

Summary of Depreciation Expense Ratios

Cable TV Companies With No Significant Non-Cable Holdings

<u>Company Name</u>	<u>TIC</u>	<u>1991 Depr Exp Ratio</u>	<u>1992 Depr Exp Ratio</u>	<u>1993 Depr Exp Ratio</u>
Adelphia Communication	ADLAC	8.9%	8.4%	NA
Cablevision Systems	CVC	24.2%	17.9%	18.3%
Century Communications	CTY	17.7%	17.7%	NA
Comcast Corporation	CMCSK	20.1%	19.6%	21.0%
C Tec Corporation	CTEX	14.9%	13.7%	12.7%
Falcon Cable System	FAL	16.5%	16.1%	14.6%
Galaxy Cablevision	GTV	12.7%	12.7%	10.6%
Jones Intercable Inc	JOINA	9.0%	9.1%	NA
Liberty Media Corp	LBTYA	NA	31.9%	28.1%
Mercom Inc	3MERO	9.4%	9.3%	NA
TCA Cable TV	TCAT	10.1%	14.1%	13.6%
Weighted Average		16.9%	15.8%	18.5%

Other Telecommunications and Cable TV Companies

<u>Company Name</u>	<u>TIC</u>	<u>1991 Depr Exp Ratio</u>	<u>1992 Depr Exp Ratio</u>	<u>1993 Depr Exp Ratio</u>
MCI Communications	MCIC	8.1%	8.4%	8.7%
Sprint Corporation	FON	8.5%	8.7%	8.6%
Tele-Communications	TCOMA	11.2%	10.1%	12.5%
McCaw Cellular Comm	MCAWA	10.9%	10.4%	10.4%
Weighted Average		9.0%	9.0%	9.5%

Note: Depreciation Expense Ratio is Depreciation Expense divided by Average Gross Property, Plant & Equipment
Data Source: S&P Compustat Database

Restatement of Price Cap LECs' Average Rate of Return
in 1991, 1992, and 1993
Using AT&T's Depreciation Expense Ratios¹
(\$ in Millions)

<u>Item</u>	<u>1991 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1991 Restated</u>	<u>1992 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1992 Restated</u>	<u>1993 Original Form 492</u>	<u>Incre- mental Changes²</u>	<u>1993 Restated</u>
Total Revenues	19,418	0	19,418	19,571	0	19,571	19,883	0	19,883
Total Exp & Tax	15,724	2,931	18,655	15,770	1,221	16,992	15,897	1,124	17,021
Operating Income	3,694	(2,931)	764	3,800	(1,221)	2,579	3,987	(1,124)	2,862
Rate Base	31,392	(1,465)	29,926	30,789	(3,541)	27,248	30,594	(4,714)	25,880
Rate of Return	11.77%		2.55%	12.34%		9.47%	13.03%		11.06%

Weighted Average Rate of Return (1991 - 1993) = 12.38%

Weighted Average Restated Rate of Return (1991 - 1993) = 7.47%

¹ AT&T ratios of 14.2%, 10.2 % and 9.9% used for 1991, 1992 and 1993, respectively. (See Schedule 1, Page 1 of 2)

² Reflects incremental changes to depreciation expense, federal income tax expense, depreciation reserve, and deferred taxes. 1992 and 1993 rate base amounts also include the cumulative effects of the incremental changes from the prior year(s).

Restatement of Bell Atlantic LEC's Average Rate of Return
in 1991, 1992, and 1993
Using AT&T's Depreciation Expense Ratios¹
 (\$ in Millions)

<u>Item</u>	<u>1991 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1991 Restated</u>	<u>1992 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1992 Restated</u>	<u>1993 Original Form 492</u>	<u>Incre- mental Changes²</u>	<u>1993 Restated</u>
Total Revenues	2,580	0	2,580	2,633	0	2,633	2,725	0	2,725
Total Exp & Tax	2,073	374	2,447	2,130	166	2,296	2,166	123	2,289
Operating Income	506	(374)	133	503	(166)	337	558	(123)	435
Rate Base	3,995	(187)	3,808	4,025	(457)	3,568	4,019	(602)	3,418
Rate of Return	12.71%		3.50%	12.50%		9.45%	13.89%		12.73%

Weighted Average Rate of Return (1991- 1993) = 13.03%

Weighted Average Restated Rate of Return (1991 - 1993) = 8.39%

¹ AT&T ratios of 14.2%, 10.2% and 9.9% used for 1991, 1992 and 1993, respectively. (See Schedule 1, Page 1 of 2).

² Reflects incremental changes to depreciation expense, federal income tax expense, depreciation reserve, and deferred taxes. 1992 and 1993 rate base amounts also include the cumulative effects of the incremental changes from the prior year(s).

Restatement of Price Cap LEC's Average Rate of Return
in 1991, 1992, and 1993
Using Cable TV Companies' Depreciation Expense Ratios¹
(\$ in Millions)

<u>Item</u>	<u>1991 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1991 Restated</u>	<u>1992 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1992 Restated</u>	<u>1993 Original Form 492</u>	<u>Incre- mental Changes²</u>	<u>1993 Restated</u>
Total Revenues	19,418	0	19,418	19,571	0	19,571	19,883	0	19,883
Total Exp & Tax	15,724	3,997	19,721	15,770	3,381	19,152	15,897	4,510	20,407
Operating Income	3,694	(3,997)	(303)	3,800	(3,381)	419	3,987	(4,510)	(524)
Rate Base	31,392	(1,999)	29,393	30,789	(5,688)	25,102	30,594	(9,634)	20,961
Rate of Return	11.77%		-1.03%	12.34%		1.67%	13.03%		-2.50%

Weighted Average Rate of Return (1991 - 1993) = 12.38%

Weighted Average Restated Rate of Return (1991 - 1993) = -0.54%

¹ Cable TV Companies' ratios of 16.9%, 15.8% and 18.5% used for 1991, 1992 and 1993, respectively. (See Schedule 1, Page 2 of 2).

² Reflects incremental changes to depreciation expense, federal income tax expense, depreciation reserve, and deferred taxes. 1992 and 1993 rate base amounts also include the cumulative effects of the incremental changes from the prior year(s).

Restatement of Bell Atlantic LEC's Average Rate of Return
in 1991, 1992, and 1993
Using Cable TV Companies' Depreciation Expense Ratios¹
 (\$ in Millions)

<u>Item</u>	<u>1991 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1991 Restated</u>	<u>1992 Final Form 492</u>	<u>Incre- mental Changes²</u>	<u>1992 Restated</u>	<u>1993 Original Form 492</u>	<u>Incre- mental Changes²</u>	<u>1993 Restated</u>
Total Revenues	2,580	0	2,580	2,633	0	2,633	2,725	0	2,725
Total Exp & Tax	2,073	510	2,583	2,130	463	2,593	2,166	554	2,720
Operating Income	508	(510)	(3)	503	(463)	40	558	(554)	4
Rate Base	3,995	(255)	3,740	4,025	(742)	3,284	4,019	(1,251)	2,769
Rate of Return	12.71%		-0.07%	12.50%		1.22%	13.89%		0.16%

Weighted Average Rate of Return (1991 - 1993) = 13.03%

Weighted Average Restated Rate of Return (1991 - 1993) = 0.42%

¹ Cable TV Companies' ratios of 16.9%, 15.8% and 18.5% used for 1991, 1992 and 1993, respectively. (See Schedule 1, Page 2 of 2).

² Reflects incremental changes to depreciation expense, federal income tax expense, depreciation reserve, and deferred taxes. 1992 and 1993 rate base amounts also include the cumulative effects of the incremental changes from the prior year(s).

Calculation of Bell Atlantic's LECs
Economic Earnings
During the 1991-1993 Period

$$V_0 = \frac{C_1}{(1+k)} + \frac{C_2}{(1+k)^2} + \frac{C_3 + V_3}{(1+k)^3}$$

Where (\$ in thousands):

k = Economic Rate of Return on Equity

$V_0 = 7,263,751$

$C_1 = 343,546$

$C_2 = 314,986$

$C_3 = 458,536$

$V_3 = 8,035,983$

Economic Rate of Return on Equity = 8.35%

Notes:

- The replacement value of the embedded interstate plant is calculated using Telephone Plant Indices (TPIs). The TPI's were multiplied by the appropriate Part 32 account balances by year to determine the replacement value.
- The value of V_0 was calculated by determining the replacement cost of the LECs' interstate assets at the end of 1990 and multiplying it by the equity percent at the end of 1990.
- The value of V_3 was calculated by determining the replacement cost of the LECs' interstate assets at the end of 1993 and multiplying it by the equity percent at the end of 1993.
- The values of C_1 , C_2 , and C_3 are the dividends paid by the Bell Atlantic LECs during 1991, 1992 and 1993, respectively, multiplied by the interstate % in those years.

Economic Rate of Return for Bell Atlantic's LECs

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>Average (1991-1993)</u>
Cost of Debt	8.50%	8.15%	7.65%	8.10%
Debt Ratio	40.48%	39.92%	39.06%	39.82%
Equity Ratio	59.52%	60.08%	60.94%	60.18%
Earned Interstate Rate of Return on Equity	12.71%	12.50%	13.89%	13.03%

BEL (LEC) Economic ROR = .3982 (8.10) + .6018 (8.35) = **8.25%**

$$\frac{\text{Accounting ROR}}{\text{Economic ROR}} = \frac{13.03\%}{8.25\%} = 1.58 = \text{Earned Return Ratio}$$

$$\text{Earned Return Ratio} * \text{Authorized ROR Benchmark} = \text{Accounting ROR Benchmark}$$

$$1.58 * 11.25\% = 17.78\%$$

Therefore over the 1991-1993 Period:

* Earned Economic Rate of Return of **8.25%** should be measured against **11.25%** economic benchmark.

* Earned Accounting Rate of Return of **13.03%** should be measured against **17.78%** accounting benchmark.

RHC LEC Investment Analysis
LEC Data (By RHC)
 (\$ in Millions)

	<u>Cash From Operations</u>			<u>Dividends Paid *</u>			<u>RHC LEC Investment</u>		
	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
RHC									
Ameritech	2,623.3	3,015.1	2,866.2	1,075.8	993.2	1,184.8	1,547.5	2,021.9	1,681.4
Bell Atlantic	3,381.4	3,692.7	3,797.4	1,184.8	1,176.2	1,365.5	2,196.6	2,516.5	2,431.9
BellSouth	4,030.3	4,449.7	4,357.0	1,414.5	1,618.5	1,587.0	2,615.8	2,831.2	2,770.0
NYNEX	2,890.0	3,161.3	3,378.5	983.2	946.2	1,127.1	1,906.8	2,215.1	2,251.4
Pacific Telesis	2,458.0	2,751.0	2,771.0	1,034.0	1,057.0	1,007.0	1,424.0	1,694.0	1,764.0
Southwestern Bell	2,437.2	2,714.8	2,624.7	855.4	960.6	865.6	1,581.8	1,754.2	1,759.1
US West	2,379.8	2,854.8	2,818.2	968.0	864.1	851.7	1,411.8	1,990.7	1,966.5
Total	<u>20,200.0</u>	<u>22,639.4</u>	<u>22,613.0</u>	<u>7,515.7</u>	<u>7,615.8</u>	<u>7,998.7</u>	<u>12,684.3</u>	<u>15,023.6</u>	<u>14,624.3</u>
TOTAL RHC LEC Investment (1991-1993)									<u>\$42,332.2</u>

*Dividends Paid by LEC to Parent Company

Data Source: 1993 LEC 10Ks

Price Volatility Analysis

- Weekly closing stock prices (Friday)
- S&P 500 Index
- RHC Index (Includes all 7 RHCs weighted by market capitalization)

Period I 6/1/89 to 5/31/91

<u>RHCs Index</u>	<u>S&P 500 Index</u>
39.00	342.25
1.63	20.00
4.19%	5.84%

Period II 6/1/92 to 5/31/94

	<u>RHCs Index</u>	<u>S&P 500 Index</u>
Mean	44.61	443.83
Standard Deviation	3.52	19.59
Coefficient of Variation	7.89%	4.41%

- Performed simple regression analysis comparing % price changes in S&P 500 Index to % price changes in RHC Index

Regression Output Period I

Constant	(0.00138)
Std Error of Y Est	0.019209
R Squared	0.480611
No. of Observations	102
X Coefficient(s)	0.852927
Std Error of Coefficient	0.088667

Beta = 0.90 *

Regression Output Period II

Constant	0.000572
Std Error of Y Est	0.021543
R Squared	0.252068
No. of Observations	97
X Coefficient(s)	1.033146
Std Error of Coefficient	0.182588

Beta = 1.02 *

* Value Line calculates betas using the formula $Beta = .66(X \text{ Coefficient}) + .34 (1)$. Value Line calculates betas using five years of price data.

Average Dividend Yield of the RHCs
October 1993 to May 1994¹

<u>Month</u>	<u>Average Dividend Yield</u>
October 1993	4.31%
November	4.51%
December	4.64%
January 1994	4.56%
February	4.87%
March	5.03%
April	5.29%
May	5.33%

¹Source: S&P Stock Guide, November 1993 through May 1994

Interest Rates October 1993 through May 1994

<u>Date</u>	<u>30-Year Treasury Bonds*</u>	<u>Aa-Rated Utility Bonds**</u>
October 1993	5.94%	6.89%
November	6.21%	7.17%
December	6.25%	7.18%
January 1994	6.29%	7.18%
February	6.49%	7.34%
March	6.91%	7.74%
April	7.27%	8.12%
May	7.41%	8.24%
June	7.50%***	8.30%***

Data Source:

* = Federal Reserve Statistical Release.

** = Moody's Bond Record.

*** = Per Merrill Lynch Securities Research referenced in *Wall Street Journal* 6/27/94

Discounted Cash Flow Analysis of Risk Comparable Companies

The DCF Model suggests that investors value an asset on the basis of the future cash flows they expect to receive from owning the asset. Thus, investors value an investment in a firm's stock because they expect to receive a sequence of dividend payments and, perhaps, expect to sell the stock at a higher price sometime in the future. A second fundamental principle of the DCF approach is that an investor values a dollar received in the future less than a dollar received today. If an investor, for example, had one dollar today, he could invest it in an interest earning account and increase his wealth. This principle is called the time value of money.

I use the quarterly DCF model throughout my calculations because most U.S. industrial and utility firms pay dividends quarterly. An annual DCF model produces appropriate estimates of a firm's cost of equity capital only if the firm pays dividends just once a year. Investors appreciate the time value of money and can expect to earn a higher annual effective return on an investment in a firm that pays quarterly dividends than in one which pays the same amount of dollar dividends once at the end of each year. The annual DCF model produces downwardly-biased estimates of the cost of equity.

As my estimate of the growth component for my DCF model, I used the consensus analysts' estimates of future earnings per share growth reported by the Institutional Broker's Estimate System (I/B/E/S). The I/B/E/S consensus growth rates (1) include the projections of a large number of reputable financial analysts who develop estimates of future growth, (2) are widely circulated in the financial community, (3) are reported on a timely basis to investors, and (4) are widely used by institutional and other investors. There is considerable empirical evidence that analysts' forecasts are better predictors of future growth than a firm's historical growth rates and that investors actually use these forecasts in most cases. A noted exception is the telecommunications industry, where, because of the startup nature of many of their investments, the analysts' growth forecasts do not reflect the long-run growth potential as viewed by investors.

As my estimate of the stock price, I used a simple average of the high and low stock prices for each firm for the latest three-month period for which data were available, March through May 1994. These high and low stock prices were obtained from the Standard & Poor's *Stock Guide*, a source generally available to and used by investors. I also used a 5 percent flotation allowance in my DCF application. All firms which have sold securities in the capital markets have incurred some level of flotation costs, including underwriters' commissions, legal

fees, printing expense, etc. These costs are paid from the proceeds of the stock sale and must be recovered over the life of the equity issue. A number of generally accepted studies have developed and confirmed cost ranges between 4 percent and 5 percent for issuance expenses and 2 to 3 percent for market pressure. I believe a combined 5 percent allowance for issuance expenses and market pressure is a conservative estimate that can be used in applying the DCF Model in this proceeding.

Since the price cap LECs' stock is not publicly traded, I applied the DCF approach to a group of risk comparable companies. Because the firms are of similar risk to the price cap LECs, the price cap LECs' cost of equity must be similar to the average cost of equity for the risk comparable group.

I chose my group of risk comparable companies by 1) identifying a set of screens based on industry characteristics and on risk indicia from *The Value Line Investment Survey*, a widely-used investment service, and 2) determining which companies satisfied all of the screens. I began with the total universe of firms listed in *Value Line*, numbering 1610. The risk comparable companies had to satisfy the following screens: 1) *Value Line* beta greater than or equal to .8 and less than or equal to .95; 2) safety rank of 1 or 2; 3) financial strength greater than or equal to A; 4) Price stability equal to or greater than 80 percent; and 5) market value equal to or greater than 1 billion dollars. These criteria were chosen to insure the selection of a sample of companies that are less risky than the average firm in the *Value Line* universe. The average values of these criteria for all firms in the *Value Line* universe were: beta of 1.05, a safety rank of 3, financial strength of B+, and price stability of 52. I removed foreign firms, financial firms, and limited partnerships from the population because their accounting procedures and financial characteristics differ greatly from those of non-financial and domestic firms. Including them would lead to meaningless results. I also eliminated telephone companies because, in my judgment, the standard DCF model using historical or five-year analysts' growth forecasts produces downwardly-biased results for telecommunications companies (see ¶35 in this testimony). I eliminated any firm that did not have at least two forecasts of five-year earnings growth in the I/B/E/S, and I also eliminated four additional firms from the final group, the two with the highest and lowest DCF estimates. Eliminating the two firms with the highest and lowest DCF estimates reduced the average DCF result from 14.50 percent to 14.18 percent.

The average DCF cost of equity for the firms identified through this process was 14.18 percent, as shown on Schedule 8, page 3 of 4. The standard deviation of the DCF cost of equity for these firms was only 0.89 percent.

SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS
FOR SCREENED GROUP OF RISK COMPARABLE COMPANIES

<u>Company Name</u>	<u>d₀</u>	<u>P₀</u>	<u>g</u>	<u>k</u>
Bandag, Inc.	.175	54.750	12.40	13.93
Brown-Forman	.237	28.778	11.30	15.29
Consolidated Papers	.320	43.667	10.80	14.40
Diebold, Inc.	.220	37.917	11.80	14.48
Dun & Bradstreet	.610	60.063	10.70	15.70
Eaton Corporation	.300	57.458	11.10	13.61
Genuine Parts	.288	36.250	9.60	13.21
Grainger (W.W.)	.180	62.813	12.50	13.93
Heinz (H. J.)	.330	33.271	9.30	13.98
Hubbell Inc.	.410	59.354	9.80	13.15
Knight-Ridder	.350	57.917	11.80	14.80
McGraw-Hill	.580	67.771	9.00	13.06
Minnesota Mining	.440	51.250	9.90	13.89
National Serv. Inds.	.270	26.792	8.20	12.92
Premier Industrial	.100	23.667	12.50	14.50
Quaker Oats	.530	63.875	10.50	14.46
Vulcan Materials	.330	48.542	12.30	15.58
Washington Post	1.050	240.208	10.90	13.04
Westvaco	.275	32.917	11.50	15.65
Weighted Average				14.18

$$k = \frac{d_1(1+k)^{-1} + d_2(1+k)^{-2} + d_3(1+k)^{-3} + d_4}{P_0(1-FC)} + g$$

Notes:

- d₀ = Latest quarterly dividend per *Value Line*.
- P₀ = Average of the high and low stock prices during the three months ending May 1994 per *S&P Stock Guide*, March, April, and May 1994.
- FC = Flotation costs*
- g = Latest I/B/E/S forecast of future earnings growth from CompuServe May 19, 1994.
- k = Cost of equity using the quarterly version of the DCF Model and a five percent allowance for flotation costs.

* Flotation costs expressed as a percent of gross proceeds

**RISK INDICIA OF RISK COMPARABLE COMPANIES
 FROM VALUE LINE SCREEN¹**

<u>COMPANY</u>	<u>SAFETY BETA</u>	<u>FINANCIAL RANK</u>	<u>PRICE STRENGTH</u>	<u>STABILITY</u>
Bandag	.95	2	A	90
Brown-Forman	.90	1	A +	85
Consol. Papers	.95	1	A +	85
Diebold, Inc.	.80	2	A	85
Dun & Bradstreet	.95	1	A + +	90
Eaton Corp.	.95	2	A	85
Genuine Parts	.90	1	A + +	90
Grainger (W.W.)	.95	1	A +	89
Heinz (H.J.)	.95	1	A +	90
Knight-Ridder	.95	2	A	85
McGraw-Hill	.95	1	A +	90
Minnesota Mining	.95	1	A + +	90
Natl. Service Industries	.85	1	A +	90
Premier Industrial	.95	2	A +	80
Quaker Oats	.90	2	A	85
Vulcan Materials	.80	1	A	90
Washington Post	.95	1	A + +	90
Westvaco Corporation	.95	2	A	85
Averages	<u>.92</u>	<u>1.39</u>	<u>A +</u>	<u>87.8</u>

¹ Source: *Value Line*, December 1993

Company	Price	Divid	IBES Mean Growth	DCF Ctry Result		
1 HOME DEPOT INC	\$42.06	\$0.12	29.40	29.79%	Overall Mean	14.94%
2 BLOCKBUSTER ENMNT CORP	\$26.00	\$0.10	26.90	27.41%	Overall Med	14.81%
3 LOWE'S COS	\$33.43	\$0.16	23.10	23.72%	Overall Mkt	
4 OCCIDENTAL PETROLEUM CORP	\$17.33	\$1.00	14.30	21.40%	Wtd Mean	15.23%
5 USX-MARATHON GROUP	\$17.10	\$0.68	15.80	20.72%		
6 BRUNSWICK CORP	\$22.48	\$0.44	18.00	20.45%		
7 WAL-MART STORES	\$25.35	\$0.17	19.50	20.35%		
8 UST INC	\$26.13	\$1.12	14.90	20.17%		
9 PHILLIPS PETROLEUM CO	\$29.81	\$1.12	15.40	20.03%		
10 PEP BOYS-MANNY MOE & JACK	\$29.46	\$0.17	19.30	20.03%		
11 PENNZOIL CO	\$49.42	\$3.00	12.60	19.97%		
12 COCA-COLA CO	\$40.83	\$0.78	17.40	19.78%		
13 U S HEALTHCARE INC	\$40.46	\$0.53	18.00	19.64%		
14 MOTOROLA INC	\$48.37	\$0.28	18.80	19.53%		
15 GAP INC	\$45.63	\$0.48	18.10	19.41%		
16 INTEL CORP	\$64.13	\$0.20	18.90	19.29%		
17 NUCOR CORP	\$61.92	\$0.18	18.90	19.26%		
18 WENDY'S INTERNATIONAL INC	\$17.50	\$0.24	17.50	19.21%		
19 AUTODESK INC	\$54.79	\$0.48	18.10	19.19%		
20 ENGELHARD CORP	\$27.21	\$0.44	17.00	19.00%		
21 DISNEY (WALT) COMPANY	\$42.94	\$0.30	18.00	18.87%		
22 BAKER-HUGHES INC	\$18.67	\$0.46	15.80	18.83%		
23 FLEETWOOD ENTERPRISES	\$20.98	\$0.50	15.70	18.63%		
24 PERKIN-ELMER CORP	\$30.90	\$0.68	15.90	18.61%		
25 PHILIP MORRIS COS INC	\$51.98	\$2.76	12.20	18.60%		
26 SCIENTIFIC-ATLANTA INC	\$31.31	\$0.12	18.10	18.58%		
27 COMCAST CORP -CL A SPL	\$17.58	\$0.09	17.70	18.36%		
28 PFIZER INC	\$58.04	\$1.88	14.40	18.35%		
29 WOOLWORTH CORP	\$16.54	\$1.16	9.90	18.24%		
30 TJX COMPANIES INC	\$25.35	\$0.56	15.50	18.21%		
31 SYSCO CORP	\$25.71	\$0.36	16.40	18.13%		
32 MALLINCKRODT GROUP INC	\$32.33	\$0.50	16.20	18.10%		
33 NEW YORK TIMES CO -CL A	\$26.48	\$0.56	15.50	18.09%		
34 SCHLUMBERGER LTD	\$54.90	\$1.20	15.40	18.08%		
35 BROWNING-FERRIS INDS	\$27.54	\$0.68	15.00	18.02%		
36 MCDERMOTT INTL INC	\$21.27	\$1.00	12.30	17.96%		
37 VMX TECHNOLOGIES INC	\$25.17	\$0.60	14.90	17.81%		
38 LIMITED INC	\$19.79	\$0.36	15.40	17.63%		
39 GILLETTE CO	\$64.85	\$1.00	15.70	17.59%		
40 ALCO STANDARD CORP	\$53.42	\$1.00	15.30	17.59%		
41 AMERICAN BARRICK RESOURCE CP	\$23.77	\$0.10	17.00	17.52%		
42 HALLIBURTON CO	\$30.25	\$1.00	13.50	17.50%		
43 PEPSICO INC	\$36.75	\$0.64	15.30	17.43%		
44 SPRINT CORP	\$36.00	\$1.00	14.00	17.37%		
45 BLACK & DECKER CORP	\$19.79	\$0.40	14.80	17.26%		
46 FOSTER WHEELER CORP	\$40.52	\$0.74	15.00	17.23%		
47 DOW CHEMICAL	\$63.46	\$2.60	12.30	17.22%		
48 HARDCOURT GENERAL INC	\$33.79	\$0.60	15.00	17.16%		
49 SCHERING-PLOUGH	\$59.71	\$2.04	13.00	17.12%		
50 CHARMING SHOPPES	\$11.15	\$0.09	16.10	17.09%		
51 JOSTENS INC	\$16.75	\$0.88	10.80	17.06%		
52 BURLINGTON RESOURCES INC	\$43.54	\$0.55	15.50	17.04%		
53 BAUSCH & LOMB INC	\$47.29	\$0.98	14.50	17.02%		
54 LOUISIANA LAND & EXPLORATION	\$39.06	\$1.00	13.90	17.00%		
55 MEDTRONIC INC	\$77.46	\$0.68	15.90	16.97%		
56 MATTEL INC	\$25.15	\$0.24	15.80	16.97%		
57 TEXAS INSTRUMENTS INC	\$76.50	\$0.72	15.80	16.95%		
58 INTL PAPER CO	\$67.02	\$1.68	13.90	16.94%		
59 CIRCUIT CITY STORES INC	\$19.58	\$0.08	16.40	16.90%		
60 CORNING INC	\$31.92	\$0.68	14.30	16.88%		
61 NEVELL COMPANIES	\$40.75	\$0.80	14.50	16.88%		
62 MORTON INTL INC	\$92.21	\$1.12	15.40	16.88%		
63 ALBERTSONS INC	\$28.48	\$0.44	15.00	16.88%		
64 COLUMBIANA HILTHCR -VTG	\$40.54	\$0.12	16.50	16.86%		
65 PALL CORP	\$16.35	\$0.37	14.10	16.84%		
66 SERVICE CORP INTERNATIONAL	\$25.06	\$0.42	14.80	16.84%		
67 BARD (C.R.) INC	\$24.85	\$0.56	14.10	16.83%		
68 AMERADA HESS CORP	\$48.33	\$0.60	15.30	16.81%		
69 ASHLAND OIL INC	\$40.31	\$1.00	13.80	16.80%		
70 ABBOTT LABORATORIES	\$27.88	\$0.76	13.50	16.79%		
71 TIMES MIRROR COMPANY -SER A	\$31.75	\$1.08	12.70	16.79%		
72 OSHKOSH B'GOSH INC -CL A	\$14.13	\$0.51	12.40	16.75%	1st Quartile	
73 UNION CAMP CORP	\$45.04	\$1.56	12.50	16.65%	Mean	18.35%
74 ATLANTIC RICHFIELD CO	\$97.96	\$5.50	10.00	16.65%	Median	17.63%
75 COLGATE-PALMOLIVE CO	\$58.46	\$1.44	13.60	16.57%	Mkt Wtd Mean	18.65%
76 OUTBOARD MARINE CORP	\$21.63	\$0.40	14.30	16.54%		
77 U S SURGICAL CORP	\$18.08	\$0.08	16.00	16.54%		
78 SAFETY-KLEEN CORP	\$14.88	\$0.36	13.60	16.52%		
79 MORRISON KNUDSEN CORP	\$25.23	\$0.80	12.70	16.51%		
80 BLOCK H & R INC	\$43.63	\$1.12	13.40	16.50%		
81 UNOCAL CORP	\$26.96	\$0.80	12.90	16.47%		

Company	Price	Divid	IBES Mean Growth	DCF Qtrly Result		
82 FLUOR CORP	\$50.54	\$0.52	15.20	16.45%		
83 MANOR CARE INC	\$27.00	\$0.09	16.00	16.40%		
84 RUSSELL CORP	\$28.71	\$0.40	14.70	16.39%		
85 VF CORP	\$49.92	\$1.28	13.30	16.39%		
86 TRIBUNE CO	\$60.40	\$1.04	14.30	16.39%		
87 COMPUTER ASSOCIATES INTL INC	\$34.25	\$0.14	15.80	16.30%		
88 TANDY CORP	\$36.63	\$0.60	14.30	16.28%		
89 AVON PRODUCTS	\$57.92	\$1.80	12.50	16.23%		
90 WALGREEN CO	\$41.25	\$0.68	13.00	14.97%		
91 RUBBERMAID INC	\$26.92	\$0.45	14.20	16.22%		
92 DRESSER INDUSTRIES INC	\$22.52	\$0.68	12.60	16.22%		
93 COOPER TIRE & RUBBER	\$26.21	\$0.22	15.20	16.22%		
94 GENERAL MILLS INC	\$53.50	\$1.88	12.00	16.20%		
95 DUN & BRADSTREET CORP	\$58.52	\$2.60	10.90	16.18%		
96 GREAT ATLANTIC & PAC TEA CO	\$24.75	\$0.80	12.30	16.17%		
97 KERR-MOGEE CORP	\$44.15	\$1.52	12.00	16.11%		
98 GREAT LAKES CHEMICAL CORP	\$65.73	\$0.38	15.40	16.10%		
99 INTL FLAVORS & FRAGRANCES	\$36.75	\$1.08	12.50	16.02%		
100 WESTVACO CORP	\$31.88	\$1.10	11.90	16.02%		
101 TYCO INTL INC	\$48.54	\$0.40	15.00	16.00%		
102 JOHNSON CONTROLS INC	\$40.06	\$1.44	11.70	15.99%		
103 BEMIS CO	\$22.58	\$0.54	13.10	15.97%		
104 MCI COMMUNICATIONS	\$23.75	\$0.05	15.70	15.96%		
105 CAMPBELL SOUP CO	\$39.21	\$1.12	12.50	15.92%		
106 AVERY DENNISON CORP	\$28.50	\$0.95	11.90	15.92%		
107 SEARS ROEBUCK & CO	\$46.71	\$1.60	11.80	15.89%		
108 AMERICAN CYANAMID CO	\$47.52	\$1.85	11.20	15.83%		
109 WORTHINGTON INDUSTRIES	\$19.44	\$0.40	13.20	15.67%		
110 DAYTON HUDSON CORP	\$75.77	\$1.68	13.00	15.66%		
111 KAUFMAN & BROAD HOME	\$19.63	\$0.30	13.80	15.64%		
112 SARA LEE CORP	\$21.65	\$0.64	12.10	15.63%		
113 THOMAS & BETTS CORP	\$62.98	\$2.24	11.40	15.63%		
114 PREMARK INTERNATIONAL INC	\$74.71	\$1.12	13.80	15.61%		
115 DOW JONES & CO INC	\$38.77	\$0.84	13.00	15.60%		
116 WRIGLEY (WM) JR CO	\$50.08	\$0.83	13.60	15.59%		
117 FEDERAL PAPER BOARD CO	\$22.88	\$1.00	10.40	15.57%		
118 MCKESSON CORP	\$67.33	\$1.68	12.50	15.48%		
119 MERCK & CO	\$30.40	\$1.12	11.10	15.47%		
120 DELUXE CORP	\$29.56	\$1.44	9.70	15.43%		
121 INTERPUBLIC GROUP OF COS	\$30.27	\$0.56	13.20	15.42%		
122 PROCTER & GAMBLE CO	\$54.75	\$1.24	12.70	15.41%		
123 K MART CORP	\$17.15	\$0.96	8.80	15.36%		
124 ECOCLAB INC	\$21.52	\$0.44	12.90	15.35%		
125 MAY DEPARTMENT STORES CO	\$41.17	\$1.04	12.30	15.32%		
126 WEYERHAEUSER CO	\$43.15	\$1.20	12.00	15.32%		
127 MASCO CORP	\$30.65	\$0.68	12.60	15.25%		
128 HEWLETT-PACKARD CO	\$80.96	\$1.00	13.70	15.19%		
129 TENNECO INC	\$51.63	\$1.60	11.50	15.18%		
130 ROYAL DUTCH PET -NY REG	\$105.06	\$4.69	9.90	15.16%		
131 BROWN-FORMAN -CL B	\$29.15	\$0.95	11.30	15.16%		
132 HILTON HOTELS CORP	\$58.83	\$1.20	12.70	15.14%		
133 SHARED MEDICAL SYSTEMS CORP	\$26.17	\$0.84	11.30	15.11%		
134 MELVILLE CORP	\$39.02	\$1.52	10.50	15.10%		
135 DILLARD DEPT STORES -CL A	\$33.73	\$0.08	14.80	15.09%		
136 SNAP-ON INC	\$39.10	\$1.08	11.80	15.09%		
137 COOPER INDUSTRIES INC	\$37.38	\$1.32	10.90	15.08%		
138 MONSANTO CO	\$79.15	\$2.52	11.30	15.08%		
139 PPG INDUSTRIES INC	\$74.52	\$2.24	11.50	15.07%		
140 GIANT FOOD INC -CL A	\$22.98	\$0.72	11.30	15.02%		
141 PIONEER HI-BRED INTERNATIONAL	\$35.04	\$0.56	13.10	15.01%		
142 NALCO CHEMICAL CO	\$33.65	\$0.96	11.60	14.99%		
143 GIDDINGS & LEVINS INCOM	\$24.60	\$0.12	14.40	14.99%		
144 AMP INC	\$62.75	\$1.68	11.80	14.98%		
145 ECHLIN INC	\$27.77	\$0.76	11.70	14.95%		
146 SUPERVALU INC	\$33.38	\$0.88	11.80	14.94%		
147 PRAXAIR INC	\$18.48	\$0.28	13.10	14.91%	2nd Quartile	
148 GENERAL ELECTRIC CO	\$49.09	\$1.44	11.40	14.88%	Mean	15.65%
149 AMERICAN GREETINGS -CL A	\$28.23	\$0.50	12.70	14.82%	Median	15.61%
150 POTLATCH CORP	\$41.71	\$1.56	10.40	14.81%	Mkt Wtd Mean	15.44%
151 CYPRUS AMAX MINERALS CO	\$28.77	\$0.80	11.50	14.80%		
152 AMERICAN BRANDS INC/DE	\$31.96	\$2.00	7.50	14.76%		
153 PITNEY BOWES INC	\$40.56	\$1.04	11.70	14.75%		
154 CLOROX CO/DE	\$50.17	\$1.80	10.50	14.73%		
155 JOHNSON & JOHNSON	\$52.48	\$1.16	12.10	14.73%		
156 AUTOMATIC DATA PROCESSING	\$51.48	\$0.52	13.50	14.71%		
157 GOODYEAR TIRE & RUBBER CO	\$40.29	\$0.80	12.30	14.67%		
158 CONAGRA INC	\$27.96	\$0.72	11.80	14.66%		
159 REEBOK INTERNATIONAL LTD	\$31.65	\$0.30	13.50	14.64%		
160 RITE AID CORP	\$19.08	\$0.60	10.90	14.62%		
161 EASTMAN KODAK CO	\$43.67	\$1.60	10.30	14.62%		
162 MCGRAW-HILL INC	\$66.69	\$2.32	10.50	14.60%		
163 NORDSTROM INC	\$41.88	\$0.40	13.40	14.54%		

<u>Company</u>	<u>Price</u>	<u>Divid</u>	<u>IBES Mean Growth</u>	<u>DCF Qtrly Result</u>			
164	OPC INTERNATIONAL INC	\$47.10	\$1.36	11.10	14.52%		
165	AMCOO CORP	\$54.98	\$2.20	9.80	14.50%		
166	HARLAND (JOHN H.) CO	\$22.56	\$0.98	9.40	14.49%		
167	MCDONALDS CORP	\$58.60	\$0.43	13.60	14.48%		
168	DEERE & CO	\$79.96	\$2.00	11.50	14.46%		
169	HARRIS CORP	\$45.60	\$1.12	11.50	14.41%		
170	KELLOGG CO	\$50.23	\$1.36	11.20	14.40%		
171	KIMBERLY-CLARK CORP	\$54.67	\$1.76	10.60	14.40%		
172	SUN INC	\$32.25	\$1.80	7.90	14.38%		
173	CHEVRON CORP	\$87.54	\$3.70	9.40	14.35%		
174	AMERICAN STORES CO-NEW	\$25.41	\$0.48	12.10	14.35%		
175	PHELPS DODGE CORP	\$55.00	\$1.65	10.80	14.34%		
176	PULTE CORP	\$27.85	\$0.24	13.30	14.33%		
177	WHITMAN CORP	\$15.50	\$0.30	12.00	14.30%		
178	AIR PRODUCTS & CHEMICALS INC	\$44.00	\$0.92	11.80	14.28%		
179	WARNER-LAMBERT CO	\$65.42	\$2.44	9.90	14.28%		
180	BRISTOL MYERS SQUIBB	\$53.17	\$2.92	7.90	14.27%		
181	BAXTER INTERNATIONAL INC	\$23.31	\$1.00	9.20	14.21%		
182	MILLIPORE CORP	\$47.38	\$0.56	12.80	14.21%		
183	CENTEX CORP	\$30.04	\$0.20	13.40	14.20%		
184	APPLE COMPUTER INC	\$32.25	\$0.48	12.40	14.17%		
185	HEINZ (H.J.) CO	\$33.10	\$1.32	9.50	14.17%		
186	GANNETT CO	\$52.81	\$1.32	11.20	14.15%		
187	UNILEVER N V -NY SHARES	\$107.19	\$3.05	10.80	14.15%		
188	ILLINOIS TOOL WORKS	\$41.00	\$0.52	12.60	14.11%		
189	TEXACO INC	\$64.04	\$3.20	8.30	14.11%		
190	PARKER-HANNIFIN CORP	\$39.56	\$1.00	11.10	14.09%		
191	SHERWIN-WILLIAMS CO	\$31.92	\$0.56	12.00	14.08%		
192	QUAKER OATS CO	\$64.21	\$2.12	10.20	14.08%		
193	HASBRO INC	\$34.48	\$0.28	13.10	14.07%		
194	PENNEY (J.C.) CO	\$53.98	\$1.68	10.40	14.06%		
195	KNIGHT-RIDDER INC	\$58.13	\$1.40	11.20	14.05%		
196	LIZ CLAIBORNE INC	\$23.79	\$0.45	11.80	14.04%		
197	HERCULES INC	\$109.06	\$2.24	11.60	14.03%		
198	DONNELLEY (R.R.) & SONS CO	\$28.46	\$0.56	11.70	14.03%		
199	MINNESOTA MINING & MFG CO	\$50.19	\$1.76	9.90	14.01%		
200	GRAINGER (W.W.) INC	\$63.23	\$0.80	12.50	14.01%		
201	CATERPILLAR INC	\$111.10	\$0.60	13.30	13.95%		
202	HERSHEY FOODS CORP	\$45.63	\$1.20	10.80	13.90%		
203	XEROX CORP	\$98.71	\$3.00	10.30	13.87%		
204	ST JUDE MEDICAL INC	\$26.96	\$0.40	12.10	13.86%		
205	SPRINGS INDUSTRIES -CL A	\$33.98	\$1.20	9.70	13.84%		
206	AMERICAN HOME PRODUCTS CORP	\$58.35	\$2.92	8.00	13.80%		
207	WINN-DIXIE STORES INC	\$50.38	\$1.44	10.40	13.76%		
208	CBS INC	\$293.29	\$2.00	12.90	13.71%		
209	INGERSOLL-RAND CO	\$35.94	\$0.70	11.40	13.70%		
210	LOUISIANA-PACIFIC CORP	\$35.42	\$0.50	12.00	13.67%		
211	HANDLEMAN CO	\$11.00	\$0.44	9.00	13.66%		
212	ANHEUSER-BUSCH COS INC	\$52.44	\$1.44	10.40	13.63%		
213	MEAD CORP	\$42.21	\$1.00	10.80	13.59%		
214	DIAL CORP/DE	\$44.40	\$1.20	10.40	13.57%		
215	PACCAR INC	\$52.48	\$1.87	9.40	13.56%		
216	NEWMONT MINING CORP	\$42.08	\$0.48	12.20	13.55%		
217	AT&T CORP	\$52.63	\$1.32	10.60	13.55%		
218	GRACE (W.R.) & CO	\$41.67	\$1.40	9.60	13.53%		
219	NIKE INC -CL B	\$55.79	\$0.80	11.80	13.50%		
220	EMERSON ELECTRIC CO	\$59.73	\$1.56	10.40	13.47%		
221	HONEYWELL INC	\$32.75	\$0.96	10.00	13.43%		
222	GENUINE PARTS CO	\$35.23	\$1.15	9.60	13.41%	3rd Quartile	
223	TIME WARNER INC	\$38.35	\$0.36	12.30	13.41%	Mean	14.11%
224	FLEMING COMPANIES INC	\$24.90	\$1.20	7.80	13.37%	Median	14.11%
225	LUBYS CAFETERIAS INC	\$23.71	\$0.60	10.40	13.37%	Mkt Wtd Mean	14.11%
226	UNITED TECHNOLOGIES CORP	\$64.58	\$1.80	10.10	13.37%		
227	CAPITAL CITIES/ABC INC	\$703.38	\$0.20	13.30	13.33%		
228	EXXON CORP	\$62.52	\$2.88	8.00	13.33%		
229	ALLIEDSIGNAL INC	\$35.81	\$0.67	11.10	13.30%		
230	POLAROID CORP	\$31.52	\$0.60	11.00	13.24%		
231	WHIRLPOOL CORP	\$59.31	\$1.22	10.80	13.22%		
232	MOBIL CORP	\$78.00	\$3.40	8.10	13.15%		
233	BRUNOS INC	\$7.77	\$0.24	9.50	13.10%		
234	STANLEY WORKS	\$39.23	\$1.36	9.00	13.08%		
235	GENERAL SIGNAL CORP	\$32.94	\$0.90	9.80	12.98%		
236	NATIONAL SERVICE INDS INC	\$26.23	\$1.08	8.20	12.97%		
237	TRINOVA CORP	\$36.50	\$0.68	10.70	12.95%		
238	CINCINNATI MILACRON INC	\$21.92	\$0.36	11.00	12.93%		
239	TEMPLE-INLAND INC	\$47.56	\$1.00	10.40	12.86%		
240	DOVER CORP	\$58.38	\$0.92	11.00	12.85%		
241	ROHM & HAAS CO	\$57.44	\$1.40	10.00	12.85%		
242	EATON CORP	\$55.73	\$1.20	10.30	12.82%		
243	DU PONT (E.I.) DE NEMOURS	\$56.77	\$1.76	9.20	12.81%		
244	TRW INC	\$67.40	\$1.88	9.50	12.75%		
245	PET INC	\$17.73	\$0.32	10.60	12.72%		

	<u>Company</u>	<u>Price</u>	<u>Divid</u>	<u>IBES Mean Growth</u>	<u>DCF Qtrly Result</u>		
246	JAMES RIVER CORP OF VIRGINIA	\$17.46	\$0.60	8.70	12.69%		
247	ITT CORP	\$87.02	\$1.98	10.00	12.66%		
248	TEKTRONIX INC	\$29.98	\$0.60	10.30	12.64%		
249	DANA CORP	\$56.23	\$1.68	9.10	12.57%		
250	SEAGRAM CO LTD	\$28.92	\$0.56	10.30	12.57%		
251	BECTON DICKINSON & CO	\$37.92	\$0.74	10.20	12.48%		
252	BOEING CO	\$45.21	\$1.00	9.90	12.48%		
253	MERCANTILE STORES CO INC	\$37.77	\$1.02	9.30	12.44%		
254	TEXTRON INC	\$54.21	\$1.40	9.40	12.40%		
255	ALBERTO-CULVER CO -CL B	\$21.31	\$0.28	10.80	12.34%		
256	COORS (ADOLPH) -CL B	\$18.71	\$0.50	9.20	12.30%		
257	UNION CARBIDE CORP	\$25.19	\$0.75	8.80	12.25%		
258	SYNTEX CORP	\$17.35	\$1.04	5.30	12.10%		
259	E-SYSTEMS INC	\$42.40	\$1.20	8.80	12.08%		
260	EASTMAN CHEMICAL CO	\$43.15	\$1.60	7.80	12.07%		
261	GEORGIA-PACIFIC CORP	\$63.13	\$1.60	9.10	12.04%		
262	LILLY (ELI) & CO	\$51.75	\$2.50	6.50	12.02%		
263	GERBER PRODUCTS CO	\$34.15	\$0.86	9.00	11.92%		
264	RALSTON PURINA GROUP	\$38.83	\$1.20	8.30	11.87%		
265	HARNISCHFEGER INDUSTRIES INC	\$21.52	\$0.40	9.70	11.86%		
266	SPX CORP	\$15.58	\$0.40	8.80	11.77%		
267	ALUMINUM CO OF AMERICA	\$71.10	\$1.60	9.10	11.71%		
268	FORD MOTOR CO	\$59.35	\$1.80	8.20	11.70%		
269	ARCHER-DANIELS-MIDLAND CO	\$23.83	\$0.10	11.20	11.69%		
270	PLACER DOME INC	\$22.46	\$0.26	10.30	11.65%		
271	BALL CORP	\$26.65	\$0.60	9.00	11.61%		
272	ROCKWELL INTL CORP	\$38.73	\$1.00	8.60	11.58%		
273	NORTHERN TELECOM LTD	\$29.29	\$0.36	10.00	11.43%		
274	REYNOLDS METALS CO	\$46.13	\$1.00	8.90	11.41%		
275	LORAL CORP	\$37.67	\$0.56	9.60	11.33%		
276	SCOTT PAPER CO	\$43.06	\$0.80	9.10	11.25%		
277	GENERAL DYNAMICS CORP	\$42.29	\$2.40	4.80	11.20%		
278	CUMMINS ENGINE	\$46.10	\$0.50	9.90	11.16%		
279	ARMSTRONG WORLD INDS INC	\$53.46	\$1.28	8.40	11.16%		
280	WESTINGHOUSE ELECTRIC CORP	\$12.29	\$0.20	9.20	11.08%		
281	INTL BUSINESS MACHINES CORP	\$56.92	\$1.00	9.00	11.03%		
282	CHRYSLER CORP	\$50.79	\$0.80	9.20	11.02%		
283	ALLERGAN INC	\$21.92	\$0.40	8.70	10.80%		
284	LONGS DRUG STORES INC	\$33.98	\$1.12	7.00	10.76%		
285	RAYTHEON CO	\$63.96	\$1.40	8.20	10.71%		
286	UPJOHN CO	\$28.46	\$1.48	4.80	10.66%		
287	MAYTAG CORP	\$18.58	\$0.50	7.30	10.37%		
288	LOCKHEED CORP	\$62.81	\$2.28	6.20	10.32%		
289	USX-U S STEEL GROUP	\$35.56	\$1.00	7.00	10.20%		
290	MCDONNELL DOUGLAS CORP	\$113.88	\$1.40	8.70	10.11%		
291	INCO LTD	\$24.42	\$0.40	8.10	9.98%		
292	BORDEN INC	\$13.38	\$0.30	7.20	9.75%		
293	MARTIN MARIETTA CORP	\$43.94	\$0.90	7.20	9.53%		
294	GENERAL MOTORS CORP	\$56.27	\$0.80	7.70	9.32%		
295	NORTHROP GRUMMAN CORP	\$39.15	\$1.60	4.70	9.28%		
296	HOMESTAKE MINING	\$20.06	\$0.20	8.00	9.14%		
297	BOISE CASCADE CORP	\$22.56	\$0.60	5.90	8.90%	4th Quartile	
298	ALCAN ALUMINIUM LTD	\$22.29	\$0.30	6.90	8.42%	Mean	11.63%
299	ASARCO INC	\$24.17	\$0.40	6.10	7.96%	Median	11.92%
300	CHAMPION INTERNATIONAL CORP	\$30.06	\$0.20	5.40	6.14%	Mkt Wtd Mean	11.91%

Notes:

- * Quarterly DCF Model with 5% Flotation
- * 3-month average price - March, April and May 1994
- * 78 were removed due to lack of information (i.e. no dividends, lack of IBES estimates, etc.)

Risk Premium Studies

I performed a study of the comparable returns received by bond and stock investors over the last 56 years. I estimated the returns on stock and bond portfolios, using stock price and dividend yield data on the S&P 500 stock portfolio and bond yield data on Moody's Aa-rated Utility Bonds.

My study consisted of making an investment of one dollar in the S&P 500 and Moody's Aa-rated Utility Bonds at the beginning of 1937, and reinvesting the principal plus return each year to 1994. The return associated with each stock portfolio, such as the one purchased in 1937, is the sum of the annual dividend yield and capital gain (or loss) which accrued to this portfolio during the year(s) in which it was held. The return associated with the bond portfolio, on the other hand, is the sum of the annual coupon yield and capital gain (or loss) which accrued to the bond portfolio during the year(s) in which it was held. The resulting annual returns on the stock and bond portfolios purchased in each year between 1937 and 1994 are shown on Schedule 10. The S&P 500 stock portfolio grew at a rate of 11.49 percent per year, measured on an arithmetic mean basis. The Moody's Aa-rated utility bond portfolio grew at a rate of 5.55 percent per year on an arithmetic mean basis. The difference in the arithmetic means of the S&P 500 stock portfolio and the Moody's A-rated utility bond portfolio (i.e., the risk premium) is 5.94 percentage points.

I also conducted a second, and essentially identical, study using stock data on the S&P Utilities rather than the S&P 500. As shown on Schedule 10, page 7, the S&P Utility stock portfolio grew at a rate of 10.72 percent per year on an arithmetic mean basis. Thus, the return on the S&P Utility stock portfolio exceeded the return on the Moody's Aa-rated utility bond portfolio by 5.17 percentage points.

In choosing the time period of my study, my policy was to go back as far in history as I could get meaningful numbers. Because the S&P 500 contains a significant number of utility stocks, I thought it would be most meaningful to begin after the passage and implementation of the Public Utility Holding Company Act of 1935. This Act significantly changed the structure of the public utility industry. Since the Public Utility Holding Company Act of 1935 was not implemented until the beginning of 1937, I felt that numbers taken from before this date would not be comparable to those taken after.

Numerous other economists have performed risk premium studies using different data, dates and methods. In summary, these studies have shown that returns on investments in stocks generally exceed returns on bond investments by at least five percentage points. My own studies, combined with my analysis of other studies, provide strong

evidence for the belief that investors today require an equity return of approximately 5.2 to 5.9 percentage points above the expected yield on Aa-rated long-term debt issues.

Interest rates on Moody's seasoned Aa-rated utility bonds are currently about 8.3 percent. Adding 5.2 to 5.9 percentage points risk premium to the 8.3 percent expected yield on Aa-rated utility bonds, I obtain an expected return on equity of 13.5 to 14.2 percent. Based on these results, I conclude that the risk premium cost of equity is 13.8 percent. This estimate does not include flotation costs. When flotation costs are included, the risk premium cost of equity is approximately 14 percent.

RISK PREMIUM APPROACH

Source

Stock price and yield information is obtained from Standard & Poor's Security Price publication. Standard & Poor's derives the stock dividend yield by dividing the aggregate cash dividends (based on the latest known annual rate) by the aggregate market value of the stocks in the group. The bond price information is obtained by calculating the present value of a bond due in 30 years with a \$4.00 coupon and a yield to maturity of a particular year's indicated Moody's A-rated Utility bond yield. The values shown on pages 4—7 of this schedule are the January values of the respective indices.

Calculation of Stock and Bond Returns

Sample calculation of "Stock Return" column:

$$\text{Stock Return (1992)} = \left[\frac{\text{Stock Price (1993)} - \text{Stock Price (1992)} + \text{Dividend (1992)}}{\text{Stock Price (1992)}} \right]$$

where $\text{Dividend (1992)} = \text{Stock Price (1992)} \times \text{Stock Div. Yield (1992)}$

Sample calculation of "Bond Return" column:

$$\text{Bond Return (1992)} = \left[\frac{\text{Bond Price (1993)} - \text{Bond Price (1992)} + \text{Interest (1992)}}{\text{Bond Price (1992)}} \right]$$

where $\text{Interest} = \$4.00$

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 Comparative Results of S&P 500 Stocks and Aa-rated Bonds
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COMPARATIVE RETURNS ON S&P 500 STOCKS AND
 MOODY'S Aa-RATED UTILITY BONDS 1937—1994

<u>Year</u>	<u>Stock Price</u>	<u>Stock D Yield</u>	<u>Stock Return</u>	<u>Bond Price</u>	<u>Bond Return</u>
1994	472.99			61.24	
1993	435.23	2.88	11.56	54.00	20.82
1992	416.08	2.90	7.50	50.83	14.11
1991	325.49	3.82	31.65	46.49	17.95
1990	339.97	3.41	(.85)	46.49	8.60
1989	285.41	3.64	22.76	43.96	14.85
1988	250.48	3.66	17.61	41.11	16.66
1987	264.51	3.17	(2.13)	50.89	(11.36)
1986	208.19	3.90	30.95	41.45	32.40
1985	171.61	4.51	25.83	33.45	35.90
1984	166.39	4.27	7.41	32.48	15.29
1983	144.27	4.79	20.12	33.28	9.64
1982	117.28	5.95	28.96	25.05	48.80
1981	132.97	4.80	(7.00)	29.90	(2.85)
1980	110.87	5.41	25.34	35.72	(5.10)
1979	99.71	5.33	16.52	44.89	(11.51)
1978	90.25	5.32	15.80	50.04	(2.29)
1977	103.80	3.99	(9.06)	52.21	3.49
1976	96.86	3.80	10.96	46.49	20.93
1975	72.56	5.07	38.56	46.17	9.35
1974	96.11	3.64	(20.86)	53.93	(6.98)
1973	118.40	2.69	(16.14)	59.29	(2.29)
1972	103.30	2.96	17.58	56.69	11.64
1971	93.49	3.32	13.81	54.41	11.54
1970	90.31	3.56	7.08	52.28	11.73
1969	102.00	3.06	(8.40)	63.65	(11.58)
1968	95.04	3.13	10.45	69.13	(2.14)
1967	84.45	3.51	16.05	81.58	(10.36)
1966	93.32	3.02	(6.48)	87.70	(2.42)
1965	86.12	2.99	11.35	92.78	(1.16)
1964	76.45	3.05	15.70	93.09	3.96
1963	65.06	3.31	20.82	95.32	1.86
1962	69.07	2.97	(2.84)	91.86	8.12
1961	59.72	3.28	18.94	92.16	4.01

**COMPARATIVE RETURNS ON S&P 500 STOCKS AND
 MOODY'S Aa-RATED UTILITY BONDS 1937—1994**

<u>Year</u>	<u>Stock Price</u>	<u>Stock D Yield</u>	<u>Stock Return</u>	<u>Bond Price</u>	<u>Bond Return</u>
1960	58.03	3.27	6.18	87.99	9.29
1959	55.62	3.24	7.57	95.48	(3.66)
1958	41.12	4.48	39.74	104.83	(5.10)
1957	45.43	4.31	(5.18)	102.28	6.40
1956	44.15	4.24	7.14	115.92	(8.31)
1955	35.60	4.38	28.40	119.38	0.45
1954	25.46	5.69	45.52	116.56	5.85
1953	26.18	5.45	2.70	117.20	2.86
1952	24.19	5.82	14.05	118.28	2.47
1951	21.21	6.34	20.39	126.26	(3.15)
1950	16.88	6.65	32.30	127.94	1.81
1949	15.36	6.20	16.10	123.68	6.68
1948	14.83	5.71	9.28	120.94	5.57
1947	15.21	4.49	1.99	128.92	(3.08)
1946	18.02	3.56	(12.03)	129.65	2.52
1945	13.49	4.60	38.18	126.02	6.06
1944	11.85	4.95	18.79	125.55	3.56
1943	10.09	5.54	22.98	124.37	4.16
1942	8.93	7.88	20.87	122.53	4.77
1941	10.55	6.38	(8.98)	122.30	3.46
1940	12.30	4.58	(9.65)	120.94	4.43
1939	12.50	3.49	1.89	118.50	5.43
1938	11.31	7.84	18.36	112.18	9.20
1937	17.59	4.34	(31.36)	112.59	3.19

Arithmetic Mean

Common Stocks (S&P 500)	11.49%
Aa-Rated Utility Bonds	<u>5.55</u>
RISK PREMIUM	<u>5.94%</u>

See pages 1-3 of this schedule for an explanation of how stock and bond returns are derived and the source of the data presented.

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 Comparative Results of S&P 500 Utility Stocks and Aa-Rated Bonds
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COMPARATIVE RETURNS ON S&P UTILITIES AND MOODY'S
 Aa-RATED UTILITY BONDS 1937—1994

<u>Year</u>	<u>Stock Price</u>	<u>Stock D Yield</u>	<u>Stock Return</u>	<u>Bond Price</u>	<u>Bond Return</u>
1994	168.70			61.24	
1993	159.79	5.37	10.95	54.00	20.82
1992	149.70	5.72	12.46	50.83	14.11
1991	138.38	6.07	14.25	46.49	17.95
1990	146.04	5.58	.33	46.49	8.60
1989	114.37	6.99	34.68	43.96	14.85
1988	106.13	7.04	14.80	41.11	16.66
1987	120.09	5.88	(5.75)	50.89	(11.36)
1986	92.06	7.42	37.88	41.45	32.40
1985	75.83	8.60	30.00	33.45	35.90
1984	68.50	9.25	19.95	32.48	15.29
1983	61.89	9.48	20.16	33.28	9.64
1982	51.81	10.74	30.20	25.05	48.80
1981	52.01	9.78	9.40	29.90	(2.85)
1980	50.26	9.53	13.01	35.72	(5.10)
1979	50.33	8.93	8.79	44.89	(11.51)
1978	52.40	7.91	3.96	50.04	(2.29)
1977	54.01	7.14	4.16	52.21	3.49
1976	46.99	7.76	22.70	46.49	20.93
1975	38.19	9.20	32.24	46.17	9.35
1974	48.60	7.13	(14.29)	53.93	(6.98)
1973	60.01	5.56	(13.45)	59.29	(2.29)
1972	60.19	5.42	5.12	56.69	11.64
1971	63.43	5.04	(0.07)	54.41	11.54
1970	55.72	5.61	19.45	52.28	11.73
1969	68.65	4.45	(14.38)	63.65	(11.58)
1968	68.02	4.35	5.28	69.13	(2.14)
1967	70.63	3.92	0.22	81.58	(10.36)
1966	74.50	3.47	(1.72)	87.70	(2.42)
1965	75.87	3.15	1.34	92.78	(1.16)
1964	67.26	3.31	16.11	93.09	3.96
1963	63.35	3.30	9.47	95.32	1.86
1962	62.69	3.20	4.25	91.86	8.12
1961	52.73	3.58	22.47	92.16	4.01