

APPENDIX

THE BASIC REGRESSION RESULTS

This section contains a summary of the models tested and the results of the basic regressions of the six models. The test samples include four different groups of firms over the four-year period 1956-1959. The samples included:

- Group I: a food-related industries sample of 55 firms
- Group II: a group of 62 firms from machinery-related industries
- Group III: a group of 50 firms from chemically oriented industries
- Group IV: a group of 55 large firms from about fifty different industries

The data are firm financial statistics provided by the Standard Statistics subsidiary of the Standard and Poor Corporation. The data represent a preliminary 1963 version of that company's "Compustat" service.

Standard deviations for the regression coefficients are found in the tables on the line beneath the coefficients. If the (t) statistic is greater than two, the regression coefficient is starred.

SUMMARY OF SYMBOLS

P = price of a stock at the end of period t

DV = dividends for the period t

dv = dividends per share

NI = net income after taxes

ni = NI per share

NW = book value of the net worth of the corporation

nw = net worth per share

S = market value of common stock equity = (P.N)

LL = long term debt for the firm, including any preferred stock, at book value

DT = total balance sheet liabilities for the firm

IY = inventory at the end of period t

NP = net plant and equipment

CH = cash at the end of period t

CL = current liabilities

AR = accounts receivable

TA = total assets at book value

THE DURAND MODELS

$$(1) \quad P = a \cdot (ni)^b \cdot (dv)^c \cdot (nw)^d$$

$$(2) \quad P = a + b(ni) + c(dv) + d(nw)$$

THE MODIGLIANI-MILLER MODEL

$$(3) \quad i = a + (a - r)(1 - t) \cdot (LL/S)$$

$$= a + b (LL/S)$$

$$i = NI/S$$

$$t = \text{marginal tax rate}$$

$$r = \text{marginal cost of debt capital}$$

THE BARGES MODEL

$$(4) \quad i = a + (a - r)(1 - t) \cdot (LL/NW)$$

$$= a + b (LL/NW)$$

$$i = NI/S$$

$$t = \text{marginal tax rate}$$

$$r = \text{marginal cost of debt capital}$$

THE BENISHAY MODEL

$$(5) \quad Y = a \cdot e^{[b(x_1) + c(x_2) + h(x_7)]} \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

$$(Y) = NI^*/\bar{S}$$

$$NI^* = [NI(t) + \sum_{t-9}^{t-1} NI(t)/9]/2$$

$$\bar{S} = N[P_H + P_L]/2$$

$$= N \cdot \bar{P}$$

THE BENISHAY MODEL (CONTINUED)

(x_1) = a growth in earnings factor

= $b_1/\overline{NI}$ where b_1 is the coefficient from the regression

$$NI(t) = a_1 + b_1(t) \quad t = t-8, \dots, t \text{ and}$$

$$\overline{NI} = \frac{\sum_{t-8}^t NI(t)}{9}$$

(x_2) = growth in equity value

= b_2/P^* where b_2 is the coefficient from the regression

$$\overline{P}(t) = a_2 + b_2(t) \quad t = t-8, \dots, t \text{ and}$$

$$P^* = \frac{\sum_{t-8}^t \overline{P}(t)}{9}$$

(x_3) = pay-out ratio

$$= \left[\frac{\sum_{t-2}^t DV(t)/NI(t)}{3} \right] \cdot [100/3]$$

(x_4) = stability of income measure

$$= \overline{NI}/\sigma_{x1}$$

(x_5) = stability of equity value

$$= P^*/\sigma_{x2}$$

(x_6) = a measure of size

$$= \overline{S}$$

(x_7) = a debt-equity ratio

$$= DT/\overline{S}$$

THE GORDON MODEL

$$(6) \quad P = a \cdot (x_1)^b \cdot (x_2)^c \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

(x_1) = dividends per share

= (dv) or 2% (nw), whichever is greater

(x_2) = dividend growth rate

= $[1 + b'i']$

$$b'i' = \left(\frac{\bar{y}(t) - dv}{\bar{y}(t)} \right) \cdot \left(\frac{\bar{y}(t)}{nw} \right)$$

$$\bar{y}(t) = [.3NI(t) + .7\tilde{y}(t-1)(1+G[t])]/N$$

$$\tilde{y}(t-1) = .3NI(t-1) + .7\tilde{y}(t-2)$$

$$G(t) = .3[\tilde{y}(t) - \tilde{y}(t-1)]/\tilde{y}(t-1) + .7G(t-1)$$

$$\tilde{y}(1950) = NI(1950); G(1950) = .03$$

(x_3) = earnings instability index

= $(1 + \hat{\sigma}/NW)$

$$\hat{y}(t) = \bar{y}(t-1)[1 + G(t-1)]$$

$$\Delta(t) = [|\hat{y}(t) - NI(t)|]/NW$$

$$\left(\frac{\sigma}{NW} \right)_t = .3\Delta(t) + .7 \left(\frac{\sigma}{NW} \right)_{t-1}$$

$$L(t) = CL + LL - CH - AR - \hat{IY}(t)$$

$$\hat{IY}(t) = \frac{.4IY}{NW} + .6\hat{IY}(t-1)$$

$$\overline{IY}(t) = \hat{IY}(t) \cdot NW$$

$$\tilde{IY}(t) = IY - \overline{IY}(t)$$

$$\left(\frac{\sigma}{NW} \right) = \left(\frac{\sigma}{NW} \right) \left(\frac{NW}{NW + L(t)} \right)$$

$$\left(\frac{\sigma}{NW} \right)_{1951} = \frac{NI(1951) - NI(1950)}{NW(1950)}$$

$$\overline{IY}(1950) = IY(1950)$$

THE GORDON MODEL (CONTINUED)

(x_4) = leverage index

$$= 1 + h' - rh'/k$$

$$h' = L(t)/NW(t)$$

$$k = \frac{(1-b')NI}{P} \cdot (1+h')^{-.3} + (b'i')$$

$$r = .045$$

(x_5) = operating asset liquidity index

$$= \frac{7\overline{IY} + 3NP}{5\overline{IY} + 5NP}$$

(x_6) = firm size index

$$= [TA-CL]/1,000,000$$

TABLE 1

Durand Equation: (1) $P = a \cdot (ni)^b \cdot (dv)^c \cdot (nw)^d$

(2) $P = a + b(ni) + c(dv) + d(nw)$

Group I

	1956	1957	1958	1959
ln a	2.653	2.764	3.014	3.055
a	14.194	15.865	20.373	21.218
b	.465 * (.099)	.538 * (.093)	.228 * (.102)	.592 * (.135)
(1) c	.567 * (.075)	.686 * (.083)	.709 * (.094)	.418 * (.101)
d	-.026 (.065)	-.122 * (.058)	.088 (.066)	-.080 (.076)
R ²	.894	.919	.869	.840
F	153.2	204.2	120.1	95.6
a	6.330	-.115	4.002	2.497
b	1.349 (.975)	3.667 * (.996)	3.458 * (1.446)	6.725 * (1.458)
(2) c	13.592 * (1.422)	12.756 * (1.539)	15.118 * (2.355)	11.469 * (2.160)
d	-.067 (.083)	-.125 * (.061)	-.022 (.094)	-.093 (.108)
R ²	.870	.902	.847	.852
F	121.4	166.0	100.4	105.0

TABLE 2

Durand Equation: (1) $P = a \cdot (ni)^b \cdot (dv)^c \cdot (nw)^d$

(2) $P = a + b(ni) + c(dv) + d(nw)$

Group II

	1956	1957	1958	1959
ln a	3.032	2.745	2.868	3.096
a	20.734	15.563	17.603	22.099
b	.715 * (.091)	.184 * (.063)	.183 * (.041)	.305 * (.078)
(1) c	.197 * (.086)	.518 * (.100)	.209 * (.066)	.106 (.065)
d	-.126 (.102)	.002 (.111)	.172 (.089)	.074 (.091)
R ²	.691	.546	.556	.468
F	46.4	25.5	26.4	18.9
a	15.007	8.397	15.066	17.185
b	6.958 * (1.138)	2.751 * (.965)	4.417 * (1.312)	3.578 * (1.204)
(2) c	5.218 (2.828)	9.469 * (2.117)	11.397 * (2.188)	10.080 * (2.338)
d	-.331 * (.138)	-.226 * (.085)	-.079 (.093)	-.046 (.104)
R ²	.630	.593	.627	.490
F	35.6	30.6	35.3	20.6

TABLE 3

Durand Equation: (1) $P = a \cdot (ni)^b \cdot (dv)^c \cdot (nw)^d$

(2) $P = a + b(ni) + c(dv) + d(nw)$

Group III

	1956	1957	1958	1959
ln a	3.434	3.704	3.985	4.176
a	30.995	40.626	49.142	65.125
b	.832 * (.163)	.676 * (.115)	.333 * (.108)	1.052 * (.169)
(1) c	.212 * (.082)	.335 * (.079)	.334 * (.089)	.258 * (.076)
d	-.214 (.116)	-.290 * (.101)	-.097 (.089)	-.454 * (.093)
R ²	.575	.661	.633	.693
F	23.1	32.8	29.2	37.8
a	7.159	10.431	22.264	.753
b	10.464 * (2.728)	7.557 * (1.699)	8.838 * (2.348)	20.248 * (4.209)
(2) c	14.732 * (3.751)	15.021 * (2.724)	19.304 * (3.781)	16.490 * (5.011)
d	-.672 * (.211)	-.644 * (.159)	-.680 * (.191)	- 1.118 * (.220)
R ²	.696	.726	.708	.778
F	38.4	44.2	40.6	58.2

TABLE 4

Durand Equation: (1) $P = a \cdot (ni)^b \cdot (dv)^c \cdot (nw)^d$

(2) $P = a + b(ni) + c(dv) + d(nw)$

Group IV

	1956	1957	1958	1959
ln a	2.998	3.180	3.423	3.125
a	20.048	24.057	30.675	22.753
b	.754 * (.170)	.422 * (.165)	.085 (.094)	.015 (.199)
(1) c	.330 * (.108)	.689 * (.158)	.729 * (.147)	.399 (.215)
d	-.124 (.133)	-.154 (.125)	.003 (.113)	.187 (.121)
R ²	.595	.583	.530	.277
F	27.5	26.2	21.3	7.9
a	- 15.008	- 1.237	- 8.022	- 1.583
b	18.245 * (4.550)	8.232 * (3.003)	14.086 * (4.032)	22.610 * (6.318)
(2) c	6.544 (8.443)	11.403 * (5.648)	3.303 (8.459)	- 3.993 (9.337)
d	-.684 (.477)	-.281 (.282)	.512 (.413)	-.159 (.340)
R ²	.385	.404	.383	.354
F	12.3	13.2	12.2	10.9

TABLE 5

Modigliani - Miller Equation: $(NI)/S = a + b(LL)/S$

Barges Equation: $(NI)/S = a + b(LL)/(NW)$

Group I

	1956	1957	1958	1959
a	.096	.098	.071	.070
b	.044 * (.010)	.050 * (.009)	.057 * (.013)	.051 * (.008)
R ²	.259	.357	.267	.397
F	19.9	31.0	20.7	36.6
a	.097	.099	.072	.071
b	.049 * (.014)	.059 * (.015)	.050 * (.015)	.043 * (.013)
R ²	.164	.209	.150	.166
F	11.6	15.3	10.5	11.7

TABLE 6

Modigliani - Miller Equation: $(NI)/S = a + b(LL)/S$

Barges Equation: $(NI)/S = a + b(LL)/(NW)$

Group II

	1956	1957	1958	1959
a	.100	.129	.056	.072
b	.009 (.020)	.001 (.020)	- .005 (.023)	.025 (.025)
R ²	.000	.000	.000	.000
F	0.2	0.0	0.0	0.0
a	.105	.134	.054	.079
b	- .014 (.018)	- .022 (.028)	.001 (.022)	- .010 (.029)
R ²	.000	.000	.000	.000
F	- .6	0.6	0.0	0.1

TABLE 7

Modigliani - Miller Equation: $(NI)/S = a + b(LL)/S$

Barges Equation: $(NI)/S = a + b(LL)/(NW)$

Group III

	1956	1957	1958	1959
a	.070	.075	.046	.056
b	.030 * (.006)	.035 * (.004)	.026 * (.004)	.024 * (.007)
R ²	.333	.624	.448	.188
F	25.4	82.3	40.8	12.3
a	.069	.067	.043	.057
b	.029 * (.008)	.067 * (.009)	.032 * (.006)	.019 * (.008)
R ²	.198	.515	.369	.102
F	13.1	53.1	29.6	6.5

TABLE 8Modigliani - Miller Equation: $(NI)/S = a + b(LL)/S$ Barges Equation: $(NI)/S = a + b(LL)/(NW)$

Group IV

	1956	1957	1958	1959
a	.084	.095	.055	.063
b	.042 * (.014)	.037 * (.014)	.030 (.019)	.006 (.013)
R ²	.120	.092	.027	.000
F	8.3	6.4	2.5	0.2
a	.093	.107	.063	.065
b	.009 (.012)	.007 (.014)	.002 (.008)	- .000 (.008)
R ²	.000	.000	.000	.000
F	0.6	0.3	0.0	0.0

TABLE 9

Benishay Equation:

$$Y = a \cdot e^{(bx_1 + cx_2 + hx_7)} \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group I

	1956	1957	1958	1959
ln a	- 1.247	- 1.059	- 1.006	- 1.510
a	.287	.347	.366	.221
b	- 1.902 *	- 1.587 *	- .614	- .320
	(.400)	(.438)	(.606)	(.799)
c	.754	- .048	- .521	- .263
	(.429)	(.608)	(.825)	(.867)
d	- .224 *	- .275 *	- .347 *	- .306 *
	(.057)	(.089)	(.124)	(.138)
e	- .044	.061	.034	- .048
	(.056)	(.061)	(.067)	(.048)
f	.100	.028	.066	.202 *
	(.058)	(.065)	(.086)	(.086)
g	- .107 *	- .084 *	- .075 *	- .054 *
	(.019)	(.019)	(.022)	(.023)
h	.272 *	.242 *	.357 *	.373 *
	(.068)	(.079)	(.120)	(.124)
R ²	.755	.692	.622	.616
F	24.8	18.3	13.7	13.4

Y = a weighted rate of return
 x_1 = a growth in earnings factor
 x_2 = a growth in equity value factor
 x_3 = pay-out ratio
 x_4 = stability of income measure

x_5 = stability of equity value measure
 x_6 = size, as measured by equity value
 x_7 = a debt-equity ratio

TABLE 10

Benishay Equation:

$$Y = a \cdot e^{(bx_1 + cx_2 + hx_7)} \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group II

	1956	1957	1958	1959
ln a	- 1.803	- 1.622	- 2.051	- 2.139
a	.165	.197	.129	.118
b	.458 (.381)	.461 (.506)	.783 (.625)	.643 (.489)
c	- 2.076 * (.624)	- 3.737 * (.736)	- 3.662 * (.776)	- 3.958 * (.633)
d	- .043 (.022)	.041 (.027)	.018 (.014)	.017 (.013)
e	.104 (.073)	.153 (.092)	.264 * (.077)	.160 (.086)
f	.019 (.089)	- .223 (.115)	- .201 (.108)	- .139 (.103)
g	- .089 * (.032)	- .072 (.042)	- .045 (.039)	- .024 (.038)
h	.100 (.141)	.095 (.140)	.091 (.141)	.138 (.192)
R ²	.418	.477	.485	.531
F	7.3	8.9	9.2	10.9

Y = a weighted rate of return

 x_1 = a growth in earnings factor x_2 = a growth in equity value factor x_3 = pay-out ratio x_4 = stability of income measure x_5 = stability of equity value measure x_6 = size, as measured by equity value x_7 = a debt-equity ratio

TABLE 11

Benishay Equation:

$$Y = a \cdot e^{(bx_1 + cx_2 + hx_7)} \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group III

	1956	1957	1958	1959
ln a	- 2.364	- 2.153	- 2.711	- 2.335
a	.094	.116	.066	.097
b	.420 (1.212)	.588 (1.141)	- 1.461 (1.195)	- 1.743 (1.211)
c	- 2.041 (1.260)	- 2.953 * (1.129)	- 1.275 (1.084)	- 1.751 (.901)
d	.011 (.060)	- .005 (.037)	.029 (.038)	- .029 (.039)
e	.121 (.112)	.214 * (.103)	.168 (.096)	- .013 (.082)
f	- .007 (.131)	- .104 (.152)	- .033 (.158)	.091 (.137)
g	- .079 * (.033)	- .082 * (.036)	- .061 (.036)	- .057 (.034)
h	.439 * (.170)	.303 * (.102)	.305 * (.101)	.094 (.165)
R ²	.545	.610	.611	.612
F	9.4	11.9	12.0	12.0

Y = a weighted rate of return
 x_1 = a growth in earnings factor
 x_2 = a growth in equity value factor
 x_3 = pay-out ratio
 x_4 = stability of income measure
 x_5 = stability of equity value measure
 x_6 = size, as measured by equity value
 x_7 = a debt-equity ratio

TABLE 12

Benishay Equation:

$$Y = a \cdot e^{(bx_1 + cx_2 + hx_7)} \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group IV

	1956	1957	1958	1959
ln a	- 1.466 .231	1.044	- 1.447 .235	- 3.591 .028
b	- .512 (.742)	- .616 (.765)	3.220 * (.818)	4.034 * (.531)
c	- 1.477 (.919)	- 2.225 * (.911)	- 4.239 * (.986)	- 4.448 * (.842)
d	- .066 (.101)	- .474 * (.134)	- .122 (.212)	.453 * (.140)
e	- .225 (.113)	- .035 (.107)	.223 * (.104)	- .079 (.069)
f	.051 (.113)	.050 (.129)	-.103 (.148)	.029 (.140)
g	- .081 * (.130)	- .084* (.030)	- .114 * (.036)	- .121 * (.028)
h	.251 * (.113)	.093 (.098)	- .033 (.151)	.212 (.148)
R ²	.553	.574	.490	.652
F	10.6	11.4	8.4	15.4

Y = a weighted rate of return
 x_1 = a growth in earnings factor
 x_2 = a growth in equity value factor
 x_3 = pay-out ratio

x_4 = stability of income measure
 x_5 = stability of equity value measure
 x_6 = size, as measured by equity value
 x_7 = a debt-equity ratio

TABLE 13

Gordon Equation:

$$P = a \cdot (x_1)^b \cdot (x_2)^c \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group I

	1956	1957	1958	1959
ln a	2.472	2.343	2.672	2.575
a	11.843	10.409	14.467	13.133
b	.837 * (.053)	.974 * (.059)	.832 * (.050)	.756 * (.055)
c	6.884 * (1.857)	8.865 * (1.905)	5.029 * (1.988)	7.043 * (2.442)
d	- 2.772 (3.005)	- 6.287 (3.330)	1.296 (3.296)	- 1.339 (4.465)
e	- .709 * (.214)	- .734 * (.216)	- .502 * (.197)	- .883 * (.257)
f	.548 * (.166)	.485 * (.175)	.437 * (.164)	.356 * (.170)
g	.080 * (.030)	.071 * (.029)	.084* (.027)	.116 * (.031)
R ²	.895	.909	.898	.872
F	77.9	91.2	80.3	62.5

 x_1 = dividends per share x_5 = operating asset liquidity index x_2 = dividend growth rate x_6 = firm size index x_3 = earnings instability index x_4 = leverage index

TABLE 14

Gordon Equation:

$$P = a \cdot (x_1)^b \cdot (x_2)^c \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group II

	1956	1957	1958	1959
ln a	2.248	1.840	2.669	2.959
a	9.472	6.294	14.431	19.276
b	.690 * (.075)	.838 * (.086)	.670 * (.058)	.563 * (.093)
c	15.524 * (2.072)	10.420 * (1.997)	12.464 * (2.093)	10.255 * (2.818)
d	-.383 (2.756)	1.251 (3.066)	-.597 (1.767)	.392 (2.429)
e	-.321 (.352)	.547 * (.254)	-.150 (.148)	.156 (.458)
f	.812 * (.335)	.540 (.342)	-.012 (.263)	-.036 (.408)
g	.068 (.043)	.091 (.052)	.044 (.040)	.018 (.054)
R ²	.751	.706	.793	.498
F	31.7	25.4	40.0	11.1

 x_1 = dividends per share x_4 = leverage index x_2 = dividend growth rate x_5 = operating asset liquidity index x_3 = earnings instability index x_6 = firm size index

TABLE 15

Gordon Equation:

$$P = a \cdot (x_1)^b \cdot (x_2)^c \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group III

	1956	1957	1958	1959
ln a	2.427	2.407	2.965	2.808
a	11.330	11.097	19.388	16.583
b	.724 * (.130)	.656 * (.136)	.702 * (.094)	.787 * (.124)
c	5.865 (3.020)	8.616 * (2.875)	8.695 * (2.637)	8.636 * (3.456)
d	2.242 (2.768)	- 2.606 (2.967)	- 3.262 (2.859)	3.166 (3.792)
e	- .482 (.293)	- 1.131 * (.310)	- .941 * (.294)	- .614 (.358)
f	- .306 (.453)	.738 (.520)	.537 (.458)	.374 (.526)
g	.119 * (.048)	.141 * (.054)	.090 * (.044)	.071 (.057)
R ²	.624	.662	.734	.651
F	14.5	17.0	23.5	16.3

 x_1 = dividends per share x_4 leverage index x_2 = dividend growth rate x_5 operating asset liquidity index x_3 = earnings instability index x_6 firm size index

TABLE 16

Gordon Equation:

$$P = a \cdot (x_1)^b \cdot (x_2)^c \cdot (x_3)^d \cdot (x_4)^e \cdot (x_5)^f \cdot (x_6)^g$$

Group IV

	1956	1957	1958	1959
ln a	2.351	2.261	2.803	2.627
a	10.499	9.595	16.489	13.828
b	.856 * (.099)	.938 * (.120)	.826 * (.108)	.858 * (.121)
c	9.357 * (2.555)	6.524 * (3.021)	4.000 (2.285)	6.770 * (2.859)
d	-.127 (.817)	.174 (.814)	.548 (.764)	.453 (.990)
e	.394 * (.174)	.092 (.194)	-.182 (.172)	-.163 * (.073)
f	-.441 (.260)	-.373 (.291)	-.288 (.285)	.046 (.296)
g	.078 * (.039)	.075 (.043)	.074 (.043)	.092 * (.045)
R ²	.672	.613	.621	.557
F	19.4	15.3	15.8	12.3

 x_1 = dividends per share x_4 = leverage index x_2 = dividend growth rate x_5 = operating asset liquidity index x_3 = earnings instability index x_6 = firm size index

TABLE 17

Group I

Beech-Nut Life Savers Inc.	Great Western Sugar Company
General Food Corporation	Holly Sugar Corporation
General Mills Inc.	Su Crest Corporation
Gerber Products Company	Brach (E.J.) and Sons
Kellogg Company	Hershey Chocolate Corporation
Quaker Oats Company	Wrigley (WM.) Company
Standard Brands Inc.	Drewrys Ltd., U.S.A., Inc.
Swift and Company	Falstaff Brewing Corporation
Wilson and Company	Distillers Corporation - Seagrams Ltd.
Beatrice Foods Company	National Distillers and Chemical Corp.
Borden Company	Schenley Industries Inc.
National Dairy Corporation	Walker (H.) - Gooderham and Worts Ltd.
California Packing Corporation	Canada Dry Corporation
Heinz (H.J.) Company	Coca-Cola Company
Libby, McNeill and Libby	Dr. Pepper Company
Stokely-Van Camp Inc.	Pepsi-Cola Company
Penick and Ford Ltd.	Royal Crown Cola Company
American Bakeries Company	Archer-Daniels-Midland Company
Continental Baking Company	American Tobacco
General Baking Company	Liggett and Myers Tobacco
Ward Baking Company	Lorillard (P.) Company
National Biscuit Company	Philip Morris Inc.
Sunshine Biscuits Inc.	Reynolds (R.J.) Tobacco
United Biscuit Company of America	Bayuk Cigars Inc.
American Sugar Company	Consolidated Cigars Corporation
National Sugar Company	D.W.G. Cigars Corporation
Amalgamated Sugar Company	General Cigar Company
American Crystal Sugar Company	

TABLE 18

Group II

Anaconda Wire and Cable Company	Joy Manufacturing Company
Calumet and Hecla Inc.	Leesona Corporation
General Cable Corporation	Otis Elevator Company
Mueller Brass Company	United Shoe Machinery Corporation
Revere Copper and Brass Inc.	American Chain and Cable Company
Scovill Manufacturing Company	Blaw-Knox Company
American Radiator Corporation	Chain Belt Company
Carrier Corporation	Bliss (E.W.) Company
Crane Company	Chicago Pneumatic Tool Company
Fedders Corporation	Cooper-Bessemer Corporation
Trane Company	Gardiner-Denver Company
Babcock and Wilcox Inc.	Ingersoll-Rand Company
Combustion Engineering Inc.	Waukesha Motor Company
Foster Wheeler Corporation	Worthington Corporation
Allis Chalmers Manufacturing	Bohn Aluminum and Brass Corporation
Deere and Company	Borg-Warner Corporation
International Harvester Company	Budd Company
Bucyrus-Erie Company	Clevite Corporation
Caterpillar Tractor Company	Dana Corporation
Clark Equipment Company	Eaton Manufacturing Company
Link-Belt Company	Electric Autolite Company
Yale and Towne Manufacturing	Libbey-Owens-Ford Glass Company
Baker Oil Tools	Motor Wheel Corporation
Halliburton Company	Sheller Manufacturing Corporation
Jaeger Machine Company	A.C.F. Industries Inc.
Reed Roller Bit Company	Alco Products Inc.
Cincinnati Milling Machine Corp.	American Brake Shoe Company
Monarch Machine and Foundry	Amsted Industries
Ex-Cell-O Corporation	General Railway Signal Corporation
National Acme Company	Pullman Incorporated
American Machine and Foundry	Westinghouse Air Brake Corporation

TABLE 19

Group III

Air Reduction Corporation	Norwich Pharmacal Company
Allied Chemical Company	Parke, Davis and Company
American Cyanamid Company	Pfizer (Charles) and Company
American Potash and Chemical Corp.	Richardson-Merrell Inc.
Chemetron Corporation	Sterling Drug Inc.
Commercial Solvents Corp.	Colgate Palmolive Company
Dow Chemical	Procter and Gamble Company
Du Pont (E.I.) De Nemours and Co.	American Agricultural Chemical Corp.
Eastman Kodak Company	International Minerals and Chemical Co.
Hercules Powder Company	Tennessee Corporation
Minnesota Mining and Manufacturing	Virginia-Carolina Chemical Corp.
Monsanto Chemical Company	Atlantic Refining Company
National Lead Company	Cities Service Company
Pittsburgh Plate Glass Company	Continental Oil Company
Union Carbide and Carbon Corp.	Phillips Petroleum Company
American Enka Corporation	Shell Oil Company
American Viscose Corporation	Sinclair Oil Corporation
Beaunit Corporation	Standard Oil of Indiana
Celanese Corporation of America	Standard Oil of California
Abbott Laboratories	Standard Oil of New Jersey
American Home Products Corp.	Tidewater Oil Company
Bristol-Myers Company	Union Oil Company
Gillette Company	Gulf Oil Corporation
McKesson and Robbins Inc.	Socony Mobile Oil Company
Merck and Company	Texaco Incorporated

TABLE 20

Group IV

American Metal Climax Inc.	International Harvester Company
Consolidation Coal Company	Halliburton Company
General Food Corporation	Cincinnati Milling Machine Corp.
Swift and Company	American Machine and Foundry
National Dairy Corporation	Blaw-Knox Company
General Baking Company	International Business Machines Corp.
Hershey Chocolate Corporation	General Electric Company
Distillers Corporation - Seagrams	Square D Company
Coca-Cola Company	Zenith Radio Corporation
Liggett and Myers Tobacco	General Motors Corporation
Munsingwear Inc.	Mack Trucks Inc.
Scott Paper Company	Eaton Manufacturing Company
McGraw-Hill Publishing Company	Lockheed Aircraft Corp.
Dupont (E.I.) De Nemours Company	American Shipbuilding
Parke, Davis and Company	Pullman Incorporated
Procter and Gamble Company	American Export Lines Inc.
Standard Oil of New Jersey	United Air Lines
Celotex Corporation	American Telephone and Telegraph
Goodrich (B.F.) Company	Columbia Broadcasting System
International Shoe Company	Penney (J.C.) Company
Continental Can Company	Sears-Roebuck and Company
General Portland Cement Company	Woolworth (F.W.) Company
U.S. Steel Corporation	Kroger Company
Anaconda Copper Company	Lane Bryant Inc.
Aluminum Company of America	General Finance Corporation
General Cable Corporation	Household Finance Corporation
Carrier Corporation	Columbia Pictures Corporation
Babcock and Wilcox Company	