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I. ECONOMIC AND INDUSTRIAL GROWTH

Table I-1-1 SIM1. Population & Sectoral GDP.

TIME	Unit (Constant Factor Cost based on 1959/60)				
	POP ^a E+00	GDP1 ^a E+05	GDP2 ^a E+07	GDP3 ^a E+07	GDP ^a E+07
1976.0	734.3	1395.1	808.2	1802.9	4006.2
1977.0	756.3	1423.9	855.1	1944.0	4223.0
1978.0	777.5	1452.0	910.8	2084.9	4447.7
1979.0	797.7	1464.9	955.6	2215.2	4635.7
1980.0	816.9	1470.8	995.3	2344.1	4810.2
1981.0	834.9	1470.1	1030.2	2470.6	4970.9
1982.0	851.6	1463.5	1060.5	2594.5	5118.5
1983.0	872.9	1453.1	1088.2	2717.4	5258.7
1984.0	894.7	1441.2	1115.5	2842.4	5399.2
1985.0	917.0	1428.9	1143.1	2971.7	5543.7
1986.0	940.0	1416.7	1171.7	3107.0	5695.5
1987.0	963.5	1405.5	1202.1	3250.0	5857.6
1988.0	987.6	1395.7	1235.0	3402.4	6033.1
1989.0	1012.2	1387.8	1271.2	3565.7	6224.7
1990.0	1037.5	1382.1	1311.5	3741.9	6435.4
1991.0	1063.5	1378.8	1356.5	3932.7	6668.0
1992.0	1090.1	1378.2	1407.2	4140.1	6925.4
1993.0	1117.3	1300.5	1464.2	4366.2	7210.8
1994.0	1145.3	1385.8	1528.5	4613.2	7527.5
1995.0	1173.9	1394.4	1600.9	4883.8	7879.1
1996.0	1203.2	1406.2	1682.6	5180.5	8269.3
1997.0	1233.3	1421.6	1774.7	5506.3	8702.6
1998.0	1264.1	1440.6	1878.5	5864.6	9183.8
1999.0	1295.8	1463.4	1995.5	6259.1	9718.0
2000.0	1328.1	1490.2	2127.4	6693.7	10311.3
2001.0	1361.4	1521.1	2276.2	7173.1	10970.3
2002.0	1395.4	1556.3	2444.1	7702.4	11702.8
2003.0	1430.3	1596.2	2633.6	8287.3	12517.2
2004.0	1466.0	1641.0	2847.9	8934.4	13423.3
2005.0	1502.7	1691.0	3090.3	9650.9	14432.2
2006.0	1540.2	1746.6	3365.0	10445.0	15556.6

Remarks & Sources

- Assumption: investment growth rate=6% annum (input factor)
- 1) POP: Population
 - 2) GDP1: Primary Industry
 - 3) GDP2: Manufacturing & Construction Ind.
 - 4) GDP3: Tertiary Ind.
 - 5) GDP: Gross Domestic Product
- E+04 10,000 person
E+05 100,000 rupee
E+07 10,000,000 rupee
E+07 10,000,000 rupee
E+08 100,000,000 rupee

Table I-1-3 SIM1. Major Economic Indicators

TIME	PRO ^a E+00	CLF ^a E+04	WPIP ^a E+00	CPIP ^a E-05	LNC ^a E+06	CUR ^a E+07
1977.0	1925.4	2193.4	0.10436	8451.5	1501.5	1616.3
1978.0	1972.6	2254.8	0.10486	8499.0	1524.7	1631.2
1979.0	2003.9	2313.4	0.09931	7976.9	1530.5	1635.0
1980.0	2030.5	2368.9	0.09266	7351.9	1523.0	1630.1
1981.0	2053.2	2421.1	0.08607	6732.5	1501.1	1616.0
1982.0	2072.7	2469.5	0.08006	6167.3	1464.1	1592.2
1983.0	2077.5	2531.3	0.07581	5767.7	1546.4	1645.2
1984.0	2081.0	2594.6	0.07376	5575.2	1633.9	1701.6
1985.0	2084.5	2659.4	0.07317	5519.8	1727.8	1762.1
1986.0	2089.4	2725.9	0.07367	5566.0	1828.9	1827.2
1987.0	2096.5	2794.0	0.07501	5692.3	1938.5	1897.8
1988.0	2106.6	2863.9	0.07705	5893.9	2057.9	1974.8
1989.0	2120.5	2935.5	0.07965	6128.9	2188.5	2058.9
1990.0	2138.8	3008.9	0.08272	6417.5	2331.9	2151.3
1991.0	2162.1	3084.1	0.08617	6741.4	2490.1	2253.2
1992.0	2190.8	3161.2	0.08991	7093.4	2665.1	2366.0
1993.0	2225.4	3240.2	0.09389	7467.2	2859.3	2491.1
1994.0	2266.5	3321.2	0.09804	7857.7	3075.4	2630.4
1995.0	2314.5	3404.3	0.10232	8260.3	3316.7	2785.8
1996.0	2369.9	3489.4	0.10669	8671.1	3586.8	2958.8
1997.0	2432.2	3576.6	0.11112	9087.1	3889.8	3155.1
1998.0	2505.1	3666.0	0.11557	9505.6	4230.8	3374.8
1999.0	2586.2	3757.7	0.12002	9924.6	4515.3	3622.5
2000.0	2677.1	3851.6	0.12447	10342.5	5049.9	3902.5
2001.0	2778.8	3947.9	0.12889	10757.8	5542.5	4219.9
2002.0	2892.0	4046.6	0.13327	11169.7	6101.9	4580.4
2003.0	3017.8	4147.8	0.13760	11577.5	6738.9	4990.7
2004.0	3157.3	4251.5	0.14189	11980.9	7465.8	5459.1
2005.0	3311.8	4357.8	0.14613	12379.5	8297.2	5994.8
2006.0	3482.8	4466.7	0.15032	12773.4	9250.4	6608.9

Remarks & Sources

- 1) PRO: Productivity & civilian labour force
 - 2) CLF: Number & civilian labour force
 - 3) WPIP: Wholesale price growth rate
 - 4) CPIP: Consumer price growth rate
 - 5) LNC: Foreign economic assistance
 - 6) CUR: Currency in circulation
- E+04 10,000
E+00 1
E-05 100,000
E+06 1,000,000
E+07 10,000,000

Table I-1-4 SIM1. Trade Volume by Cargo Type

TIME	Unit (metric ton)				
	TRBW ^a E+04	TRGW ^a E+03	IMW ^a E+04	EXW ^a E+03	TRW ^a E+04
1976.0	667.2	2799.2	709.6	2374.8	947.1
1977.0	844.7	2881.6	870.3	2626.6	1132.9
1978.0	919.3	3023.9	917.3	3043.9	1221.6
1979.0	981.7	3157.1	954.0	3433.2	1297.4
1980.0	1039.5	3289.4	986.6	3818.7	1368.5
1981.0	1092.8	3420.3	1015.0	419.8	1434.9
1982.0	1141.8	3549.5	1039.5	4572.9	1496.8
1983.0	1188.3	3611.7	1073.5	4759.9	1549.5
1984.0	1235.0	3674.0	1107.6	4947.5	1602.4
1985.0	1282.9	3738.2	1142.7	5140.4	1656.7
1986.0	1333.3	3805.6	1179.5	5345.1	1713.8
1987.0	1387.1	3877.6	1218.9	5559.5	1774.8
1988.0	1445.3	3955.5	1261.5	5793.8	1840.8
1989.0	1508.9	4040.6	1308.0	6049.6	1912.9
1990.0	1578.8	4134.1	1359.1	6330.9	1992.2
1991.0	1656.0	4237.4	1415.6	6641.4	2079.7
1992.0	1741.4	4351.7	1478.0	6985.1	2176.5
1993.0	1836.1	4478.4	1547.3	7366.1	2283.9
1994.0	1941.1	4619.0	1624.2	7788.9	2403.1
1995.0	2057.8	4775.1	1709.5	8258.2	2535.3
1996.0	2187.3	4948.4	1804.2	8779.2	2682.1
1997.0	2331.0	5140.8	1909.4	9357.6	2845.1
1998.0	2490.7	5354.4	2026.1	9999.9	3026.1
1999.0	2667.9	5591.6	2155.8	10713.1	3227.1
2000.0	2864.8	5855.0	2299.8	11505.1	3450.3
2001.0	3083.5	6147.6	2459.7	12385.0	3698.2
2002.0	3326.5	6472.9	2637.5	13362.8	3973.8
2003.0	3596.7	6834.5	2835.2	14450.1	4280.2
2004.0	3897.4	7236.8	3055.1	15659.7	4621.0
2005.0	4232.1	7684.7	3299.9	17006.6	5000.6
2006.0	4605.2	8184.0	3572.8	18507.7	5423.6

Remarks & Sources

- 1) TRBW: Liquid & dry bulk trade (export+import)
 - 2) TRGW: General cargo trade (export+import)
 - 3) IMW: Total import
 - 4) EXW: Total export
 - 5) TRW: Total trade
- E+04 10,000
E+03 1,000
E+04 10,000
E+04 1,000
E+04 10,000

Table I-1-5 SIM1. Trade Volume by Value

TIME	Unit (US dollar)		
	IMPR ^a E+08	EXPR ^a E+08	TRPR ^a E+08
1976.0	230.1	113.0	343.0
1977.0	296.3	131.1	427.4
1978.0	327.9	159.6	487.5
1979.0	358.1	189.1	547.1
1980.0	388.8	220.8	609.6
1981.0	420.0	254.9	674.9
1982.0	451.6	291.5	743.1
1983.0	489.7	318.6	808.3
1984.0	530.5	347.7	878.3
1985.0	574.7	379.3	954.0
1986.0	622.9	414.0	1036.9
1987.0	675.9	452.3	1128.2
1988.0	734.4	495.0	1229.4
1989.0	799.6	542.7	1342.3
1990.0	872.4	595.3	1467.7
1991.0	954.1	656.8	1610.9
1992.0	1045.0	725.3	1771.3
1993.0	1149.8	803.1	1952.9
1994.0	1267.2	891.7	2158.9
1995.0	1400.5	992.7	2393.2
1996.0	1552.0	1108.1	2660.1
1997.0	1724.6	1240.2	2964.7
1998.0	1921.5	1391.5	3313.1
1999.0	2146.7	1565.3	3712.0
2000.0	2404.6	1765.1	4169.7
2001.0	2700.4	1995.1	4695.5
2002.0	3040.4	2260.2	5300.6
2003.0	3431.6	2566.3	5998.0
2004.0	3882.7	2920.2	6802.9
2005.0	4403.6	3330.0	7733.6
2006.0	5006.1	3805.1	8811.2

Remarks & Sources

- 1) IMPR: Import volume
 - 2) EXPR: Export volume
 - 3) TRPR: Total trade volume
- E+08 100,000,000 (US dollar)
E+08 100,000,000 (US dollar)
E+08 100,000,000 (US dollar)

Table I-1-7 SIM1. Trade Volume by Area (America)

TIME	Unit (1,000K/T)		
	1) IMAMER	2) EXAMER	3) TRAMER
1976	1334.1	182.8	1516.9
1977	1636.2	202.1	1838.3
1978	1724.4	234.3	1958.8
1979	1793.6	264.3	2057.9
1980	1854.8	294.0	2148.8
1981	1908.2	323.3	2231.5
1982	1954.3	352.1	2306.4
1983	2018.2	366.5	2384.7

- 1) IMAMER : American Continent., total import
 2) EXAMER : American Continent., total export
 3) TRAMER : American Continent., total trade

Table I-1-8 SIM1. Trade Volume by Area (Europe)

TIME	Unit (1,000K/T)		
	1) IMEURO	2) EXEURO	3) TREURO
1976	2653.9	629.3	3283.2
1977	3254.9	695.8	3950.7
1978	3430.5	806.6	4237.2
1979	3568.1	909.8	4477.9
1980	3689.9	1012.0	4701.9
1981	3796.1	1112.7	4908.8
1982	3887.7	1211.8	5099.6
1983	4014.9	1261.4	5276.3

- 1) IMEURO : Whole Europe, total import
 2) EXEURO : Whole Europe, total export
 3) TREURO : Whole Europe, total trade

Table I-1-9 SIM1. Trade Volume by Area (Middle East & Africa)

TIME	Unit (1,000K/T)		
	1) IMMIDD	2) EXMIDD	3) TRMIDD
1976	1114.1	833.5	1947.6
1977	1366.4	921.6	2287.9
1978	1440.1	1068.4	2508.5
1979	1497.8	1205.1	2702.9
1980	1549.0	1340.4	2889.4
1981	1593.5	1473.8	3067.3
1982	1632.0	1605.1	3237.1
1983	1685.4	1670.7	3356.1

- 1) IMMIDD : Middle East & Africa, total import
 2) EXMIDD : Middle East & Africa, total export
 3) TRMIDD : Middle East & Africa, total trade

Table I-1-10 SIM1. Trade Volume by Area (Asia & Oceania)

TIME	Unit (1,000K/T)		
	1) IMASIA	2) EXASIA	3) TRASIA
1976	1994.0	726.7	2720.7
1977	2445.5	803.4	3249.0
1978	2577.5	931.4	3508.9
1979	2680.8	1050.6	3731.4
1980	2772.4	1168.5	3940.9
1981	2852.1	1284.8	4137.0
1982	2921.0	1399.3	4320.3
1983	3016.6	1456.5	4473.1

- 1) IMASIA : Asia & Oceania, total import
 2) EXASIA : Asia & Oceania, total export
 3) TRASIA : Asia & Oceania, total trade

Table I-2-1 SIM2. Population & Sectoral GDP

TIME	GDP ^a				
	POP ^b E+00	GDP1 ^a E+05	GDP2 ^a E+07	GDP3 ^a E+07	GDP ^a E+08
1976.0	734.3	1395.1	808.2	1802.9	400.6
1977.0	756.3	1423.9	855.1	1944.0	422.3
1978.0	777.5	1458.1	919.5	2088.5	446.6
1979.0	797.7	1482.3	979.0	2228.9	469.0
1980.0	816.9	1503.6	1038.7	2374.8	491.7
1981.0	834.9	1521.7	1098.6	2524.8	514.5
1982.0	851.6	1536.2	1158.2	2678.2	537.3
1983.0	872.9	1548.7	1219.3	2836.2	560.4
1984.0	894.7	1561.2	1284.5	3002.4	584.8
1985.0	917.0	1574.6	1354.5	3179.4	610.8
1986.0	940.0	1589.6	1430.3	3369.1	638.9
1987.0	963.5	1606.7	1513.2	3573.8	669.4
1988.0	987.6	1626.4	1604.5	3795.8	702.7
1989.0	1012.2	1649.3	1705.8	4037.6	739.3
1990.0	1037.5	1675.9	1818.8	4302.1	779.7
1991.0	1063.5	1706.6	1945.6	4592.2	824.4
1992.0	1090.1	1741.9	2088.4	4911.7	874.2
1993.0	1117.3	1782.3	2249.8	5264.3	929.6
1994.0	1145.3	1828.4	2433.1	5654.6	991.6
1995.0	1173.9	1880.8	2641.9	6087.8	1061.0
1996.0	1203.2	1940.1	2880.7	6569.6	1139.0
1997.0	1233.3	2007.1	3154.5	7107.1	1226.9
1998.0	1264.1	2082.7	3469.9	7708.0	1326.1
1999.0	1295.8	2167.9	3834.5	8381.5	1438.4
2000.0	1328.1	2263.8	4257.6	9138.7	1566.0
2001.0	1361.4	2371.8	4750.7	9992.1	1711.5
2002.0	1395.4	2493.4	5326.0	10955.7	1877.8
2003.0	1430.3	2630.7	6007.2	12050.4	2068.8
2004.0	1466.0	2785.8	6810.3	13294.8	2289.1
2005.0	1502.7	2961.5	7765.3	14715.6	2544.2
2006.0	1540.2	3161.1	8907.6	16344.2	2841.3

Remarks & Sources:
 1)-5) refer to table I-1-1

Table I-2-2 SIM2. Share of Each Sectoral GDP

TIME	Unit (%)		
	GDP1 ^a E+00	GDP2 ^a E+00	GDP3 ^a E+00
1975.0	0.34824	0.20174	0.45003
1977.0	0.33718	0.20249	0.46033
1978.0	0.32648	0.20589	0.46763
1979.0	0.31604	0.20874	0.47523
1980.0	0.30579	0.21124	0.48297
1981.0	0.29575	0.21352	0.49073
1982.0	0.28594	0.21558	0.49849
1983.0	0.27634	0.21758	0.50608
1984.0	0.26696	0.21964	0.51340
1985.0	0.25778	0.22174	0.52048
1986.0	0.24880	0.22387	0.52733
1987.0	0.24003	0.22606	0.53391
1988.0	0.23146	0.22834	0.54019
1989.0	0.22310	0.23074	0.54616
1990.0	0.21495	0.23328	0.55177
1991.0	0.20700	0.23589	0.55701
1992.0	0.19926	0.23889	0.56185
1993.0	0.19172	0.24201	0.56627
1994.0	0.18439	0.24537	0.57024
1995.0	0.17726	0.24899	0.57375
1996.0	0.17033	0.25290	0.57677
1997.0	0.16360	0.25712	0.57928
1998.0	0.15706	0.26167	0.58127
1999.0	0.15072	0.26658	0.58271
2000.0	0.14456	0.27187	0.58357
2001.0	0.13858	0.27758	0.58384
2002.0	0.13278	0.28374	0.58348
2003.0	0.12716	0.29037	0.58247
2004.0	0.12170	0.29751	0.58079
2005.0	0.11640	0.30521	0.57839
2006.0	0.11126	0.31351	0.57524

Remarks & Sources:
 1) GDP1 : Share & primary industry against GDP
 2) GDP2 : Share & manufacturing industry against GDP
 3) GDP3 : Share & tertiary industry against GDP

Table I-2-3 SIM2. Major Economic Indicators

TIME E+00	PRD ¹⁾ E+00	CLF ²⁾ E+04	WPIP ³⁾ E+00	CPPI ⁴⁾ E+00	INC ⁵⁾ E+06	CUR ⁶⁾ E+07
1976.0	1881.3	2129.5	0.11266	0.09232	1142.3	1384.9
1977.0	1925.4	2193.4	0.10436	0.08452	1501.5	1616.3
1978.0	1980.7	2254.8	0.10978	0.08962	1528.5	1633.7
1979.0	2027.4	2313.4	0.10945	0.08930	1541.1	1641.8
1980.0	2075.7	2368.9	0.10741	0.08739	1542.5	1642.7
1981.0	2125.1	2421.1	0.10464	0.08478	1530.4	1634.9
1982.0	2175.6	2469.5	0.10153	0.08186	1502.8	1617.1
1983.0	2214.0	2531.3	0.09950	0.07995	1601.6	1680.8
1984.0	2254.0	2594.6	0.0934	0.07979	1709.2	1750.1
1985.0	2296.9	2659.4	0.10034	0.08074	1827.2	1826.2
1986.0	2343.8	2725.9	0.10217	0.08246	1957.1	1909.9
1987.0	2395.7	2794.0	0.10464	0.08478	2100.8	2002.4
1988.0	2453.5	2863.9	0.10764	0.08760	2260.4	2105.3
1989.0	2518.4	2935.5	0.11108	0.09083	2438.5	2220.0
1990.0	2591.3	3008.9	0.11489	0.09442	2637.9	2348.5
1991.0	2673.2	3084.1	0.11901	0.09830	2862.1	2492.9
1992.0	2765.4	3161.2	0.12342	0.10244	3115.2	2656.0
1993.0	2869.1	3240.2	0.12807	0.10681	3401.9	2840.7
1994.0	2985.7	3321.2	0.13293	0.11138	3728.0	3050.8
1995.0	3116.8	3404.3	0.13799	0.11614	4100.3	3290.7
1996.0	3264.3	3489.4	0.14324	0.12107	4526.9	3565.6
1997.0	3430.3	3576.6	0.14866	0.12617	5017.7	3881.8
1998.0	3617.2	3666.0	0.15425	0.13143	5584.7	4247.1
1999.0	3827.9	3757.7	0.16003	0.13686	6242.3	4670.8
2000.0	4065.8	3851.6	0.16599	0.14246	7008.3	5164.3
2001.0	4335.1	3947.9	0.17216	0.14826	7904.6	5741.8
2002.0	4640.5	4046.6	0.17855	0.15428	8958.0	6420.5
2003.0	4987.8	4147.8	0.18521	0.16053	10202.2	7222.2
2004.0	5384.2	4251.5	0.19215	0.16706	11679.3	8173.8
2005.0	5838.4	4357.8	0.19942	0.17390	13442.2	9309.7
2006.0	6361.1	4466.7	0.20709	0.18111	15558.5	10673.2

Remarks & Sources
1)-5) refer to table I-1-3

Table I-2-4 SIM2. Trade Volume by Cargo Type.

TIME E+00	TRBW ¹⁾ E+04	TRGW ²⁾ E+03	IMW ³⁾ E+04	EXW ⁴⁾ E+04	TRW ⁵⁾ E+04
1976.0	667.2	2799.2	709.6	237.5	947.1
1977.0	844.7	2881.6	870.3	262.6	1132.9
1978.0	925.3	3031.1	921.9	306.6	1228.4
1979.0	999.7	3179.2	967.6	350.0	1317.6
1980.0	1075.0	3334.1	1013.0	395.4	1408.4
1981.0	1150.6	3495.4	1057.7	442.5	1500.2
1982.0	1226.2	3662.3	1101.2	491.2	1592.4
1983.0	1303.0	3765.1	1157.4	522.1	1679.5
1984.0	1383.9	3873.4	1216.6	584.7	1771.3
1985.0	1470.3	3989.0	1279.8	589.4	1869.2
1986.0	1563.4	4113.5	1347.8	626.9	1974.7
1987.0	1664.5	4248.8	1421.8	667.6	2089.3
1988.0	1775.0	4396.7	1502.6	712.0	2214.6
1989.0	1896.4	4559.2	1591.4	760.9	2352.3
1990.0	2030.5	4738.6	1689.5	814.8	2504.3
1991.0	2179.0	4937.3	1798.2	874.6	2672.7
1992.0	2344.1	5158.2	1918.9	941.0	2859.9
1993.0	2528.1	5404.4	2053.5	1015.0	3068.5
1994.0	2733.7	5679.6	2203.9	1097.8	3301.6
1995.0	2964.1	5987.9	2372.4	1190.5	3562.9
1996.0	3222.8	6334.2	2561.7	1294.6	3863.3
1997.0	3514.3	6724.1	2774.9	1411.8	4186.7
1998.0	3843.4	7164.6	3015.6	1544.3	4559.9
1999.0	4216.1	7663.3	3288.2	1694.2	4982.5
2000.0	4639.5	8229.9	3597.9	1864.6	5462.5
2001.0	5122.1	8875.7	3950.9	2085.8	6009.7
2002.0	5674.1	9614.3	4354.7	2280.8	6635.5
2003.0	6307.9	10462.4	4818.3	2535.9	7354.1
2004.0	7038.7	11440.4	5352.9	2829.9	8182.8
2005.0	7885.3	12573.3	5972.1	3170.5	9142.6
2006.0	8870.9	13892.2	6693.1	3567.1	10260.1

Remarks & Sources
1) TRBW : Liquid & dry bulk trade (export+import) E+04 10,000
2) TRGW : General cargo trade (export+import) E+03 1,000
3) IMW : Total import E+04 10,000
4) EXW : Total export E+03 1,000
5) TRW : Total trade E+04 10,000

Table I-2-5 SIM2. Trade Volume by Value.

TIME E+00	IMPR ¹⁾ E+08	EXPR ²⁾ E+08	TRPR ³⁾ E+08
1976.0	230.1	113.0	343.0
1977.0	296.3	131.1	427.4
1978.0	329.5	160.8	490.3
1979.0	363.2	192.7	555.9
1980.0	399.2	228.6	627.8
1981.0	437.6	268.7	706.3
1982.0	478.4	313.1	791.6
1983.0	528.0	349.5	877.5
1984.0	582.7	389.9	972.6
1985.0	643.6	435.0	1078.6
1986.0	711.8	485.8	1197.5
1987.0	788.4	543.1	1331.5
1988.0	874.8	608.3	1483.1
1989.0	972.9	682.5	1655.4
1990.0	1084.5	767.4	1851.9
1991.0	1211.9	864.9	2076.9
1992.0	1358.0	977.1	2335.1
1993.0	1525.9	1105.7	2632.6
1994.0	1719.5	1256.8	2976.3
1995.0	1943.6	1431.0	3374.6
1996.0	2203.6	1634.0	3837.5
1997.0	2506.3	1871.1	4377.4
1998.0	2859.9	2148.9	5088.8
1999.0	3274.4	2475.5	5749.9
2000.0	3761.9	2860.6	6622.5
2001.0	4337.6	3316.4	7654.0
2002.0	5019.9	3857.9	8877.8
2003.0	5832.0	4503.7	10335.7
2004.0	6803.0	5277.2	12080.2
2005.0	7969.5	6208.0	14177.5
2006.0	9378.1	7333.7	16711.9

Remarks & Sources
1) CON : Private consumption E+07 10,000,000
2) CAP : Gross fixed capital formation E+07 10,000,000

Table I-2-6 SIM2. Consumption & Investment (THB at the left table)

TIME E+00	CON ¹⁾ E+07	CAP ²⁾ E+07
1976.0	3354.6	761.2
1977.0	3620.5	772.9
1978.0	3870.8	925.3
1979.0	4092.7	875.3
1980.0	4315.6	924.4
1981.0	4534.2	974.2
1982.0	4745.4	1025.0
1983.0	4951.7	1079.5
1984.0	5162.9	1139.7
1985.0	5385.4	1205.2
1986.0	5623.9	1276.6
1987.0	5882.8	1354.7
1988.0	6166.6	1440.8
1989.0	6480.1	1536.1
1990.0	6828.5	1642.3
1991.0	7217.4	1761.2
1992.0	7653.2	1894.9
1993.0	8143.4	2045.8
1994.0	8696.4	2216.7
1995.0	9322.0	2411.1
1996.0	10031.7	2633.1
1997.0	10839.1	2887.3
1998.0	11760.5	3179.7
1999.0	12815.2	3517.2
2000.0	14026.7	3908.4
2001.0	15423.3	4363.7
2002.0	17039.7	4896.0
2003.0	18918.4	5521.3
2004.0	21112.4	6259.3
2005.0	23687.5	7135.2
2006.0	26726.9	8180.7

Remarks & Sources
1)-2) refer to table I-1-6

Table 1-2-7 SIM2. Trade Volume by Area (America)

TIME E+00	North America			Central America			South America			unit (M/T)		
	IMNA ¹⁾ E+03	EXNA ²⁾ E+02	TRNA ³⁾ E+03	IMCA ⁴⁾ E+00	EXCA ⁵⁾ E+02	TRCA ⁶⁾ E+02	IMSA ⁷⁾ E+02	EXSA ⁸⁾ E+02	TRSA ⁹⁾ E+02	IMAMER ¹⁰⁾ E+03	EXAMER ¹¹⁾ E+02	TRAMER ¹²⁾ E+03
1976.0	1213.4	997.4	1313.2	2838.4	498.7	782.6	922.5	332.5	1255.0	1334.1	1828.6	1516.9
1977.0	1488.2	1102.8	1598.5	3481.2	551.4	899.5	1131.4	367.6	1499.0	1636.2	2021.7	1838.3
1978.0	1576.4	1287.6	1705.2	3687.6	643.8	1012.6	1198.4	429.2	1627.6	1733.1	2360.7	1959.2
1979.0	1654.7	1470.1	1801.7	3870.5	735.0	1122.1	1257.9	490.0	1747.9	1819.1	2695.1	2088.7
1980.0	1732.3	1660.6	1898.3	4052.1	830.3	1235.5	1316.9	553.5	1870.5	1904.5	3044.4	2208.9
1981.0	1808.6	1858.5	1994.5	4230.6	929.3	1352.3	1375.0	619.5	1994.5	1988.4	3407.3	2329.1
1982.0	1883.0	2063.1	2089.3	4404.7	1031.5	1472.0	1431.5	687.7	2119.2	2070.2	3782.3	2448.5
1983.0	1979.1	2192.9	2198.4	4629.5	1096.5	1559.4	1504.6	731.0	2235.5	2175.9	4020.3	2577.9
1984.0	2080.4	2329.7	2313.3	4866.3	1164.8	1651.5	1581.6	776.6	2358.1	2287.2	4271.1	2714.3
1985.0	2188.4	2475.7	2436.0	5119.0	1237.8	1749.7	1653.7	825.2	2488.9	2405.9	4538.7	2859.8
1986.0	2304.8	2632.9	2568.1	5391.3	1316.5	1855.6	1752.2	877.6	2629.8	2533.9	4827.0	3016.6
1987.0	2431.2	2803.7	2711.6	5687.1	1401.9	1970.6	1848.3	934.6	2782.9	2672.9	5140.2	3187.0
1988.0	2569.5	2890.5	2868.5	6010.4	1495.2	2096.3	1953.4	996.8	2950.2	2824.9	5482.6	3373.2
1989.0	2721.4	3195.7	3040.9	6365.8	1597.9	2234.4	2068.9	1065.2	3134.1	2991.9	5858.8	3577.8
1990.0	2889.1	3422.3	3231.3	6758.0	1711.1	2386.9	2196.4	1140.8	3337.1	3176.3	6274.2	3803.7
1991.0	3074.8	3673.3	3442.2	7192.6	1836.6	2555.9	2337.6	1224.4	3562.0	3380.5	6734.3	4054.0
1992.0	3281.3	3952.2	3676.5	7675.6	1976.1	2743.7	2494.6	1317.4	3812.0	3607.5	7245.7	4332.1
1993.0	3511.4	4263.1	3937.8	8213.9	2131.6	2953.0	2669.5	1421.0	4090.6	3860.5	7815.8	4642.1
1994.0	3768.6	4610.6	4229.7	8815.5	2305.3	3186.9	2865.0	1536.9	4401.9	4143.3	8452.8	4988.6
1995.0	4056.8	4999.9	4556.8	9489.6	2500.0	3448.9	3084.1	1666.6	4750.8	4460.1	9166.5	5376.8
1996.0	4380.5	5437.8	4924.2	10246.7	2718.6	3743.3	3320.2	1812.4	5142.6	4816.0	9968.3	5812.8
1997.0	4745.0	5929.7	5338.0	11099.4	2964.9	4074.8	3607.3	1976.6	5583.9	5216.7	10871.2	6303.9
1998.0	5156.7	6483.9	5805.3	12062.4	3242.9	4449.2	3920.3	2162.0	6082.2	5669.3	11890.8	6858.4
1999.0	5622.9	7115.7	6334.4	13152.9	3557.9	4873.2	4274.7	2371.9	6646.6	6181.9	13045.5	7486.4
2000.0	6152.5	7831.5	6935.6	14391.8	3915.6	5354.8	4677.3	2610.4	7287.7	6764.1	14357.3	8199.9
2001.0	6756.1	8646.8	7620.8	15803.7	4323.4	5903.8	5136.2	2882.3	8018.5	7427.8	15852.4	9013.0
2002.0	7446.5	9579.5	8404.5	17418.8	4789.8	6531.6	5661.1	3193.2	8854.3	8186.8	17562.5	9943.1
2003.0	8239.3	10650.6	9304.3	19273.2	5325.3	7252.6	6263.8	3550.2	9814.0	9058.4	19526.1	11011.0
2004.0	9153.4	11885.6	10342.0	21411.5	5942.8	8083.9	6958.7	3961.9	10920.5	10063.4	21790.2	12242.4
2005.0	10212.3	13316.2	11543.9	23888.4	6658.1	9046.9	7763.7	4438.7	12202.5	11227.6	24113.0	13668.9
2006.0	11445.1	14981.8	12943.3	26772.2	7490.9	10168.1	8701.0	4993.9	13694.9	12582.9	27466.6	15329.6

Remarks & Sources

- 1) IMNA : North America, import trade
- 2) EXNA : North America, export trade
- 3) TRNA : North America, total trade
- 4) IMCA : Central America, import trade
- 5) EXCA : Central America, export trade
- 6) TRCA : Central America, total trade

- E+03 1,000 Metric tons
- E+02 100 Metric tons
- E+03 1,000 Metric tons
- E+00 1 Metric tons
- E+02 100 Metric tons
- E+02 100 Metric tons

- 7) IMSA : South America, import trade
- 8) EXSA : South America, export trade
- 9) TRSA : South America, total trade
- 10) IMAMER : American Continent, total import
- 11) EXAMER : American Continent, total export
- 12) TRAMER : American Continent, total trade

- E+02 100 Metric tons
- E+02 100 Metric tons
- E+02 100 Metric tons
- E+03 1,000 Metric tons
- E+02 100 Metric tons
- E+03 1,000 Metric

Table 1-2-8 SIM2. Trade Volume by Area (Europe)

TIME E+00	Western Europe			Eastern Europe			Whole Europe			unit (M/T)		
	IMWE ¹⁾ E+03	EXWE ²⁾ E+03	TRWE ³⁾ E+03	IMEE ⁴⁾ E+03	EXEE ⁵⁾ E+02	TREE ⁶⁾ E+03	IMEURO ⁷⁾ E+03	EXEURO ⁸⁾ E+03	REURO ⁹⁾ E+04			
1976.0	1185.0	491.6	1676.6	1468.9	1377.4	1606.6	2653.9	629.3	328.3			
1977.0	1453.4	543.5	1996.9	1801.5	1522.8	1953.8	3254.9	695.8	395.1			
1978.0	1539.5	634.6	2174.1	1908.3	1778.2	2086.1	3447.8	812.4	426.0			
1979.0	1615.9	724.5	2340.5	2003.0	2030.1	2206.0	3618.9	927.5	454.6			
1980.0	1691.8	818.4	2510.2	2097.0	2293.2	2326.3	3788.7	1047.8	483.7			
1981.0	1766.3	916.0	2682.3	2189.4	2566.5	2446.0	3955.7	1172.6	512.8			
1982.0	1839.0	1016.8	2855.8	2279.5	2849.0	2564.4	4118.4	1301.7	542.0			
1983.0	1932.8	1080.8	3013.6	2395.8	3028.3	2698.6	4328.6	1393.6	571.2			
1984.0	2031.7	1148.2	3179.9	2518.3	3217.2	2840.0	4550.0	1469.9	602.0			
1985.0	2137.2	1220.1	3357.3	2649.1	3418.8	2991.0	4786.3	1562.0	634.8			
1986.0	2250.9	1297.7	3548.5	2790.0	3635.9	3153.6	5040.9	1661.3	670.2			
1987.0	2374.4	1381.8	3756.2	2943.1	3871.8	3330.3	5317.4	1769.0	708.6			
1988.0	2509.4	1473.9	3983.2	3110.4	4129.7	3523.4	5619.8	1885.9	750.7			
1989.0	2657.7	1575.0	4232.6	3294.3	4413.2	3735.6	5952.0	2016.4	796.8			
1990.0	2821.5	1686.7	4508.2	3497.3	4726.0	3969.9	6318.8	2159.3	847.8			
1991.0	3002.9	1810.4	4813.3	3722.2	5072.6	4229.4	6725.1	2317.7	904.3			
1992.0	3204.6	1947.9	5152.4	3972.1	5457.8	4517.9	7176.7	2493.7	967.0			
1993.0	3429.3	2101.1	5530.4	4250.7	5887.2	4839.4	7680.0	2689.8	1037.0			
1994.0	3680.5	2272.4	5952.9	4562.0	6367.0	5198.7	8242.5	2909.1	1115.2			
1995.0	3961.9	2464.2	6426.1	4910.9	6904.7	5601.3	8872.8	3154.7	1202.7			
1996.0	4278.0	2679.8	6957.8	5302.7	7508.6	6053.5	9580.7	3430.6	1301.1			
1997.0	4634.0	2922.5	7556.5	5744.0	8188.7	6562.8	10378.0	3741.4	1411.9			
1998.0	5036.0	3196.6	8232.7	6242.3	8956.7	7137.9	11278.3	4092.3	1537.1			
1999.0	5491.3	3507.0	8998.4	6806.6	9826.5	7789.3	12298.0	4489.7	1678.8			
2000.0	6008.6	3859.7	9868.3	7447.7	10814.6	8529.2	13456.3	4941.2	1839.7			
2001.0	6598.1	4261.6	10859.7	8178.4	11940.8	9372.5	14776.5	5455.7	2023.2			
2002.0	7272.3	4721.3	11993.7	9014.2	13228.9	10337.1	16286.5	6044.2	2233.1			
2003.0	8046.6	5249.2	13295.8	9973.9	14708.0	11444.7	18020.4	6720.0	2474.0			
2004.0	8939.3	5857.9	14797.2	11080.4	16413.4	12721.8	20019.7	7499.2	2751.9			
2005.0	9973.4	6563.0	16536.4	12262.3	18389.0	14201.2	22355.7	8401.9	3073.8			
2006.0	11177.4	7383.9	18561.3	13854.6	20689.1	15923.5	25032.0	9452.8	3448.5			

Remarks & Sources

- 1) IMWE : Western Europe, import trade
- 2) EXWE : Western Europe, export trade
- 3) TRWE : Western Europe, total trade
- 4) IMEE : Eastern Europe, import trade
- 5) EXEE : Eastern Europe, export trade
- 6) TREE : Eastern Europe, total trade

- E+03 1,000 tons
- E+03 1,000 tons
- E+03 1,000 tons
- E+03 1,000 tons
- E+02 100 tons
- E+03 1,000 tons

- 7) IMEURO : Whole Europe, total import
- 8) EXEURO : Whole Europe, total export
- 9) TREURO : Whole Europe, total trade

- E+03 1,000 tons
- E+03 1,000 tons
- E+03 1,000 tons

Table I - 2-9 SIM2. Trade Volume by Area (Middle East & Africa)

TIME	unit (M/T)								
	IMME ^{a)} E+00	EXME ^{a)} E+03	TRME ^{a)} E+03	IMAF ^{a)} E+03	EXAF ^{a)} E+02	TRAF ^{a)} E+03	IMMIDD ^{b)} E+03	EXMIDD ^{b)} E+03	TRMIDD ^{b)} E+03
1976.0	525.1	660.2	1185.3	589.0	1733.6	762.3	1114.1	833.5	1947.6
1977.0	644.0	729.9	1373.9	722.3	1916.7	914.0	1366.4	921.6	2287.9
1978.0	682.2	852.3	1534.5	765.2	2238.0	989.0	1447.3	1076.1	2523.4
1979.0	716.0	973.0	1639.1	803.1	2551.1	1058.6	1519.2	1228.5	2747.7
1980.0	749.6	1099.2	1848.8	840.8	2886.3	1129.4	1590.5	1387.8	2978.3
1981.0	782.7	1230.2	2012.8	877.9	3230.3	1200.9	1660.5	1553.2	3213.7
1982.0	814.9	1365.6	2180.5	914.0	3585.9	1272.6	1728.9	1724.2	3453.0
1983.0	856.5	1451.5	2307.9	960.6	3911.5	1341.8	1817.1	1832.6	3649.7
1984.0	900.3	1542.0	2442.3	1009.8	4049.2	1414.7	1910.0	1947.0	3857.0
1985.0	947.0	1638.6	2585.7	1062.2	4302.9	1492.5	2009.2	2058.9	4078.2
1986.0	997.4	1742.7	2740.1	1118.7	4576.3	1576.3	2116.1	2200.4	4316.5
1987.0	1052.1	1855.8	2907.9	1180.1	4873.2	1667.4	2232.2	2343.1	4575.3
1988.0	1111.9	1979.4	3091.4	1247.2	5197.8	1766.9	2359.1	2499.2	4858.3
1989.0	1177.7	2115.3	3292.9	1320.9	5554.5	1876.3	2498.6	2670.7	5169.3
1990.0	1250.2	2265.2	3515.5	1402.3	5948.3	1997.1	2652.5	2860.1	5512.6
1991.0	1330.6	2431.4	3762.0	1492.5	6384.5	2130.9	2823.1	3069.8	5892.9
1992.0	1420.0	2616.0	4036.0	1592.7	6869.3	2279.6	3012.7	3302.9	635.6
1993.0	1519.6	2821.8	4341.4	1704.4	7409.8	2445.4	3224.0	3562.8	6786.7
1994.0	1630.9	3051.8	4682.7	1829.2	8013.7	2630.6	3460.1	3853.2	7313.3
1995.0	1755.6	3309.5	5065.0	1969.1	8690.3	2838.1	3724.7	4178.5	7903.2
1996.0	1895.6	3598.9	5494.6	2126.2	9450.4	3071.2	4021.8	4544.0	8565.8
1997.0	2053.4	3924.9	5978.3	2303.1	10306.4	3333.8	4356.5	4955.6	9312.1
1998.0	2231.5	4293.0	6524.6	2502.9	11273.1	3630.3	4734.5	5420.3	10154.8
1999.0	2433.3	4709.9	7143.2	2729.2	12367.8	3966.0	5162.5	5946.7	11109.3
2000.0	2662.5	5183.5	7846.0	2986.3	13611.5	4347.4	5648.8	6544.7	12193.5
2001.0	2923.7	5723.3	8647.0	3279.3	15028.9	4782.2	6203.0	7226.2	13429.2
2002.0	3222.5	6340.7	9563.2	3614.4	16650.2	5279.4	6836.9	8005.8	14842.6
2003.0	3565.5	7049.7	10615.2	3999.2	18511.7	5850.4	7564.7	8900.9	16465.6
2004.0	3961.1	7867.1	11828.3	4442.9	20658.3	6508.7	8404.0	9933.0	18337.0
2005.0	4419.4	8814.1	13233.4	4956.8	23144.8	7271.3	9376.2	11128.5	20504.7
2006.0	4952.9	9916.5	14869.4	5555.2	26039.7	8159.2	10508.1	12520.5	23028.6

Remarks & Sources

1) IMME : Middle East, import trade
 2) EXME : Middle East, export trade
 3) TRME : Middle East, total trade
 4) IMAF : Africa, import trade
 5) EXAF : Africa, export trade
 6) TRAF : Africa, total trade

E+03 1,000 tons
 E+03 1,000 tons
 E+03 1,000 tons
 E+03 1,000 tons
 E+02 100 tons
 E+03 1,000 tons

7) IMMIDD : Middle East & Africa, total import
 8) EXMIDD : Middle East & Africa, total export
 9) TRMIDD : Middle East & Africa, total trade

E+03 1,000 tons
 E+03 1,000 tons
 E+03 1,000 tons

Table I - 2-10 SIM2. Trade Volume by Area (Asia & Oceania)

TIME	unit (M/T)								
	IMAS ^{a)} E+03	EXAS ^{a)} E+03	TRAS ^{a)} E+03	IMOC ^{a)} E+02	EXOC ^{a)} E+02	TROC ^{a)} E+02	IMASIA ^{b)} E+03	EXASIA ^{b)} E+03	TRASIA ^{b)} E+04
1976.0	1901.7	698.2	2599.9	922.5	285.0	1207.5	1994.0	726.7	272.1
1977.0	2332.4	771.9	3104.3	1131.4	315.1	1446.5	2445.5	803.4	324.9
1978.0	2470.6	901.3	3372.0	1198.4	367.9	1566.3	2590.5	938.1	352.9
1979.0	2593.3	1029.0	3622.3	1257.9	420.0	1677.9	2719.0	1071.0	379.0
1980.0	2714.9	1162.4	3877.4	1316.9	474.5	1791.4	2846.6	1209.9	405.6
1981.0	2834.5	1301.0	4135.5	1375.0	531.0	1906.0	2972.0	1354.1	432.6
1982.0	2951.2	1444.2	4395.3	1431.5	589.5	2021.0	3094.3	1503.1	459.7
1983.0	3101.7	1535.0	4636.8	1504.6	625.5	2131.1	3252.2	1597.7	485.0
1984.0	3260.4	1630.8	4891.2	1581.6	665.6	2247.2	3418.6	1697.4	511.6
1985.0	3429.8	1733.0	5162.7	1663.7	707.3	2371.0	3596.1	1803.7	540.0
1986.0	3612.2	1843.0	5455.2	1752.2	752.3	2504.4	3787.4	1918.3	570.6
1987.0	3810.4	1962.6	5773.0	1848.3	801.1	2649.4	3995.2	2042.7	603.8
1988.0	4027.0	2093.3	6120.3	1953.4	854.4	2807.8	4222.3	2178.8	640.1
1989.0	4265.1	2237.0	6502.1	2068.9	913.1	2981.9	4472.0	2328.3	680.0
1990.0	4527.9	2395.6	6923.5	2196.4	977.8	3174.2	4747.5	2493.4	724.1
1991.0	4819.0	2571.3	7390.3	2337.6	1049.5	3387.1	5052.8	2676.2	772.9
1992.0	5142.6	2766.6	7909.2	2494.6	1129.2	3623.8	5392.1	2879.5	827.2
1993.0	5503.3	2984.2	8487.5	2669.5	1218.0	3887.6	5770.3	3106.0	887.6
1994.0	5906.4	3227.4	9133.8	2865.0	1317.3	4182.4	6192.9	3359.2	955.2
1995.0	6358.0	3499.9	9858.0	3084.1	1428.6	4512.7	6666.4	3642.8	1030.9
1996.0	6865.3	3806.1	10671.4	3330.2	1553.5	4883.7	7198.3	3961.4	1116.0
1997.0	7436.6	4150.8	11587.4	3607.3	1694.2	5301.5	7797.4	4320.2	1211.8
1998.0	8081.8	4540.1	12621.9	3920.3	1853.1	5773.4	8473.8	4725.4	1319.9
1999.0	8812.5	4981.0	13793.5	4274.7	2033.1	6307.8	9239.9	5184.3	1442.4
2000.0	9642.5	5481.9	15124.4	4677.3	2237.5	6914.8	10110.2	5705.6	1581.6
2001.0	10588.5	6052.7	16641.2	5136.2	2470.5	7606.7	11102.1	6299.8	1740.2
2002.0	11670.6	6705.7	18376.2	5661.1	2737.0	8398.1	12236.7	6979.4	1921.6
2003.0	12913.0	7455.4	20368.4	6263.8	3043.0	9306.8	13539.4	7759.7	2129.9
2004.0	14345.7	8319.9	22665.6	6958.7	3395.9	10354.6	15021.6	8659.5	2370.1
2005.0	16005.3	9321.3	25326.6	7763.7	3804.6	11568.4	16781.6	9701.8	2648.3
2006.0	17937.4	10487.2	28424.6	8701.0	4280.5	12981.5	18807.5	10915.3	2972.3

Remarks & Sources

1) IMAS : Asia, import trade
 2) EXAS : Asia, export trade
 3) TRAS : Asia, total trade
 4) IMOC : Oceania, import trade
 5) EXOC : Oceania, export trade
 6) TROC : Oceania, total trade

E+03 1,000 tons
 E+03 1,000 tons
 E+03 1,000 tons
 E+02 100 tons
 E+02 100 tons
 E+02 100 tons

7) IMASIA : Asia & Oceania, total import
 8) EXASIA : Asia & Oceania, total export
 9) TRASIA : Asia & Oceania, total trade

E+03 1,000 tons
 E+03 1,000 tons
 E+03 1,000 tons

Table 1-3-7 SIM3. Trade Volume by Area (America)

TIME	Unit (1,000K/T)		
	1) IMAMER	2) EXAMER	3) TRAMER
1976	1334.1	182.9	1516.9
1977	1638.2	202.2	1838.3
1978	1741.8	237.8	1979.6
1979	1845.2	274.8	2119.9
1980	1955.9	315.2	2271.1
1981	2073.0	359.1	2432.1
1982	2195.2	406.4	2601.6
1983	2349.8	441.2	2791.0

Remarks & Sources 1)~3) refer to table 1-1-7.

Table 1-3-8 SIM3. Trade Volume by Area (Europe)

TIME	Unit (1,000K/T)		
	1) IMEURO	2) EXEURO	3) TREURO
1976	2654	629.3	3283
1977	3255	895.8	3951
1978	3465	818.3	4283
1979	3671	945.6	4616
1980	3891	1074.8	4976
1981	4124	1235.9	5360
1982	4367	1398.6	5766
1983	4675	1518.5	6193

* Remarks & Sources 1)~3) refer to table 1-1-8.

Table 1-3-9 SIM3. Trade Volume by Area (Middle East & Africa)

TIME	Unit (1,000K/T)		
	IMMIDD	EXMIDD	TRMIDD
1976	1114.1	833.5	1948
1977	1386.4	921.6	2288
1978	1454.6	1083.8	2538
1979	1540.9	1252.5	2793
1980	1633.4	1436.9	3070
1981	1731.2	1637.0	3368
1982	1833.2	1852.5	3686
1983	1962.3	2011.2	3974

Table 1-3-10 SIM3. Trade Volume by Area (Asia & Oceania)

TIME	Unit (1,000K/T)		
	IMASIA	EXASIA	TRASIA
1976	1994	726.7	2721
1977	2446	803.4	3249
1978	2604	944.9	3548
1979	2758	1091.9	3850
1980	29223	1252.6	4176
1981	3098	1427.1	4526
1982	3281	1615.0	4896
1983	3512	1753.4	5266

Table I-3-1 SIM3. Population of Sectoral GDP.

TIME	POP ^a	GDP1 ^a	GDP2 ^a	GDP3 ^a	GDP ^a
E+00	E+05	E+07	E+07	E+07	E+08
1976.0	734.3	1395.1	808.2	1802.9	400.6
1977.0	756.3	1423.9	855.1	1944.0	422.3
1978.0	777.5	1464.2	928.3	2092.0	448.4
1979.0	797.7	1499.9	1003.0	2242.8	474.6
1980.0	816.9	1537.4	1084.2	2406.2	502.8
1981.0	834.9	1575.6	1172.0	2581.1	532.9
1982.0	851.6	1613.8	1266.2	2766.5	564.7
1983.0	872.9	1652.7	1368.8	2963.8	598.5
1984.0	894.7	1694.9	1483.6	3177.7	635.6
1985.0	917.0	1741.1	1612.5	3411.7	676.5
1986.0	940.0	1792.4	1758.1	3669.1	722.0
1987.0	963.5	1849.5	1923.6	3953.8	772.7
1988.0	987.6	1913.4	2112.9	4269.9	829.6
1989.0	1012.2	1985.2	2330.7	4622.6	893.8
1990.0	1037.5	2066.1	2582.8	5017.6	966.7
1991.0	1063.5	2157.6	2876.6	5461.9	1049.6
1992.0	1090.1	2261.4	3221.0	5963.7	1144.6
1993.0	1117.3	2379.3	3627.4	6533.0	1254.0
1994.0	1145.3	2513.9	4110.5	7181.9	1380.6
1995.0	1173.9	2668.0	4689.0	7925.2	1528.2
1996.0	1203.2	2845.3	5387.3	8781.2	1701.4
1997.0	1233.3	3050.4	6237.9	9772.8	1905.1
1998.0	1264.1	3288.9	7289.9	11028.9	2150.2
1999.0	1295.8	3568.3	8584.1	12866.6	2443.9
2000.0	1328.1	3898.2	10219.8	13893.7	2801.2
2001.0	1361.4	4291.4	12305.4	15813.5	3241.0
2002.0	1395.4	4765.1	15005.7	18130.7	3790.1
2003.0	1430.3	5343.1	18563.4	20961.1	4486.8
2004.0	1466.0	6059.2	23346.9	24466.8	5387.3
2005.0	1502.7	6962.1	29933.0	28880.4	6577.5
2006.0	1540.2	8125.1	39260.0	34546.5	8193.2

Remarks & Sources
1)-5) refer to table I-1

Table I-3-3 SIM3. Major Economic Indicators.

TIME	PRO ^a	CLF ^a	WPIP ^a	CPIP ^a	INC ^a	CUR ^a
E+00	E+00	E+04	E+00	E+00	E+06	E+07
1976.0	1881.3	2129.5	0.11266	0.09232	1142.3	1384.9
1977.0	1925.4	2193.4	0.10436	0.08452	1501.5	1616.3
1978.0	1988.9	2254.8	0.11473	0.09427	1532.3	1636.1
1979.0	2051.4	2313.4	0.11971	0.09095	1551.9	1648.8
1980.0	2122.3	2368.9	0.12249	0.10156	1562.6	1655.7
1981.0	2201.0	2421.1	0.12381	0.10280	1561.3	1654.8
1982.0	2286.5	2469.5	0.12395	0.10293	1544.4	1643.9
1983.0	2364.6	2531.3	0.12457	0.10352	1662.5	1720.0
1984.0	2449.8	2594.6	0.12685	0.10566	1794.5	1805.0
1985.0	2543.9	2659.4	0.13011	0.10873	1942.9	1900.7
1986.0	2648.5	2725.9	0.13407	0.11245	2110.7	2008.8
1987.0	2765.5	2794.0	0.13859	0.11671	2301.4	2131.7
1988.0	2896.8	2863.9	0.14362	0.12143	2519.3	2272.0
1989.0	3045.0	2935.5	0.14911	0.12660	2769.4	2433.2
1990.0	3212.7	3008.9	0.15506	0.13219	3058.2	2619.3
1991.0	3403.3	3084.1	0.16147	0.13821	3393.6	2835.3
1992.0	3620.8	3151.2	0.16835	0.14468	3785.3	3087.8
1993.0	3870.0	3240.2	0.17573	0.15163	4245.9	3384.5
1994.0	4157.0	3321.2	0.18367	0.15909	4790.9	3735.6
1995.0	4489.1	3404.3	0.19222	0.16712	5440.5	4154.2
1996.0	4875.9	3489.4	0.20146	0.17582	6220.8	4656.9
1997.0	5329.3	3576.6	0.21151	0.18526	7166.0	5265.9
1998.0	5865.1	3666.0	0.22248	0.19558	8321.5	6010.4
1999.0	6503.7	3757.7	0.23457	0.20694	9748.5	6928.8
2000.0	7272.7	3851.6	0.24798	0.21955	11530.7	8078.1
2001.0	8209.4	3947.9	0.26300	0.23367	13784.9	9530.5
2002.0	9366.2	4046.6	0.28001	0.24966	16677.4	11394.1
2003.0	10817.3	4147.8	0.29948	0.26798	20450.6	13825.2
2004.0	12671.6	4251.5	0.32210	0.28924	25467.5	17057.6
2005.0	15093.9	4357.8	0.34875	0.31430	32289.5	21453.0
2006.0	18342.7	4466.7	0.38071	0.34435	41817.8	27592.1

Remarks & Sources
1)-6) refer to table I-13

Table I-3-4 SIM3. Trade Volume by Cargo Type

TIME	TRBW ^a	TRGW ^a	IMW ^a	EXW ^a	TRW ^a
E+00	E+04	E+03	E+04	E+04	E+04
1976.0	657.2	2799.2	709.6	237.5	947.1
1977.0	844.7	2881.6	870.3	262.6	1132.9
1978.0	931.5	3038.3	926.5	308.8	1235.3
1979.0	1018.1	3201.7	981.5	356.8	1338.3
1980.0	1111.7	3380.4	1040.4	409.4	1449.7
1981.0	1211.6	3574.6	1102.7	466.4	1569.0
1982.0	1317.0	3783.9	1167.6	527.8	1695.4
1983.0	1429.4	3934.3	1249.9	573.0	1822.9
1984.0	1552.5	4099.0	1339.9	622.5	1962.4
1985.0	1688.3	4280.6	1439.2	677.1	2116.3
1986.0	1839.0	4482.3	1549.4	737.8	2287.2
1987.0	2007.3	4707.5	1672.5	805.5	2478.0
1988.0	2196.2	4960.3	1810.7	881.5	2692.2
1989.0	2409.3	5245.5	1966.6	967.2	2933.8
1990.0	2650.9	5668.8	2143.3	1064.4	3207.8
1991.0	2926.1	5937.1	2344.6	1175.2	3519.8
1992.0	3241.3	6358.9	2575.2	1302.0	3777.2
1993.0	3604.2	6844.5	2840.6	1448.0	4288.6
1994.0	4024.4	7406.8	3148.0	1617.1	4765.1
1995.0	4514.1	8062.1	3506.2	1814.1	5320.4
1996.0	5088.7	8831.0	3926.5	2045.3	5971.8
1997.0	5768.0	9739.9	4423.3	2318.6	6742.0
1998.0	6577.8	10823.6	5015.7	2644.4	7660.1
1999.0	7552.3	12127.7	5728.6	3036.6	8765.1
2000.0	8737.8	13714.0	6595.7	3513.5	10109.2
2001.0	10197.2	15667.0	7663.2	4100.7	11763.9
2002.0	12019.2	18105.0	8995.9	4833.8	13829.7
2003.0	14330.6	21198.1	10686.6	5763.8	16450.4
2004.0	17318.5	25196.4	12872.2	6966.0	19838.2
2005.0	21267.8	30481.1	15760.9	8555.0	24315.9
2006.0	26628.4	37654.1	19682.0	10711.8	30393.9

Remarks & Sources
1)-5) refer to table I-14

Table I-3-5 SIM3. Trade Volume by Value

TIME	IMPR ^a	EXPR ^a	TRPR ^a
E+00	E+08	E+08	E+08
1976.0	230.1	113.0	343.0
1977.0	296.3	131.1	427.4
1978.0	331.2	161.9	493.1
1979.0	368.4	196.5	564.9
1980.0	410.0	236.7	646.7
1981.0	456.2	283.1	739.4
1982.0	507.3	336.4	843.7
1983.0	570.2	383.5	953.7
1984.0	641.8	437.5	1079.3
1985.0	723.8	499.7	1223.5
1986.0	818.2	571.7	1389.9
1987.0	927.4	655.4	1582.8
1988.0	1054.2	753.1	1807.3
1989.0	1202.2	867.6	2069.9
1990.0	1375.8	1002.6	2378.3
1991.0	1580.3	1162.2	2742.5
1992.0	1822.4	1352.0	3174.4
1993.0	2110.8	1578.8	3689.6
1994.0	2456.2	1851.3	4307.5
1995.0	2872.4	2180.7	5053.1
1996.0	3377.6	2581.5	5959.1
1997.0	3995.2	3072.8	7068.0
1998.0	4756.7	3679.9	8436.6
1999.0	5704.4	4436.8	10141.2
2000.0	6896.3	5390.4	12286.6
2001.0	8413.1	6605.8	15018.9
2002.0	10370.0	8176.1	18546.1
2003.0	12934.9	10236.5	23171.5
2004.0	16359.3	12990.2	29349.6
2005.0	21032.2	16751.1	37783.3
2006.0	27577.9	22023.0	49600.9

Remarks & Sources
1)-3) refer to table I-15

Table I-4 Summary of Simulation—Economic Indicators

	Indicator	Period	E	SIM-1		SIM-2		SIM-3	
					Ⓐ %		Ⓐ %		Ⓐ %
1	Population	1978-83	+5	778-873	2.34	778-873	2.34	778-873	2.34
		-2000		1321	2.50	1321	2.50	1321	2.50
2	Primary Industry (rupees)	1978-83	+7	1452-1453	0.015	1458-1549	1.21	1464-1653	2.45
		-2000		1490	0.15	2264	2.26	3898	5.18
3	Manufacturing Industry (rupees)	1978-83	+7	911-1088	3.62	919-1219	5.81	928-1367	8.08
		-2000		2127	4.02	4258	7.63	10220	12.53
4	Tertiary Industry (rupees)	1978-83	+7	2085-2717	5.44	2089-2836	6.31	2092-2964	7.22
		-2000		6694	5.45	9139	7.13	13894	9.51
5	GDP. (rupees)	1978-83	+7	4448-5259	3.41	4466-5604	4.64	4480-5990	5.94
		-2000		10311	4.04	15660	6.23	28012	9.50
6	Productivity of Civilian Labour Force (rupees/person)	1978-83	+0	1973-2076	1.04	1981-2214	2.25	1989-2365	3.52
		-2000		2677	1.50	4066	3.64	7273	6.83
7	Number of Civilian Labour Force (person)	1978-83	+4	2255-2531	2.34	2255-2531	2.34	2255-2531	2.34
		-2000		3852	2.50	3852	2.50	-3852	2.50
8	Wholesale Price Growth Rate (%)	1978-83	+0	10.5-7.6		10.9-9.95		11.5-12.5	
		-2000		124		16.60		24.8	
9	Consumer Price Growth Rate (%)	1978-83	+0	8.5-5.7		8.96-7.99		9.43-10.35	
		-2000		10.34		14.25		21.96	
10	Foreign Economic Assistance (dollar)	1978-83	+6	1525-1546	0.28	1528-1602	0.94	1532-1663	1.64
		-2000		5050	7.21	7008	9.07	11531	12.07
11	Currency in Circulation (rupee)	1978-83	+7	1631-1645	0.17	1634-1681	0.57	1636-1720	1.01
		-2000		3903	5.21	5164	6.83	8078	7.53
12	Private Consumption (rupee)	1978-83	+7	3864-4641	3.73	3871-4952	5.05	3878-5294	6.42
		-2000		8581	3.68	14027	6.32	27387	10.15
13	Gross Fixed Capital Formation (rupee)	1978-83	+7	810-913	2.43	825-1080	5.52	841-1278	8.72
		-2000		1613	3.40	3908	7.86	11155	13.59

Remarks of Sources

(Ⓐ) Annual growth Rate

Table I-5 Summary of Simulation—Trade Volume

(Unit : metric Ton)

	Classification	Period	E	Sim-1		Sim-2		Sim-3	
					Ⓐ %		Ⓐ %		Ⓐ %
1	Liquid & Dry Bulk	1978-83	+4	919-1183	5.27	925-1303	7.07	936-1429	8.94
		-2000		2865	5.31	4640	7.76	8738	11.24
2	General Cargo	1978-83	+3	3024-3612	3.60	3031-3765	4.43	3038-3934	5.30
		-2000		5855	2.88	8230	4.71	13714	7.62
3	Import	1978-83	+4	917-1074	3.19	922-1157	4.65	926-1250	6.17
		-2000		2300	4.58	3598	6.90	6598	10.28
4	Export	1978-83	+3	3044-4760	9.35	3070-5221	11.23	3088-5730	13.16
		-2000		11505	5.33	18646	7.78	35135	11.26
5	Total Trade	1778-83	+4	1222-1550	4.87	1228-1680	6.46	1235-1823	8.09
		-2000		3450	4.82	5463	7.18	10109	10.60
6	Areal Trade (America) (metric ton)	1978-83	+3	1759-2385	4.01	1969-2578	5.53	1980-2791	7.11
		-2000		5210	4.70	8200	7.04	15105	10.44
7	Areal trade (Europe) (metric ton)	1978-83	+3	4237-5276	4.48	4260-5712	6.04	4283-6193	7.65
		-2000		11650	4.27	18397	7.12	33979	10.53
8	Areal Trade (Mid. East & Africa) (metric ton)	1978-83	+3	2507-3356	5.79	2523-3650	7.65	2538-3974	9.38
		-2000		7649	4.97	12194	7.35	22688	10.79
9	Areal Trade (Asia & Oceania) (metric ton)	1778-83	+3	3509-4473	4.98	3529-4850	6.57	3548-5266	8.22
		-2000		9983	4.84	15816	7.20	29285	10.62

Remarks & Sources

Ⓐ Annual Growth Rate

Chart 1-6 Correlation of GDP and Trade Volume Growths

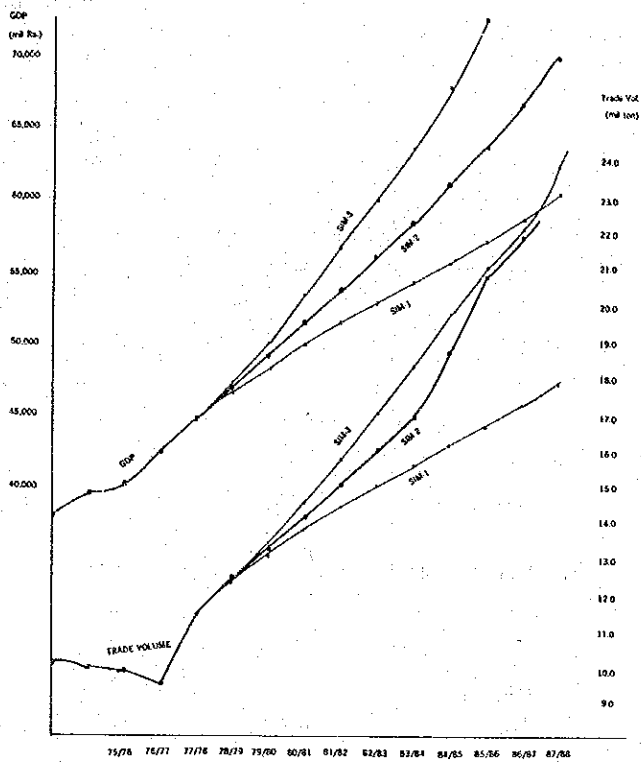
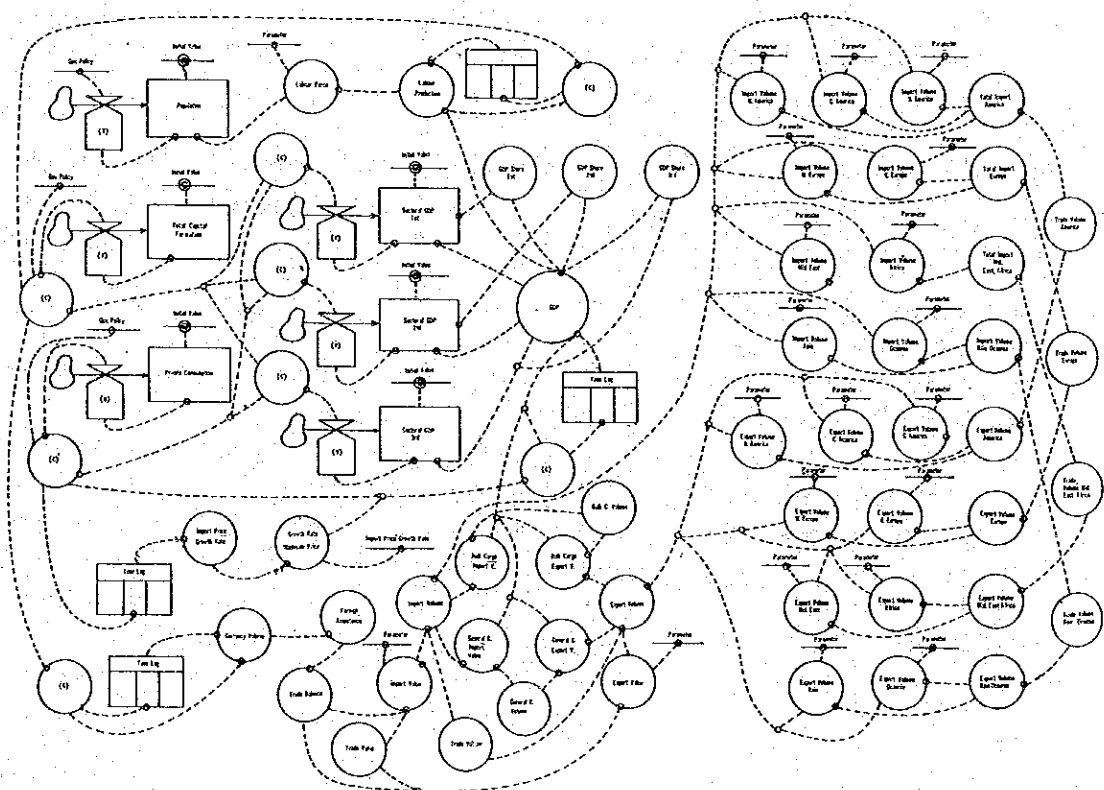


Chart 1-7 PAKISTAN ECONOMIC FORECAST: Dynamics Model Flow Chart.



II. SEA-BORNE CARGO MOVEMENT

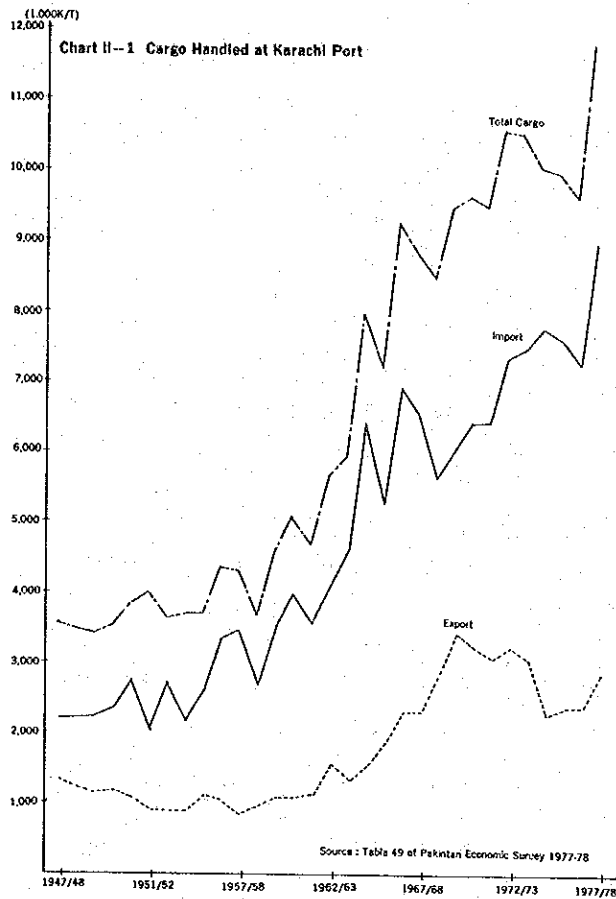


Table II--2 Pakistan's Imports Handled at Karachi Port

Unit (1,000 MT)

Commodities	1973/74		1974/75		1975/76		1976/77		1977/78	
Oils, Minerals	4,010	52.8%	4,074	51.9%	3,753	48.8%	3,826	52.2%	4,697	52.7%
Wheat	967	12.7	1,435	18.3	1,447 (2)	18.8	409 (9)	5.6	1,045 (78)	11.7
Fertilizer	774 (45)	10.2	318 (5)	4.0	329 (12)	4.3	550 (32)	7.5	605 (27)	6.8
Iron & Steel	370	4.9	579	7.4	491	5.2	484	6.6	589	6.6
Oils, Edible & Tallow	164	2.2	199	2.5	272	3.5	351	4.8	291	3.3
Phosphata	—	0	11	0.1	35	0.5	26	0.4	58	0.7
Coal & Coke	77	1.0	75	1.0	38	0.5	58	0.8	57	0.6
Tea	41	0.5	45	0.1	47	0.6	55	0.8	53	0.6
Chemical	21	0.3	24	0.3	36	0.5	62	0.8	52	0.6
Paper	44	0.6	65	0.8	31	0.4	54	0.7	52	0.6
Jute	52	0.7	56	0.7	53	0.7	62	0.8	36	0.4
Sugar	62	0.8	—	0	30	0.4	11	0.1	20	0.2
Timber	9	0.1	17	0.2	16	0.2	22	0.3	12	0.1
Other Cargoes	998 (76)	13.2	959 (81)	12.2	1,197 (66)	15.6	1,350 (78)	18.6	1,351 (88)	15.1
Total	7,589 (121)	100.0	7,857 (86)	100.0	7,685 (80)	100.0	7,330 (119)	100.0	8,918 (193)	100.0
1972-1973=100	103.9		107.6		105.2		100.3		122.1	
Year to year growth rate	3.9%		3.5%		-2.2%		-4.6%		21.7%	

Note: Figures in () indicate Afghan Cargo in transit out of total imports.
Source: Port & Shipping Wing, Ministry of Communication.

Table II-3 Pakistan's Exports Handled at Karachi Port

Unit (1,000 K/T)

Commodities	1973/74		1974/75		1975/76		1976/77		1977/78	
Rice	516	16.7%	450	19.6%	795	33.3%	910	38.3%	806	28.4%
Petroleum Products	654	21.1	311	13.5	381	15.9	478	20.1	783	27.6
Molasses	126	4.1	158	6.9	129	5.4	170	7.2	429	15.1
Cotton	70	2.3	200	8.7	123	5.1	23	1.0	102	3.6
Rapeseed	52	1.7	35	1.5	15	0.6	56	2.4	82	2.9
Foodgrain (other than rice)	141	4.6	19	0.8	15	0.6	62	2.6	59	2.1
Oil Cakes	17	0.5	20	0.9	102	4.3	50	2.1	37	1.3
Textiles	103	3.3	63	2.8	61	2.6	35	1.5	23	0.8
Bones	20	0.6	21	0.9	11	0.5	8	0.3	9	0.4
Cotton Yarn	94	3.0	56	2.4	82	3.4	11	0.5	7	0.2
Fish	37	1.2	16	0.7	20	0.9	11	0.5	7	0.2
Marble Stone	4	0.1	7	0.3	16	0.7	9	0.4	6	0.2
Leather	9	0.3	5	0.2	10	0.4	6	0.3	4	0.1
Seeds (other than rapeseed)	14	0.5	19	0.8	24	1.0	30	1.3	4	0.1
Ores	22	0.7	6	0.3	18	0.8	15	0.6	3	0.1
Wool & Goat Hair	5	0.2	3	0.1	5	0.2	6	0.3	3	0.1
Salt (Rock)	1	—	2	0.1	1	—	1	—	2	0.1
Sports Goods	5	0.2	5	0.2	4	0.2	3	0.1	2	0.1
Hides & Skin	4	0.1	5	0.2	3	0.1	1	—	1	—
Cement	710	23.0	491	21.3	99	4.1	13	0.5	—	—
Other Cargoes	489	15.8	409	17.8	477	19.9	476	20.0	471	16.6
Total	3,093	100.0	2,301	100.0	2,391	100.0	2,374	100.0	2,840	100.0
1972-1973=100	96.4		71.7		74.5		74.0		88.5	
Year to year growth rate	-3.6%		-25.6%		3.9%		0.7%		19.6%	

Source: Port & Shipping Wing, Ministry of Communication.

Table II-4 Pakistan's Exports & Imports handled at Karachi Port by Types of Cargoes

Unit (1,000 K/T)

	1973/74			1974/75			1975/76			1976/77			1977/78		
	Import	Export	Total	Import	Export	Total	Import	Export	Total	Import	Export	Total	Import	Export	Total
General Cargo	1,597 (0.3%)	1,087 (-0.5%)	2,684 (0%)	1,745 (9.3%)	891 (-18.0%)	2,636 (-1.8%)	1,811 (3.8%)	987 (10.8%)	2,798 (6.1%)	2,110 (16.5%)	803 (-18.6%)	2,913 (4.1%)	2,165 (2.6%)	822 (2.3%)	2,987 (2.5%)
Dry Bulk	1,818 (-9.2%)	1,226 (-5.7%)	3,044 (-7.8%)	1,839 (1.2%)	941 (-23.2%)	2,780 (-8.7%)	1,849 (0.5%)	894 (-5.0%)	2,743 (-1.3%)	1,043 (-43.6%)	923 (3.2%)	1,966 (-28.3%)	1,765 (69.2%)	806 (-12.7%)	2,571 (30.8%)
Liquid Bulk	4,174 (12.5%)	780 (-4.5%)	4,954 (9.4%)	4,273 (2.4%)	469 (-39.8%)	4,742 (-4.3%)	4,025 (-5.8%)	510 (8.7%)	4,535 (-4.4%)	4,177 (3.8%)	648 (27.1%)	4,825 (6.4%)	4,988 (19.4%)	1,212 (87.0%)	6,200 (28.5%)
Total	7,589 (3.9%)	3,093 (-3.6%)	10,682 (1.6%)	7,857 (3.5%)	2,301 (-25.6%)	10,158 (-4.9%)	7,685 (-2.2%)	2,391 (3.9%)	10,076 (-0.8%)	7,330 (-4.6%)	2,374 (-0.7%)	9,704 (-3.7%)	8,918 (21.7%)	2,840 (19.6%)	11,758 (21.2%)

Note: 1) The above table has been compiled from the tables II-1 & II-2.
 Dry Bulk: (Import) Wheat, Fertilizer, Phosphate, Coal & Coke
 (Export) Rice, Cement
 Liquid Bulk: (Import) Oils Minerals, Oils Edible & Tallow
 (Export) Petroleum Products, Molasses
 2) Figures in () indicate year to year growth rate.

Table II-10 Direction of Foreign Trade

Unit (Rs. Million)

	1973/74		1974/75		1975/76		1976/77		1977/78	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports (July/March)	Exports
1. American Region	4,053.2 (30.1)	750.2 (7.4)	3,618.0 (18.2)	545.2 (5.3)	4,760.3 (23.3)	801.0 (7.1)	4,027.7 (17.5)	718.7 (6.4)	2,069.2 (10.6)	615.2 (7.2)
(a) North America	3,966.6 (29.4)	678.1 (6.7)	3,745.6 (17.9)	460.6 (4.5)	4,695.8 (22.9)	733.9 (6.5)	3,917.5 (17.0)	653.7 (5.8)	2,051.4 (10.5)	503.0 (5.9)
(b) Central America	1.9	38.5	36.8	38.7	33.0	57.0	11.6	56.3	7.2	79.8
(c) South America	84.7	33.6	35.6	45.8	31.5	10.1	98.6	8.7	10.6	32.4
2. Western Europe	3,815.3 (28.3)	2,798.3 (27.5)	5,349.0 (25.6)	2,423.4 (23.6)	5,135.8 (25.1)	2,951.8 (26.2)	6,186.1 (26.9)	3,195.0 (28.3)	5,825.3 (29.8)	2,240.1 (26.2)
(a) E.C.	3,367.7 (25.0)	2,288.5 (22.5)	4,731.4 (22.6)	1,945.7 (18.9)	4,588.3 (22.5)	2,288.3 (20.3)	5,397.4 (23.5)	2,579.8 (22.8)	5,355.2 (27.4)	1,881.8 (22.0)
(b) E.F.T.A.	425.2	346.8	556.2	273.1	487.0	313.1	739.6	342.9	430.4	221.9
(c) Others	22.4	163.0	61.4	204.7	50.5	350.3	49.2	272.3	39.7	136.5
3. Eastern Europe	792.3 (5.9)	632.7 (6.2)	1,102.9 (5.3)	759.1 (7.4)	1,032.9 (5.0)	591.0 (5.3)	1,032.0 (4.5)	496.7 (4.4)	803.3 (4.1)	372.4 (4.4)
4. Middle East	1,731.7 (12.8)	1,897.5 (18.7)	3,517.8 (16.8)	3,004.7 (29.2)	3,811.4 (18.6)	3,016.0 (26.8)	4,209.3 (18.3)	3,569.5 (31.6)	3,711.3 (19.0)	2,341.2 (27.4)
(a) R.C.D.	241.7	332.1	137.7	600.3	79.0	258.6	51.3	947.9	59.0	491.4
(b) Asian Countries	1,439.2 (10.7)	1,439.6 (14.2)	3,377.1 (16.1)	1,969.3 (19.1)	3,713.6 (18.1)	2,542.3 (22.6)	4,148.2 (18.0)	2,330.6 (20.6)	3,639.7 (18.6)	1,469.6 (17.2)
(c) African Countries	50.8	125.7	3.0	435.2	18.8	215.1	9.9	291.0	12.5	380.2
5. African Countries (Other than Middle East)	111.2 (0.8)	401.0 (3.9)	181.8 (0.9)	358.8 (3.5)	211.9 (1.0)	352.6 (3.1)	212.4 (0.9)	395.6 (3.5)	356.6 (1.8)	284.1 (3.3)
6. Asian Countries Ex. Middle East	2,903.7 (21.5)	3,488.9 (34.3)	5,692.9 (27.2)	3,110.1 (30.2)	5,291.7 (25.9)	3,462.6 (30.8)	6,719.4 (29.2)	2,821.4 (25.0)	6,235.7 (31.9)	2,639.1 (30.9)
7. Oceania	71.9 (0.6)	192.6 (2.0)	1,265.0 (6.0)	85.1 (0.8)	221.4 (1.1)	78.0 (0.7)	625.2 (2.7)	97.0 (0.8)	545.9 (2.8)	54.9 (0.6)
Grand Total	13,479.2 (100.0)	10,161.2 (100.0)	20,925.0 (100.0)	10,286.3 (100.0)	20,465.3 (100.0)	11,252.9 (100.0)	23,012.2 (100.0)	11,293.9 (100.0)	19,547.2 (100.0)	8,547.1 (100.0)

Source: Table 31 of Pakistan Economic Survey 1977-78

Table II-11 Trade Amount by Area

Unit (Rs. Million)

Regions	1973/74		1974/75		1975/76		1976/77		1977/78 (July/March)		Average
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	
1. American Region	4,803	20.3	4,363	14.0	5,561	17.5	4,746	13.8	2,684	9.6	15.0
(a) North America	(4,645)	(19.6)	(4,206)	(13.5)	(5,430)	(17.1)	(4,571)	(13.3)	(2,554)	(9.1)	(14.5)
(b) Central America	(40)	(0.2)	(76)	(0.2)	(90)	(0.3)	(68)	(0.2)	(87)	(0.3)	(0.2)
(c) South America	(118)	(0.5)	(81)	(0.3)	(41)	(0.1)	(107)	(0.3)	(43)	(0.2)	(0.3)
2. Western Europe	6,614	28.0	7,772	24.9	8,088	25.5	9,382	27.3	8,065	28.7	26.9
(a) E.C.	(5,656)	(23.9)	(6,677)	(21.4)	(6,887)	(21.7)	(7,977)	(23.3)	(7,237)	(25.8)	(23.2)
(b) E.F.T.A.	(772)	(3.3)	(829)	(2.7)	(800)	(2.5)	(1,083)	(3.1)	(652)	(2.3)	(2.8)
(c) Others	(186)	(0.8)	(266)	(0.8)	(401)	(1.3)	(322)	(0.9)	(176)	(0.6)	(0.9)
3. Eastern Europe	1,425	6.0	1,862	6.0	1,624	5.1	1,529	4.5	1,176	4.2	5.2
4. Middle East	3,629	15.4	6,523	20.9	6,827	21.5	7,779	22.7	6,052	21.5	20.4
(a) R.C.D.	(574)	2.4	(738)	(2.4)	(337)	(1.1)	(999)	(2.9)	(550)	(1.9)	(2.1)
(b) Asian Countries	(2,879)	(12.2)	(5,347)	(17.1)	(6,256)	(19.7)	(6,479)	(18.9)	(5,109)	(18.2)	(17.2)
(c) African Countries	(176)	(0.8)	(438)	(1.4)	(234)	(0.7)	(301)	(0.9)	(393)	(1.4)	(1.1)
5. African Countries other than M.E.	512	2.2	541	1.7	565	1.8	608	1.8	641	2.3	2.0
6. Asian Countries excluding M.E.	6,393	27.0	8,803	28.2	8,754	27.6	9,541	27.8	8,875	31.6	28.4
7. Oceania	265	1.1	1,350	4.3	299	1.0	722	2.1	601	2.1	2.1
Total	23,641	100.0	31,214	100.0	31,718	100.0	34,307	100.0	28,094	100.0	100.0

Source: Table II-6

Table II-13 Pakistan's Trade Handled by Pakistani & Foreign Vessels

(Unit : 1,000 K/T)

Year	Export			Import			Total Export & Import		
	Total	Pak. Flag Vessels	Foreign Flag Vessels	Total	Pak. Flag Vessels	Foreign Flag Vessels	Total	Pak. Flag Vessels	Foreign Flag Vessels
1973/74	3,093 (100.0)	627 (20.3)	2,466 (79.7)	7,468 (100.0)	496 (6.6)	6,972 (93.4)	10,561 (100.0)	1,123 (10.6)	9,438 (89.4)
1974/75	2,301 (100.0)	356 (15.4)	1,945 (84.6)	7,771 (100.0)	373 (4.8)	7,398 (95.2)	10,072 (100.0)	729 (7.2)	9,343 (92.8)
1975/76	2,391 (100.0)	439 (18.3)	1,952 (81.7)	7,605 (100.0)	635 (8.4)	6,970 (91.6)	9,996 (100.0)	1,074 (10.7)	8,922 (89.3)
1976/77	2,374 (100.0)	433 (18.2)	1,941 (81.8)	7,211 (100.0)	767 (10.6)	6,444 (89.4)	9,585 (100.0)	1,200 (12.5)	8,385 (87.5)
1977/78	2,840 (100.0)	380 (13.4)	2,460 (86.6)	8,725 (100.0)	533 (6.1)	8,192 (93.9)	11,565 (100.0)	913 (7.9)	10,652 (92.1)

Note : Afghan Cargoes in transit are excluded from imports.
Source : Port & Shipping Wing, Ministry of Communication.

III. FLEET REPLACEMENT PLAN

Table III-1-1. PARTICULARS OF NSC FLEET as of Sept. 1978

NAME OF SHIPS	YEAR OF BUILT/PURCHASE	DWT (K.T)	SERVICE SPEED (KTS)	REMARKS	NAME OF SHIPS	YEAR OF BUILT/PURCHASE	DWT (K.T)	SERVICE SPEED (KTS)	REMARKS
m/v LALAZAR	1974/1974	* 13,400	16	GENERAL CARGO V.	m/v JHELUM	1960/1964	* 11,416	13.5	GENERAL CARGO V.
m/v HUNDA	1972/1977	* 15,677	14.5	"	m/v PADMA	1958/1964	* 13,341	13	"
m/v HINGLAJ	"	* 15,677	14.5	"	m/v KAROTUA	1958/1967	10,375	13	"
		31,354			m/v SWAT	1958/1967	10,345	13.5	"
m/v SHALAMAR	1970/1970	* 13,066	16	"	m/v RAVI	1958/1964	* 11,416	13.5	"
m/v TARBELA	1968/1968	* 13,544	16	"			45,477		
m/v WARSAK	"	* 13,544	16	"	m/v SUTLEJ	1957/1965	* 13,056	13	"
m/v MOENJODARO	"	* 12,569	17	"	m/v PANJNAD	1957/1967	* 7,495	11	"
m/v RANGAMATI	"	* 13,069	17	"			20,551		
m/v SUNDERBANS	"	* 12,569	17	"	Total No. of vessels	: 24 vessels			
m/v TAXILA	"	12,569	17	"	Total DWT	: 287,165 KJ (282,643 LT)			
m/v ZIARAT	1968/1975	* 1,763	13	COASTAL SERVICE	Total DWT (excl. coastal vessel)	: 285,402 KT (282,907 LT)			
		79,627			Average DWT	: abt. 12,000 KT			
m/v KAPTAI	1976/1967	* 13,209	16	GENERAL CARGO V.	Average DWT (excl. coastal v.)	: abt. 12,400 KT			
m/v AZIZ BHATTI	1966/1966	13,340	16	"	NOTE :				
m/v SARFARAZ	"	13,340		"	DWT with mark "*" : From LLOYD'S "REGISTER OF SHIPS 1978-1977"				
		26,680			Other DWT : From NSC data				
m/v CHENAB	1965/1965	* 12,787	16	"	Service speed : - ditto -				
m/v PUSSUR	"	12,741	15	"					
		25,528							
m/v BHAIRAB	1961/1971	* 7,037	14	"					

Table III-1-2. PARTICULARS OF PSC FLEET as of Sept. 1978

NAME OF SHIPS	YEAR OF BUILT/PURCHASE	DWT (K.T)	SERVICE SPEED (KTS)	REMARKS	NAME OF SHIPS	YEAR OF BUILT/PURCHASE	DWT (K.T)	SERVICE SPEED (KTS)	REMARKS
m/v OCEAN ENVOY	1972/1972	* 14,910	15	GENERAL CARGO V.	m/v SAFINA-E-REHMAT	1958/1965	* 12,511	12	GENERAL CARGO V.
m/v OHRAZD	1968/1968	13,376	16		m/v SAFINA-E-ISMAIL	1958/1963	* 11,375	12	"
m/v AL-ABEDIN	1967/1967	13,062	17.5		m/v AL-HASAN	1958/1964	14,215	15	"
m/v OCEAN-ENDURANCE	1966/1969	10,973	15.5		m/v MANSOOR	1958/1966	* 13,290	14	"
m/v BACH-E-DACCA	1966/1966	* 10,877	17.2				51,391		
		21,850			m/v MAULA-EAKSH	1957/1966	* 12,769	12	"
m/v OCEAN-ENDEVOUR	1965/1966	* 17,527	15.25	BULK CARRIER	m/v AL-MURTAZA	1955/1960	11,653	12	"
m/v BACH-E-KARACHI	1964/1964	* 10,872	17.16	GENERAL CARGO V.	m/v OCEAN ENERGY	1953/1961	* 11,501	13	"
m/v IQBAL BAKSH	1963/1971	* 15,271	13	"	m/v RUSTOM	1953/1961	* 11,893	11	"
m/v SAFINA-E-HAIDER	1963/1970	* 12,838	14	"			23,399		
		28,109			m/v SAFINA-E-ABID	1951/1971	* 5,324	13.5	PASS./CARGO
m/v SAFINA-E-ARAB	1962/1962	* 6,567	15	PASS./CARGO	Total No. of vessels	: 24 vessels			
m/v AL-KULSUM	1960/1970	14,833	16.5	GENERAL CARGO V.	Total DWT	: 292,131 KT (287,531 LT)			
m/v SAFINA-E-NAJAM	1960/1970	* 14,458	12	"	Total DWT (excl. Pass./Cargo)	: 273,975 KT (269,660 LT)			
m/v SHAMS	1960/1960	* 5,865	18	PASS./CARGO	Average DWT	: abt. 12,000 KT			
		35,156			Average DWT (pure cargo ship only)	: abt. 13,000 KT			
m/v AL-AHMADI	1959/1966	12,852	11.66	GENERAL CARGO V.	NOTE				
m/v KADER BAKSH	1959/1966	* 12,914	12	"	DWT with mark "*" : From LLOYD'S "REGISTER OF SHIPS 1977-1978"				
		25,766			Other DWT : From "DEADWEIGHT SCALE" made by PSC				
					Service speed : From PSC data				

Table III-1-3. SCALE OF PAKISTAN FLEET.

(as of Sept. 1978)		NSC FLEET		PSC FLEET		TOTAL		AVERAGE DWT (KT)
YEAR OF BUILT	No.	DWT (KT)	No.	DWT (KT)	No.	DWT (KT)		
1974	1	13,400	-	-	1	13,400		13,400
73	-	-	-	-	-	-		-
72	2	31,354	1	14,910	3	46,264		15,421
71	-	-	-	-	-	-		-
70	1	13,066	-	-	1	13,066		13,066
69	-	-	-	-	-	-		-
68	6	77,864	1	19,376	7	91,240		13,034
68	1 * 1	1,763	-	-	1 * 1	1,763		1,763
67	1	13,029	1	13,062	2	26,091		13,046
66	2	26,680	2	21,850	4	48,530		12,133
65	2	25,528	1	17,527	3	43,055		14,352
64	-	-	1	10,872	1	10,872		10,872
63	-	-	2	28,109	2	28,109		14,040
62	-	-	1 * 2	6,967	1 * 2	6,967		6,967
61	1	7,037	-	-	1	7,037		7,037
60	1	11,416	2	29,291	3	40,707		13,569
60	-	-	1 * 2	5,855	1 * 2	5,855		5,855
59	-	-	2	25,766	2	25,766		12,883
58	4	45,477	4	51,391	8	96,868		12,109
57	2	20,551	1	12,769	3	33,320		11,107
56	-	-	-	-	-	-		-
55	-	-	1	11,653	1	11,653		11,653
54	-	-	-	-	-	-		-
53	-	-	2	23,399	2	23,399		11,700
52	-	-	-	-	-	-		-
51	-	-	1 * 2	5,324	1 * 2	5,324		5,324
TOTAL 1	24	287,165	24	292,131	48	579,296		12,068
TOTAL 2	23	285,402	21	273,975	44	559,377		12,713

NOTE TOTAL 1 : GRAND TOTAL (incl. coastal, pass./cargo)
 TOTAL 2 : GRAND TOTAL (excl. coastal, pass./cargo) TOTAL 1 : COASTAL VESSEL
 TOTAL 2 : PASS./CARGO VESSEL

CHART III-1-4
PAKISTAN FLEET SCALE BY YEAR OF BUILD.

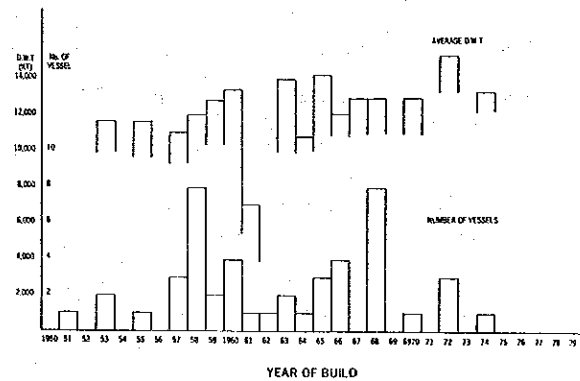
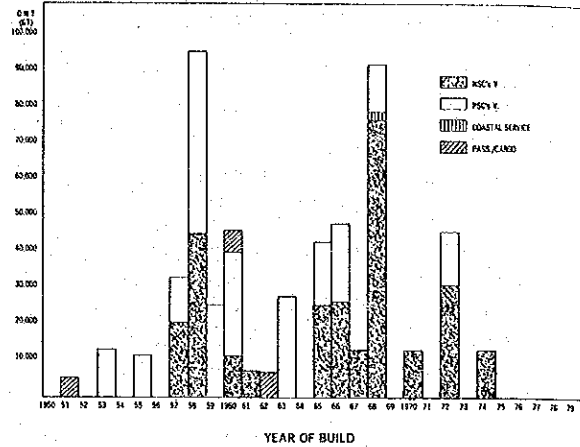


Table III-2-1. PERFORMANCE OF UK/CONTINENT LINE IN 1976/77 (NSC).

(A) ALLOCATED VESSELS					
NO.	VESSELS NAME	YEAR OF BUILT	YEAR OF PURCHASE	DWT (L/T)	SPEED
1	RUPSA	1958	1964	12,700	
2	PADMA	1958	1964	13,130	13
3	SUTLEJ	1957	1965	12,850	13
4	PUSSUR	1965	1965	12,230	15
5	PAMJAD	1967	1967	7,377	11
6	KAPTAJ	1967	1967	13,340	16
7	WARSAK	1968	1968	13,340	16
8	TAXILA	1968	1968	12,075	17
9	MOENJO DARO	1968	1968	12,400	17
10	SUNDERBANS	1968	1968	12,400	17
11	SHALAMAL	1970	1970	13,180	16
12	LALAZAR	1974	1974	13,326	16

(B) PERFORMANCES

Sailings : Outward : 22 sailings
 Homeward : 21 sailings
 Cargo liftings : Outward : 87,878 freight tons
 Homeward : 184,707 freight tons
 Freight Income : Rs. 215,925,782
 Voyage Profit : Rs. 55,836,762
 Calling ports :
 UK....Cork, Liverpool, Swan Sea, M'brough, Avonmouth, Glasgow, London
 West Germany....Bremen, Hamburg
 East Germany....Rostock
 Nether lands....Rotterdam
 Belgium....Antwerp
 Denmark....Aalborg, Aarhus, Norres, Sundby, Esbjerg
 Norway....Trondheim, Bergen, Larvik, Stavanger, Oslo, Moss, Drammen
 Poland....Gdansk
 Spain....Barcelona
 France....Marseille
 Italy....Leghorn, Venice
 Rumania....Constanza
 Egypt....Suez, Port Said
 Jordan....Aqaba
 Yemen....Aden
 Turkey....Bandirma

Table III-2-2. PERFORMANCE OF FAR EAST LINE IN 1976/77 (NSC).

(A) ALLOCATED VESSELS					
NO.	VESSELS NAME	YEAR OF BUILT	YEAR OF PURCHASE	DWT	SPEED
1	JHELUM	1960	1964	10,030	13.5
2	RAVI	1958	1964	10,010	13.5
3	SHALAMAR	1970	1970	13,180	16
4	KAROTUA	1958	1967	10,375	13
5	S. RAFIQI	1966	1966	13,300	16
6	RANGAMATI	1968	1968	12,400	17
7	WARSAK	1968	1968	13,340	16
8	SUNDERBANS	1968	1968	12,400	17
9	TARBELA	1968	1968	13,340	16
10	BHAIRAB	1961	1971	6,926	14
11	CHENAB	1965	1965	12,860	16

(B) PERFORMANCES

Sailings : Outward : 18 sailings
 Homeward : 19 sailings
 Cargo liftings : Outward : 116,975 freight tons
 Homeward : 260,524 freight tons
 Freight Income : Rs. 149,819,367
 Voyage Profit : Rs. 34,535,540
 Calling ports :
 Outward : Colombs, Penang, Singapore, Bangkok, Hongkong, China, Japan
 Homeward : Japan, Busan, Hongkong, Singapore, Colombo

Table III-2-3. PERFORMANCE OF USA/CANADA LINE IN 1976/77 (NSC).

(A) ALLOCATED VESSELS					
NO.	VESSELS NAME	YEAR OF BUILT	YEAR OF PURCHASE	DWT	SPEED
1	RUPSA	1958	1964	12,700	
2	CHENAB	1965	1965	12,860	16
3	AZIZ BHATTI	1966	1966	13,300	16
4	WARSAK	1968	1968	13,340	16
5	TARBELA	1968	1968	13,340	16
6	SUNDERBAHS	1968	1968	12,400	17
7	KAPTAI	1967	1967	13,340	16
8	PAOMA	1958	1964	13,130	13

(B) PERFORMANCES

Sailings : Outward : 9 sailings
Homeward : 10 sailings
Cargo liftings : Outward : 19,907 freight tons
Homeward : 106,183 freight tons

Freight Income : Rs. 125,388,344
Voyage Profit : Rs. 61,390,115

Calling ports :

USA....Atlantic Coast....New York, Baltimore, Philadelphia, Wilmington
Great Lakes....Chicago, Detroit
CANADA....Hamilton, Halifax, St. John, Baiecomeau
USA....Gulf....Galveston, New Orleans
Wayports....Ishandrum, Djibouti, Douala, Bissau, Odessa, Port Sudan, Bourgas, Chittagong, Tunis, Leghorn, Port Said, Genoa

Table III-3. BUSINESS PROFIT AND LOSS FOR THE YEAR 1975/77 (NSC).

(Rs. in thousand)			
	1974-75	1975-76	1976-77
1. Total Freight Revenue	505,037	445,246	501,079
2. Total Voyage Expenses	204,171	188,959	228,682
3. Voyage Profit or Loss (C/B)	300,866	256,287	272,397
4. Expenses on Vessel (Excluding Depreciation)	121,227	149,432	152,241
5. Property Tax	764	816	871
6. General and Administrative Expenses	19,540	21,734	25,767
7. Interest	24,354	17,751	25,007
8. Profit or Loss before Depreciation	134,981	65,554	68,511
9. Depreciation	30,534	34,105	36,249
10. Profit or Loss after Depreciation	104,447	32,449	32,262
11. Actual Cargo Tonnage Shipped			
20. Outward	N.A.	349,537	246,363
Homeward	N.A.	935,230	1,030,939
	830,000	1,284,767	1,277,302

Table III-4. STATEMENT OF VOYAGE EXPENSES ETC., FOR 1975/1977 (NSC).

(Rs. in thousand)			
	1974-75	1975-76	1976-77
1. Stevedoring & Transshipment Expenses	86,249	70,591	96,176
2. Diesel, Fuel, Lubricants and Water	76,375	74,260	73,209
3. Port Light Canal & Custom Dues	20,251	32,267	38,569
4. Charter hire and Allies Expenses	10,170	2,803	1,235
5. Fleet Communication Expenses	2,448	2,279	3,266
6. Sundry Expenses	3,756	4,636	4,696
7. Claims	1,493	1,096	1,757
8. Conference and Pool Expenses	770	728	1,003
9. Agents General Expenses	2,180	2,397	2,324
10. Publicity	118	383	788
11. Vacuator Expenses	258	253	166
12. Barges Expenses	558	875	774
13. Difference in Exchange	(455)	(3,610)	4,719
TOTAL	204,171	188,959	228,682
(STATEMENT OF VESSEL EXPENSES)			
1. Salaries Allowances and Expenses	38,884	50,733	50,733
2. Victualling Expenses	10,078	13,181	12,585
3. Owned Vessel and Other Expenses	2,706	2,959	2,810
4. Insurance	30,430	30,848	29,501
5. Stores and Spare Parts	17,952	18,767	22,276
6. Repair and Maintenance	21,177	32,944	34,469
TOTAL	121,227	149,432	152,241
(STATEMENT OF GENERAL & ADMN. EXPENSES)			
1. Administration and Other Expenses	16,939	19,884	23,951
2. Salaries and Allowance - Branches	1,392	790	842
3. General Establishment Exp. Branches	988	1,052	934
4. Rent - Branches	221	8	40
TOTAL	19,540	21,734	25,767
DEPRECIATION			
Vessel	26,874	30,353	32,391
Vacuator	809	853	900
Other Assets	2,851	2,899	2,958
TOTAL	30,534	34,105	36,249
Property Tax	764	816	871
Interest Expenses	24,354	17,751	25,007
Freight Income	525,571	466,240	523,402
Less : Agency Commission and Brokerage	20,534	20,994	22,323
	505,037	445,246	501,079

Table III-5. PERFORMANCE OF MAIN LINERS, FOR 1973/1977 (NSC).

(A) UK/CONTINENT LINE					
	(UNIT : MILLION RS)				
	72-73	73-74	74-75	75-76	76-77
FREIGHT EARNINGS	73	173	234	172	217
OPERATING EXP.	55	104	155	121	161
VOYAGE PROFIT OR LOSS	18	69	79	51	56
AVERAGE FREIGHT	\$ 22	\$ 39	\$ 72	\$ 62	\$ 79
CARGO LIFTING	185,000 ^{F/T}	325,000	325,000	278,000	272,000
(B) USA/CANADA LINE					
F. EARNINGS	83	147	109	129	127
O. EXPENSES	102	132	67	89	79
VOYAGE PROFIT OR LOSS	(19)	15	42	40	48
A. FREIGHT	\$ 40	\$ 54	\$ 101	\$ 82	\$ 99
CARGO LIFTING	210,000 ^{F/T}	275,000	108,000	158,000	128,000
(C) FAR EAST LINE					
F. EARNINGS	60	87	157	132	154
O. EXPENSES	49	65	100	110	120
VOYAGE PROFIT OR LOSS	11	22	57	22	34
A. FREIGHT	\$ 28	\$ 43	\$ 40	\$ 26	\$ 39
C. LIFTING	215,000 ^{F/T}	200,000	395,000	370,000	393,000
(D) THREE LINES TOTAL					
F. EARNINGS	216	407	401	433	498
O. EXPENSES	206	301	322	320	360
VOYAGE PROFIT OR LOSS	10	106	79	113	138
A. FREIGHT	\$ 36	\$ 50	\$ 48	\$ 54	\$ 63
C. LIFTING	610,000 ^{F/T}	800,000	828,000	806,000	793,000

Table III-8. STATEMENT OF IDLE DAYS DURING 1975/76 AND 1976/77 (NSC).

S. No.	Vessel	Berthing delays at Karachi (days)		1975/76			Total idle days	Berthing delays at Karachi (days)		1976/77			Total idle days
		at Karachi		Repair days at Karachi	Abroad	Total		at Karachi		Repair days abroad	Total		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.		
1.	m.v. RUPSA	16	55	(Not available)	55	71	19	66	—	66	85		
2.	m.v. JHELUM	16	—	—	—	16	36	8	—	8	44		
3.	m.v. RAVI	47	11	—	11	58	33	—	6	15	48		
4.	m.v. PADMA	20	7	—	7	27	56	7	12	12	68		
5.	m.v. SUTLEJ	18	22	—	22	40	69	—	—	86*	155		
6.	m.v. PUSSUR	26	6	—	6	32	—	8	29	37	37		
7.	m.v. CHENAB	54	13	—	13	67	27	18	—	18	45		
8.	m.v.A. BHATTI	45	20	—	20	65	54	6	—	6	60		
9.	m.v.s. RAFIQ	28	5	—	5	33	23	—	6	6	29		
10.	m.v. PANJNAD	66	23	—	23	89	60	78	—	78x	138		
11.	m.v. KAROTUA	20	35	—	35	55	2	23	—	23	25		
12.	m.v. SWAT	26	16	—	16	42	33	3	—	3	36		
13.	m.v. KAPTAI	28	7	—	7	35	42	—	10	10	52		
14.	m.v. WARSKK	40	—	—	—	40	55	3	—	3	58		
15.	m.v. TAXILA	55	—	—	—	55	56	78	—	18	74		
16.	m.v. TARBELA	30	14	—	14	44	16	8	6	14	30		
17.	m.v. RANGAMATI	44	—	—	—	44	71	—	—	—	71		
18.	m.v. MOENJODARO	21	—	—	—	21	29	11	11	22	51		
19.	m.v. SUNDERBAHS	15	—	—	—	15	27	—	—	—	27		
20.	m.v. SHALAMAR	51	9	—	9	60	114	6	6	12	126		
21.	m.v. BHAIRAB	34	—	—	—	34	33	15	22	37	70		
22.	m.v. LALAZAR	38	25	—	25	63	21	15	—	15	36		
23.	m.v. ZIRAT	55	15	—	15	70	32	8	36	114	146		

* includes 64 days dry docking.
x includes 54 days at shipyard

Table III-10-1. PROJECTED PERFORMANCE OF NEW 15,000 TDW CARGO SHIP ON UKICONTI LINE. (PROJECTED VOYAGE: KARACHI-UK/CONTI-KARACHI. VOYAGE LENGTH: 15,000 MILES.)

Service year	Average cargo lifting (tons)	Cargo handling		Voyage delays (days)	Average speed (knots)	At Sea (days)	Round voyage (days)	Annual repairs & surveys (days)	Operating per year (days)	Round voyages % of DWT	Pay load	Performance
		Per day (tons)	days									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1 (1980)	20,000	700	57.1	25	16.00	39.1	121.2	5	360	2.97	66.7	3.96
2 (1981)	20,250	750	54.0	23	15.95	39.2	116.2	5	360	3.10	67.5	4.19
3 (1982)	20,500	800	51.2	21	15.90	39.3	111.5	5	360	3.23	68.3	4.41
4 (1983)	20,750	850	48.8	19	15.85	39.4	107.2	10	355	3.31	69.2	4.58
5 (1984)	21,000	900	46.7	17	15.80	39.6	103.3	8	357	3.46	70.0	4.84
6 (1985)	21,250	950	44.7	15	15.75	39.7	99.4	8	357	3.59	70.8	5.08
7 (1986)	21,500	1,000	43.0	15	15.70	38.9	96.9	8	357	3.68	71.7	5.28
8 (1987)	21,750	1,000	43.5	15	15.60	40.1	98.6	15	350	3.55	72.5	5.15
9 (1988)	22,000	1,000	44.0	15	15.50	40.3	99.3	12	353	3.55	73.3	5.20
10 (1989)	22,250	1,000	44.5	15	15.40	40.6	100.1	12	353	3.53	74.2	5.24
11 (1990)	22,500	1,000	45.0	15	15.30	40.8	100.8	12	355	3.50	75.0	5.25
12 (1991)	22,500	1,000	45.0	15	15.20	41.1	101.4	25	340	3.36	75.0	5.04
13 (1992)	22,500	1,000	45.0	15	15.10	41.4	101.4	17	340	3.43	75.0	5.14
14 (1993)	22,250	1,000	44.5	15	15.00	41.7	101.2	17	340	3.44	75.0	5.16
15 (1994)	22,000	990	44.4	16	14.90	41.9	102.3	17	348	3.40	74.2	5.05
16 (1995)	21,750	980	44.4	17	14.70	42.5	103.9	35	330	3.18	72.5	4.61
17 (1996)	21,500	970	44.3	18	14.30	43.7	106.0	25	340	3.21	71.7	4.60
18 (1997)	21,250	960	44.3	19	14.10	44.3	107.6	25	340	3.16	70.8	4.47
19 (1998)	21,000	950	44.2	20	13.90	45.0	109.2	30	335	3.07	70.0	4.30
20 (1999)	20,750	940	44.1	21	13.70	45.6	110.7	30	335	3.03	69.2	4.19

Table III-10-2. PROJECTED ANNUAL REVENUE OF NEW 15,000 TDW CARGO SHIP ON UK/CONTI. LINE.

Service year	Average round voyage cargo lifting (tons)	Round voyage (No.)	Cargo lifting (tons)	Average freight rate (\$ per ton)	Freight earnings \$
(1)	(2)	(3)	(2) x (3)	(5)	(4) x (5)
1 (1980)	20,000	2.97	59,400	78	4,633,000
2 (1981)	20,250	3.10	62,775	78	4,896,000
3 (1982)	20,500	3.23	66,215	78	5,165,000
4 (1983)	20,750	3.31	68,693	78	5,357,000
5 (1984)	21,000	3.46	72,660	78	5,667,000
6 (1985)	21,250	3.59	76,288	78	5,950,000
7 (1986)	21,500	3.68	79,120	78	6,171,000
8 (1987)	21,750	3.55	77,212	78	6,023,000
9 (1988)	22,000	3.55	78,100	78	6,092,000
10 (1989)	22,250	3.53	78,542	78	6,126,000
11 (1990)	22,500	3.50	78,750	78	6,143,000
12 (1991)	22,500	3.36	75,600	78	5,892,000
13 (1992)	22,500	3.43	77,175	78	6,020,000
14 (1993)	22,250	3.44	76,540	78	5,970,000
15 (1994)	22,000	3.40	74,800	78	5,854,000
16 (1995)	21,750	3.18	69,165	78	5,395,000
17 (1996)	21,500	3.21	69,015	78	5,383,000
18 (1997)	21,250	3.16	67,130	78	5,238,000
19 (1998)	21,000	3.07	64,470	78	5,029,000
20 (1999)	20,750	3.03	62,872	78	4,904,000

Note: Freight earnings have been calculated on the basis of average freight rate obtained during 1976/77 for UK/Continent line.

Table III-10-4. CASH FLOW STATEMENT OF NEW 15,000 TDW CARGO SHIP ON UK/CONTI. LINE.

Service year	Freight revenue \$	Total expenses \$	Benefits \$
(1)	(3)	(4)	(3)-(4)
1 (1980)	4,633,000	2,833,000	1,794,000
2 (1981)	4,896,000	2,949,000	1,947,000
3 (1982)	5,165,000	3,063,000	2,102,000
4 (1983)	5,357,000	3,154,000	2,203,000
5 (1984)	5,667,000	3,273,000	2,394,000
6 (1985)	5,950,000	3,390,000	2,560,000
7 (1986)	6,171,000	3,474,000	2,697,000
8 (1987)	6,023,000	3,453,000	2,570,000
9 (1988)	6,092,000	3,456,000	2,636,000
10 (1989)	6,126,000	3,482,000	2,644,000
11 (1990)	6,143,000	3,494,000	2,649,000
12 (1991)	5,897,000	3,435,000	2,462,000
13 (1992)	6,020,000	3,482,000	2,538,000
14 (1993)	5,970,000	3,489,000	2,481,000
15 (1994)	5,834,000	3,462,000	2,372,000
16 (1995)	5,395,000	3,346,000	2,040,000
17 (1996)	5,383,000	3,337,000	2,046,000
18 (1997)	5,239,000	3,303,000	1,935,000
19 (1998)	5,029,000	3,241,000	1,788,000
20 (1999)	4,904,000	3,214,000	1,690,000
Scrap value			525,000
TOTAL			46,073,000

Table III-10-3. PROJECTED ANNUAL OPERATING EXPENDITURE OF NEW 15,000 TDW CARGO SHIP ON UK/CONTI. LINE.

Service year	Cargo handling \$	Bunkers \$	Port dues \$	Agency commission & brokerage \$	Sundry expenses \$	Salaries & allowances \$	Victualling \$	Stores & spares \$	Repairs \$	Insurance \$	Total operating expenditures \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1 (1980)	1,010,000	425,000	371,000	232,000	26,000	178,000	48,000	72,000	66,000	280,000	2,708,000
2 (1981)	1,067,000	440,000	386,000	245,000	26,000	178,000	48,000	77,000	71,000	280,000	2,818,000
3 (1982)	1,126,000	454,000	403,000	258,000	26,000	178,000	48,000	82,000	77,000	280,000	2,932,000
4 (1983)	1,168,000	463,000	413,000	268,000	26,000	178,000	48,000	86,000	93,000	280,000	3,023,000
5 (1984)	1,235,000	481,000	432,000	283,000	26,000	178,000	48,000	91,000	38,000	280,000	3,142,000
6 (1985)	1,297,000	495,000	448,000	297,000	26,000	178,000	48,000	96,000	91,000	280,000	3,259,000
7 (1986)	1,345,000	497,000	460,000	309,000	26,000	178,000	48,000	101,000	99,000	280,000	3,343,000
8 (1987)	1,313,000	495,000	443,000	301,000	26,000	178,000	48,000	106,000	132,000	280,000	3,322,000
9 (1988)	1,328,000	497,000	443,000	305,000	26,000	178,000	48,000	110,000	110,000	280,000	3,325,000
10 (1989)	1,335,000	497,000	440,000	306,000	26,000	178,000	48,000	115,000	126,000	280,000	3,351,000
11 (1990)	1,339,000	496,000	437,000	307,000	26,000	178,000	48,000	130,000	132,000	280,000	3,363,000
12 (1991)	1,285,000	483,000	419,000	295,000	26,000	178,000	48,000	125,000	165,000	280,000	3,304,000
13 (1992)	1,312,000	494,000	428,000	301,000	26,000	178,000	48,000	139,000	154,000	280,000	3,351,000
14 (1993)	1,301,000	498,000	430,000	298,000	26,000	178,000	48,000	134,000	165,000	280,000	3,358,000
15 (1994)	1,272,000	493,000	425,000	292,000	26,000	178,000	48,000	139,000	176,000	280,000	3,331,000
16 (1995)	1,176,000	476,000	397,000	270,000	26,000	178,000	48,000	144,000	220,000	280,000	3,215,000
17 (1996)	1,173,000	489,000	401,000	269,000	26,000	178,000	48,000	144,000	198,000	280,000	3,206,000
18 (1997)	1,248,000	488,000	393,000	262,000	26,000	178,000	48,000	144,000	209,000	280,000	3,172,000
19 (1998)	1,096,000	484,000	383,000	251,000	26,000	178,000	48,000	144,000	220,000	280,000	3,110,000
20 (1999)	1,069,000	484,000	378,000	245,000	26,000	178,000	48,000	144,000	231,000	280,000	3,083,000

Note: 1. Cargo handling rate: \$17 per ton.
 2. Bunkers: HFD \$ 80 per ton OC \$ 130 per ton.
 3. Agency commission & brokerage: 5% of freight.
 4. Insurance: Hull & Machinery = \$115,000 P & I = \$137,000 Claims = \$25,000 TOTAL = \$280,000

Table III-11-1. PROJECTED PERFORMANCE OF NEW 15,000 TDW CARGO SHIP ON FAR EAST LINE. (PROJECTED VOYAGE: KARACHI-FAR EAST-KARACHI. VOYAGE LENGTH: 14,000 MILES.)

Service year	Average cargo lifting (tons)	Cargo handlings		Voyage delays (days)	Average speed (knots)	At Sea (days)	Round voyage (days)	Annual repairs & surveys (days)	Operating per year (days)	Round Voyages per year (10) (8)	Pay load of DWT (2) ÷ (2 × DT) × 100	Performance (11) × (12) × 2 / 100
		Per day	days									
		(3)	(4)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1 (1980)	22,000	700	62.8	25	16.00	36.5	124.3	5	360	2.89	73.3	4.24
2 (1981)	22,275	750	59.4	23	15.95	36.6	119.0	5	360	3.03	74.3	4.50
3 (1982)	22,550	800	56.4	21	15.90	36.7	114.1	5	350	3.16	75.2	4.75
4 (1983)	22,830	850	53.7	19	15.85	36.8	109.5	10	355	3.24	76.1	4.93
5 (1984)	23,115	900	51.4	17	15.80	36.9	105.3	8	357	3.39	77.1	5.23
6 (1985)	23,400	950	49.3	15	15.75	37.0	101.3	8	357	3.52	78.0	5.49
7 (1986)	23,700	1,000	47.4	15	15.70	37.2	98.6	8	357	3.62	79.0	5.72
8 (1987)	24,000	1,000	48.0	15	15.60	37.4	100.4	15	360	3.49	80.0	5.58
9 (1988)	24,300	1,000	48.6	15	15.50	37.6	101.2	12	353	3.49	81.0	5.65
10 (1989)	24,600	1,000	49.2	15	15.40	37.9	102.1	12	353	3.45	82.0	5.67
11 (1990)	24,900	1,000	49.8	15	15.30	38.1	102.9	12	353	3.43	83.0	5.70
12 (1991)	24,900	1,000	49.8	15	15.20	38.4	103.2	25	340	3.29	83.0	5.46
13 (1992)	24,900	1,000	49.8	15	15.10	38.6	103.4	17	348	3.37	83.0	5.59
14 (1993)	24,300	1,000	48.6	15	15.00	38.9	102.5	17	348	3.40	81.0	5.51
15 (1994)	24,000	990	48.5	16	14.90	39.1	103.6	17	348	3.36	80.0	5.38
16 (1995)	23,700	980	48.4	17	14.70	39.7	105.1	35	330	3.14	79.0	4.96
17 (1996)	23,400	970	48.2	18	14.30	40.8	107.0	25	340	3.18	78.0	4.96
18 (1997)	23,115	960	48.2	19	14.10	41.4	108.6	25	340	3.13	77.1	4.83
19 (1998)	22,830	950	48.1	20	13.90	42.0	110.1	10	335	3.04	76.1	4.63
20 (1999)	22,550	940	48.0	21	13.70	42.6	111.6	30	335	3.00	75.2	4.51

Table III-11-2. PROJECTED ANNUAL REVENUE OF NEW 15,000 TDW CARGO SHIP ON FAR EAST LINE.

Service Year	Average round voyage cargo lifting (tons)	Round voyage (No.)	Cargo (tons)	Average freight rate	Freight earnings
				(\$ per ton)	\$
				(5)	(4) × (5)
(1)	(2)	(3)	(4)	(5)	(6)
1 (1980)	22,000	2.89	63,580	40	2,543,200
2 (1981)	22,275	3.03	67,493	40	2,699,720
3 (1982)	22,550	3.16	71,258	40	2,850,320
4 (1983)	22,830	3.24	73,969	40	2,958,760
5 (1984)	23,115	3.39	78,360	40	3,134,400
6 (1985)	23,400	3.52	82,368	40	3,294,720
7 (1986)	23,700	3.62	85,794	40	3,431,760
8 (1987)	24,000	3.49	83,760	40	3,350,400
9 (1988)	24,300	3.49	84,807	40	3,392,280
10 (1989)	24,600	3.46	85,116	40	3,404,640
11 (1990)	24,900	3.43	85,407	40	3,416,280
12 (1991)	24,900	3.29	81,921	40	3,276,840
13 (1992)	24,900	3.37	83,913	40	3,356,520
14 (1993)	24,300	3.40	82,620	40	3,304,800
15 (1994)	24,000	3.36	80,640	40	3,225,600
16 (1995)	23,700	3.14	74,418	40	2,976,720
17 (1996)	23,400	3.18	74,412	40	2,976,480
18 (1997)	23,115	3.13	72,350	40	2,894,000
19 (1998)	22,830	3.04	69,403	40	2,776,120
20 (1999)	22,550	3.00	67,650	40	2,706,000

Table III-11-3. PROJECTED ANNUAL OPERATING EXPENDITURE OF NEW 15,000 TDW CARGO SHIP ON FAR EAST LINE.

Service Year	Cargo handling	Bunkers	Port Dues	Agency Commission & Brokerage	Sundry expenses	Salaries \$ allowances	Victualing	Stores \$ spares	Repairs	Insurance \$ claims	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1 (1980)	953,700	399,853	130,000	127,160	26,000	178,000	48,000	72,000	66,000	280,000	2,280,713
2 (1981)	1,012,395	411,428	136,350	134,986	26,000	178,000	48,000	77,000	71,000	280,000	2,447,333
3 (1982)	1,068,870	426,213	142,200	142,516	26,000	178,000	48,000	82,000	77,000	280,000	2,470,799
4 (1983)	1,109,535	433,155	145,800	147,938	26,000	178,000	48,000	86,000	93,000	280,000	2,547,428
5 (1984)	1,175,400	448,396	152,550	156,720	26,000	178,000	48,000	91,000	88,000	280,000	2,644,065
6 (1985)	1,235,520	461,385	158,400	164,736	26,000	178,000	48,000	96,000	94,000	280,000	2,742,041
7 (1986)	1,286,910	472,968	162,900	171,588	26,000	178,000	48,000	101,000	99,000	280,000	2,826,366
8 (1987)	1,256,400	460,408	157,050	167,520	26,000	178,000	48,000	106,000	132,000	280,000	2,811,378
9 (1988)	1,272,105	462,818	157,050	169,614	26,000	178,000	48,000	110,000	110,000	280,000	2,816,587
10 (1989)	1,276,740	462,797	155,700	170,232	26,000	178,000	48,000	115,000	126,000	180,000	2,838,469
11 (1990)	1,281,105	461,751	154,350	170,814	26,000	178,000	48,000	120,000	132,000	280,000	2,852,020
12 (1991)	1,228,815	448,278	148,050	163,842	26,000	178,000	48,000	125,000	165,000	280,000	2,810,985
13 (1992)	1,258,695	459,367	151,650	167,826	26,000	178,000	48,000	130,000	154,000	280,000	2,853,538
14 (1993)	1,239,300	464,192	153,000	165,240	26,000	178,000	48,000	134,000	165,000	280,000	2,852,752
15 (1994)	1,209,600	461,119	151,200	161,280	26,000	178,000	48,000	139,000	176,000	280,000	2,830,199
16 (1995)	1,116,270	440,336	141,300	148,836	26,000	178,000	48,000	144,000	220,000	280,000	2,742,742
17 (1996)	1,116,180	453,916	143,100	148,824	26,000	178,000	48,000	144,000	198,000	280,000	2,736,020
18 (1997)	1,085,250	452,681	140,850	144,700	26,000	178,000	48,000	144,000	209,000	280,000	2,708,481
19 (1998)	1,041,045	446,282	136,800	138,806	26,000	178,000	48,000	144,000	220,000	280,000	2,658,933
20 (1999)	1,014,750	445,914	135,000	135,300	26,000	178,000	48,000	144,000	231,000	280,000	2,497,965

Note:
1. Cargo handling rate: \$15 per ton.

Table III-11-4. CASH FLOW STATEMENT OF NEW 15,000 TDW CARGO SHIP ON FAR EAST LINE.

Service Year	Freight revenue	Operating cost	Administrative & general Exp.	total expenses	Earnings
(1)	(2)	(3)	(4)	(3) + (4)	(2) - (5)
	(\$)	(\$)	(\$)	(\$)	(\$)
1 (1980)	2,543,200	2,280,713	131,000	2,411,713	131,487
2 (1981)	2,699,720	2,447,333	131,000	2,578,333	121,387
3 (1982)	2,850,320	2,470,799	131,000	2,601,799	248,521
4 (1983)	2,958,760	2,547,428	131,000	2,678,428	280,332
5 (1984)	3,134,400	2,644,065	131,000	2,775,065	359,335
6 (1985)	3,294,720	2,742,041	131,000	2,873,041	421,679
7 (1986)	3,431,760	2,826,366	131,000	2,957,366	474,394
8 (1987)	3,350,400	2,811,378	131,000	2,942,378	408,022
9 (1988)	3,392,280	2,813,587	131,000	2,944,587	44,693
10 (1989)	3,404,640	2,838,469	131,000	2,969,469	435,171
11 (1990)	3,416,280	2,852,020	131,000	2,983,020	433,260
12 (1991)	3,276,840	2,810,985	131,000	2,941,985	433,260
13 (1992)	3,356,520	2,853,538	131,000	2,984,538	371,982
14 (1993)	3,304,800	2,852,732	131,000	2,983,732	321,068
15 (1994)	3,225,600	2,830,199	131,000	2,961,199	264,401
16 (1995)	2,976,720	2,742,742	131,000	2,873,742	102,978
17 (1996)	2,976,480	2,736,020	131,000	2,867,020	109,460
18 (1997)	2,894,000	2,708,481	131,000	2,839,481	54,519
19 (1998)	2,776,120	2,658,933	131,000	2,789,933	Δ 13,813
20 (1999)	2,706,600	2,497,965	131,000	2,628,965	77,035
			Scrap value		525,000
			TOTAL		5,908,766

Table III-12-1. PROJECTED PERFORMANCE OF NEW 15,000 TDW CARGO SHIP ON USA/CANADA LINE. (PROJECTED VOYAGE; KARACHI-USA/CANADA-KARACHI. VOYAGE LENGTH, 19,000 MILES.)

Service year	Average cargo lifting (tons)	Cargo handling		Voyage delays (days)	Average speed (knots)	At Sea (days)	Round voyage (days)	Annual repairs & surveys (days)	Operating per year (days)	Round voyages per year (10/8)	Pay load % of DWT (2) ÷ (2 × DWT) × 100	Performance (11) × (12) × 2 / 100
		Per day (tons)	days (4)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1 (1980)	15,000	700	42.9	25	16.00	49.5	117.4	5	360	3.06	50.0	3.06
2 (1981)	15,250	750	40.7	23	15.95	49.6	113.3	5	360	3.17	50.8	3.22
3 (1982)	15,500	800	38.8	21	15.90	49.8	109.6	5	360	3.28	51.7	3.39
4 (1983)	15,750	850	37.1	19	15.85	49.9	106.0	10	355	3.35	52.5	3.52
5 (1984)	16,000	900	35.6	17	15.80	50.1	102.7	8	357	3.47	53.3	3.70
6 (1985)	16,250	950	34.2	15	15.75	50.3	99.5	8	357	3.58	54.2	3.88
7 (1986)	16,500	1,000	33.0	15	15.70	50.4	98.4	8	357	3.62	55.0	3.98
8 (1987)	16,750	1,000	33.5	15	15.60	50.7	99.2	15	350	3.52	55.8	3.93
9 (1988)	17,000	1,000	34.0	15	15.50	51.1	100.1	12	353	3.52	56.7	3.99
10 (1989)	17,250	1,000	34.5	15	15.40	51.4	100.9	12	353	3.50	57.5	4.03
11 (1990)	17,500	1,000	35.0	15	15.30	51.7	101.7	12	353	3.47	58.3	4.05
12 (1991)	17,500	1,000	35.0	15	15.20	52.1	102.1	25	340	3.33	58.3	3.88
13 (1992)	17,500	1,000	35.0	15	15.10	52.4	102.4	17	348	3.40	58.3	3.96
14 (1993)	17,250	1,000	34.5	15	15.00	52.8	102.3	17	348	3.40	57.5	3.91
15 (1994)	17,000	990	34.3	16	14.90	53.1	103.4	17	348	3.36	56.7	3.81
16 (1995)	16,750	980	34.2	17	14.70	53.9	105.1	35	330	3.13	55.8	3.49
17 (1996)	16,500	970	34.0	18	14.30	55.4	107.4	25	340	3.16	55.0	3.48
18 (1997)	16,250	960	33.9	19	14.10	56.1	109.0	25	340	3.12	54.2	3.38
19 (1998)	16,000	950	33.7	20	13.90	57.0	110.7	30	335	3.02	53.3	3.22
20 (1999)	15,750	940	33.5	21	13.70	57.8	112.3	30	335	2.98	52.5	3.13

Table III-12-2. PROJECTED ANNUAL REVENUE OF NEW 15,000 TDW CARGO SHIP ON USA/CANADA LINE.

Service Year	Average round voyage cargo lifting (tons)	Round voyage (No.)	Cargo lifting (tons)	Average freight rate (\$ per ton)	Freight earnings (\$)
(1)	(2)	(3)	(4)	(5)	(6)
1 (1980)	15,000	3.06	45,900	100	4,590,000
2 (1981)	15,250	3.17	48,342	100	4,834,200
3 (1982)	15,500	3.28	50,840	100	5,084,000
4 (1983)	15,750	3.35	52,762	100	5,276,200
5 (1984)	16,000	3.47	55,520	100	5,552,000
6 (1985)	16,250	3.58	58,175	100	5,817,500
7 (1986)	16,500	3.62	59,730	100	5,973,000
8 (1987)	16,750	3.52	58,960	100	5,896,000
9 (1988)	17,000	3.52	59,840	100	5,984,000
10 (1989)	17,250	3.50	60,375	100	6,037,500
11 (1990)	17,500	3.47	60,725	100	6,072,500
12 (1991)	17,500	3.33	58,275	100	5,827,500
13 (1992)	17,500	3.40	59,500	100	5,950,000
14 (1993)	17,250	3.40	58,650	100	5,865,000
15 (1994)	17,000	3.36	57,120	100	5,712,000
16 (1995)	16,750	3.13	52,427	100	5,242,700
17 (1996)	16,500	3.16	52,140	100	5,214,000
18 (1997)	16,250	3.12	50,700	100	5,070,000
19 (1998)	16,000	3.02	48,320	100	4,832,000
20 (1999)	15,750	2.98	46,935	100	4,693,500

Table III-12-3 PROJECTED ANNUAL OPERATING EXPENDITURE OF NEW 15,000

TDW CARGO SHIP

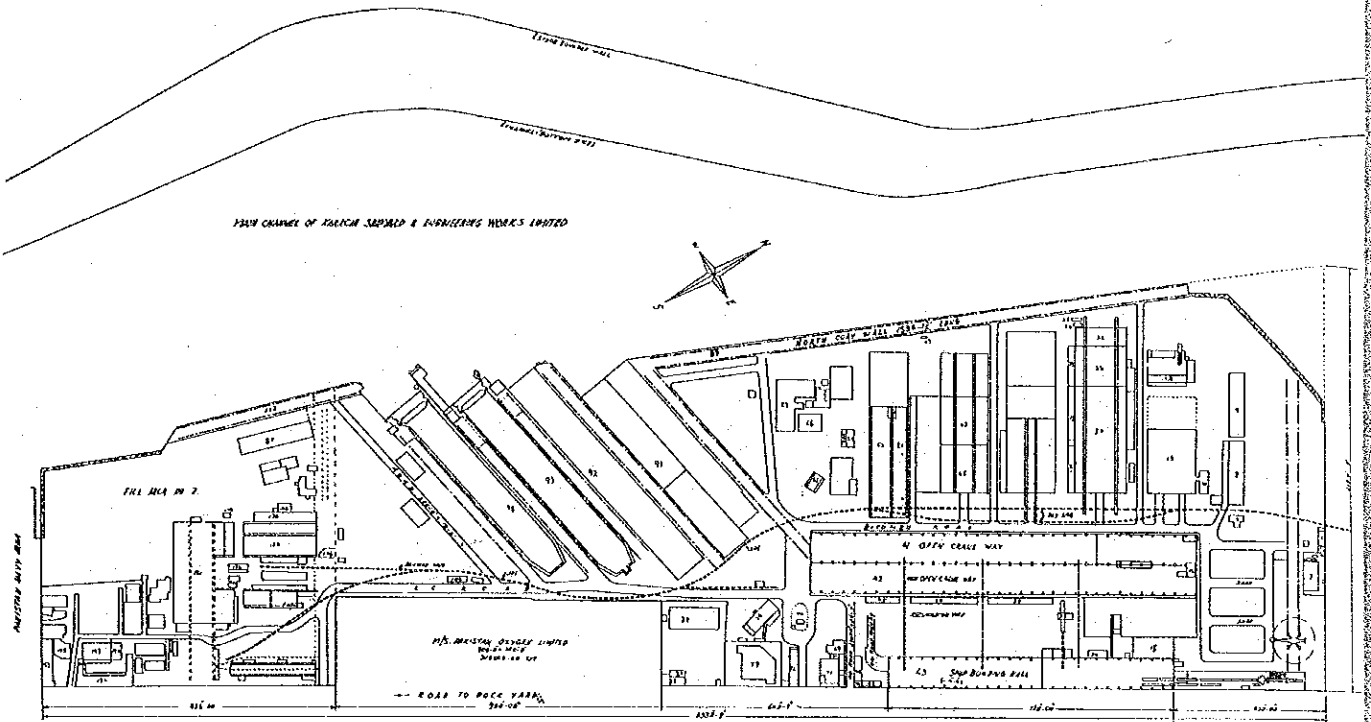
Service Year	Cargo handling	Bunkers	Port dues	Agency commission & brokerage	Sundry expenses	Salaries \$ allowances	Victualling	Stores \$ spares	Repairs	Insurance \$ claims	TOTAL
(1)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
1 (1980)	1,377,000	502,928	327,000	229,500	26,000	178,000	48,000	72,000	66,000	280,000	3,106,428
2 (1981)	1,450,260	517,080	339,000	241,710	26,000	178,000	48,000	77,800	71,000	280,000	3,218,050
3 (1982)	1,525,200	532,374	351,000	254,200	26,000	178,000	48,000	82,000	77,000	280,000	3,353,774
4 (1983)	1,582,860	541,427	358,000	263,810	26,000	178,000	48,000	86,000	93,000	280,000	3,457,097
5 (1984)	1,655,600	558,290	371,000	277,600	26,000	178,000	48,000	91,000	38,000	280,000	3,533,490
6 (1985)	1,745,250	573,991	383,000	290,875	26,000	178,000	48,000	96,000	91,000	280,000	3,712,116
7 (1986)	1,791,900	579,193	387,000	298,650	26,000	178,000	48,000	101,000	99,000	280,000	3,788,743
8 (1987)	1,768,800	568,424	376,000	294,800	26,000	178,000	48,000	106,000	132,000	280,000	3,778,024
9 (1988)	1,795,200	572,636	376,000	299,200	26,000	178,000	48,000	110,000	110,000	280,000	3,795,036
10 (1989)	1,811,250	573,204	374,000	301,875	26,000	178,000	48,000	115,000	126,000	280,000	3,833,329
11 (1990)	1,821,750	572,076	371,000	303,625	26,000	178,000	48,000	130,000	132,000	280,000	3,862,451
12 (1991)	1,748,250	555,321	356,000	291,375	26,000	178,000	48,000	125,000	165,000	280,000	3,772,946
13 (1992)	1,785,000	568,167	363,000	297,500	26,000	178,000	48,000	130,000	154,000	280,000	3,829,667
14 (1993)	1,759,500	571,081	363,000	293,250	26,000	178,000	48,000	134,000	165,000	280,000	3,817,831
15 (1994)	1,713,600	567,509	359,000	285,600	26,000	178,000	48,000	139,000	176,000	280,000	3,772,709
16 (1995)	1,572,810	539,805	334,000	262,135	26,000	178,000	48,000	144,000	220,000	280,000	3,604,750
17 (1996)	1,564,200	556,418	338,000	260,700	26,000	178,000	48,000	144,000	198,000	280,000	3,593,318
18 (1997)	1,521,000	555,945	333,000	253,500	26,000	178,000	48,000	144,000	209,000	280,000	3,548,445
19 (1998)	1,449,600	547,088	323,000	241,600	26,000	178,000	48,000	144,000	220,000	280,000	3,457,288
20 (1999)	1,408,050	546,818	318,000	234,650	26,000	178,000	48,000	144,000	231,000	280,000	3,414,518

Table III-12-4 CASH FLOW STATEMENT OF NEW 15,000 TDW CARGO SHIP

Service Year	Freight revenue	Operating cost	Administrative & general Exp.	Total expenses	Earnings
(1)	(\$)	(\$)	(\$)	(\$)	(\$)
(1)	(2)	(3)	(4)	(3) + (4)	(2) - (5)
				(5)	(6)
1 (1980)	4,590,000	3,106,428	131,000	3,237,428	1,352,572
2 (1981)	4,834,200	3,218,050	131,000	3,349,050	1,485,150
3 (1982)	5,084,000	3,353,774	131,000	3,484,774	1,599,226
4 (1983)	5,276,200	3,457,097	131,000	3,588,097	1,688,103
5 (1984)	5,552,000	3,533,490	131,000	3,664,490	1,887,510
6 (1985)	5,817,500	3,712,116	131,000	3,843,116	1,974,384
7 (1986)	5,973,000	3,788,743	131,000	3,919,743	2,053,257
8 (1987)	5,896,000	3,778,024	131,000	3,909,024	1,986,976
9 (1988)	5,984,000	3,795,036	131,000	3,926,036	2,057,964
10 (1989)	6,037,500	3,833,329	131,000	3,964,329	2,073,171
11 (1990)	6,072,500	3,862,451	131,000	3,993,451	2,079,049
12 (1991)	5,827,500	3,772,946	131,000	3,903,946	1,923,554
13 (1992)	5,950,000	3,829,667	131,000	3,960,667	1,989,333
14 (1993)	5,865,000	3,817,831	131,000	3,948,831	1,916,169
15 (1994)	5,712,000	3,772,709	131,000	3,903,709	1,808,291
16 (1995)	5,242,700	3,604,750	131,000	3,735,750	1,511,950
17 (1996)	5,214,000	3,593,318	131,000	3,724,318	1,489,682
18 (1997)	5,070,000	3,548,445	131,000	3,679,445	1,390,555
19 (1998)	4,832,000	3,457,288	131,000	3,588,288	1,243,712
20 (1999)	4,693,500	3,414,518	131,000	3,545,518	1,147,982
			Scrap value		625,000
			TOTAL		35,183,590

IV. SHIPBUILDING

Chart IV-1 General Layout Plan of KSEW



S No.	Description	S No.	Description	S No.	Description	S No.	Description
1.	Record Room	38.	Magazine Shop (Stores)	79.	Labour Canteen	128.	Metal Pattern Shop
2.	Record Room	39.	Platforms for Machinery	80.	Ship Repair Office & Work Shop	129.	Core Oven
3.	Accounts Office	40.	D.M. Stores Office	81.	New Gate House	130.	Core Oven
4.	Accounts Office Latrine	41.	Open Crane Way (Existing)	82.	Extension of Sub-Station	131.	C.I. Foundry
5.	Control Room for 5 D. M/C	42.	Open Crane Way (New)	83.	Existing Sub-Station	132.	Store & Bins
6.	SUI Gas Meter Room	43.	Ship Building Hall	84.	Store for Civil Cohst	133.	Store & Bins
7.	Timber Sawing Machine	44.	Shipbuilding Offices (Unit II)	85.	Civic Construction Office	134.	Cut Let Bins
8.	Timber Godown	45.	Shipbuilding Offices (Unit I)	86.	Acetylene Meter Room	135.	Store
9.	Timber Godown	46.	Lock Smith Shop	87.	Main Office Building	136.	Shed for Shot Blasting M/C
10.	Patat Shop	47.	Cut Fitting Shop	88.	Weigh Bridge with Control Room	137.	Shed for Shot Blasting M/C
11.	Transformer Room	48.	Plumbing Shop	89.	North Quay Wall	138.	C.I. Fetting Shop
12.	Stress Relieving Furnace with One Room	49.	Switch Room	90.	Berth No. 1	139.	Latrine
12A.	Under Ground Water Tank	50.	Office building	91.	Berth No. 2	140.	Electrical Store
13.	Office (Ship Building Hall)	51.	Crane Shop	92.	Berth No. 3	141.	Foundry Offices
14.	Optical Marking Tower	52.	Steel Fabrication Shop	93.	Dry Dock No. 1	142.	Foundry Store
15.	Forge Shop	53.	Electric Shop	94.	Dry Dock No. 2	143.	Central Laboratory
16.	J & C Shop	54.	Pump Room for Sea Water	95.	Switch House	144.	Latrine
17.	Diesel Maintenance Shed	55.	Shed for Cargae	96.	Transformer Sub-Station	145.	Foundry Store
17A.	Auto Maintenance Shed	55A.	Staff Canteen & Kitchen	97.	Control House	146.	Laboratory Store
18.	Diesel Maintenance Shed	56.	Main Office Extension	98.	Sub-Station	147.	Garage
19.	Pump Room	57.	Main Office	99.	Latrine & Recreation Room	148.	Technician Qtrs.
20.	Battery Room	58.	Insecticidal Store	100.	Plumbing Sec. for Docks & Foundries	149.	Residential Qtrs.
21.	Maintenance Shop	59.	Latrine	101.	Railway Line	150.	Foundry Production
22.	Latrine	60.	Power House	102.	Latrine for Steel Foundry.	151.	Latrine for A. T. School
23.	Meat Treatment Shop	61.	Cooling Tower & F.W.D.G. Tank	103.	South Quay Wall	152.	A. T. School
24.	Out Fitting Shop	62.	Latrine	104.	Latrine for Dry Dock Workers	153.	Drivers & Technicians Qtrs.
25.	Diesel Shop	63.	Time Office	105.	Under Ground Water Tank	154.	Foundry Store
26.	Fitting Shop	64.	Card Bins	106.	K.E.S.C. Tank	155.	Technician Qtrs.
27.	Auto Maintenance Shop	65.	C.I.M.W. Office	107.	Electrical Sec. for Foundries	156.	Technician Qtrs.
28.	Salvage Store	66.	Fire Brigade	108.	Zinc Store	157.	Technician Qtrs.
29.	Diesel Store	67.	Fire Brigade	109.	Store	158.	Driver Qtrs.
30.	Machine Shop	68.	Fair Price Shop	110.	Office	159.	Technician Qtrs.
31.	Machine Shop Store	69.	Labour Office	111.	Zinc Spray Room	160.	Shed for Crane Section
32.	Office for SP (Const.)	70.	Latrine for Bank Staff	112.	Shot Blasting Shed	161.	Workers Canteen Near Dry Dock Recreation Room
33.	Room for Profile Bending M/C	71.	National Bank of Pakistan	113.	Switch Room	162.	Surveyors Office & Officer's Dining Hall
34.	Shed for Marking Store	71A.	Fair Price Shop Office	114.	Store		
35.	Optic. Sub-Station & Store	71B.	Fair Price Counter	115.	Wooden Pattern Shop		
36.	Shed for Plate Straightning Machine	71C.	Fair Price Store	116.	N. F. Foundry		
37.	Welding Training School & Instructors Room	72.	Gate House	117.	Fig Iron Bins		
		72A.	Shipyards Clinic Store	118.	Electric Sub-Station		
		73.	Petrol Pump Area	119.	Fig Iron Bins		
		73.	Room for Petrol Pump	120.	Coal & Sand Bins		
		74.	K.S. & E.W. Mosque	121.	Electric Sub-Station		
		74A.	Room for Mosque Pesh Imam	122.	Steel Foundry		
		75.	Abulsion Place	123.	Steel Fetting Shop		
		76.	Abulsion Place	124.	Store Room		
		77.	Urinal Bins	125.	Shed for Shot Blasting M/C		
		78.	Khaleel Store & Office	126.	Cooling Tower		
				127.			

Chart IV-2 Location of KSEW

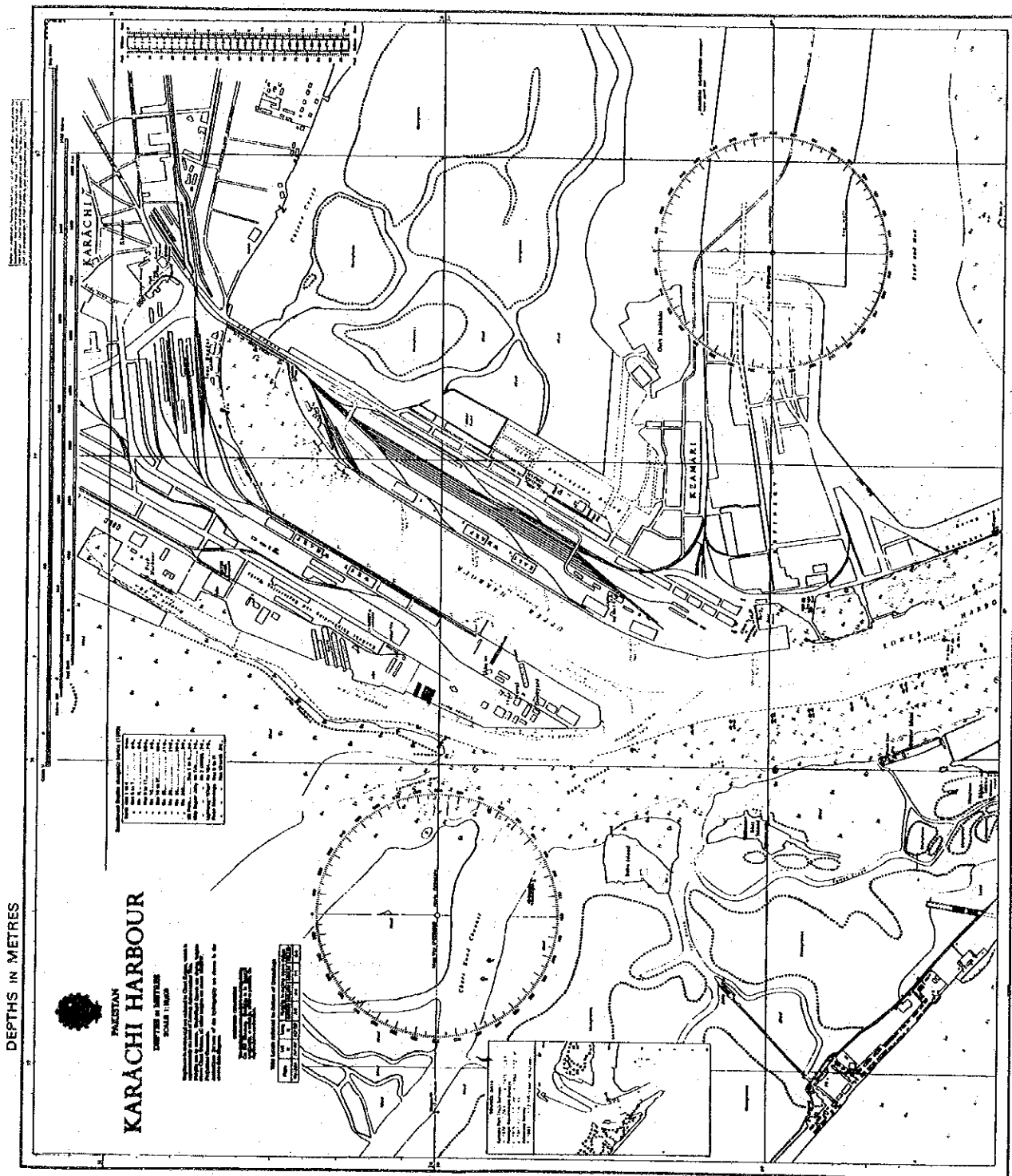


Table IV-3 Sales, Cost, Profit & Loss of KSEW

Unit (1,000Rs)

	1972	1972/73	1973/74	1974/75	1975/76	1976/77
Sales						
Shipbuilding		41,237.698	49,128.720	42,901.913	64,977.325	66,248.209
Ship Repairing		26,789.305	39,575.626	60,598.555	51,807.688	48,256.702
Gen. Eng.		12,199.049	17,029.646	30,153.658	59,326.214	41,353.166
Foundry		4,887.196	9,672.870	9,228.308	11,530.654	
Others		323.101	230.728	378.686	1,512.003	783.190
Total	37,660.119	85,436.349	115,637.590	143,261.120	189,153.884	156,641.267
Subsidy	0	6,224.491	6,018.270	16,645.093	21,016.829	13,340.716
Commission, etc.	91.870	△ 78.861				
Total	37,751.989	91,581.979	121,655.860	159,906.213	210,170.713	169,981.983
Cost						
Shipbuilding		47,354.638	59,846.783	66,849.257	101,114.335	69,826.218
Ship Repairing		16,565.659	15,870.671	25,658.649	22,432.682	22,550.911
Gen. Eng.		9,618.302	13,600.494	24,093.638	45,079.991	35,136.003
Foundry		4,079.706	7,572.132	10,435.561	18,672.447	
Others		141.821	90.541	214.092	393.434	302.266
Total	32,303.639	77,780.126	96,980.621	127,251.197	187,692.889	127,815.398
Profit & Loss						
Shipbuilding		△6,116.940	△10,718.063	△23,947.344	△36,137.010	△ 9,762.707
Subsidy		6,224.491	6,018.270	16,045.093	21,016.829	13,340.716
Ship Repairing		10,223.646	23,704.955	34,939.906	29,375.006	25,705.791
Commission		△ 78.861				
Gen. Eng.		2,580.747	3,429.152	6,060.020	14,246.223	6,217.163
Foundry		787.490	2,100.738	△1,207.253	△ 7,141.793	
Others		181.280	140.187	164.594	1,118.569	480.924
Total	5,448.350	13,801.853	24,675.239	32,655.016	22,477.824	55,507.301
Net Profit	△8,464.076	△4,349.805	4,753.182	16,539.088	13,444.793	21,027.083
Net Profit. Subsidy	△8,464.076	△10,574.296	△1,265.088	△106.005	△7,572.036	7,686.367

Table IV-4: Comparison of Equipment

	A Japanese Dockyard	K.S.E.W.
Stock Yard		
Area	13,530m ²	12,500m ²
Shot Blaster	4.2m Width 1	3.0m Width 1
Painting Method	Automatic Spraying Machine 1	Hand Roller Brush
Crane	Portal Crane, 5 Ton 1 Travelling Jib Crane, 5 Ton 1 Wheel Crane, 15 Ton 1	Travelling Crane, 15 Ton 1 Movil Crane 3
Fabrication Shop		
Area	6,750m ²	6,800m ²
Marking Method	Electric Print Machine, 4.2m 1	Optical Marking 1
Mechanical Gas Cutter	Flame Plainer 9m x 36m 1	Flame Plainer 2.5m x 9m 1 Electronic Copying Gas Cutting Machine 2 Automatic Manually Steered Profile Gas Cutting Machine 1 Automatic Flange Cutting Machine 1
Hydraulic or Mechanical Pressure	Hydraulic Pressure, 500 Ton 1 " 400 Ton 1 " (Frame Bender) 100 Ton 1 " " 50 Ton 1 " " 30 Ton 1	Hydraulic Pressure 300 Ton 1 " (Frame Bender) 500 Ton 1 Eccentric Pressure 100 Ton 1 Profile Straightening & Bending Machine 125 Ton 1 Plate Straightening Machine 750mm 2

Table IV-4: Comparison of Equipment (Cont'd)

	A Japanese Dockyard	K.S.E.W.
	Overhead Crane, 20 T. 1 " 15 T. 1 " 10 T. 1 " 5 T. 3 " 3 T. 3	Overhead Crane, 10 T. 1 " 5 T. 2
Drilling Machine & Shear		Plate Drill 2 Drilling Machine 2 Shearing Machine 1
Assembling Shop Area		
	13,600m ²	13,500m ²
Crane	Overhead Crane, 20 T. 1 " 15 T. 1 " 10 T. 3 " 5 T. 6	Overhead Crane, 30 T. 2 " 10 T. 2 " 5 T. 2
Automatic Welding Machine	Flux & Copper Backing Machine 1	
Block Stock Yard Area		
	4,850m ²	4,500m ²
Berth No. 1		
Dimension	176m x 23.6m	168m x 23.6m
Capacity	26,000 TDW	15,000 TDW
Crane	Luffing Crane, 40 Ton 2 Hammerhead Crane 12 Ton 1	Luffing Crane, 30 Ton 1

Table IV-4: Comparison of Equipment (Cont'd)

	A Japanese Dockyard	K.S.E.W.
Berth No. 2		
Dimension		118m x 24.4m
Capacity		6,000 TDW
Crane		Luffing Crane, 40 Ton (2) (Common to No. 3 Berth)
Berth No. 3		
Dimension	178m x 31m	212.8m x 30.5m
Capacity	38,000 TDW	27,000 TDW
Crane	Luffing Crane, 60 Ton 1 " 30 Ton 1	Luffing Crane, 40 Ton 2 " 30 Ton 1
Welding Machine		
General Use	500 Amp. 786 300 Amp. 218	400 Amp. 220
Submerged Arc Welder	2,000 Amp. 5 1,500 Amp. 8	1,200 Amp. 7
Semi Automatic Welder	CO ₂ Semi Automatic Welder, 500 Amp. 5 Auto Contact Welder 134	CO ₂ Semi Automatic Welder, 350 Amp. 1 Sigma Welding Machine 400 Amp. 2
Special Welding Apparatus	Electro-Gas Welding 800 Amp. 2 Couzing Machine 600 Amp. 15 500 Amp. 12 Algon Arc Welding Machine	Algon Arc Welding Machine 2
Pipe Shop		
Area	1,955m ²	1,796m ²
Machinery	Piping Bender, 2" 2 " 4" 1 " 6" 1 Pipe Cutter 1	Piping Bender, 3" 1 " 6" 1 Pipe Cutter 1

Table IV-4: Comparison of Equipment (Cont'd)

	A Japanese Dockyard	K.S.E.W.
	Pipe Mat, 1" - 16" 1	Pipe Thread Cutting Machine 1
	Drilling Machine, 1" 2	Drilling Machine, 3/4" 1
	CO ₂ Semi Automatic Welder, 350 Amp. 4	Full Welding Machine, 400 Amp. 4
	Full Welding Machine, 500 Amp. 10	Full Welding Machine, 400 Amp. 4
	Tuck Welding Machine, 150 Amp. 10	Tuck Welding Machine, 3
	TIG Welder 2	Argon Welding Machine 2
	Hydraulic Pump for Test 500kg/cm ² x 20°/mm 1 77kg/cm ² x 25°/mm 1	4,000 psi 1
	Overhead Crane, 15 T. 1 3 T. 2	Overhead Crane 1-1/2 T. 2
Amount of Production	3,500 pipes/day	
Outfitting Quay		
Length	275m	472m
Crane	Luffing Crane, 15 T. 1 " 10 T. 1	Luffing Crane, 30 Ton 1 " 15 Ton 1

Table IV-5: Organization of Production Department and Division of KSEW

Occupation Department/Section	Manager	Super- Inten- dent	Deputy Super- Inten- dent	Assist- ant Super- Inten- dent	Techni- cal Staff or Clerk	Super- visor	Labourer	Total
Planning & Control Department	1							1
P. & C. of Ship Building		1						1
Estimation of Ship Build'g			1	1	2			4
Planning & Control of S.B.			1	3	21			25
Quality Control of S.B.			1	1	11			13
Planning of General Eng'g		1	1	3	38			43
Quality Control of G. E.		1	1	3	33			38
Total:	1	3	5	13	105			127
Ship Design Department	1							1
Project		1						1
Library & Printing				1	3			4
Import Substitution				2	3			4
Identing			1	3	7			11
Ship Project			1	1	6			8
Hull Drawing		1						1
Hull Drawing			1	4	12			17
Out-Fitting Drawing			2	8	24			34
Calculation		1	1	3	7			12
Machinery Drawing		1						1
Machinery Installation			1	6	15			22
Piping			1	4	15			20
Electric Drawing		1	1	2	6			10
Total:	1	5	9	34	98			147

Table IV-5: Organization of Production Department and Division of KSEW (Cont'd)

Occupation Department/Section	Manager	Super- Inten- dent	Deputy Super- Inten- dent	Assist- ant Super- Inten- dent	Techni- cal Staff or Clerk	Super- visor	Labourer	Total
Ship Repair Division	1							1
Account			1		1			2
Sales			3		2		14	19
Marine		1						1
Dock Master			1	2	11		113	127
Ship Repair Work I		1	1	3	29		355	389
Ship Repair Work II		1	1	1	3		53	59
Total:	1	3	7	6	46		535	598
General Engineering Division	1							1
Engine Sales		1	2	2	10			15
Construction Drawing		1						1
General			1	3	12			16
Design			1	4	17			22
Construction			1	3	21			25
Construction		1						1
Steel Structure			1	2	11		277	291
Steel Material			1	2	10		213	226
Pressure Vessel			1	3	15		277	296
Engineering		1						1
Engineering			1	2	10			13
Machine Shop			1	3	25		344	373
Foundry		1						1
Cast Iron			1	4	13		374	392
Steel & Non Ferrous			1	2	13		238	254
Total:	1	5	12	30	70	87	1,723	1,928
GRAND TOTAL:	5	19	39	97	273	211	4,280	4,924

Table IV-5: Organization of Production Department and Division of KSEW (Cont'd)

Occupation Department/Section	Manager	Super- Inten- dent	Deputy Super- Inten- dent	Assist- ant Super- Inten- dent	Techni- cal Staff or Clerk	Super- visor	Labourer	Total
Ship Building Division	1							1
General		1	1					2
Welding			1					1
Welding				1	8	330		339
Gas Cutting					1	117		118
Chipping					2	56		58
Out-Fitting				1				1
Light Steel Fabrica'n					6	129		135
Carpentry Shop					5	135		140
Paint Shop					4	86		92
Hall		1						1
Mould & Building Hall			1					1
Mould & Loft				1	2	29		32
Ship Building Hall				1	8	198		207
Prefabrication				1	7	210		218
Ship Building Berth				1	13	382		396
Machinery		1						1
Machine			1	3	5	105		114
Pipe			1	2	9	165		177
Electric			1	3	8	80		92
Total:	1	3	6	14	78	2,022		2,124

Table IV-6 Description of Vessels over 500GRT Built at KSEW Ltd.

Order No.	Type of Vessel	Name of Vessel	Length (over all) ^m	Breadth (ft)	Depth (m)	Power (BHP)	Speed (KNOTS)	Dead Wt. (TONS)	GRT.
S- 4	Hopper Barge	WHIMBREL	60.75m	11.62m	4.56m	750	10.9	2x1031.0	677x2
S- 5	Hopper Barge	CURLEW	60.75m	11.62m	4.56m	750	10.9	2x1031.0	677x2
S- 50	Oil Tanker	ESSO ARK	59.93m	10.97m	3.43m	1150	10.75	2x915.00	899/854
S- 51	Oil Tanker	KORANGI	59.93m	10.97m	3.43m	1150	10.75	2x915.00	899/854
S-	Hopper Dredger	RAJHANS	60.77m	11.60m	4.57m	745	9.00	800.00	677
S- 76	Hopper Dredger	HULUNG	60.77m	11.60m	4.57m	745	9.00	800.00	577
S- 77	Cargo Vessel	ALABBAS	154.88m	19.50m	12.00m	9000	17.00	12860.00	9200.
S- 82	Crab Hopper Dredgh	ALINUDDIN	63.61m	12.20m	4.60m	1060	10.00	1102.00	995.
S- 88	Cargo Vessel	SHALMAR	154.25m	19.50m	12.00m	9600	17.00	12860.00	9200
S-125	Cargo Vessel	LALAZAR	154.67m	19.50m	12.00m	9800	17.00	13327	9026
S-131	Ocean Going Cargo Vessel	ADDHAFRA	154.67m	19.50m	12.00m	10200	17.20	13160.00	9268
S-145	Cargo Vessel	HETIAN	154.67m	19.50m	12.00m	9900	18.00	13160.00	9200
S-154	Mooring & Water Barge	-	65.00	13.00	4.55	Non. Propelled		2x1410	2x1230
S-155	Mooring & Water Barge	-	65.00	13.00	4.55	Non. Propelled		2x1410	2x1230

Table IV-7 Construction Period and Man-Hour of Cargo Vessels Built by KSEW

YARD NO.	MAIN DIMENTION L X B X D	DEADWEIGHT	B.H.P.	CONSTRUCTION PERIOD				MAN-HOUR
				KEEL LAY	LAUNCH	DELIVERY	DAYS	
S- 77	154.88x19.5x12.0	12,860	9,000	'65-Apr-17	'66-May	'67-Dec-30	Year Month Day 2 - 7 - 13	3,041,260
S- 88	154.25x19.5x12.0	12,860	9,600	'68-June-10	'68-Dec-19	'70-July-15	2 - 1 - 5	2,941,014
S-125	154.67x19.5x12.0	13,327	9,800	'71-Nov-5	'73-Mar-20	'74-Nov-20	3 - 0 - 5	2,852,031
S 131	154.67x19.5x12.0	13,160	10,200	'73-July-19	'74-Sep-17	'76-Feb-28	2 - 6 - 9	3,895,812
S-145	154.67x19.5x12.0	13,160	9,900	'75-Dec-8	'76-Nov-22	'78-Jan-15	2 - 1 - 7	3,886,661

NOTE : CARGO HOLD HATCH COVERS OF S-131 & S-145 WERE MADE BY KSEW

(Source : Planning & Control Dept. KSEW)

Table IV-8 Cost Estimation of 15,000 TDW Cargo Vessel

No. OF SHOP	NAME OF SHOP	MAN-HOUR (H)	RATE (Rs)	COST (Rs)
29	MECHANICAL FLAME CUTTING	94,500	6.04	570,780
31	MOLD & LOFT	92,750	5.73	531,457
32	MARKING & BENDING	143,500	5.39	773,465
33	PREFABRICATION	346,500	5.27	1,826,055
34	BERTH	392,000	5.21	2,042,320
36	LIGHT STEEL FABRICATION	184,800	5.08	938,784
37	OUTFITTING	184,450	5.48	1,011,060
38	PLUHBER	251,100	5.17	1,298,187
39	CARPENTRY	136,500	5.86	799,890
40	PAINTING	162,000	5.28	855,360
42	GAS CUTTING	141,750	5.48	776,790
43	WELDING	539,000	5.22	2,813,580
44	SHOT BLASTING	23,950	5.48	131,246
56	ELECTRIC	105,300	5.03	529,659
	TOTAL	⁽¹⁾ 2,798,150	(5.32)	14,898,633
	OTHER SHOPS	⁽²⁾ 201,850		
	GRAND TOTAL	⁽³⁾ 3,000,000	(5.32)	15,960,000

(1) MAN-HOUR OF SHIP BUILDING DIVISION

(2) THIS VALUE IS CALCULATED BY (3)-(1).

(3) TOTAL MAN-HOUR ASSUMED BY PLAN. & CONTRL. DEPARTMENT

(4) REDUCTION OF MAN-HOUR CAUSED BY PROFICIENCY AND OTHERS.

(5) MANAGING & ADMINISTRATION RATE OF KSEW.

V. FINANCIAL PLAN AND ANALYSIS

Table V-1-1 Case 1A, Cost of Vessels

TIME	1) FRCD	2) PKBCD	3) COFED (US\$1,000)	4) TBICO	5) IRR (%)
1978	0	0		0	7.30
1979	42000	14000	605	56605	7.30
1980	56000	10500	872	67372	7.30
1981	14000	10500	203	24703	7.30
1982	0	10500		10500	7.30
1983	0	10500		10500	7.30
1984	0	0			7.30

Remarks & Sources

<Calculation based on 12 newly built vessels with no price increase applied> IRR: 7.3%

- 1) Construction cost at foreign shipyard
- 2) Construction cost at KSEW
- 3) Consulting fee
- 4) Total cost of vessels
- 5) IRR internal rate of return

Table V-1-2 (1) Case 1A, Repayment of Loan & Interest

TIME	Unit (US\$1,000)							
	1) PLN79F	2) BL79	3) TLN79F	4) PIN79F	5) PLN80F	6) BL80	7) TLN80F	8) PIN80F
1978	0	0	0	0	0	0	0	0
1979	0	56605	0	0	0	0	0	0
1980	8086	48519	8086	5151	0	67372	0	0
1981	8086	40432	16173	4415	9624	57747	9624	6130
1982	8086	32346	24259	3679	9624	48122	19249	5255
1983	8086	24259	32346	2943	9624	38498	28873	4379
1984	8086	16173	40432	2207	9624	28873	38498	3503
1985	8086	8086	48519	1471	9624	19249	48122	2627
1986	8086	0	56605	735	9624	9624	57747	1751
1987	0	0	0	0	9624	0	67371	875
1988	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0

Table V-1-2 (2) Case 1A, Repayment of Loan & Interest

TIME	Unit (US\$1,000)							
	9) PLN81F	10) BL81	11) TLN81F	12) PIN81F	13) PLN82F	14) BL82	15) TLN82F	16) PIN82F
1978	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0
1981	0	24703	0	0	0	0	0	0
1982	3529	21174	3529	2248	0	10500	0	0
1983	3529	17645	7058	1926	1500	9000	1500	955
1984	3529	14116	10587	1605	1500	7500	3000	819
1985	3529	10587	14116	1284	1500	6000	4500	682
1986	3529	7058	17645	963	1500	4500	6000	546
1987	3529	3529	21174	642	1500	3000	7500	409
1988	3529	0	24703	321	1500	1500	9000	273
1989	0	0	0	0	1500	0	10500	136
1990	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0

Table V-1-2 (3) Case 1A, Repayment of Loan & Interest

TIME	17) PLN83F	18) BL83	19) TLN83F	20) PIN83F	21) PLN	22) PIN	23) PCLI
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	8086	5151	13237
1981	0	0	0	0	17711	10546	28267
1982	0	0	0	0	21240	11182	32422
1983	0	10500	0	0	22740	10205	32945
1984	1500	9000	1500	955	24240	9091	33331
1985	1500	7500	3000	819	24240	6885	31125
1986	1500	6000	4500	682	24240	4679	28919
1987	1500	4500	6000	546	16153	2473	18627
1988	1500	3000	7500	409	6529	1003	7532
1989	1500	1500	9000	273	3000	409	3409
1990	1500	0	10500	136	1500	136	1636
1991	0	0	0	0	0	0	0

Unit (US\$1,000)

Remarks & Sources

- | | |
|---|--|
| 1) For 1979, repaid loan amount | 21) Total amount of loan repaid (1979~83) |
| 2) For 1979, balance of loan | 22) Total interest paid (1979~83) |
| 3) For 1979, accumulated repaid loan amount | 23) Total loan & Interest repaid (1979~83) |
| 4) For 1979, interest paid | |
| 5)~8) For 1980, same as 1)~4) | |
| 9)~12) For 1981, same as 1)~4) | |
| 13)~16) For 1982, same as 1)~4) | |
| 17)~20) For 1983, same as 1)~4) | |

Table V-1-3 (1) Case 1A, Earning

TIME	Unit (US\$1,000)							
	1) R1Y80	2) R1Y81	3) R1Y82	4) R1Y83	5) RIERN	6) R2Y80	7) R2Y81	8) RY82
1978					0	0	0	0
1979					0	0	0	0
1980					0	0	0	0
1981	262				0	0	0	0
1982	242	131			262	3588	0	0
1983	498	121	131		373	3894	3588	0
1984	560	249	121		750	4204	3894	0
1985	718	280	249		930	4406	4204	0
1986	844	359	280		1247	4788	4406	0
1987	948	422	359		1483	5120	4788	0
1988	816	474	422		1729	5394	5120	0
1989	896	408	474		1712	5140	5394	0
1990	870	448	408		1776	5272	5140	0
1991	866	435	448		1726	5288	5272	0
1992	670	433	435		1749	5298	5288	0
1993	744	335	433		1538	4924	5298	0
1994	642	372	335		1512	5076	4924	0
1995	528	321	372		1349	4962	5076	0
1996	206	264	321		1221	4744	4962	0
1997	218	103	264		791	4098	4744	0
1998	110	109	103		585	4092	4098	0
1999	-28	55	109		322	3870	4092	0
2000	154	-14	55		136	3576	3870	0
2001	1050	77	-14		195	3380	3576	0
2002		525	77		1113	3050	3380	0
2003			525		602	0	3050	0
2004					525	0	0	0
2005					0	0	0	0

Table V-1-3 (2) Case 1A, Earning

TIME	Unit (US\$1,000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	7482	1485	1353	0	0	2838
1983	0	8098	1599	1485	0	0	3084
1984	3588	12198	1688	1599	0	0	3287
1985	3894	13088	1888	1688	0	0	3576
1986	4204	14112	1974	1888	0	0	3862
1987	4406	14920	2053	1974	0	0	4027
1988	4788	15322	1987	2053	0	0	4040
1989	5120	15532	2058	1987	0	0	4045
1990	5394	15954	2073	2058	0	0	4131
1991	5140	15726	2079	2073	0	0	4152
1992	5272	15494	1924	2079	0	0	4003
1993	5288	15288	1989	1924	0	0	3913
1994	5298	15336	1916	1989	0	0	3906
1995	4924	14630	1808	1916	0	0	3724
1996	5076	13918	1512	1808	0	0	3320
1997	4962	13152	1490	1512	0	0	3002
1998	4744	12706	1391	1490	0	0	2881
1999	4098	11544	1244	1391	0	0	2635
2000	4092	11048	1148	1244	0	0	2392
2001	3870	10300	525	1148	0	0	1673
2002	3576	6626	0	525	0	0	525
2003	3380	3380	0	0	0	0	0
2004	3050	3050	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources

- | | |
|--|---|
| 1) Asian route, earning by vessel(s) assigned in 1980 | 11) American route, earning by vessel(s) assigned in 1980 |
| 2) Asian route, earning by vessel(s) assigned in 1981 | 12) American route, earning by vessel(s) assigned in 1981 |
| 3) Asian route, earning by vessel(s) assigned in 1982 | 13) American route, earning by vessel(s) assigned in 1982 |
| 4) Asian route, earning by vessel(s) assigned in 1983 | 14) American route, earning by vessel(s) assigned in 1983 |
| 5) Asian route, total earning | 15) American route, total earning |
| 6) European route, earning by vessel(s) assigned in 1980 | Sources: Tables 3-10, 3-11 and 3-12 |
| 7) European route, earning by vessel(s) assigned in 1981 | |
| 8) European route, earning by vessel(s) assigned in 1982 | |
| 9) European route, earning by vessel(s) assigned in 1983 | |
| 10) European route, total earning | |

Table V-1-4 Case 1A, Projected Internal Rate of Return

TIME	1) ERN	2) PCLI (US\$1,000)	3) CSHFLW	4) DISFAC (Rate)	5) EPV	6) PPV (US\$1,000)	7) CFPRVL (US\$1,000)	8) TCFPV
1975	0	0	0	1.52615	0	0		0
1976	0	0	0	1.42232	0	0		0
1977	0	0	0	1.32556	0	0		0
1978	0	0	0	1.23538	0	0		0
1979	0	0	0	1.15133	0	0		0
1980	0	13237	-13237	1.07300	0	14203	-14200	-14204
1981	5203	28257	-23054	1.00000	5203	28257	-23050	-37258
1982	10693	32422	-21729	0.93197	9965	30216	-20250	-57509
1983	11932	32945	-21013	0.86856	10363	28614	-18250	-75761
1984	16415	33331	-16916	0.80947	13287	26980	-13690	-89454
1985	17911	31125	-13214	0.75440	13512	23481	-9969	-99423
1986	19457	28919	-9462	0.70307	13679	20332	-6653	-106076
1987	20676	18627	2048	0.65524	13547	12205	1342	-104733
1988	21074	7532	13541	0.61066	12869	4600	8269	-96464
1989	21355	3409	17945	0.56912	12153	1940	10210	-86251
1990	21811	1636	20174	0.53040	11568	868	10700	-75551
1991	21627	0	21627	0.49431	10690	0	10690	-64860
1992	21035	0	21035	0.46068	9690	0	9690	-55169
1993	20713	0	20713	0.42934	8893	0	8893	-46277
1994	20590	0	20590	0.40013	8238	0	8239	-38038
1995	19575	0	19575	0.37291	7299	0	7300	-30738
1996	18029	0	18029	0.34754	6265	0	7266	-24472
1997	16739	0	16739	0.32390	5421	0	5422	-19051
1998	15909	0	15909	0.30186	4802	0	4802	-14248
1999	14315	0	14315	0.28132	4027	0	4027	-10221
2000	13635	0	13635	0.26218	3574	0	3575	-6646
2001	13086	0	13086	0.24435	3197	0	3198	-3449
2002	7753	0	7753	0.22772	1765	0	1766	-1683
2003	3905	0	3905	0.21223	828	0	828	-855
2004	3050	0	3050	0.19779	603	0	603	-251
2005	0	0	0	0.18433	0	0	0	-251

Remarks & Sources

- 1) Total earning by newly built vessels.
- 2) Total investment cost (-total loan & interest repaid)
- 3) Net benefit (return on investment)
- 4) Discount factor at IRR rate
- 5) Present value, total earning at IRR rate
- 6) Present value total investment cost at IRR rate
- 7) Present value net benefit
- 8) Present value, accumulated return on investment at IRR rate

Table V-2-1 Case 1B, Cost of Vessels

TIME	1) FRBCD	2) PKBCD (US\$1,000)	3) COFED	4) TBICO	IRR (%)
1978	0	0		0	19.30
1979	42000	14000	605	56605	19.30
1980	56000	10500	872	67372	19.30
1981	14000	10500	203	24703	19.30
1982	0	10500		10500	19.30
1983	0	10500		10500	19.30
1984	0	0		0	19.30

Remarks & Sources

<Calculation based on 12 newly built vessels with 8% price increase applied>
IRR: 19.3%

- 1)~5): Refer to Table V-1-1.

Table V-2-3 (1) Case 1B, Earning

TIME	Unit (US\$1,000)							
	1) RIY80	2) RIY81	3) RIY82	4) RIY83	5) RIERN	6) P2Y80	7) R2Y81	8) R2Y82
1978			0	0	0	0	0	0
1979			0	0	0	0	0	0
1980			0	0	0	0	0	0
1981	262		0	0	262	3588	0	0
1982	261	141	0	0	402	4205	3875	0
1983	580	141	152	0	874	4903	4542	0
1984	705	313	152	0	1171	5550	5295	0
1985	976	380	338	0	1696	6514	5994	0
1986	1240	627	411	0	2179	7523	7035	0
1987	1504	669	569	0	2743	8559	8124	0
1988	1398	812	723	0	2934	8809	9244	0
1989	1658	755	877	0	3291	9758	9513	0
1990	1739	895	815	0	3450	10570	10538	0
1991	1869	939	967	0	3776	11438	11416	0
1992	1562	1009	1014	0	3586	11481	12353	0
1993	1873	843	1090	0	3807	12782	12399	0
1994	1746	1011	911	0	3668	13494	13804	0
1995	1550	942	1092	0	3586	13934	14574	0
1996	653	837	1018	0	2509	12999	15048	0
1997	746	352	904	0	2004	14019	14039	0
1998	407	403	381	0	1191	14319	15140	0
1999	-111	219	435	0	543	14289	15464	0
2000	664	-60	237	0	841	14587	15432	0
2001	4894	358	-65	0	5187	14215	15754	0
2002		2642	387	0	3030	0	15353	0
2003			2854	0	2854	0	0	0
2004			0	0	0	0	0	0
2005			0	0	0	0	0	0

Table V-2-3 (2) Case 1B, Earning

TIME	Unit (US\$1,000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y82	13) R3Y82	14) R3Y83	15) R3ERN
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	8081	1603	1461	0	0	3065
1983	0	9446	1865	1732	0	0	3597
1984	4519	15366	2126	2014	0	0	4140
1985	5297	17806	2568	2296	0	0	4865
1986	6177	20735	2900	2774	0	0	5674
1987	6991	23676	3257	3132	0	0	6390
1988	8205	26259	3405	3518	0	0	6923
1989	9476	28749	3809	3677	0	0	7487
1990	10782	31892	4143	4113	0	0	8257
1991	11096	33951	4488	4475	0	0	8963
1992	12292	36126	4486	4847	0	0	9333
1993	13316	38498	5008	4845	0	0	9853
1994	14408	41708	5210	5409	0	0	10620
1995	14462	42971	5310	5627	0	0	10938
1996	16101	44150	4796	5735	0	0	10531
1997	16999	45058	5104	5180	0	0	10284
1998	17552	47012	5146	5513	0	0	10659
1999	16375	46130	4971	5558	0	0	10529
2000	17659	47680	4954	5368	0	0	10323
2001	18037	48008	2447	5350	0	0	7797
2002	18001	33354	0	2642	0	0	2642
2003	18375	18376	0	0	0	0	0
2004	17907	17908	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources

1)~15): Refer to Table V-1-3.

Table V-2-4 Case 1B, Projected Internal Rate of Return

TIME	1) ERN	2) PCLl (US\$1,000)	3) CSHFLW	4) DISFAC (Rate)	5) EPV	6) PPV (US\$1,000)	7) GPPRVL (US\$1,000)	8) TCFPV
1975	0	0	0	2,88299	0	0	0	0
1976	0	0	0	2,41658	0	0	0	0
1977	0	0	0	2,02564	0	0	0	0
1978	0	0	0	1,69794	0	0	0	0
1979	0	0	0	1,42325	0	0	0	0
1980	0	13237	-13238	1,19300	0	15792	-15790	-15792
1981	5203	28257	-23054	1,00000	5203	28257	-23050	-38847
1982	11648	32422	-20874	0,83822	9680	27177	-17500	-56344
1983	13917	32945	-19028	0,70262	9778	23147	-13370	-69713
1984	20678	33331	-12653	0,58895	12178	19630	-7452	-77165
1985	24368	31125	-6758	0,49367	12029	15365	-3336	-80501
1986	28589	28919	-331	0,41381	11830	11967	-136	-80638
1987	32810	18627	14183	0,34686	11380	6461	4920	-75719
1988	36117	7532	28584	0,29075	10501	2190	8311	-67408
1989	39527	3409	36117	0,24371	9633	830	8802	-58606
1990	43600	1636	41964	0,20428	8906	334	8573	-50033
1991	46691	0	46691	0,17124	7995	0	7995	-42038
1992	49046	0	49046	0,14353	7039	0	7040	-34998
1993	52159	0	52159	0,12031	6275	0	6275	-28723
1994	55997	0	55997	0,10085	5647	0	5647	-23075
1995	57496	0	57496	0,08453	4860	0	4860	-18215
1996	57191	0	57191	0,07086	4052	0	4052	-14162
1997	57347	0	57347	0,05940	3406	0	3406	-10756
1998	58864	0	58864	0,04979	2930	0	2931	-7826
1999	57203	0	57203	0,04173	2387	0	2387	-5438
2000	58845	0	58845	0,03498	2058	0	2058	-3380
2001	60993	0	60993	0,02932	1788	0	1788	-1592
2002	39027	0	39027	0,02458	959	0	959	-632
2003	21230	0	21230	0,02060	437	0	437	-195
2004	17908	0	17908	0,01727	309	0	309	11,4
2005	0	0	0	0,01448	0	0	0	

Remarks & Sources

1)~8): Refer to Table V-1-4.

Table v-3-1 Case 2-1A, Cost of Vessels

TIME	1) FRBCD	2) PKBCD (US\$1,000)	3) COFED	4) TBICO (US\$1,000)	5) IRR (%)
1978	0	0	0	0	59,0
1979	0	0	0	0	59,0
1980	0	0	0	0	59,0
1981	0	0	0	0	59,0
1982	56000	14000	605	70605	59,0
1983	59500	10500	1002	71002	59,0
1984	49000	10500	593	60093	59,0
	3500	10500	0	14000	59,0
	0	10500	0	10500	59,0
	0	0	0	0	59,0

Remarks & Sources

<Calculation based on 16 newly built vessels 1)~5): Refer to Table V-1-1. with no price increased applied> IRR: 5.9%

Table V-3-2 (1) Case 2-1A, Repayment of Loan & Interest

TIME	Unit (US\$1,000)							
	1) PLN9F	2) BL79	3) TLN79F	4) PIN79F	5) PLN80F	6) BL80	7) TLN80F	8) PIN80F
1978	0	0	0	0	0	0	0	0
1979	0	70605	0	0	0	0	0	0
1980	10086	60519	10086	6425	0	71002	0	0
1981	10086	50432	20173	5507	10143	60858	10143	6461
1982	10086	40346	30259	4589	10143	50716	20286	5538
1983	10086	30259	40346	3671	10143	40572	30429	4616
1984	10086	20173	50432	2753	10143	30429	40572	3692
1985	10086	10086	60519	1835	10143	20286	50715	2769
1986	10086	0	70605	917	10143	10143	60858	1846
1987	0	0	0	0	10143	0	71001	923
1988	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0

Table V-3-2 (2) Case 2-1A, Repayment of Loan & Interest

TIME	Unit (US\$1,000)							
	9) PLN81F	10) BL81	11) TLN81F	12) PIN81F	13) PLN82F	14) BL82	15) TLN82F	16) PIN82F
1978	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0
1981	0	60093	0	0	0	0	0	0
1982	8584	51508	8584	5468	0	14000	0	0
1983	8584	42923	17169	4687	2000	12000	2000	127400
1984	8584	34339	25754	3906	2000	10000	4000	109200
1985	8584	25754	34339	3124	2000	8000	6000	91000
1986	8584	17169	42923	2343	2000	6000	8000	72800
1987	8584	8584	51508	1562	2000	4000	10000	54600
1988	8584	0	60093	781	2000	2000	12000	36400
1989	0	0	0	0	2000	0	14000	18200
1990	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0

Table V-3-2 (3) Case 2-1A, Repayment of Loan & Interest

TIME	Unit (US\$1,000)						
	17) PLN83F	18) BL83	19) TLN83F	20) PIN83F	21) PLN	22) PIN	23) PCL I
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	10086	6425	16511
1981	0	0	0	0	20229	11968	32198
1982	0	0	0	0	28814	15596	44410
1983	0	10500	0	0	30814	14247	45062
1984	1500	9000	1500	956	32314	12399	44713
1985	1500	7500	3000	819	32314	9458	41773
1986	1500	6000	4500	682	32314	6518	38832
1987	1500	4500	6000	546	22227	3577	25805
1988	1500	3000	7500	409	12084	1554	13639
1989	1500	1500	9000	273	3500	455	3955
1990	1500	0	10500	136	1500	136	1636
1991	0	0	0	0	0	0	0

Remarks & Sources

1)~23): Refer to Table V-1-2.

Table V-3-3 (1) Case 2-1A, Earning

TIME	Unit (US\$1,000)							
	1) RIY80	2) RIY81	3) RIY82	4) RIY83	5) RIERN	6) R2Y60	7) R2Y81	8) R2Y82
1978	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0
1981	262	0	0	0	262	3588	0	0
1982	242	262	0	0	504	3894	3588	0
1983	498	242	131	0	871	4204	3894	1794
1984	560	498	121	131	1310	4006	4204	1947
1985	718	560	249	121	1648	4788	4406	2102
1986	844	718	280	249	2091	6120	4788	2203
1987	948	844	359	280	2431	6394	6120	2394
1988	816	948	422	369	2545	5140	5394	2560
1989	896	816	474	422	2608	5272	5140	2697
1990	870	896	408	474	2648	5288	5272	2570
1991	866	870	448	408	2592	5293	5288	2636
1992	670	866	435	448	2419	4924	5298	2644
1993	744	670	433	435	2282	5076	4924	2649
1994	642	744	335	433	2154	4962	5076	2462
1995	528	642	372	335	1877	4744	4962	2538
1996	206	528	321	372	1427	4098	4744	2481
1997	218	206	264	321	1009	4092	4098	2372
1998	110	218	103	264	695	3870	4092	2049
1999	-28	110	109	103	294	3576	3870	2046
2000	154	-28	55	109	290	3380	3576	1935
2001	1050	154	-14	55	1245	3050	3380	1788
2002	0	1050	77	-14	1113	0	3050	1690
2003	0	0	525	77	602	0	0	1525
2004	0	0	0	525	525	0	0	0
2005	0	0	0	0	0	0	0	0

Table V-3-3 (2) Case 2-1A, Earning

TIME	Unit (US\$1,000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	7482	1485	4059	0	0	5544
1983	0	9892	1599	4455	0	0	6054
1984	1794	12351	1688	4797	0	0	6485
1985	1947	13243	1888	5064	0	0	6952
1986	2102	14213	1974	5664	0	0	7638
1987	2203	15111	2053	5922	0	0	7975
1988	2394	15488	1987	6159	0	0	8146
1989	2560	15669	2058	5961	0	0	8019
1990	2697	15827	2073	6174	0	0	8247
1991	2570	15792	2079	6219	0	0	8298
1992	2636	15502	1924	6237	0	0	8161
1993	2644	15293	1989	5772	0	0	7761
1994	2649	15149	1916	5967	0	0	7883
1995	2462	14706	1808	5748	0	0	7656
1996	2538	13861	1512	5424	0	0	6036
1997	2481	13043	1490	4536	0	0	6026
1998	2372	12383	1391	4470	0	0	5861
1999	2049	11541	1244	4173	0	0	5417
2000	1046	10937	1148	3732	0	0	4880
2001	1935	10153	525	3444	0	0	3969
2002	1788	6528	0	1575	0	0	1575
2003	1690	3215	0	0	0	0	0
2004	1525	1525	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources

1)~15): Refer to Table V-1-3.

Table V-3-4 Case 2-1A, Projected Internal Rate of Return

TIME	1) ERN	2) PCL1 (US\$1,000)	3) CSHFLW	4) DISFAC (Rate)	5) EPV	6) PPV (US\$1,000)	7) CFPRVL (US\$1,000)	8) TCFPV
1975	0	0	0	1.41051	0	0	0	0
1976	0	0	0	1.33192	0	0	0	0
1977	0	0	0	1.25772	0	0	0	0
1978	0	0	0	1.18765	0	0	0	0
1979	0	0	0	1.12148	0	0	0	0
1980	0	16511	-16511	1.05900	0	17485	-17490	-17486
1981	520	32198	-26995	1.00000	5203	32198	-17000	-44481
1982	1353	44410	-30880	0.94429	12776	41936	-29160	-73641
1983	1681	45062	-28245	0.89168	14995	40181	-25190	-98827
1984	2014	44713	-24567	0.84200	16962	37648	-20690	-119513
1985	2184	41773	-19930	0.79509	17367	33213	-15850	-135359
1986	2394	38832	-14890	0.75079	17975	29155	-11180	-146539
1987	2551	25805	-288	0.70896	18090	18295	-204	-146743
1988	2617	13639	12539	0.66947	17525	9131	8395	-138348
1989	2629	3955	22341	0.63217	16623	2500	14120	-124225
1990	2672	1636	25085	0.59695	15951	976	14970	-109250
1991	2668	0	26682	0.56369	15040	0	15040	-94210
1992	2608	0	26082	0.53229	13883	0	13880	-80327
1993	2533	0	25336	0.50263	12734	0	12730	-67592
1994	2518	0	25186	0.47463	11954	0	11950	-55638
1995	-2413	0	24139	0.44818	10818	0	10820	-44819
1996	2222	0	22224	0.42321	9405	0	9406	-35414
1997	2007	0	20078	0.39964	8023	0	8024	-27390
1998	1893	0	18939	0.37737	7147	0	7147	-20243
1999	1725	0	17252	0.35635	6147	0	6148	-14095
2000	1610	0	16107	0.33649	5419	0	5420	-8675
2001	1636	0	15367	0.31775	4482	0	4883	-3793
2002	921	0	9216	0.30004	2765	0	2765	-1027
2003	831	0	3817	0.28333	1081	0	1081	54
2004	205	0	2050	0.26754	548	0	548	603
2005	0	0	0	0.25264	0	0	0	0

Remarks & Sources

1)~8): Refer to Table V-1-4.

Table V-4-1 Case 2-1B, Cost of Vessels

TIME	1) FRBCD	2) PKBCD (US\$1,000)	3) COFED	4) TBICO	5) IPR (%)
1978			0	0	18
1979	56000	14000	605	70605	18
1980	59500	10500	1002	61002	18
1981	49000	10500	593	60093	18
1982	3500	10500	0	14000	18
1983	0	10500	0	10500	18
1984	0	0	0	0	18

Remarks & Sources

<Calculation based on 16 newly-built vessels
with 8% price increase applied> IRR: 18.0%

1)~5): Refer to Table V-1-1.

Table V-4-3 (1) Case 2-1B, Earning

TIME	Unit (US\$1,000)							
	1) RIY80	2) RIY81	3) RIY82	4) RIY83	5) RIERN	6) R2Y80	7) R2Y81	8) R2Y82
1980	0	0	0		0	0	0	0
1981	262	0	0		262	3588	0	0
1982	261	282	0		544	4205	3875	0
1983	580	282	162		1015	4903	4542	2092
1984	705	627	152	165	1650	5550	5295	2452
1985	976	761	338	164	2242	6514	5994	2859
1986	1240	1054	411	365	3072	7523	7035	3236
1987	1504	1339	569	444	3857	8559	8124	3799
1988	1398	1624	623	615	4361	8809	9244	4387
1989	1658	1510	877	781	4827	9758	9513	4992
1990	1739	1791	815	947	5293	10570	10538	5137
1991	1869	1878	967	880	5595	11438	11416	1690
1992	1562	2019	1014	1044	5640	11481	12353	6164
1993	1873	1687	1090	1095	1746	12782	12399	6670
1994	1746	2023	911	1177	5858	13494	13804	6695
1995	1550	1885	1092	983	5513	13934	14574	7454
1996	653	1674	1018	1180	4526	12999	15048	7870
1997	647	605	904	1099	3456	14019	14039	8126
1998	407	806	381	976	2571	14319	15140	7581
1999	-111	439	435	411	1174	14289	15464	8175
2000	664	-120	237	470	1251	14587	15432	8350
2001	4894	717	-65	256	5802	14215	15754	8333
2002	0	5285	387	-70	5602	0	15353	8507
2003	0	0	2854	418	3272	0	0	8290
2003	0	0	2854	418	3272	0	0	0
2004	0	0	0	3082	0	0	0	8954
2005	0	0	0		0	0	0	0

Table V-4-3 (2) Case 2-1B, Earning

TIME	(US\$1,000)						
	9) R2Y83	R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	8081	1603	4383	0	0	5988
1983	0	11538	1865	5196	0	0	7061
1984	2259	15559	2126	6042	0	0	8169
1985	2648	18017	2568	6889	0	0	9458
1986	3088	20884	2900	8322	0	0	11223
1987	2395	23977	3257	9397	0	0	12655
1988	4102	26544	3405	10555	0	0	13961
1989	4738	29002	3809	11033	0	0	14843
1990	5391	31638	4143	12341	0	0	16486
1991	5548	34094	4488	13426	0	0	17915
1992	6146	36145	4486	14542	0	0	19028
1993	6658	38510	5008	14534	0	0	19544
1994	7204	41200	5210	16228	0	0	21439
1995	7231	43194	5310	16883	0	0	22193
1996	8051	43969	4796	17205	0	0	22002
1997	8499	44685	5104	15540	0	0	20645
1998	8776	45817	5146	16539	0	0	21686
1999	8187	46118	4971	16675	0	0	21646
2000	8829	47201	4954	16106	0	0	21061
2001	9018	47323	2447	16052	0	0	18499
2002	9000	32861	0	7928	0	0	7928
2003	9187	17478	0	0	0	0	0
2004	8954	8954	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources

1)~15): Refer to Table V-1-3.

Table V-4-4 Case 2-1B, Projected Internal Rate of Return

TIME	1) ERN	2) PLLI (US\$1,000)	3) LSHFLW	4) DISFAC Rate	5) EPV	6) PPV	7) CFPRVL	8) TCFPV (US\$1,000)
1975	0	0	0	2.69955	0	0	0	0
1976	0	0	0	2.28776	0	0	0	0
1977	0	0	0	1.93878	0	0	0	0
1978	0	0	0	1.74303	0	0	0	0
1979	0	0	0	1.39240	0	0	0	0
1980	0	16511	-16512	1.18000	0	19483	-19480	0
1981	5203	32198	-26995	1.00000	5203	32198	-27000	-19484
1982	14612	44410	-29798	0.84746	12383	37636	-25250	-46479
1983	19615	45062	-25447	0.71818	14087	32363	-18280	-71731
1984	25378	44713	-19336	0.60863	15446	27214	-11770	-90007
1985	29717	41773	-12056	0.51579	15327	21546	-6218	-101775
1986	35179	38832	-3654	0.43711	15376	16974	-1597	-107994
1987	40492	25805	14687	0.37043	14999	9559	-5440	-109591
1988	44866	13639	31227	0.31393	14084	4281	9803	-104150
1989	48672	3955	44717	0.26604	12948	1052	11900	-94347
1990	53417	1636	41781	0.22546	12043	369	11670	-82451
1991	57604	0	57604	0.19106	11006	0	11010	-70777
1992	60814	0	60814	0.16192	9846	0	9847	-59770
1993	63800	0	63800	0.13722	8754	0	8755	-49923
1994	68496	0	68496	0.11629	7965	0	7965	-41169
1995	70901	0	70901	0.09855	6987	0	6987	-33204
1996	70498	0	70498	0.08362	5887	0	5888	-26216
1997	68786	0	68786	0.07078	4868	0	4868	-20329
1998	70075	0	70075	0.05998	4203	0	4203	-15460
1999	68939	0	68939	0.05083	3504	0	3504	-11257
2000	69513	0	69513	0.04308	2994	0	2994	-7753
2001	71625	0	71625	0.03651	2614	0	2615	-4758
2002	46392	0	46392	0.03094	1435	0	1435	-2144
2003	20751	0	20751	0.02622	544	0	544	-709
2004	12036	0	12036	0.02222	267	0	267	-164
2005	0	0	0	0.01883	0	0	0	10.3

Remarks & Sources

1)~8): Refer to Table V-1-4.

Table V-5-1 Case 2-2A, Cost of Vessels

TIME	1) FRBLD	2) PKBCD	3) CQFED	4) TBICQ	IRR (%)
	US\$1000				
1978	0	0	0	0	7.8
1979	56000	14000	605	70605	7.8
1980	59500	10500	1002	71002	7.8
1981	49000	10500	593	60093	7.8
1982	3500	10500	0	14000	7.8
1983	0	10500	0	10500	7.8
1984	0	0	0	0	7.8

Remarks & Sources <Calculation based on 16 newly built vessels with no price increases> IRR=7.8%
1) ~ 5) : Refer to Table V-1-1

Table V-5-2 (1) Case 2-2A, Repayment of Loan & Interest

TIME	1) PLN79F	2) BL79	3) TLN79F	4) PIN79F	5) PLN80F	6) BL80	7) TLN80F	8) PIN80F
	Unit (US\$1000)							
1978	0	0	0	0	0	0	0	0
1979	0	70605	0	0	0	0	0	0
1980	10086	60519	10086	6425	0	71002	0	0
1981	10086	50432	20173	5507	10143	60858	10143	6461
1982	10086	40346	30259	4589	10143	50716	20286	5538
1983	10086	30259	40346	3671	10143	40572	30429	4615
1984	10086	20173	50432	2753	10143	30429	40572	3692
1985	10086	10086	60519	1835	10143	20286	50716	2769
1986	10086	0	70605	917	10143	10143	60858	1846
1987	0	0	0	0	10143	0	71001	923
1988	0	0	0	0	0	0	0	0

Table V-5-2 (2) Case 2-2A, Repayment of Loan & Interest

TIME	9) PLN81F	10) BL81	11) PIN81F	12) PLN82F	13) PLN82F	14) BL82	15) TLN82F	16) PIN82N
	Unit (US\$1000)							
1980	0	0	0	0	0	0	0	0
1981	0	60093	0	0	0	0	0	0
1982	8584	51508	8584	5468	0	14000	0	0
1983	8584	42923	17169	4687	2000	12000	2000	1274
1984	8584	34339	25754	3906	2000	10000	4000	1092
1985	8584	25754	34339	3124	2000	8000	6000	910
1986	8584	17169	42923	2343	2000	6000	8000	728
1987	8584	8584	51508	1662	2000	4000	10000	546
1988	8584	0	60093	781	2000	2000	12000	364
1989	0	0	0	0	2000	0	14000	182
1990	0	0	0	0	0	0	0	0

Table V-5-2 (3) Case 2-2A, Repayment of Loan & Interest

TIME	17) PLN83F	18) BL83	19) TLN83F	20) PIN83F	21) PLN	22) PIN	23) PCLI
1979	0	0	0	0	0	0	0
1980	0	0	0	0	10086	6425	16511
1981	0	0	0	0	20229	11968	32198
1982	0	0	0	0	28814	15596	44410
1983	0	10500	0	0	30814	14247	45062
1984	1500	9000	1500	955	32314	12399	44713
1985	1500	7500	3000	819	32314	9458	41773
1986	1500	6000	4500	682	32314	6518	38832
1987	1500	4500	6000	546	22227	3577	25805
1988	1500	3000	7500	409	12084	1554	13639
1989	1500	1500	9000	273	3500	455	3965
1990	1500	0	10500	135	1500	136	1636
1991	0	0	0	0	0	0	0

Remarks & Sources 1) ~ 23) : Refer to Table V-1-2

Table V-5-3 (1) Case 2-2A, Earning

TIME	Unit (US\$1000)							
	1) R1Y80	2) R1Y81	3) R1Y82	4) R1Y83	5) R1ERN	6) R2Y80	7) R2Y81	8) R2Y82
1980	0	0	0	0	0	0	0	0
1981	262	0	0	0	262	3588	0	0
1982	242	262	0	0	504	3894	5382	0
1983	498	242	0	0	740	4204	5841	3588
1984	560	498	0	131	1189	4406	6306	3894
1985	718	560	0	121	1399	4788	6609	4204
1986	844	718	0	249	1811	5120	7182	4406
1987	948	844	0	280	2072	5394	7680	4788
1988	816	948	0	359	2123	5140	8091	5120
1989	896	816	0	422	2134	5272	7710	5394
1990	870	896	0	474	2240	5288	7908	5140
1991	866	870	0	408	2144	5298	7932	5272
1992	670	866	0	448	1984	4924	7947	5288
1993	744	670	0	435	1849	5076	7386	5298
1994	642	744	0	433	1819	4962	7614	4924
1995	528	642	0	335	1505	4744	7443	5076
1996	206	528	0	372	1106	4098	7116	4962
1997	218	206	0	321	745	4092	6147	4744
1998	110	218	0	264	592	3870	6138	4098
1999	-28	110	0	103	185	3576	5805	4092
2000	154	-28	0	109	235	3380	5364	3870
2001	1050	154	0	55	1259	3050	5070	3576
2002	0	1050	0	-14	1036	0	4575	3380
2003	0	0	0	77	77	0	0	3050
2004	0	0	0	525	525	0	0	0
2005	0	0	0	0	0	0	0	0

Table V-5-3 (2) Case 2-2A, Earning

TIME	Unit (US\$ 1000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1980	0	00	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	9276	1485	2706	0	0	4191
1983	0	13633	1599	2970	0	0	4569
1984	1794	16400	1688	3198	0	0	4886
1985	1947	17548	1888	3376	0	0	5264
1986	2102	18810	1974	3776	0	0	5750
1987	2203	20065	2053	3948	0	0	6001
1988	2394	20745	1987	4106	0	0	6093
1989	2560	20936	2058	3974	0	0	6032
1990	2697	21033	2073	4116	0	0	6189
1991	2570	21072	2079	4146	0	0	6225
1992	2636	20795	1924	4158	0	0	6082
1993	2644	20404	1989	3848	0	0	5837
1994	2649	20149	1916	3978	0	0	5894
1995	2462	19729	1808	3832	0	0	5640
1996	2538	18714	1512	3616	0	0	5128
1997	2481	17464	1490	3024	0	0	4514
1998	2372	16478	1391	2980	0	0	4371
1999	2049	15522	1244	2782	0	0	4026
2000	2046	14660	1148	2488	0	0	3636
2001	1935	13631	525	2296	0	0	2821
2002	1788	9743	0	1050	0	0	1050
2003	1690	4740	0	0	0	0	0
2004	1525	1525	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources 1) ~ 15) : Refer to table V-1-3

Table V-5-4 Case 2-2A, Projected Internal Rate of Return

TIME	1) ERN	2) PCLI (US\$1,000)	3) CSHELW	4) DISFAC Rate	5) EPV	6) PPV (US\$1,000)	7) CFPRVL (US\$1,000)	8) TCFPV
1975	0	0	0	1.56932	0	0	0	0
1976	0	0	0	1.45577	0	0	0	0
1977	0	0	0	1.35044	0	0	0	0
1978	0	0	0	1.25273	0	0	0	0
1979	0	0	0	1.16208	0	0	0	0
1980	0	16511	-16511	1.07800	0	17799	-17800	0
1981	5203	32198	-26995	1.00000	5203	32198	-27000	-17800
1982	13971	44410	-30439	0.92764	12960	41197	-28240	-44795
1983	18942	45062	-26120	0.86052	16300	38777	-22480	-73032
1984	22475	44713	-22238	0.79826	17940	35693	-17750	-95509
1985	24211	41773	-17562	0.74050	17928	30933	-13000	-113261
1986	26371	38832	-12461	0.68892	18114	26674	-8560	-126266
1987	28138	26805	2332	0.63722	17930	16443	1486	-134826
1988	28961	13639	15321	0.59111	17119	8062	9057	-133339
1989	29102	3955	25147	0.54834	15957	2168	13790	-124283
1990	29462	1636	27825	0.50866	14986	832	14150	-110494
1991	29441	0	29441	0.47186	13892	0	13890	-96340
1992	28861	0	28861	0.43772	12633	0	12630	-82448
1993	28090	0	28090	0.40605	11405	0	11410	-69815
1994	27862	0	27862	0.37667	10494	0	10490	-58409
1995	26870	0	26870	0.34941	9388	0	9389	-47914
1996	24948	0	24948	0.32413	8086	0	8086	-38526
1997	22723	0	22723	0.30068	6832	0	6832	-30439
1998	21441	0	21441	0.27892	5980	0	5980	-23607
1999	19733	0	19733	0.25874	5105	0	5106	-17627
2000	18531	0	18531	0.24002	4447	0	4448	-12621
2001	17711	0	17711	0.22265	3943	0	3943	-8073
2002	11829	0	11829	0.20654	2443	0	2443	-4130
2003	4817	0	4817	0.19160	922	0	922	-1687
2004	2050	0	2050	0.17773	364	0	364	-764
2005	0	0	0	0.16487	0	0	0	-399

Remarks & Sources 1)~8) : Refer to Table V-1-4

Table V-6-1 Case 2-2B, Cost of Vessels

TIME	1) FRBCD	2) PKBCD	3) CQFED (US\$1,000)	4) TBICQ	5) IRR (%)
1978	0	0	0	0	20.1
1979	56000	14000	805	70605	20.1
1980	59500	10500	1002	71002	20.1
1981	49000	10500	593	60093	20.1
1982	3500	10500	0	14000	20.1
1983	0	10500	0	10500	20.1
1984	0	0	0	0	20.1

Remarks & Sources <Calculation based on 16 newly built vessels with 8% price increase> IRR = 20.1%
1)~5) : Refer to Table V-1-1

Table V-6-2 (1) Case 2-2B, Earning

TIME	1) R1Y80	2) R1Y81	3) R1Y82	4) R1Y83	5) R1ERN	6) R2Y80	7) R2Y81	8) R2Y82
	Unit (US\$1,000)							
1980	0	0	0	0	0	0	0	0
1981	262	0	0	0	262	3688	0	0
1982	261	282	0	0	544	4205	6813	0
1983	580	282	0	0	863	4903	6813	4185
1984	705	627	0	165	1497	5650	7944	4905
1985	976	761	0	164	1903	6514	8991	5719
1986	1240	1054	0	365	2661	7523	10563	6473
1987	1504	1339	0	444	3288	8559	12187	7598
1988	1398	1624	0	615	3638	8809	13867	8774
1989	1658	1510	0	781	3949	9758	14271	9983
1990	1739	1791	0	947	4477	10570	15808	10274
1991	1869	1878	0	880	4628	11438	17125	11381
1992	1562	2019	0	1044	4626	11461	18530	12329
1993	1873	1687	0	1095	4656	12782	18599	13341
1994	1746	2023	0	1177	4947	13494	20707	13391
1995	1550	1885	0	983	4420	13934	21862	14909
1996	653	1674	0	1180	3508	12999	22573	15740
1997	746	705	0	1099	2552	14019	21059	16252
1998	407	806	0	976	2190	14319	22711	15162
1999	-111	439	0	411	739	14289	23197	16351
2000	664	-120	0	470	1014	14587	23149	16701
2001	4894	717	0	256	5868	14216	23621	16667
2002	0	5285	0	-70	5215	0	23030	17014
2003	0	0	0	418	418	0	0	16581
2004	0	0	0	3082	3082	0	0	0
2005	0	0	0	0	0	0	0	0

Table V-6-2 (2) Case 2-2B, Earning

TIME	Unit (US\$1,000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	10018	1603	2922	0	0	4526
1983	0	15902	1865	3464	0	0	5329
1984	2259	20659	2126	4028	0	0	6154
1985	2648	23874	2568	4593	0	0	7161
1986	3088	27638	2900	5548	0	0	8448
1987	3495	31841	3257	6265	0	0	9522
1988	4102	35553	3405	7037	0	0	10442
1989	4738	38751	3809	7355	0	0	11164
1990	5391	42045	4143	8227	0	0	12371
1991	5548	45493	4488	8950	0	0	13439
1992	6146	48486	4486	9695	0	0	14181
1993	6658	51381	5008	9689	0	0	14698
1994	7204	54798	5210	10818	0	0	16029
1995	7231	57936	5310	11255	0	0	16565
1996	8051	59364	4796	11470	0	0	16266
1997	8499	58831	5104	10360	0	0	15464
1998	8776	60969	5146	11026	0	0	16172
1999	8187	62026	4971	11116	0	0	16088
2000	8829	63268	4954	10737	0	0	15691
2001	9018	63533	2447	10701	0	0	13148
2002	9000	49045	0	5285	0	0	5285
2003	9187	25769	0	0	0	0	0
2004	8954	8954	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources 1)~15) : Refer to Table V-1-3

Table V-6-3 Case 2-2B, Projected Internal Rate of Return

TIME	1) ERN	2) PCLI	3) CSHFLW	4) DISFAC	5) EPV	6) PPV	7) CFPRVL	8) TCFPV
		(US\$1,000)		RATE		(US\$1,000)		
1975	0	0	0	3.00094	0	0	0	0
1976	0	0	0	2.49870	0	0	0	0
1977	0	0	0	2.08052	0	0	0	0
1978	0	0	0	1.73232	0	0	0	0
1979	0	0	0	1.44240	0	0	0	0
1980	0	16511	-16512	1.20100	0	19830	-19830	0
1981	5203	32198	-26995	1.00000	5203	32198	-27000	-19830
1982	15089	44410	-29322	0.83264	12563	36977	-24410	-46826
1983	22094	45062	-22968	0.69329	15317	31241	-15920	-71240
1984	28312	44713	-16402	0.57726	16343	25811	-9468	-87164
1985	32939	41773	-8834	0.48065	15832	20078	-4246	-96632
1986	38748	38832	-85	0.40021	15507	15541	-33	-100878
1987	44651	25805	18846	0.33323	14879	8599	6280	-100912
1988	49634	13639	35995	0.27746	13771	3784	9987	-94632
1989	53866	3955	49911	0.23102	12444	913	11530	-84645
1990	58896	1636	57258	0.19236	11328	314	11010	-73114
1991	63561	0	63561	0.16017	10180	0	10180	-62100
1992	67293	0	67293	0.13336	8974	0	8974	-51920
1993	70735	0	70735	0.11104	7854	0	7855	-42946
1994	75774	0	75774	0.09246	7005	0	7006	-35091
1995	78922	0	78922	0.07698	6075	0	6076	-28085
1996	79139	0	79139	0.06410	5072	0	5073	-22009
1997	77848	0	77848	0.05337	4154	0	4155	-16937
1998	79332	0	79332	0.04444	3525	0	3525	-12782
1999	78853	0	78853	0.03700	2917	0	2918	-9256
2000	79974	0	79974	0.03081	2464	0	2464	-6339
2001	82550	0	82550	0.02565	2117	0	2118	-3875
2002	59545	0	59545	0.02136	1271	0	1272	-1757
2003	26188	0	26188	0.01778	465	0	465	-485
2004	12036	0	12036	0.01481	178	0	178	-19
2005	0	0	0	0.01233	0	0	0	159

Remarks & Sources 1)~8) : Refer to Table V-1-4

Table V-7-1 Case 3A, Cost of Vessels

TIME	1) FRBCD	2) PKBCD	3) COFED (US\$1,000)	4) TBICO	5) IRR (%)
1978	0	0	0	0	7.4
1979	66500	14000	605	81105	7.4
1980	59500	10500	1002	71002	7.4
1981	63000	10500	983	74483	7.4
1982	21000	10500	0	31500	7.4
1983	0	10500	0	10500	7.4
1984	0	0	0	0	7.4

Remarks & Sources <Calculation based on 19 newly built vessels with no price increase applied> IRR: 7.4%
1)~5) : Refer to Table V-1-1.

Table V-7-2 (1) Case 3A, Repayment of Loan & Interest

TIME	1) PLN79F	2) BL79	3) TLN79F	4) PIN79F	5) PLN80F	6) BL80	7) TLN80F	8) PIN80F
1979	0	81105	0	0	0	0	0	0
1980	11586	69519	11586	7380	0	71002	0	0
1981	11586	57932	23173	6326	10143	60858	10143	6461
1982	11586	46346	34759	5271	10143	50715	20286	5538
1983	11586	34759	46346	4217	10143	40572	30429	4615
1984	11586	23173	57932	3163	10143	30429	40572	3692
1985	11586	11586	69519	2108	10143	20286	50715	2769
1986	11586	0	81105	1054	10143	10143	60858	1846
1987	0	0	0	0	10143	0	71001	923
1988	0	0	0	0	0	0	0	0

Table V-7-2 (2) Case 3A, Repayment of Loan & Interest

TIME	9) PLN81F	10) BL81	11) TLN81F	12) PIN81F	13) PLN82F	14) BL82	15) TLN82F	16) PIN82F
1981	0	74483	0	0	0	0	0	0
1982	10640	63843	10640	6777	0	31500	0	0
1983	10640	53202	21281	5809	4500	27000	4500	2866
1984	10640	42562	31921	4841	4500	22500	9000	2457
1985	10640	31921	42562	3873	4500	18000	13500	2047
1986	10640	21281	53202	2904	4500	13500	18000	1638
1987	10640	10640	63843	1936	4500	9000	22500	1228
1988	10640	0	74483	968	4500	4500	27000	819
1989	0	0	0	0	4500	0	31500	409
1990	0	0	0	0	0	0	0	0

Table V-7-2 (3) Case 3A, Repayment of Loan & Interest

TIME	17) PLN83F	18) BL83	19) TIN83F	20) PIN83F	21) PLN	22) PIN	23) PCL I
1979	0	0	0	0	0	0	0
1980	0	0	0	0	11586	7380	18967
1981	0	0	0	0	21729	12787	34517
1982	0	0	0	0	32370	17588	49958
1983	0	10500	0	0	36870	17508	54379
1984	1500	9000	1500	955	38370	15109	53479
1985	1500	7500	3000	819	38370	11617	49988
1986	1500	6000	4500	682	38370	8125	46496
1987	1500	4500	6000	546	26783	4634	31418
1988	1500	3000	7500	409	16640	2196	18837
1989	1500	1500	9000	273	6000	682	6682
1990	1500	0	10500	136	1500	136	1636
1991	0	0	0	0	0	0	0

Remarks & Sources 1)~23) : Refer to Table V-1-2.

Table V-7-3 (1) Case 3A, Earning

TIME	Unit (US\$1,000)							
	1) R1Y80	2) R1Y81	3) R1Y82	4) R1Y83	5) R1ERN	6) R2Y80	7) R2Y81	8) R2Y82
1980	0	0	0	0	0	0	0	0
1981	262	0	0	0	262	3588	0	0
1982	242	262	0	0	504	3894	3588	0
1983	498	242	262	0	1002	4204	3894	5382
1984	860	498	242	0	1300	4406	4204	5841
1985	718	560	498	0	1776	4788	4406	6306
1986	844	718	560	0	2122	5120	4788	6609
1987	948	844	718	0	2510	5394	5120	7182
1988	816	948	844	0	2608	5140	5394	7680
1989	896	816	948	0	2660	5272	5140	8091
1990	870	896	816	0	2582	5288	5272	7710
1991	866	870	896	0	2632	5298	5288	7908
1992	670	866	870	0	2406	4924	5296	7932
1993	744	670	866	0	2280	5076	4924	7947
1994	642	744	670	0	2056	4962	5076	7386
1995	528	642	744	0	1914	4744	4962	7614
1996	206	528	642	0	1376	4098	4744	7443
1997	218	206	528	0	952	4092	4098	7116
1998	110	218	206	0	534	3870	4092	6147
1999	-28	110	218	0	300	3576	3870	6138
2000	154	-28	110	0	236	3380	3576	5805
2001	1050	154	-28	0	1176	3050	3380	5364
2002	0	1050	154	0	1204	0	3050	5070
2003	0	0	1050	0	1050	0	0	4575
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0

Table V-7-3 (2) Case 3A, Earning

TIME	Unit (US\$1,000)							
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN	
1980	0	0	0	0	0	0	0	
1981	0	3588	1353	0	0	0	1353	
1982	0	7482	1485	4059	0	0	5544	
1983	0	13480	1599	4455	0	0	6054	
1984	3588	18039	1688	4797	0	0	6485	
1985	3894	19394	1888	5064	0	0	6952	
1986	4204	20721	1974	5664	0	0	7638	
1987	4406	22102	2053	5922	0	0	7975	
1988	4788	23002	1987	6159	0	0	8146	
1989	5120	23623	2058	5961	0	0	8019	
1990	5394	23664	2073	6174	0	0	8247	
1991	5140	23634	2079	6219	0	0	8298	
1992	5272	23426	1924	6237	0	0	8161	
1993	5288	23235	1989	5772	0	0	7761	
1994	5298	22722	1916	5967	0	0	7883	
1995	4924	22244	1808	5748	0	0	7556	
1996	5076	21361	1512	5424	0	0	6936	
1997	4962	20268	1490	4536	0	0	6026	
1998	4744	18853	1391	4470	0	0	5861	
1999	4098	17682	1244	4173	0	0	5417	
2000	4092	16853	1148	3732	0	0	4880	
2001	3870	15664	525	3444	0	0	3969	
2002	3576	11696	0	1575	0	0	1575	
2003	3380	7955	0	0	0	0	0	
2004	3050	3050	0	0	0	0	0	
2005	0	0	0	0	0	0	0	

Table V-7-4 Case 3A, Projected Internal Rate of Return

TIME	1) ERN	2) PCLI (US\$1,000)	3) CSHFLW	4) DISFAC Rate	5) EPV	6) PPV (US\$1,000)	7) CFPRVL (US\$1,000)	7) TCFPV
1974	0	0	0	0	0	0	0	0
1975	0	0	0	1.83471	0	0	0	0
1976	0	0	0	1.42896	0	0	0	0
1977	0	0	0	1.33051	0	0	0	0
1978	0	0	0	1.23883	0	0	0	0
1979	0	0	0	1.15348	0	0	0	0
1980	0	18967	-18967	1.07400	0	20370	-20370	-20371
1981	5203	34517	-29314	1.00000	5203	34517	-29310	-49686
1982	13530	49958	-36428	0.93110	12597	46516	-33920	-83603
1983	20536	54379	-33843	0.86694	17803	47143	-29340	-112943
1984	25824	53479	-27655	0.80721	20845	43169	-22320	-135267
1985	28122	49988	-21865	0.75159	21136	37570	-16430	-151701
1986	30481	46496	-16014	0.69981	21330	32538	-11210	-162808
1987	32587	31418	1169	0.65159	21233	20471	761	-162146
1988	33756	18837	14918	0.60669	20479	11428	9051	-153095
1989	34302	6682	27619	0.56489	19376	3774	16600	-137493
1990	34493	1636	32856	0.52597	18142	860	17280	-120211
1991	34564	0	34564	0.48973	16927	0	16930	-103284
1992	33993	0	33993	0.45599	15500	0	15500	-87784
1993	33276	0	33276	0.42457	14128	0	14130	-73656
1994	32661	0	32661	0.39532	12911	0	12910	-60745
1995	31714	0	31714	0.36808	11673	0	11670	-49071
1996	29673	0	29673	0.34272	10169	0	10170	-38902
1997	27246	0	27246	0.31910	8694	0	8694	-30208
1998	25248	0	25248	0.29712	7501	0	7502	-22706
1999	25399	0	23399	0.27665	6473	0	6473	-16233
2000	21969	0	21969	0.25758	5658	0	5659	-10574
2001	20809	0	20809	0.23984	4990	0	4991	-6583
2002	14475	0	14475	0.22331	3232	0	3232	-2351
2003	9005	0	9005	0.20792	1872	0	1872	-478
2004	3050	0	3050	0.19360	590	0	590	112
2005	0	0	0	0.18026	0	0	0	0

Remarks & Sources 1)~8) : Refer to Table V-1-4

Table V-8-1 Case 3B, Cost of Vessels

TIME	1) FRBCD	2) RKBCD	3) COFED (US\$1,000)	4) TBICO	5) IRR (%)
1978	0	0	0	0	19.80
1979	66500	14000	605	81105	19.80
1980	59500	10500	1002	71002	19.80
1981	63000	10500	983	74483	19.80
1982	21000	10500	0	31500	19.80
1983	0	10500	0	10500	19.80
1984	0	0	0	0	19.80

Remarks & Sources <Calculation based on 19 newly built vessels with 8% price increase applied> IRR: 19.8%
1)~5) : Refer to Table V-1-1.

Table V-8-3 (1) Case 3B, Earning

TIME	Unit (US\$1,000)							
	1) R1Y80	2) R1Y81	3) R1Y82	4) R1Y83	5) R1ERN	6) R2Y80	7) R2Y81	8) R2Y82
1978	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0
1981	262	0	0	0	26	3588	0	0
1982	261	282	0	0	54	4205	3875	0
1983	580	282	305	0	116	4903	4542	6278
1984	705	627	304	0	163	5550	5295	7358
1985	976	761	677	0	241	6514	5994	8579
1986	1240	1054	822	0	311	7523	7035	9711
1987	1504	1339	1139	0	398	8559	8124	11397
1988	1398	1624	1446	0	446	8809	9244	13162
1989	1658	1510	1754	0	492	9758	9513	14976
1990	1739	1791	1631	0	516	10570	10538	15412
1991	1869	1878	1934	0	568	11438	11416	17073
1992	1562	2019	2028	0	560	11481	12353	18495
1993	1873	1687	2180	0	574	12782	12399	20012
1994	1746	2023	1822	0	559	13494	13804	20087
1995	1550	1885	2185	0	562	13934	14574	22364
1996	653	1674	2036	0	436	12999	15048	23610
1997	746	705	1808	0	326	14019	14039	24379
1998	407	806	762	0	197	14319	15140	22744
1999	-111	439	871	0	119	14289	15464	24528
2000	664	-120	474	0	101	14587	15432	25053
2001	4894	717	-130	0	548	14215	15754	25001
2002	0	5285	775	0	606	0	15353	25522
2003	0	0	5708	0	570	0	0	24872
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0

Table V-8-3 (2) Case 3B, Earning

TIME	Unit (US\$1,000)						
	9) R2Y83	10) R2ERN	11) R3Y80	12) R3Y81	13) R3Y82	14) R3Y83	15) R3ERN
1978	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0
1981	0	3588	1353	0	0	0	1353
1982	0	8081	1603	4383	0	0	5988
1983	0	15723	1865	5196	0	0	7061
1984	4519	22724	2126	6042	0	0	8169
1985	5297	26385	2568	6889	0	0	9458
1986	6177	30446	2900	8322	0	0	11223
1987	6991	35073	3257	9397	0	0	12655
1988	8205	39421	3405	10555	0	0	13961
1989	9476	43724	3809	11033	0	0	14843
1990	10782	47304	4143	12341	0	0	16486
1991	11096	51024	4488	13426	0	0	17915
1992	12292	54621	4486	14542	0	0	19028
1993	13316	58510	5008	14534	0	0	19544
1994	14408	61795	5210	16228	0	0	21439
1995	14462	65335	5310	16883	0	0	22193
1996	16101	67761	4796	17205	0	0	22002
1997	16999	69437	5104	15540	0	0	20645
1998	17552	69756	5146	16539	0	0	21686
1999	16375	70658	4971	16675	0	0	21646
2000	17659	72732	4954	16106	0	0	21061
2001	18037	73009	2447	16052	0	0	18499
2002	18001	58876	0	7928	0	0	7928
2003	18375	43248	0	0	0	0	0
2004	17907	17908	0	0	0	0	0
2005	0	0	0	0	0	0	0

Remarks & Sources 1)~15) : Refer to Table V-1-3.

Table V-8-4 Case 3B, Projected Internal Rate of Return

TIME	1) ERN	2) PCLI	3) CSHFLW	4) DISFAC	5) EPV	6) PPV	7) CFPRVL	8) TCFPV
		(US\$1,000)		Rate		(US\$1,000)		
1975	0	0	0	2.95625	0	0	0	0
1976	0	0	0	2.46765	0	0	0	0
1977	0	0	0	2.05981	0	0	0	0
1978	0	0	0	1.71937	0	0	0	0
1979	0	0	0	1.43520	0	0	0	0
1980	0	18967	-18967	1.19800	0	22722	-22720	-22723
1981	5203	34517	-29314	1.00000	5203	34517	-29310	-52037
1982	14612	49958	-35346	0.83472	12197	41701	-29500	-81541
1983	23953	54379	-30426	0.69677	16689	37889	-21200	-102740
1984	32531	53479	-20948	0.58161	18920	31103	-12180	-114924
1985	38260	49988	-11728	0.48548	18574	24368	-5694	-120618
1986	44787	46496	-1709	0.40524	18149	18842	-692	-121310
1987	51711	31418	20294	0.33827	17492	10627	6865	-114446
1988	57852	18837	39015	0.28236	16335	5318	11020	-103430
1989	63491	6682	56808	0.23569	14964	1575	13390	-90040
1990	68952	1636	67315	0.19674	13565	322	13240	-76797
1991	74621	0	74621	0.16422	12254	0	12250	-64542
1992	79259	0	79259	0.13708	10864	0	10860	-53678
1993	83795	0	83795	0.11442	9588	0	9588	-44089
1994	88826	0	88826	0.09551	8484	0	8484	-35605
1995	93150	0	93150	0.07973	7426	0	7427	-28179
1996	94128	0	94128	0.06655	6264	0	6264	-21915
1997	93343	0	93343	0.05555	5185	0	5185	-16729
1998	93418	0	93418	0.04637	4331	0	4332	-12398
1999	93503	0	93503	0.03871	3619	0	3619	-8778
2000	94812	0	94812	0.03231	3063	0	3063	-5715
2001	96990	0	96990	0.02697	2615	0	2616	-3100
2002	72865	0	72865	0.02251	1640	0	1640	-1459
2003	48956	0	48956	0.01879	919	0	919	-539
2004	17908	0	17908	0.01569	280	0	280	-258
2005	0	0	0	0.01309	0	0	0	0

Remarks & Sources 1)~8) : Refer to Table V-1-4.

Table V-9-1: Projected Foreign Exchange Earning & Saving

(Unit: US\$1,000)

Year	F R E I G H T R E V E N U E				Foreign Exchange	
	UK/Cont.	Asia	USA/Can.	Total	Earning	Saving
1979						
1980						
1981	(2) 11,190	(2) 6,196	(1) 5,476	22,862	13,717	9,145
1982	(3) 27,975	(4) 12,392	(3) 16,428	56,795	34,077	22,718
1983	(6) 33,570	(5) 15,490	(3) 16,428	65,488	39,293	26,195
1984	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1985	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1986	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1987	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1988	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1989	(8) 44,760	(5) 15,490	(2) 16,428	76,678	46,007	30,671
1990	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1991	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1992	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1993	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1994	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1995	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1996	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1997	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1998	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
1999	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
2000	(8) 44,760	(5) 15,490	(3) 16,428	76,678	46,007	30,671
2001	(6) 33,570	(3) 9,294	(2) 10,952	53,816	32,290	21,526
2002	(3) 16,785	(1) 3,098	(0)	19,883	11,930	7,953
2003	(2) 11,190	(0)	(0)	11,190	6,714	4,476
2004	-	-	-	84,889	-	-
Total				1,533,560	920,140	613,420

Remarks & Sources: Sources: Table (1) : No. of vessels operating

Table V-9-2: Foreign Exchange Component of Annual Operating Expense

(Unit: US\$1,000)

Year	UK/Continent	Asia	USA/Canada	Total
1979				0
1980				0
1981	(2) 5,097	(2) 4,317	(1) 2,890	(5) 12,304
1982	(3) 12,743	(4) 8,634	(1) 8,670	(5) 30,047
1983	(6) 15,292	(5) 10,793	(3) 8,670	(5) 34,755
1984	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1985	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1986	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1987	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1988	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1989	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1990	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1991	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1992	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1993	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1994	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1995	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1996	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1997	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1998	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
1999	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
2000	(8) 20,389	(5) 10,793	(3) 8,670	(5) 39,852
2001	(6) 15,292	(3) 6,476	(2) 5,780	27,548
2002	(3) 7,646	(1) 2,159	(0)	9,805
2003	(2) 5,097	(0)	(0)	5,097
Total				797,040

Remarks: (1) : No. of vessels operating.

Table V-9-3: Foreign Exchange Receipt Foregone Due to Substitution of Foreign Ship by New 15,000 TDW Vessels

(Unit: US\$1,000)

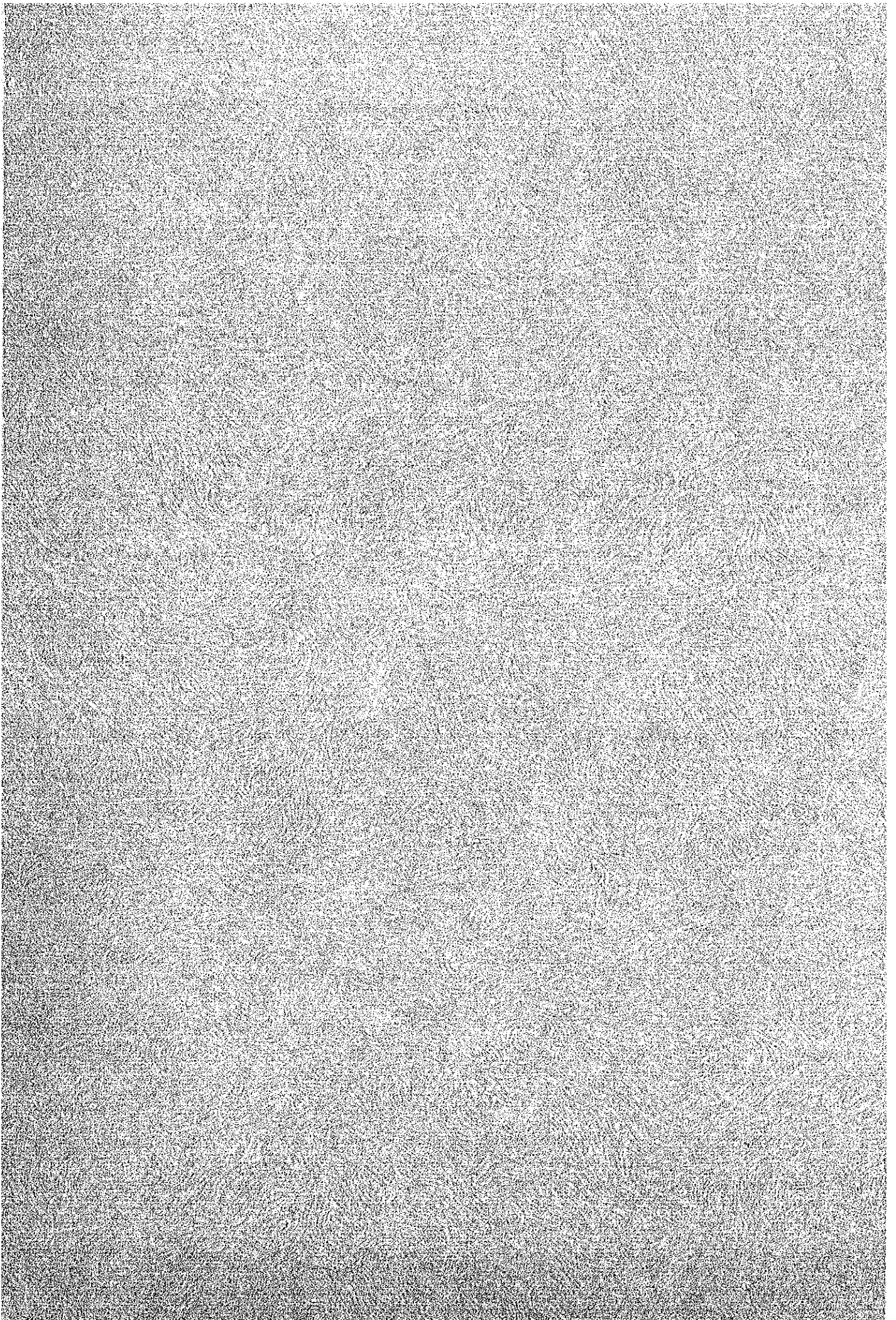
Year	UK/Continent	Asia	USA/Canada	Total
1979				0
1980				0
1981	(2) 828	(2) 702	(1) 470	2,000
1982	(3) 2,070	(4) 1,404	(3) 1,410	4,884
1983	(6) 2,484	(5) 1,755	(3) 1,410	5,649
1984	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1985	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1986	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1987	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1988	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1989	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1990	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1991	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1992	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1993	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1994	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1995	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1996	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1997	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1998	(8) 3,312	(5) 1,755	(3) 1,410	6,477
1999	(8) 3,312	(5) 1,755	(3) 1,410	6,477
2000	(8) 3,312	(5) 1,755	(3) 1,410	6,477
2001	(6) 2,484	(3) 1,053	(2) 940	4,477
2002	(3) 1,262	(1) 351	(0)	1,593
2003	(2) 828	(0)	(0)	828
Total				129,540

Table V-9-4: Gains to Balance of Payment by Replacement of 16 New Cargo Vessels of 15,000 TDW

(Unit: US\$1,000)

Year	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1979							
1980					10,086.5	6,425.1	(16,511.6)
1981	13,717	9,145	12,304	2,000	20,229.6	11,968.4	(23,640.0)
1982	34,077	22,718	30,047	4,884	28,814.4	15,596.0	(22,546.4)
1983	39,293	26,195	34,755	5,649	30,814.4	14,247.9	(19,978.3)
1984	46,007	30,671	39,852	6,477	32,314.4	12,399.3	(14,364.7)
1985	46,007	30,671	39,852	6,477	32,314.4	9,458.7	(11,424.1)
1986	46,007	30,671	39,852	6,477	32,314.4	6,518.1	(8,483.5)
1987	46,007	30,671	39,852	6,477	22,227.9	3,577.5	4,543.6
1988	46,007	30,671	39,852	6,477	12,084.8	1,554.7	16,709.5
1989	46,007	30,671	39,852	6,477	3,500.0	455.0	26,394.0
1990	46,007	30,671	39,852	6,477	1,500.0	136.5	28,712.5
1991	46,007	30,671	39,852	6,477			30,349.0
1992	46,007	30,671	39,852	6,477			30,349.0
1993	46,007	30,671	39,852	6,477			30,349.0
1994	46,007	30,671	39,852	6,477			30,349.0
1995	46,007	30,671	39,852	6,477			30,349.0
1996	46,007	30,671	39,852	6,477			30,349.0
1997	46,007	30,671	39,852	6,477			30,349.0
1998	46,007	30,671	39,852	6,477			30,349.0
1999	46,007	30,671	39,852	6,477			30,349.0
2000	46,007	30,671	39,852	6,477			30,349.0
2001	32,290	21,526	27,548	4,477			21,791
2002	11,930	7,953	9,805	1,593			8,485
2003	6,714	4,476	5,097	828			5,265
Total	920,140	613,420	797,040	129,540	226,201.8	82,337	298,442

Notes: (2) = Foreign Exchange Earning (5) = Foreign Exch. Receipt Foregone
 (3) = Foreign Exchange Saving (6) = Repayment of Capital
 (4) = Foreign Exchange Expense (7) = Interest
 (8) = Net Gain to Balance Payment = (2)+(3)-(4)-(5)-(6)-(7)



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