\$1,787	\$1,787	\$17,051	\$15,228	17.73%	\$2,700	\$270	\$2,970	\$0.85	\$14,575	\$2,308	\$231	\$2,539	\$416	\$356
1998	\$1,812	\$1,812	\$17,723	\$16,187	15.72%	\$2,545	\$278	\$2,823	\$0.82	\$14,567	\$2,092	\$228	\$2,320	\$727	\$597
1999	\$1,685	\$1,685	\$18,636	\$16,821	13.94%	\$2,345	\$286	\$2,631	\$0.78	\$14,450	\$1,818	\$222	\$2,040	\$1,183	\$918
2000	\$1,512	\$1,512	\$19,657	\$17,375	12.36%	\$2,148	\$295	\$2,443	\$0.73	\$14,379	\$1,571	\$216	\$1,787	\$1,645	\$1,204
2001	\$1,366	\$1,366	\$20,787	\$18,123	10.95%	\$1,984	\$304	\$2,288	\$0.69	\$14,345	\$1,370	\$210	\$1,579	\$2,092	\$1,444
2002	\$1,238	\$1,238	\$22,026	\$19,048	9.71%	\$1,850	\$313	\$2,163	\$0.65	\$14,340	\$1,204	\$204	\$1,408	\$2,530	\$1,647
2003	\$1,123	\$1,123	\$23,379	\$20,109	8.61%	\$1,731	\$322	\$2,053	\$0.61	\$14,359	\$1,063	\$198	\$1,261	\$2,973	\$1,826
2004	\$1,009	\$1,009	\$24,849	\$21,280	7.63%	\$1,624	\$332	\$1,956	\$0.58	\$14,398	\$941	\$192	\$1,133	\$3,412	\$1,977
2005	\$891	\$891	\$26,427	\$22,563	6.77%	\$1,527	\$342	\$1,869	\$0.55	\$14,446	\$835	\$187	\$1,022	\$3,862	\$2,111
2006	\$772	\$772	\$28,118	\$23,958	6.00%	\$1,437	\$352	\$1,789	\$0.52	\$14,500	\$741	\$182	\$923	\$4,330	\$2,233
2007	\$674	\$674	\$29,767	\$25,467	6.00%	\$1,528	\$363	\$1,891	\$0.49	\$14,481	\$743	\$177	\$920	\$4,640	\$2,257
2008	\$598	\$598	\$31,385	\$27,068	6.00%	\$1,624	\$373	\$1,997	\$0.46	\$14,405	\$745	\$171	\$917	\$4,972	\$2,282
2009	\$539	\$539	\$32,987	\$28,713	6.00%	\$1,723	\$385	\$2,108	\$0.43	\$14,283	\$746	\$167	\$913	\$5,328	\$2,307
2010	\$489	\$489	\$34,580	\$30,354	6.00%	\$1,821	\$396	\$2,217	\$0.41	\$14,125	\$744	\$162	\$906	\$5,716	\$2,335

DOR FALL 1993 LOW CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00% 1995-1998 6.00% 1999-2010
8.37% 1995-1998 9.00% 1999-2010
DOR FALL 1993 LOW CASE PROJECTIONS

1.00%

CASE

CURRENT SPENDING TREND					CURRENT REVENUE STRUCTURE				CURRENT POLICY FISCAL GAP		CURRENT POLICY PERMANENT FUND	
GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$	GENERAL FUND	PERM FUND	SUM	SUM IN 1993 \$	NOM \$	1993 \$	NOM \$	1993 \$	
1993										NO DEPOSIT OF RESERVES IN 1996		
1994												
1995												
1996	\$2,600	\$619	\$3,219	\$2,862	\$1,816	\$619	\$2,435	\$2,165	\$784	\$697	\$14,489	\$12,881
1997	\$2,730	\$656	\$3,386	\$2,894	\$1,852	\$656	\$2,508	\$2,144	\$878	\$751	\$15,304	\$13,082
1998	\$2,867	\$683	\$3,550	\$2,917	\$1,873	\$683	\$2,556	\$2,101	\$994	\$817	\$16,161	\$13,283
1999	\$3,067	\$747	\$3,814	\$2,958	\$1,764	\$747	\$2,511	\$1,947	\$1,303	\$1,010	\$17,370	\$13,469
2000	\$3,282	\$806	\$4,088	\$2,990	\$1,616	\$806	\$2,422	\$1,772	\$1,666	\$1,219	\$18,633	\$13,630
2001	\$3,512	\$869	\$4,381	\$3,023	\$1,491	\$869	\$2,360	\$1,629	\$2,021	\$1,394	\$19,956	\$13,772
2002	\$3,757	\$935	\$4,692	\$3,055	\$1,383	\$935	\$2,318	\$1,509	\$2,374	\$1,546	\$21,345	\$13,897
2003	\$4,020	\$1,006	\$5,026	\$3,087	\$1,298	\$1,006	\$2,304	\$1,415	\$2,722	\$1,672	\$22,806	\$14,007
2004	\$4,302	\$1,066	\$5,368	\$3,110	\$1,204	\$1,066	\$2,270	\$1,315	\$3,098	\$1,795	\$24,342	\$14,104
2005	\$4,603	\$1,129	\$5,732	\$3,133	\$1,109	\$1,129	\$2,238	\$1,223	\$3,494	\$1,910	\$25,955	\$14,188
2006	\$4,925	\$1,194	\$6,119	\$3,156	\$1,013	\$1,194	\$2,207	\$1,138	\$3,912	\$2,017	\$27,651	\$14,259
2007	\$5,270	\$1,261	\$6,531	\$3,177	\$935	\$1,261	\$2,196	\$1,068	\$4,335	\$2,109	\$29,438	\$14,322
2008	\$5,639	\$1,330	\$6,969	\$3,198	\$877	\$1,330	\$2,207	\$1,013	\$4,762	\$2,185	\$31,322	\$14,376
2009	\$6,034	\$1,402	\$7,436	\$3,219	\$837	\$1,402	\$2,239	\$969	\$5,197	\$2,250	\$32,977	\$14,278
2010	\$6,456	\$1,477	\$7,933	\$3,240	\$807	\$1,477	\$2,284	\$933	\$5,649	\$2,307	\$34,702	\$14,175

DIVIDEND FROM PF CORP DECEMBER 1993 REPORT
 GF SPENDING FOR 1996 ESTIMATED--GROWTH AT 1% ABOVE INFLATION
 GF REVENUES FROM DOR FALL 1993 LOW CASE

PF BALANCE PROJECTION FROM PF CORP DECEMBER 1993 REPORT

CASE 8 CREMO CASE: MID OIL WITH 1.) DOR PROJECTED CONVENTIONAL REVENUES (NO NEW TAXES), 2.) CREMO PROJECTED RATE OF RETURN ON PERMANENT FUND

DEPOSIT			PERMANENT FUND	PF	WITHDRAWAL		CONVENTIONAL REVENUES	INCOME BUDGET	PRESENT VALUE IN 1993 \$				CREMO GAP		
UN-EXPECTED	EXPECTED	TOTAL	YEAR END	AVERAGE 12 PRIOR QUARTERS	%	AMOUNT			PRESENT VALUE OF \$1 (1993)	FUND	WITHDRAWAL	CONVENTIONAL REV	INCOME BUDGET	NOM \$	1993 \$
1993			\$13,218						\$1.00						
1994			\$14,661						\$0.96						
1995			\$16,277						\$0.92						
1996	\$2,117	\$2,117	\$17,279	\$13,896	20.00%	\$2,779	\$280	\$3,059	\$0.89	\$15,361	\$2,471	\$249	\$2,720	\$219	\$195
1997	\$2,295	\$2,295	\$18,638	\$15,311	17.73%	\$2,715	\$289	\$3,004	\$0.85	\$15,932	\$2,321	\$247	\$2,567	\$404	\$346
1998	\$2,416	\$2,416	\$20,370	\$16,607	15.72%	\$2,611	\$297	\$2,908	\$0.82	\$16,743	\$2,146	\$244	\$2,390	\$709	\$583
1999	\$2,354	\$2,354	\$22,339	\$17,899	13.94%	\$2,495	\$306	\$2,801	\$0.79	\$17,655	\$1,972	\$242	\$2,214	\$1,039	\$821
2000	\$2,175	\$2,175	\$24,429	\$19,382	12.36%	\$2,396	\$316	\$2,712	\$0.76	\$18,564	\$1,820	\$240	\$2,061	\$1,370	\$1,041
2001	\$2,008	\$2,008	\$26,644	\$21,158	10.95%	\$2,317	\$325	\$2,642	\$0.73	\$19,469	\$1,693	\$237	\$1,930	\$1,703	\$1,244
2002	\$1,883	\$1,883	\$29,032	\$23,147	9.71%	\$2,248	\$335	\$2,583	\$0.70	\$20,397	\$1,579	\$235	\$1,815	\$2,006	\$1,409
2003	\$1,754	\$1,754	\$31,606	\$25,290	8.61%	\$2,177	\$345	\$2,522	\$0.68	\$21,352	\$1,471	\$233	\$1,704	\$2,322	\$1,569
2004	\$1,626	\$1,626	\$34,390	\$27,580	7.63%	\$2,104	\$355	\$2,459	\$0.65	\$22,339	\$1,367	\$231	\$1,598	\$2,653	\$1,723
2005	\$1,486	\$1,486	\$37,392	\$30,042	6.77%	\$2,034	\$366	\$2,400	\$0.62	\$23,355	\$1,270	\$229	\$1,499	\$2,993	\$1,869
2006	\$1,321	\$1,321	\$40,608	\$32,699	6.00%	\$1,962	\$377	\$2,339	\$0.60	\$24,388	\$1,178	\$226	\$1,405	\$3,348	\$2,011
2007	\$1,175	\$1,175	\$43,828	\$35,565	6.00%	\$2,134	\$388	\$2,522	\$0.58	\$25,310	\$1,232	\$224	\$1,456	\$3,474	\$2,006
2008	\$1,057	\$1,057	\$47,070	\$38,619	6.00%	\$2,317	\$400	\$2,717	\$0.56	\$26,136	\$1,287	\$222	\$1,509	\$3,603	\$2,000
2009	\$965	\$965	\$50,355	\$41,794	6.00%	\$2,508	\$412	\$2,920	\$0.53	\$26,885	\$1,339	\$220	\$1,559	\$3,740	\$1,997
2010	\$892	\$892	\$53,704	\$45,029	6.00%	\$2,702	\$424	\$3,126	\$0.51	\$27,570	\$1,387	\$218	\$1,605	\$3,891	\$1,998

DOR FALL 1993 MID CASE PROJECTIONS

INFLATION RATE

ANNUAL NOMINAL RATE OF RETURN (REAL RATE PLUS INFLATION)

CONVENTIONAL REVENUE GROWTH RATE

CURRENT SPENDING TREND==INFLATION RATE PLUS POPULATION GROWTH @

CREMO GAP DEFINED AS MAINTENANCE BUDGET MINUS CREMO INCOME BUDGET

4.00% 1995-1998 4.00% 1999-2010
10.38% 1995-1998 10.38% 1999-2010
DOR FALL 1993 MID CASE PROJECTIONS

1.00%

CASE

CURRENT SPENDING TREND				CURRENT REVENUE STRUCTURE				CURRENT POLICY FISCAL GAP		CURRENT POLICY PERMANENT FUND		CURRENT POLICY PERMANENT FUND BY QUARTER				PERMANENT FUND	
GENERAL FUND	PF DIVIDEND	SUM	SUM IN 1993 \$	GENERAL FUND	PERM FUND	SUM	SUM IN 1993 \$	NOM \$	1993 \$	NOM \$	1993 \$	BEGIN 1ST Q	BEGIN 2ND Q	BEGIN 3RD Q	BEGIN 4TH Q	YEAR END	
1993																11703	
1994																12385	
1995																12971	
1996	\$2,600	\$678	\$3,278	\$2,914	\$2,155	\$678	\$2,833	\$2,519	\$445	\$396	\$17,530	\$15,584	\$16,277	\$16,579	\$16,888	\$17,205	\$17,530
1997	\$2,730	\$678	\$3,408	\$2,913	\$2,320	\$678	\$2,998	\$2,562	\$410	\$350	\$18,941	\$16,191	\$17,530	\$17,870	\$18,218	\$18,575	\$18,941
1998	\$2,867	\$750	\$3,617	\$2,973	\$2,424	\$750	\$3,174	\$2,609	\$443	\$364	\$20,448	\$16,807	\$18,941	\$19,304	\$19,676	\$20,057	\$20,448
1999	\$3,010	\$831	\$3,841	\$3,035	\$2,371	\$831	\$3,202	\$2,530	\$639	\$505	\$22,029	\$17,410	\$20,448	\$20,829	\$21,219	\$21,619	\$22,029
2000	\$3,160	\$921	\$4,082	\$3,102	\$2,218	\$921	\$3,139	\$2,386	\$942	\$716	\$23,663	\$17,982	\$22,029	\$22,423	\$22,826	\$23,239	\$23,663
2001	\$3,318	\$1,026	\$4,344	\$3,174	\$2,076	\$1,026	\$3,102	\$2,267	\$1,242	\$908	\$25,339	\$18,515	\$23,663	\$24,067	\$24,480	\$24,905	\$25,339
2002	\$3,484	\$1,104	\$4,588	\$3,224	\$1,968	\$1,104	\$3,072	\$2,158	\$1,516	\$1,065	\$27,099	\$19,039	\$25,339	\$25,763	\$26,197	\$26,643	\$27,099
2003	\$3,658	\$1,186	\$4,844	\$3,273	\$1,869	\$1,186	\$3,055	\$2,064	\$1,789	\$1,209	\$28,945	\$19,554	\$27,099	\$27,543	\$27,999	\$28,466	\$28,945
2004	\$3,841	\$1,271	\$5,112	\$3,321	\$1,762	\$1,271	\$3,033	\$1,970	\$2,079	\$1,351	\$30,882	\$20,060	\$28,945	\$29,411	\$29,889	\$30,379	\$30,882
2005	\$4,033	\$1,359	\$5,393	\$3,368	\$1,647	\$1,359	\$3,006	\$1,878	\$2,386	\$1,491	\$32,912	\$20,557	\$30,882	\$31,371	\$31,872	\$32,386	\$32,912
2006	\$4,235	\$1,452	\$5,687	\$3,415	\$1,509	\$1,452	\$2,961	\$1,778	\$2,726	\$1,637	\$35,040	\$21,044	\$32,912	\$33,424	\$33,950	\$34,488	\$35,040
2007	\$4,447	\$1,549	\$5,996	\$3,462	\$1,388	\$1,549	\$2,937	\$1,696	\$3,059	\$1,766	\$37,271	\$21,523	\$35,040	\$35,577	\$36,128	\$36,692	\$37,271
2008	\$4,669	\$1,650	\$6,320	\$3,509	\$1,293	\$1,650	\$2,943	\$1,634	\$3,376	\$1,875	\$39,614	\$21,997	\$37,271	\$37,835	\$38,414	\$39,007	\$39,614
2009	\$4,903	\$1,757	\$6,660	\$3,556	\$1,225	\$1,757	\$2,982	\$1,592	\$3,678	\$1,964	\$42,078	\$22,466	\$39,614	\$40,208	\$40,816	\$41,439	\$42,078
2010	\$5,148	\$1,869	\$7,017	\$3,602	\$1,173	\$1,869	\$3,042	\$1,562	\$3,975	\$2,041	\$44,670	\$22,932	\$42,078	\$42,702	\$43,342	\$43,998	\$44,670

ALL RESERVES
DEPOSITED IN 1996

ALL RESERVES DEPOSITED IN 1996

1996 DIVIDEND FROM PF CORP DECEMBER 1993 REPORT AND THEN PROJECTED BY AUTHOR
GF SPENDING FOR 1996 ESTIMATED--GROWTH AT 1% ABOVE INFLATION
GF REVENUES FROM DOR FALL 1993 MID CASE

PF BALANCE PROJECTED BY AUTHOR WITH DOR FALL 1993 MID CASE CONTRIBUTION

CASE

CALCULATED PF
DIVIDEND CONTRIBUTION

1993		
1994		
1995		
1996	\$678	\$257
1997	\$678	\$284
1998	\$750	\$308
1999	\$831	\$309
2000	\$921	\$292
2001	\$1,026	\$275
2002	\$1,104	\$265
2003	\$1,186	\$254
2004	\$1,271	\$242
2005	\$1,359	\$227
2006	\$1,452	\$210
2007	\$1,549	\$194
2008	\$1,650	\$181
2009	\$1,757	\$169
2010	\$1,869	\$158

Legislative Research Agency

Alaska State Legislature



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February 9, 1994

MEMORANDUM

TO: Senator Johnny Ellis

FROM: Betsy A. Jensvold ^{BAJ}
Legislative Analyst

RE: Analysis of Fiscal Plan Advocated by Roger Cremo
Research Request 94.109

You were one of several legislators who asked for an analysis of the fiscal plan advocated by Mr. Roger Cremo. None of the requests we received specified the type or the details of the analysis we should perform, so we chose a line of inquiry that seemed to us to be the most useful at this point in the discussion of the Cremo Plan: we examined the plan to see how it would perform if events conspired against it--if oil prices stayed low, the state's reserve accounts were smaller than assumed by Mr. Cremo, and real earnings of the fund were less than expected. These are the three aspects of the plan that seem the most likely to go awry, and we sought to examine how the fund would perform under a set of pessimistic circumstances (a bad, but not necessarily "worst case," scenario).

We begin this memorandum by giving a brief description of the Cremo proposal, including a comparison of money available for appropriation under the plan (as forecast on the basis of assumptions used by Mr. Cremo) and under a continuation of the present "system" of muddling through (although the use of existing reserves are excluded from the projection of future spending without the Cremo plan). This description of the plan identifies the key independent variables of the plan, and how these variables are influenced. We then examine the impact of the plan on money available for appropriation, and on the fund balance, if state petroleum revenues were lower than expected, and if the initial contribution from reserves to the fund was \$1 billion short, and real earnings of the fund were 4 percent rather than 6 percent.

The Cremo Plan

The Cremo plan seeks to turn irregular, declining natural resource revenues (mostly from oil) into a relatively steady, perpetual source of funds for state government. It requires spending discipline, but enforces that discipline through an amendment to the state constitution.

The plan requires that all revenues derived from natural resources, the permanent fund, and reserves totaling \$2.5 billion be placed into a single fund. That fund would be invested aggressively by a public corporation similar to the Permanent Fund Corporation.

Stringent rules would govern the withdrawal of money from the fund. In the first year (1996), the withdrawal amount would equal 20 percent of the average market value of the fund during the 12 preceding calendar quarters. For the next ten years (the "transition period"), the withdrawal rate decreases geometrically until it reaches the long-term, stable rate of 6 percent per year in 2006.¹

Comparison of the Cremo Plan and the Current System

Figures 1 and 2, attached, compare the money available for appropriation through the year 2010 under the Cremo plan and under the conventional budgetary system of spending recurring revenues. Figure 1 provides a comparison in nominal dollars (inflated dollars); Figure 2 provides a comparison in 1996 dollars (real, or constant dollars). These comparisons incorporate some important adjustments and assumptions:

Cremo plan projections assume a *significant* increase in non-oil revenues. Consequently, the same assumption was used in calculating state budget figures for the existing system. The specific assumption used is that non-oil revenues will increase by 12 percent per year through 2006 and by 4 percent per year (inflation) thereafter. A similar increase could be achieved by implementing an income tax of \$300 million in 1996 and increasing that amount by the rate of inflation each year.

Cremo plan projections represent the maximum funds available for all state appropriations, including dividends.

Two lines are used to illustrate spendable, recurring revenue under the existing system. The lower line represents the total funds appropriable by the state to pay for all government services except permanent fund dividends. The higher line represents the total funds available with dividends; so the difference between the two lines is the amount projected to be paid out as dividends. '

Revenues available for appropriation under the current system are only recurring revenues, and exclude the use of money now in the statutory budget reserve fund,

¹The proposed constitutional amendment states that the withdrawal rate shall decrease geometrically throughout the transition period, but does not provide specific details. The formula Roger Cremo uses is: prior year rate * (6 percent/20 percent)^{1/(2006 - 1996)}.

the constitutional budget reserve fund, and the earnings reserve account of the permanent fund (reserves which are incorporated into the Cremo proposal).

Although both systems provide roughly similar amounts of money throughout the period, several important distinctions exist.

The Cremo Plan constrains spending more than the current system throughout most of the early years.

The Cremo plan creates a long-term funding source which the existing system does not. By the year 2006, money available for appropriation is increasing under the Cremo plan, but it is decreasing under the current system.

Under the existing system, dividends quickly outstrip money available for all other government services, even under a scenario in which non-oil revenues increase substantially.

Important Assumptions of the Plan

The Cremo plan makes several important assumptions. The table below lists key variables (assumptions) of the plan, who (or what) controls that variable, the assumptions used in the Cremo base case, and alternative assumptions evaluated for this report.

Cremo Plan Assumptions:

Key Variables	Variable controlled by			Base Case Assumptions	Alternate Assumptions
	Market	Legislature Plan	Other		
Resource revenues	x			DOR 10/31/93 mid-case projection	20% less '96-'98, 10% less '99-'00
Investment returns	x			10% nominal	8% nominal
Inflation	x			4%	
Initial funds			x	\$2.5 B reserves added to fund	\$1B reduction
Withdrawal rate/rule		x		6% of fund's market value	
Transition period:					
Length (years)		x		10 years (1996-2005)	
Withdrawal rates		x		20% decreasing geometrically	
Conventional (nonresource) income:			x	12%/year thru transition, 4% thereafter	

Prepared February 1994 (94.109A).

Plan Sensitivity to Key Variables

The table groups the key variables of the Cremo plan by the forces that control them. Several are within the control of the Legislature (or the electorate), and others are subject

to the control of external, market forces. The former are the long-term withdrawal rate; the length of the transition period and withdrawal rates throughout that period; the addition of reserves (and the availability of reserves); the amount of additional, nonpetroleum revenue that is raised; and the investment strategy of fund managers. Variables in the Cremo plan that are market-driven are oil revenues (which are dependent on both market price and production volume), investment returns and inflation (which together determine the "real" increase in fund value).

How sensitive is the Cremo plan to variation in some of these variables? That is, how much does the outcome change if different assumptions are used? We have run the Cremo plan computer model using three pessimistic (yet plausible) assumptions: 1) less oil revenue (20 percent less than the fall 1993 mid-case projection for FY 96 and 98, and 10 percent less for the period FY 99 - FY 2000, 2) \$1.5 billion initial contribution from reserves, rather than \$2.5 billion, and 3) a 4 percent real rate of return on the investment of the fund rather than a 6 percent real rate of return. We examine these assumptions individually and cumulatively.

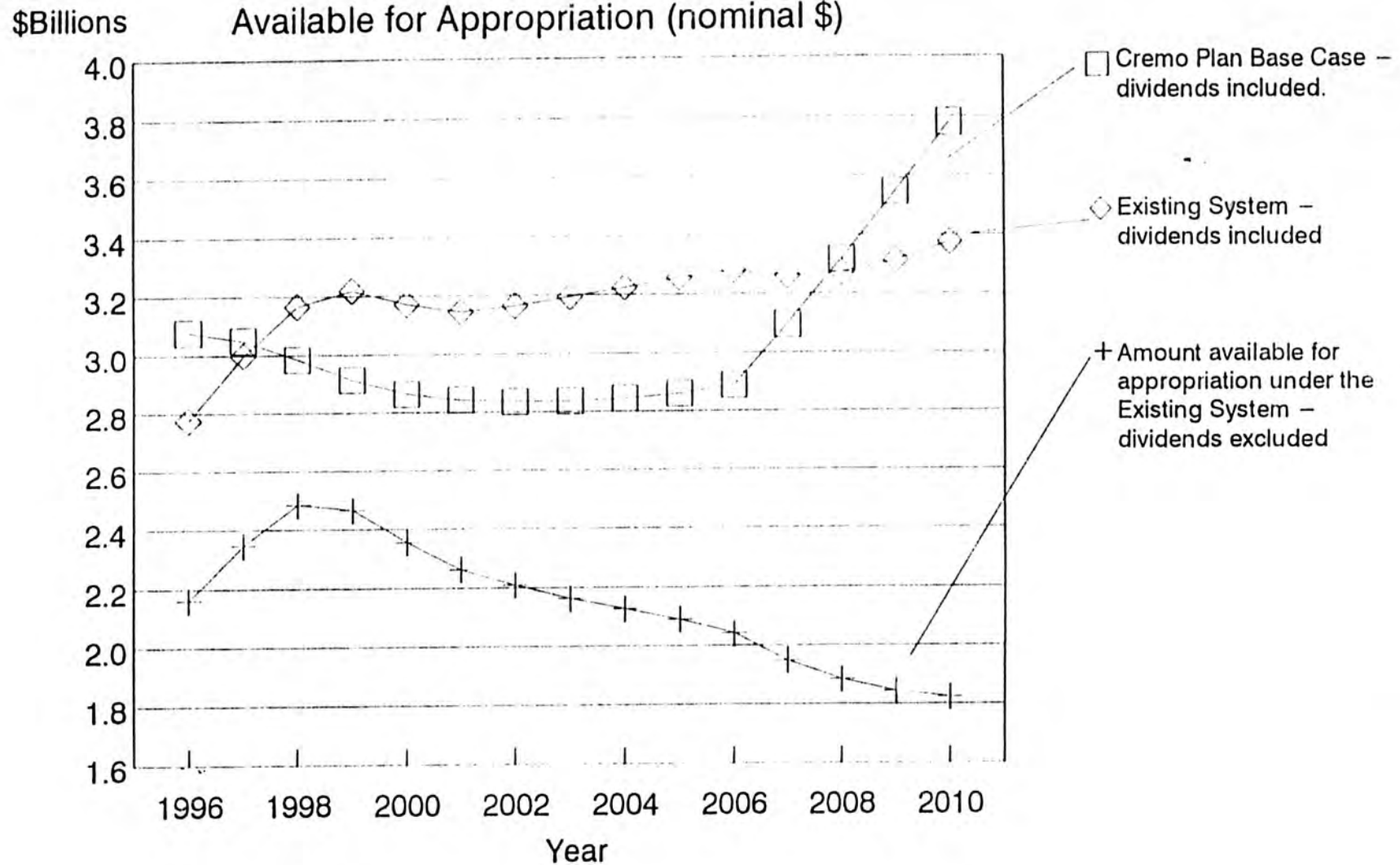
Figures 3 and 4 show the effects of these assumptions on the money available for appropriation. Figure 3 shows the results in nominal (inflated) dollars and Figure 4 shows the results in 1996 (real, or constant) dollars. Thus, for example, if all three pessimistic assumptions were to prevail, and all else remained unchanged, the amount available for appropriation in the year 2002 would be \$2.050 billion (nominal) in contrast to \$2.863 billion under the base case (the numbers in 1996 dollars are \$2.142 billion versus \$2.447). Figure 5 shows the effects (in nominal dollars) of the three pessimistic assumptions on the balance of the fund. *The numbers from which the figures were prepared are included in this memorandum as an attachment.*

Although we offer no comment on the many public policy issues that the Cremo proposal raises, or on the adequacy of the funds it makes available for appropriation, we do note the surprisingly resiliency of the model in the face of these pessimistic assumptions. A number of factors account for this resiliency. For example, the balance of the fund (and money available for appropriation) eventually turns up in our analysis (through the year 2010) even though the withdrawal rate of 6 percent is greater than the real earning rate of 4 percent. This is because there are continuing deposits to the fund of petroleum revenues, and because the withdrawal amount is based on the average value of the fund over the prior three years when it would normally have a lower market value.

Although it raises only some of the questions that might be asked of the Cremo proposal, I hope you find this analysis informative. Call if you have questions would like additional information.

Attachments

Figure 1
Cremo Plan vs. Existing System
Available for Appropriation (nominal \$)

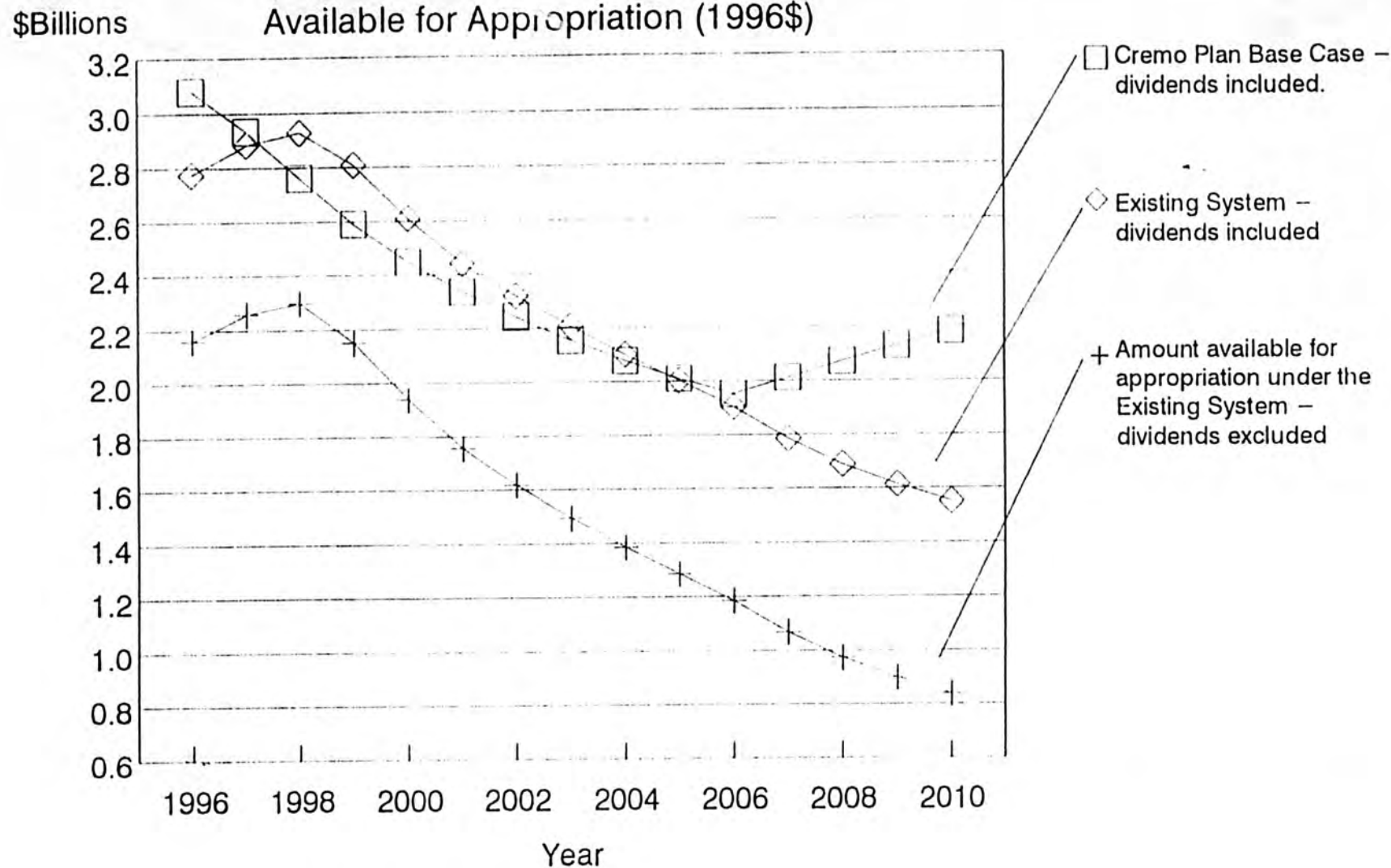


□ Cremo (w/dividends) + Existing System ◇ Existing w/dividend

Note: All three lines assume that nonresource revenues are increased; revenue shown available for appropriation under the existing system excludes the use of reserve funds.

Prepared by the Legislative Research Agency, February 1994 (94.109B.ebudg-n).

Figure 2
Cremo Plan vs. Existing System
Available for Appropriation (1996\$)

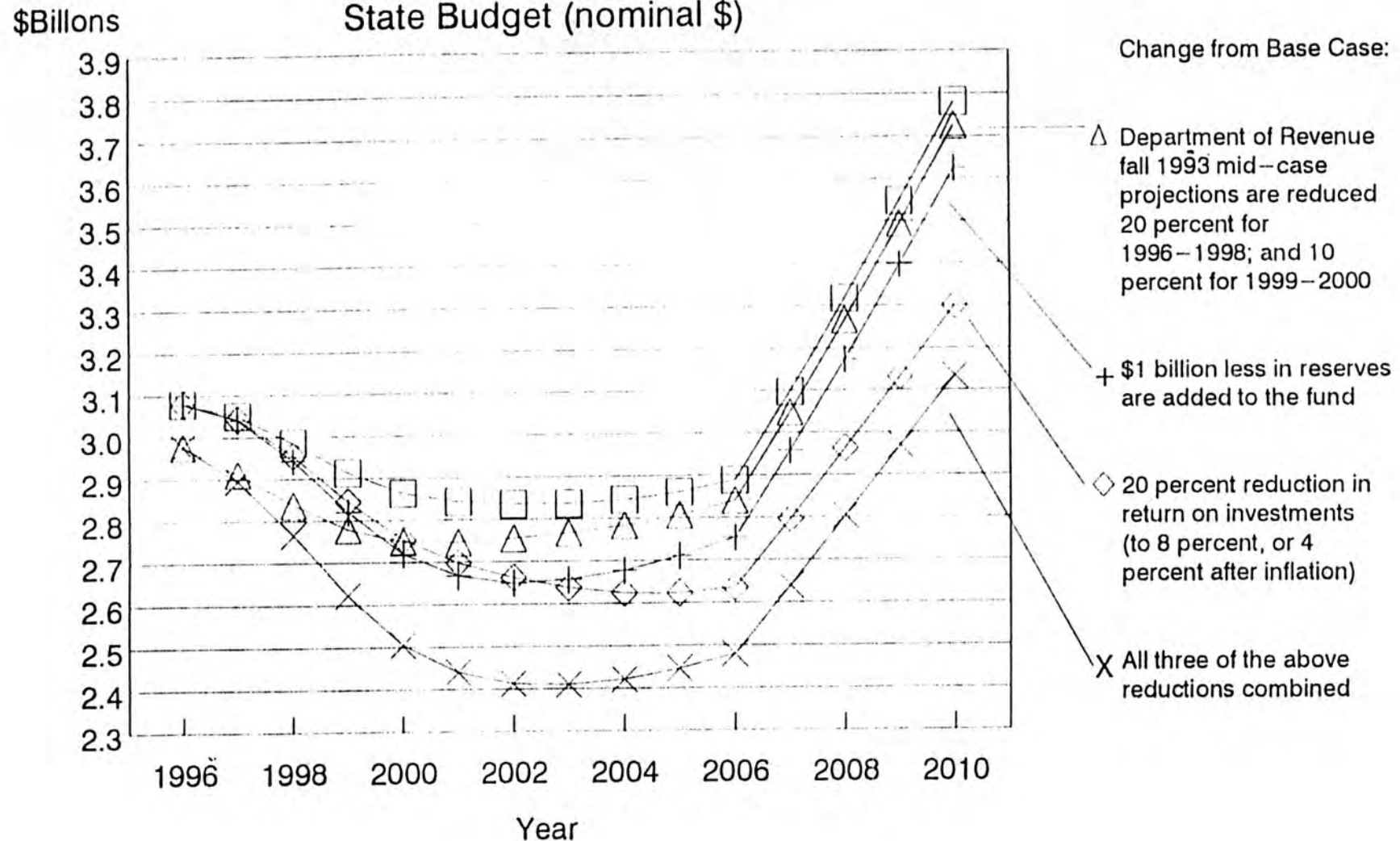


□ Cremo (w/dividends) + Existing System ◇ Existing w/dividend

Note: All three lines assume that nonresource revenues are increased; revenue shown available for appropriation under the existing system excludes the use of reserve funds.

Prepared by the Legislative Research Agency, February 1994 (94.109B.ebudg-r).

Figure 3
Cremo Plan Market Sensitivities
State Budget (nominal \$)

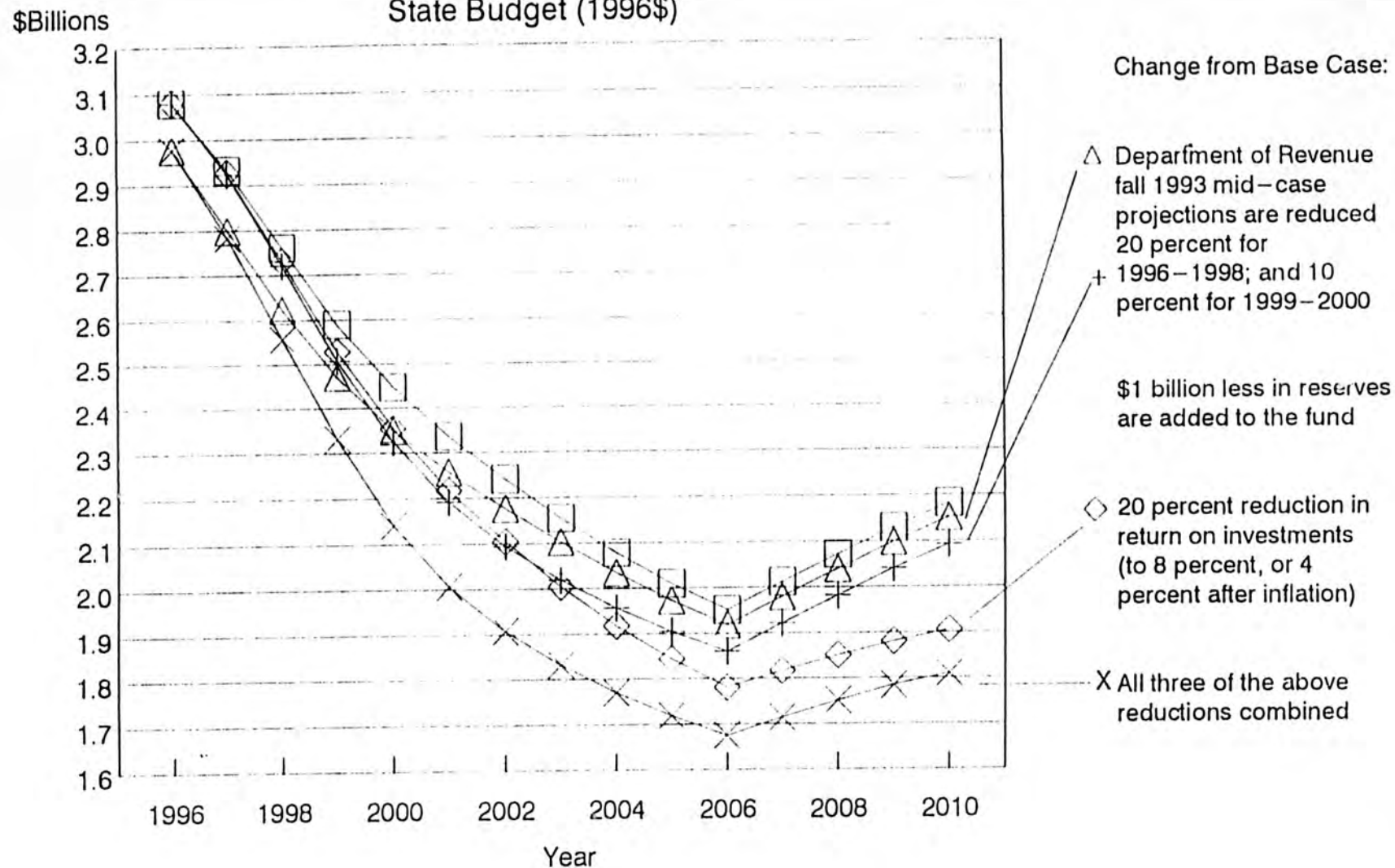


□ Base Case + Rev. Red. ◇ 8% Return △ -\$1B Reserves X Cumulative

Figure 4

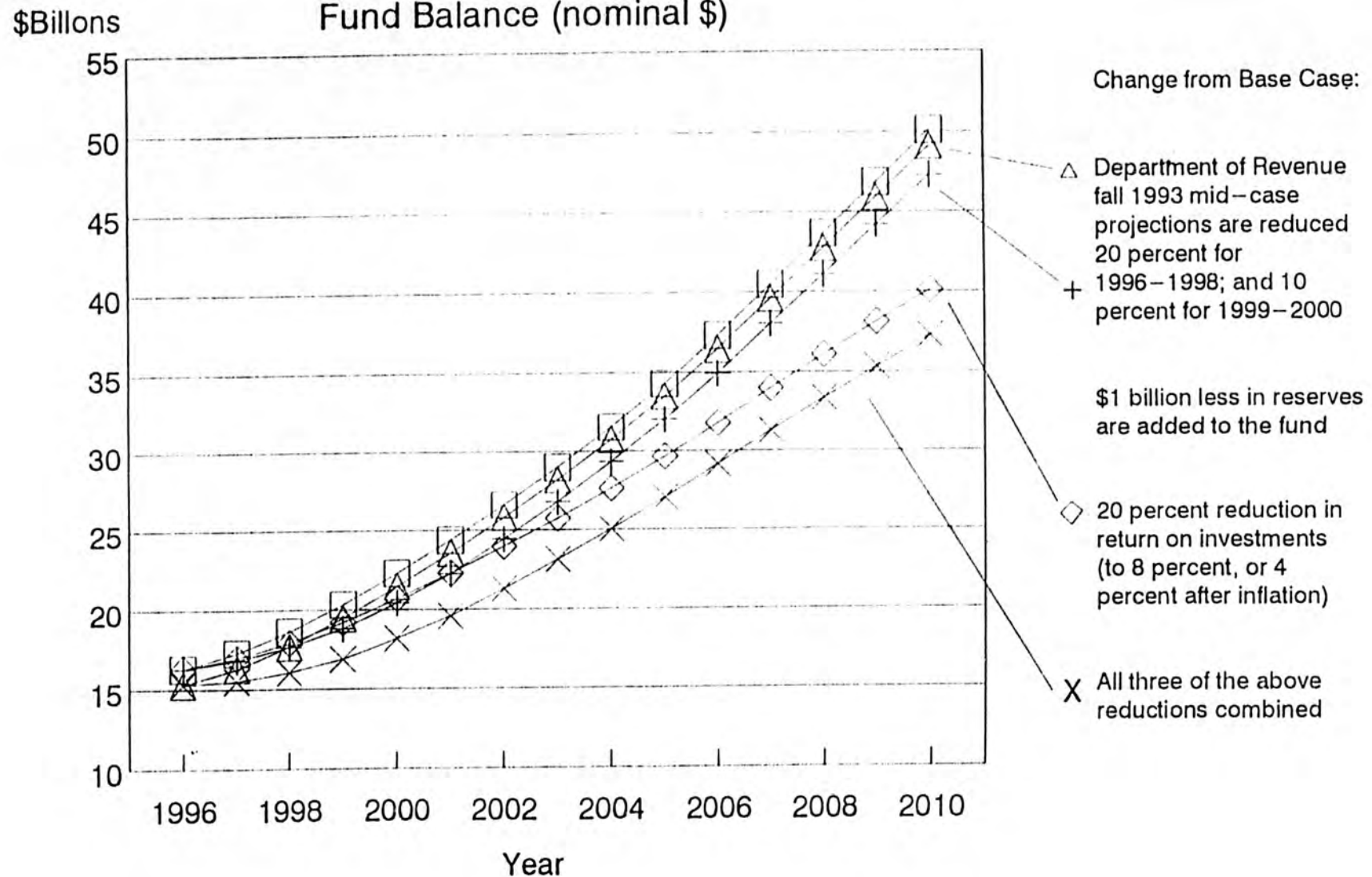
Cremo Plan Market Sensitivities

State Budget (1996\$)



□ Base Case + Rev. Red. ◇ 8% Return △ -\$1B Reserves X Cumulative

Figure 5
Cremo Plan Market Sensitivities
Fund Balance (nominal \$)



□ Base Case + Rev. Red. ◇ 8% Return △ -\$1B Reserves X Cumulative

Data Used to Generate Figure 3
Amount Available for Appropriation (Nominal \$)

<u>Fiscal Year</u>	<u>Base Case</u>	<u>Base Case reduced by 20% FY 96 – FY 98 10% FY 99 – FY 2000</u>	<u>Base Case with 8% 8% inflation instead of 10%</u>	<u>Base case with \$1 Billion less in Reserves</u>	<u>Cumulative*</u>
1996	3,079	3,079	3,079	2,977	2,977
1997	3,050	3,041	3,043	2,911	2,895
1998	2,985	2,943	2,954	2,838	2,766
1999	2,913	2,821	2,845	2,778	2,623
2000	2,863	2,719	2,753	2,749	2,505
2001	2,842	2,667	2,698	2,746	2,441
2002	2,836	2,650	2,662	2,755	2,413
2003	2,837	2,657	2,638	2,767	2,410
2004	2,844	2,678	2,625	2,783	2,423
2005	2,860	2,711	2,624	2,807	2,446
2006	2,889	2,754	2,637	2,841	2,480
2007	3,097	2,958	2,797	3,048	2,639
2008	3,318	3,174	2,963	3,267	2,804
2009	3,547	3,397	3,132	3,494	2,970
2010	3,781	3,624	3,299	3,725	3,134

*Cumulative incorporates previous three changes.

Data Used to Generate Figure 4
Amount Available for Appropriation (1996 \$)

<u>Fiscal Year</u>	<u>Base Case</u>	<u>Base Case reduced by 20% FY 96 – FY 98 10% FY 99 – FY 2000</u>	<u>Base Case with 8% 8% inflation instead of 10%</u>	<u>Base case with \$1 Billion less in Reserves</u>	<u>Cumulative*</u>
1996	3,079	3,079	3,079	2,977	2,977
1997	2,933	2,924	2,926	2,799	2,784
1998	2,760	2,721	2,731	2,624	2,557
1999	2,590	2,508	2,529	2,470	2,332
2000	2,447	2,325	2,354	2,350	2,142
2001	2,336	2,192	2,217	2,257	2,006
2002	2,241	2,094	2,104	2,177	1,907
2003	2,156	2,019	2,005	2,103	1,832
2004	2,078	1,957	1,918	2,034	1,770
2005	2,010	1,905	1,843	1,972	1,719
2006	1,952	1,860	1,781	1,919	1,675
2007	2,012	1,921	1,817	1,980	1,715
2008	2,072	1,982	1,851	2,040	1,751
2009	2,130	2,040	1,881	2,098	1,784
2010	2,183	2,093	1,905	2,151	1,810

*Cumulative incorporates previous three changes.

**Data Used to Generate Figure 5
Fund Balance (Nominal \$)**

<u>Fiscal Year</u>	<u>Base Case</u>	<u>Base Case reduced by 20% FY 96 – FY 98 10% FY 99 – FY 2000</u>	<u>Base Case with 8% inflation instead of 10%</u>	<u>Base case with \$1 Billion less in Reserves</u>	<u>Cumulative*</u>
1996	16,277	16,277	16,277	15,277	15,277
1997	17,262	16,812	16,923	16,267	15,503
1998	18,608	17,633	17,885	17,658	16,021
1999	20,335	18,789	19,190	19,443	16,862
2000	22,300	20,442	20,700	21,459	18,165
2001	24,305	22,255	22,294	23,579	19,583
2002	26,592	24,428	23,964	25,804	21,299
2003	28,969	26,778	25,743	28,185	23,120
2004	31,530	29,304	27,633	30,739	25,034
2005	34,298	32,017	29,641	33,489	27,041
2006	37,282	34,924	31,764	36,446	29,136
2007	40,477	38,017	33,980	39,605	31,300
2008	43,666	41,099	36,096	42,756	33,360
2009	46,866	44,186	38,128	45,916	35,333
2010	50,100	47,301	40,096	49,108	37,241

*Cumulative incorporates previous three changes.