

SCOMM

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Alaska State Legislature

Legislative Research Agency

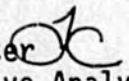


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March 20, 1991

MEMORANDUM

TO: Senator Dick Eliason

FROM: Tom Chester 
Legislative Analyst

RE: Present Value of Proposed Exxon Settlement

You asked for a calculation of the present value of the proposed Exxon oil spill settlement.

The present value of a series of future payments depends upon the inflation rate and the discount rate used in the calculation. We have used two sets of assumptions in the calculations shown in the attached table: an inflation rate of 6 percent and a real discount rate of 3 percent, and an inflation rate of 5 percent and a real discount rate of 4.5 percent. Under the first set of assumptions the present value of the negotiated settlement is \$722,321,863; under the second set of assumptions it is \$710,849,765.

Present Value

A payment received in the future has less value than a payment of the same amount received at the present time. This is because the money received now will generate interest; and because the money received now will have more purchasing power than the money received later due to inflation that occurs during the intervening period. Therefore, to convert future payments to their present value, one must make an assumption about the rate of inflation that will prevail during the future period, and the real rate of interest that the money could earn (i.e., the interest rate without an inflationary component). The real rate of interest is referred to as the real discount rate.

The higher the inflation and discount rates, the lower the present value of a future payment; the lower these rates, the greater the present value. The more distant the payment, the less its present value; the sooner the payment, the greater its present value.

A person is theoretically indifferent to receiving the present value of a future payment or the future payment. Thus, in the case of the proposed settlement of the Exxon Valdez oil spill, Alaskans should be indifferent

Senator Eliason
March 20, 1991
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between receiving the proposed stream of payments and a one-time lump sum payment now of \$722,321,863 (or whatever the number is, depending on the inflation and discount rates used in the calculation).

The analysis presented in the attached table assumes the payments presented in the column labeled "Settlement Amount" occur. This may not be so; however, determination of exactly what the payments will be is beyond the scope of this request.

Calculation of Present Value

The calculation of the present values of the Exxon settlement shown in the accompanying table uses two sets of assumptions, as discussed above. Column 2 in each case is the schedule of payments in nominal dollars. Column 3 converts the payments to constant (1991) dollars. Column 4 computes the present value of the modified payment schedule from column 3 with a real discount rate. The present value of the entire series of payments is the last entry in column 4.

We hope this information has been of value. Please call if we can provide you with further information.

Attachments

Proposed Exxon Settlement Payments in Present Value

Case a

Year[1]	Settlement Amount[2] (Nominal Dollars)	1991 Dollars[3]	Present Value (1991 Dollars) [4]	Cumulative Payment (Nominal Dollars)
1991	\$190,000,000	\$190,000,000	\$190,000,000	\$190,000,000
1992	\$150,000,000	\$139,462,976	\$134,404,063	\$340,000,000
1993	\$100,000,000	\$87,712,563	\$82,068,793	\$440,000,000
1994	\$70,000,000	\$57,923,391	\$52,617,838	\$510,000,000
1995	\$70,000,000	\$54,644,708	\$48,193,660	\$580,000,000
1996	\$70,000,000	\$51,551,612	\$44,141,473	\$650,000,000
1997	\$70,000,000	\$48,633,596	\$40,429,999	\$720,000,000
1998	\$70,000,000	\$45,880,751	\$37,030,591	\$790,000,000
1999	\$70,000,000	\$43,283,727	\$33,917,009	\$860,000,000
2000	\$70,000,000	\$40,833,705	\$31,065,222	\$930,000,000
2001	\$70,000,000	\$38,522,363	\$28,453,216	\$1,000,000,000
Cumulative Sum	\$1,000,000,000	\$798,449,392	\$722,321,863	

Assumptions

6.00% Inflation Rate

3.00% Real Discount Rate

Case b

Year[1]	Settlement Amount[2] (Nominal Dollars)	1991 Dollars[3]	Present Value (1991 Dollars) [4]	Cumulative Payment (Nominal Dollars)
1991	\$190,000,000	\$190,000,000	\$190,000,000	\$190,000,000
1992	\$150,000,000	\$141,125,221	\$133,570,106	\$340,000,000
1993	\$100,000,000	\$89,603,315	\$81,154,466	\$440,000,000
1994	\$70,000,000	\$59,735,543	\$51,773,184	\$510,000,000
1995	\$70,000,000	\$56,890,994	\$47,184,492	\$580,000,000
1996	\$70,000,000	\$54,181,899	\$43,002,499	\$650,000,000
1997	\$70,000,000	\$51,601,808	\$39,191,159	\$720,000,000
1998	\$70,000,000	\$49,144,579	\$35,717,620	\$790,000,000
1999	\$70,000,000	\$46,804,361	\$32,551,944	\$860,000,000
2000	\$70,000,000	\$44,575,582	\$29,666,843	\$930,000,000
2001	\$70,000,000	\$42,452,935	\$27,037,451	\$1,000,000,000
Cumulative Sum	\$1,000,000,000	\$826,116,238	\$710,849,765	

Assumptions

5.00% Inflation Rate

4.50% Real Discount Rate

Notes:

[1] 1991 payment made in June 1991. All other payments occur on September 1 of specified year.

[2] Proposed Payment Schedule, United States of America v. Exxon Corp., Exxon Shipping, and Exxon Pipeline Co.

[3] Payments adjusted for inflation.

[4] Payments adjusted for inflation are discounted back to 1991 using real discount rate.

Source: Legislative Research Agency, March 1991 (Exxon.xls)

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UNITED STATES DISTRICT COURT
DISTRICT OF ALASKA

UNITED STATES OF AMERICA,

Plaintiff,

v.

EXXON CORPORATION, EXXON SHIPPING
COMPANY, and EXXON PIPELINE COMPANY,
in personam, and the T/V
EXXON VALDEZ, in rem,

Defendants.

Civil Action No.

The STATE OF ALASKA,

Plaintiff,

v.

EXXON CORPORATION, EXXON SHIPPING
COMPANY, and EXXON PIPELINE COMPANY,
in personam, and the T/V
EXXON VALDEZ, in rem,

Defendants.

Civil Action No.

AGREEMENT AND
CONSENT DECREE

time of approval, in a manner inconsistent with the Parties' intentions; and (4) the time for appeal from that judgment has expired without the filing of an appeal, or the judgment has been upheld on appeal and either the time for further appeal has expired without the filing of a further appeal or no further appeal is allowed.

Effect of Entry of Decree by Court

7. Upon approval and entry of this Agreement by the District Court, this Agreement and Consent Decree shall constitute a final judgment between the Governments and Exxon and Exxon Pipeline in accordance with its terms.

Payment Terms

8. Exxon shall pay to the Governments pursuant to this Agreement a total of \$900 million, discharged as follows:

(a) Exxon shall pay, within 10 days after the Effective Date, \$90,000,000.

(b) Exxon shall pay on September 1, 1992 the amount determined by the following formula:

amount payable = \$150,000,000 minus X, where
"X" equals Exxon's expenditures for work done from
January 1, 1991 to the Effective Date, in
preparation for and conduct of clean-up of the Oil
Spill in accordance with directions of the Federal
On-Scene Coordinator, up to a maximum of \$4,000,000,
plus Expenditures made by Exxon for clean-up work

after the Effective Date in accordance with Paragraph 11.

(c) Exxon shall pay each of the amounts specified in the following schedule by the dates set forth in that schedule:

September 1, 1993	\$100,000,000
September 1, 1994	\$ 70,000,000
September 1, 1995	\$ 70,000,000
September 1, 1996	\$ 70,000,000
September 1, 1997	\$ 70,000,000
September 1, 1998	\$ 70,000,000
September 1, 1999	\$ 70,000,000
September 1, 2000	\$ 70,000,000
September 1, 2001	\$ 70,000,000

(d) The payments required by this paragraph shall be made as directed jointly in writing, not less than 5 business days before the due date, by the Assistant Attorney General, Environment & Natural Resources Division, United States Department of Justice, and the Attorney General, State of Alaska.

9. If Final Approval has not occurred by the date a payment required under Paragraph 8 is due, Exxon shall, on or before that date, deposit the amount of the payment into an interest-bearing trust account (the "Escrow") in a federally chartered bank ("Escrow Agent)". The Escrow agreement between Exxon and the Escrow Agent shall provide that the Escrow Agent shall submit to the jurisdiction and venue of the United States District Court for the District of Alaska in connection with any litigation arising out of that Escrow agreement. Exxon shall notify the Governments promptly in writing of any deposit of a payment due under this Agreement into the Escrow. Upon Final Approval and within five (5) business days of receipt of written instructions

as to payment signed jointly by the Assistant Attorney General, Environment & Natural Resources Division, United States Department of Justice, and the Attorney General, State of Alaska, Exxon shall require that a sum be paid to the Governments equal to all amounts required to be paid into the Escrow pursuant to this paragraph together with an amount calculated by applying to each deposit a rate equal to the average daily yield on three-month Treasury Bills in effect while the funds are on deposit. "The average daily yield on three-month Treasury Bills" means the arithmetic mean of the three-month Treasury Bill rates, as quoted in the H.15 (519) weekly release published by the Board of Governors of the Federal Reserve System under the caption "U.S. Government Securities/Treasury Bills/Secondary Market," multiplied by the actual number of days of such deposit divided by 360. For the purposes of calculating such arithmetic mean, each Saturday, Sunday and holiday shall be deemed to have a rate equal to the rate for the immediately preceding business day. If the earnings accrued on the Escrow are insufficient to make the payment to Governments required by this paragraph and to pay the reasonable fees and expenses of the Escrow Agent, Exxon shall pay the difference so that such amounts will be paid in full. No amount shall be disbursed from the Escrow for any reason, except to make the payment required by this paragraph or to pay reasonable fees and expenses of the Escrow Agent and, after the foregoing payments, to close out the Escrow, unless one of the following events occurs: (1) the United States or the State

withdraws its consent to entry of the Agreement pursuant to Paragraph 37; or (2) any Party terminates the Agreement pursuant to Paragraph 38. If one of these events occurs, all sums in the Escrow shall be returned to Exxon.

10. As agreed to between the Governments, without any consultation with or participation by Exxon or Exxon Pipeline, the amounts paid under Paragraphs 8 or 9 shall be applied by the Governments solely for the following purposes: (1) to reimburse the United States and the State for response and clean-up costs incurred by either of them on or before December 31, 1990 in connection with the Oil Spill; (2) to reimburse the United States and the State for natural resource damages assessment costs (including costs of injury studies, economic damages studies, and restoration planning) incurred by either of them prior to the Effective Date in connection with the Oil Spill; (3) to reimburse the State for attorneys fees, experts' fees, and other costs (collectively, "Litigation Costs") incurred by it prior to the Effective Date in connection with litigation arising from the Oil Spill; (4) to reimburse the United States and the State for response and clean-up costs incurred by either of them after December 31, 1990 in connection with the Oil Spill; and (5) after the Effective Date, to assess injury resulting from the Oil Spill and to plan, implement, and monitor the restoration, rehabilitation, or replacement of Natural Resources or natural resource services injured, lost, or destroyed as a result of the Oil Spill, or the acquisition of equivalent resources or

services; provided, however, that the aggregate amount allocated for United States past response and clean-up costs and damage assessment costs (under items 1 and 2 above) shall not exceed \$62 million, and the aggregate amount allocated for State past response and clean-up costs, damage assessment costs, and Litigation Costs (under items 1-3 above) shall not exceed \$72 million. The Governments represent that the monies paid by Exxon to the Governments pursuant to this Agreement will be allocated, received, held, and used in accordance with the Memorandum of Agreement and Consent Decree between the United States and the State of Alaska ("MOA"), which the Governments have submitted or will submit to this Court to resolve claims of the Governments against one another with respect to their respective shares in recoveries for Natural Resource Damages resulting from the Oil Spill. This paragraph and the MOA do not create any rights in, or impose any obligations on, Exxon, Exxon Pipeline, Alyeska, or any other person or entity except the Governments.

Commitment by Exxon to Continue Clean-up

11. (a) Exxon shall continue clean-up work relating to the Oil Spill after the Effective Date, as directed by and in accordance with the directions of the Federal On-Scene Coordinator ("FOSC"), subject to prior approval by the FOSC of the costs of work directed by the FOSC. After the Effective Date, Exxon shall also perform any additional clean-up work directed by the State On-Scene Coordinator ("State OSC") that does not interfere or affirmatively conflict with work directed