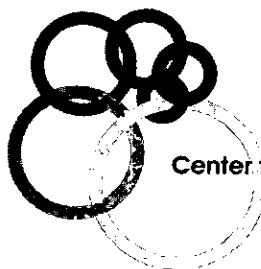


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VS CO-OP CONVERSION OF A FIRM
ON EMPLOYEE BENEFITS AND COMPANY CASH**

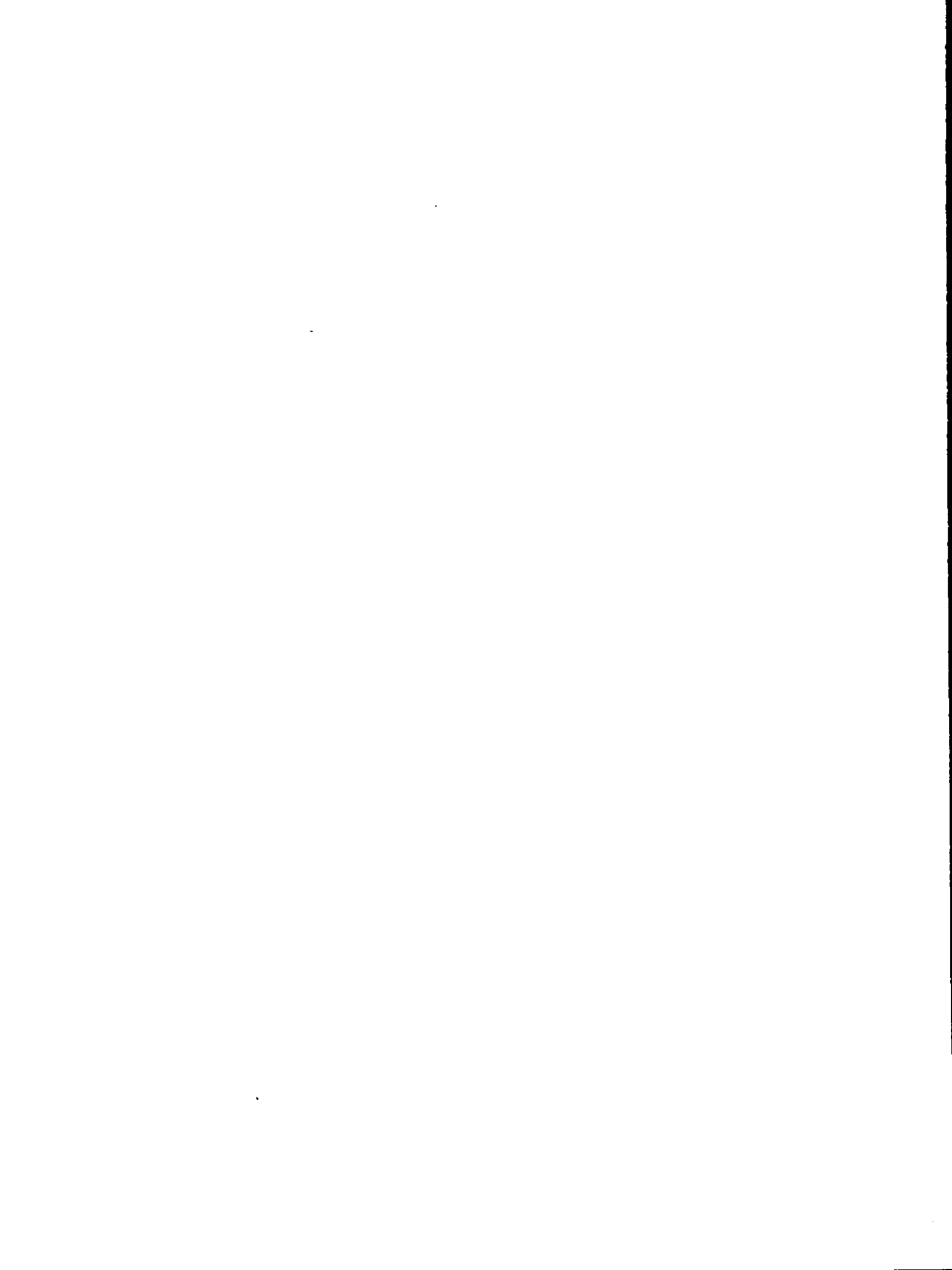
by

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Democratic Business Association of Northern California



Center for Cooperatives • University of California, Davis



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ESOP VS CO-OP CONVERSION: LONG-TERM EMPLOYEE BENEFITS AND CASH-FLOW EFFECTS¹

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When the acquisition of firms by their employees is being considered in this country, Employee Stock Ownership Plans (ESOPs) tend to be the favorite form of ownership. Briefly, an ESOP is a special type of pension plan through which employers allocate company shares or cash convertible into shares up to a maximum of 25% of payroll, the limit of total pension plan contributions permissible under the Employee Retirement Insurance Security Act. These shares are distributed to employees when they leave the firm. In closely held firms employees can exercise a put option requiring the company to repurchase the shares at current market value as determined by an independent appraisal of the firm. As a trust managing the allocations to employees, the ESOP, unlike other types of pension arrangements, actually purchases all or part of the firm either by the gradual acquisition of shares through continuing allocations from the firm or by obtaining a loan, generally secured by present and future assets of the firm, to purchase the company's shares. The main tax benefits are as follows:

In an ESOP transaction, the seller of a closely held firm can defer taxation of profits on the sale by investing them in qualified securities. The firm's tax exempt allocation to the ESOP can be used to repay the principal on its purchase loan. Since repayment of principal is otherwise not tax-deductible, this gives the ESOP a considerable cash flow advantage. Lenders financing ESOP loans may deduct up to 50% of the related interest income from taxable income if the ESOP controls more than half the stock. Also, employees can often defer income tax payments on the distribution they receive from the ESOP by investing the cash in qualified securities.

In this country ESOPs became financially attractive as the result of several waves of legislation that gave them significant tax advantages over other forms of ownership. Although tax benefits to sellers or to the purchasing firm are usually not a major reason for the sale of all or part of a firm to employees², the federal income tax advantages for ESOPs often appear to be an important factor in choosing it over other employee ownership options.

Numerous consultants, a variety of support Associations and a growing technical literature support a growing number of ESOPs.

Employees can also purchase a firm as a mutual benefit non profit cooperative corporation (Co-op) owned and governed by its employees. As owners, the workers are entitled to surplus earnings which are generally allocated at the end of each year as "qualified distributions" which the Company maintains in Employee Internal Accounts (EIA). At least 20% of these yearly allocations must be in cash and employees are obligated to pay income taxes on the whole allocation, generally called a "patronage refund". When employees leave the firm they receive any undistributed portion of the allocations. The main tax advantage to the Co-op, unavailable to other corporate forms, is that these surplus earning allocations to employees are not taxed as Company earnings but are paid by employees when allocated to them.

Conversion of firms to Co-op employee ownership is currently relatively rare in the U.S.A. except for ideological reasons or for small firms where the cost of ESOP conversion and administrative maintenance would be prohibitive. But while ESOPs have also spread to other parts of the world, cooperatives remain the dominant form of employee ownership in most countries and have expanded a great deal in several western European countries over the last few decades.³

Though the tax advantages of ESOPs over Co-ops appear substantial, it is by no means certain that the long-term financial benefits to an ESOP firm or its employees are necessarily superior to a Co-op's benefits. In a way, the ESOP must continuously repurchase the firm from its employees at current market value, which may be only tenuously related to the firm's existing assets, while the Co-op allocates the surplus of actual earnings and can keep a substantial portion of these to help support operations until they are paid out to workers when they leave the firm. In a 100 percent employee purchase, the ESOP employees who remain with the firm as the purchase loan is being repaid are allocated all of the shares and those who come later generally get fewer shares with more uncertain benefits that depend on the valuation of the firm when the employee leaves it, while Co-op employee benefits depend directly on their continuously accumulating share of company earnings.

Accordingly, although both ESOP and Co-op benefits are related to company performance, it is not clear

if and how long-term benefits to employees would differ under these two forms of ownership. The ESOP's cash flow may be better than the Co-op's while a purchase loan is being paid off because the former's payment of principal is tax exempt, but thereafter benefit payments to employees determine how much cash is available, assuming the same business performance for ESOP and Co-op, and there is no *a priori* reason to suppose that the ESOP would have more cash than a Co-op on a continuing basis. Further, without a detailed analysis it is not possible to predict the relation between available cash and obligations to employees in case of a sale of the Company or the sudden departure by many more employees than anticipated.

PROBLEM

This study addresses two main questions.

One examines benefits received by departing employees of a company converted to 100% employee ownership either as either an ESOP or a Co-op over a 15 year period. The author knows of only one survey study that examines the financial benefits an employee in a typical ESOP can expect after 10 year or 20 years employment⁴ and there appears to be only one unpublished study done in 1982 that compares ESOP and Co-op employee benefits⁵.

A second question is the net cash retained by the ESOP or Co-op firm over the same time-span. It is commonly asserted that, partly because the principal in loan repayments is tax deductible for ESOPs, this form of ownership generates better cash flow than do other arrangements⁶ although ESOPs need to be careful how they plan their employee share repurchase obligations because these are likely to have a substantial impact on cash flow in the future. However, the author is not aware of any studies that compare ESOPs and Co-ops as to the benefits they yield to employees, net cash retained by the company, the relation between net cash and benefit repayment obligations to employees over an extended period of time or an estimate of the benefits ESOP or Co-op employees would get if the firm were sold compared to what they would get upon resigning after a typical period of employment.

Although many factors should be considered in choosing between ESOP, Co-op or some other form of ownership, the study's design and analysis is centered on economic outcomes because these are likely to be major determinants for structuring a company. Some theoretical and practical implications related to these two forms of employee ownership will be discussed

briefly in the concluding section.

DESIGN OF THE STUDY

A. Overview:

It is assumed that a closely held firm is being sold either as a 100% employee owned leveraged ESOP or as a cooperative. Projecting two scenarios of yearly revenue and earnings growth - 5% and 15% - the study tracks benefits to employees, company net cash, and benefit obligations to employees projected over 15 years. ESOP and Co-op earnings and other business performance indicators are assumed to be the same.

The ESOP plan is being considered as an addition to an existing pension plan paying employees 10% of payroll so that the company's contribution to the ESOP cannot be over 15% in order to remain within the maximum 25% of payroll allowed by federal law as a pension contribution. The existing pension plan also remains in effect for the Co-op version.

B. Design of the hypothetical firm:

Table 1 shows the characteristics of the hypothetical firm designed for this study which is assumed to be a chain of 20 general merchandise retail stores. Number of employees and company revenue correspond to the median for these variables obtained from a list of majority employee owned variety store, department store and grocery store ESOPs.⁷ All other variables reflect the median performance of 37 retail discount, grocery and variety stores listed in Moody's Industrial Review.⁸ Table 1 is assumed to reflect the firm's performance for the year preceding the purchase. Operational performance of the ESOP and Co-op version are expected to be identical.

TABLE 1

Reference Group of Companies

	<u>Median</u>	<u>Range</u>	<u>N</u>
Revenues (in million \$) ¹	141	3-1002	18
Operating profit margin	5.36	.31-57.3	35
Net income (in million \$)	4.64	.33-23.49	36
Long term debt	29.21	0-667	35
Share book value	7.70	1-31	35
Share price (latest)	6.25	.13-67	35
Earnings per share	.84	.20-17	36
Price/earnings ratio	7.44	5-475	36
Number of employess ¹	925	75-65,000	18
Number of shares outstanding	5,523,810		

¹ Majority employee owned companies

C. Purchase and financing of the firm:

The price and terms are shown in Table 2.

Valuation is based on the preceding year's net income times the price/earnings ratio. In the real world, valuation would, of course, be based on a careful market appraisal. To reflect some of the risk factors that might be included in such an appraisal, the Net x P/E estimate is reduced by 20% to reflect risks associated with the purchase loan, small net margins and sales volatility that characterizes this industry.

Loans are repaid on a declining interest schedule and ESOP shares are released as principal is repaid. At the time of the conversion each employee invests \$3,230 and succeeding employees repay this amount plus yearly interest to departing employees. New employees added as the business expands in the high earnings scenario also invest the amount payable by replacement employees, and this amount remains in their EIA, accumulating 6% simple interest. Employees may finance their investment through deductions from company pay over a period of 3 years. Since this investment recycles among employees as new employees repay departing ones, it is not considered as part of company income or expenses and is not included in any analyses. While such employee investment is common for Co-ops it is unusual for ESOPs but is held constant for both options so as to maintain their comparability. The study also omits startup and maintenance costs of the ESOP or Co-op plan. Because regulatory provisions for ESOPs are complex, they generally require more extensive legal and other consultation than Co-ops in the beginning. ESOPs also need a yearly appraisal and have elaborate reporting requirements so that their administration costs are higher than Co-ops.

TABLE 2

Valuation and Financing the Purchase of the Firm

Valuation	
Net income (Table 1) x 7.44 (P/E ratio, Table 1)	\$35,520,000
20% discount for small size, loan obligations	<u>(7,140,000)</u>
Net price	\$28,380,000
Additional working capital and conversion costs	
	<u>1,500,000</u>
Total capital	\$29,880,000
Share value: 29,880,000/5,523,810 (no of shares)	
	\$5.41
Financing Sources:	
Seller note, 25% of capital, 12% interest, 7 years	7,440,000
Employees, 10% of capital, revolving @ \$3,230	2,988,000
Bank, 65% of capital, 12% interest, 7 years	<u>19,452,000</u>
	\$29,880,000

This difference in costs is a consideration for small firms but is not a significant factor for a firm of this size and these costs are therefore left out here.

D. Employee rights and benefits:

1. **Vesting:** Employees present at the time of the conversion are vested immediately. New employees are vested after one year's employment.

2. **Voting:** All directors and trustees are elected by employees on a one person-one vote basis. Although this is unusual for ESOPs, it is typical for worker Co-ops and is included here to maintain the organizational and operational correspondence between the two types of structures.

3. **Compensation:** Median pay at the time of the conversion is \$21,000 per year and is assumed to increase at 5 percent per year.

4. **Period of employment:** The average is expected to be eight years and this period is used as standard in most of the benefit calculations. This means that employees who leave the firm before year 8 of the plan are entitled to benefits only for the number of years in the plan, not the number of years they worked for the company.

5. **Turnover:** Eleven employees are expected to retire each year from years 1 -5, 13 per year from years 6-10, 20 per year thereafter. Other terminations are expected to amount to 5% of the workforce per year.

6. **Payment of benefits:** Benefits due departing employees will be paid within 60 days of their departure (see exceptions below).

7. **Allocation of benefits:**

(a) ESOP: 15% of payroll.

(b) Co-op: Low growth - 60% of yearly operating earnings.

Co-op: High growth - 60% of operating earnings to year 7; thereafter, 75% is allocated to Employee Internal Accounts. All Co-op members receive 35% of their allocation in cash at the end of each year. The balance remains with the company but is due to employees no later than 60 days after they leave the firm.

E. Operation of the firm:

1. **Revenue growth rate:** Low growth - 5% per year (assumed inflation rate). High growth - 15% per year to year 10, 10% yearly thereafter.

2. **Payroll:** Remains at a constant 13.13% of revenues, with salaries increasing by 5% per year. Num-

ber of employees therefore remains constant for the low growth scenario (5% rise in yearly revenues the same as salary gains) but increases with size of payroll for high growth (15% rise in yearly revenues to year 10, 10% thereafter).

3. **Operating costs:** 92% of gross revenues, dropping by .3% per year to year 10, stable percentage thereafter. Includes all costs not listed separately in Table 4 and 6 (Revenues and Expenses).

4. **Capitalization of operations:**

(a) Depreciation: 2% of revenues

(b) Capital improvements:

Low growth - 2.25% of revenues.

High growth - starts with base of 2.25% of revenues, increases by .05% for years 1 and 2, by .075% per year for years 3 to 7, by .1% yearly to year 13, and level thereafter. Higher allocations for the high growth scenario are to help finance expansion likely to be required by increase in revenues.

(c) New working capital: (Start with \$1.5 million)

Low growth - .5% of revenues for first year to maintain a sales/working capital ratio of about 7.5, the median for this industry,⁹ increasing by 5% per year.

High growth - .75% of revenues for first year (maintaining a sales/working capital ratio of 5.5), increasing by 7.5% per year. The high growth scenario needs more working capital to support expansion of facilities required by the rise in revenues.

(d) Cash management: Net cash is invested at 6% interest and retained as a reserve against benefit repayment obligations.

5. **Valuation of ESOP shares**

Valuation is determined through the Discounted Cash Flow procedure, following Pratt.¹⁰ Operating earnings were discounted at a rate of .40 for the low growth and .35 for the high growth scenario. These rates were selected because the yearly percentage change in share values (see Table 5) resulting from these discounts is similar to the growth of earnings projected for the two scenarios (5% and 15%/10%). Such correspondence between changes in earnings and share values is to be expected if, as is commonly assumed, stock values track earnings closely over the long term. Earnings rather than net earnings, cash flow or net cash were discounted because of the difficulty of projecting company share repurchase obligations in the discount-

ing procedure. Share valuation in the early years of the plan may overstate the value of shares because loan repayment and repurchase obligations are ignored. Conversely, the share values used here may understate their market value in later years when the company is debt free and, in the case of the high growth version, has a good earnings track record.

RESULTS

An overview of the format of the main Tables and Figures should be useful in reviewing the results. The allocation of patronage benefits to Co-op Employee Internal Accounts (EIA) is shown as part of Table 3 for the high and low growth versions. To simplify the presentation of results they are shown at two-year intervals except for years 7, 8 and 9 which are shown successively so as to reflect the impact of paying off the purchase loan. Employee benefits consist of an allocation of a percentage of yearly operating earnings (60% for low growth, 60% for high growth to year 7, 75% thereafter) to vested employees (employed at the time of conversion or employed for a year); the yearly cash distribution (35% of the yearly allocation); the amount paid yearly to departing employees (assuming a term of eight years after year 8); the total benefits received by departing workers (yearly cash distributions received plus the balance of allocated patronage benefits remaining in the employee's Internal Account); and the balance of obligations remaining in continuing EIAs. Table 4 shows the income and expenses, cash flow and company obligations. With respect to employee benefits the table shows that, in order to avoid substantial negative net cash during the first years of the plan, low growth Co-op patronage distributions to departing employees are deferred for years 1, 2 and 3 and repaid, respectively, in years 3, 4 and 5. In turn, payments due for years 3, 4 and 5 are deferred for one year. All deferrals earn 6% compounded interest.

The ESOP Trust Account containing the data used to calculate yearly benefits is shown in Table 5 for the high and low growth ESOP. The table shows the amount of cash or number of shares allocated from the company to the ESOP; the amount of cash and number of shares in the Trust account; employee share ownership and market value, repurchase obligations, payments and deferrals of repayment to departing employees; and the total number of shares due to continuing employees at any year shown. The company allocates 15% cash for years 1-7 to take advantage of tax writeoffs in the repayment of most of the loan principal through

TABLE 3
Co-op Employee Internal Accounts
In thousands of dollars

ITEM	Year 1		Year 3		Year 5		Year 7		Year 8		Year 9		Year 11		Year 13		Year 15	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Total # Employees	926	926	1110	926	1332	926	1598	926	1750	926	1917	926	2199	926	2413	926	2649	926
# New Employees	0.0	0.0	96	0.0	116	0.0	139	0.0	152	0.0	167	0.0	100	0.0	109	0.0	121	0.0
# Replacement Empl	57	57	57	57	57	57	57	59	57	59	57	59	96	66	116	66	139	66
# Empl Rcvg EIA Alloc	869	869	957	869	1159	869	1402	867	1541	867	1693	867	2003	860	2188	860	2389	860
EIA Allocation	\$5,596.29	\$5,596.29	\$8,105.96	\$6,757.52	\$11,852.32	\$8,098.01	\$16,643.00	\$9,642.30	\$24,810.40	\$10,499.39	\$29,550.96	\$11,418.09	\$39,940.04	\$13,456.61	\$51,471.10	\$15,793.07	\$6,6054.58	\$18,467.12
Alloc Vested Employ	\$6.44	\$6.44	\$8.47	\$7.78	\$10.05	\$9.32	\$11.87	\$11.12	\$16.10	\$12.11	\$17.45	\$13.17	\$19.95	\$15.65	\$23.52	\$18.36	\$27.65	\$21.47
35% Cash Distribution	\$1,958.70	\$1,958.70	\$2,837.09	\$2,365.13	\$4,078.31	\$2,834.30	\$5,825.05	\$3,374.80	\$8,683.64	\$3,674.79	\$10,342.84	\$3,996.33	\$13,986.01	\$4,710.00	\$1,8015.00	\$5,528.00	\$23,119.10	\$6,463.49
Cash each Employee	\$2.25	\$2.25	\$2.96	\$2.72	\$3.52	\$3.26	\$4.15	\$3.89	\$5.64	\$4.24	\$6.11	\$4.61	\$6.98	\$5.48	\$8.23	\$6.43	\$9.68	\$7.52
\$ Oblign ea Vested Empl	\$4.19	\$4.19	\$5.51	\$5.05	\$6.53	\$6.06	\$7.72	\$7.23	\$10.47	\$7.87	\$11.35	\$8.56	\$12.97	\$10.17	\$15.29	\$11.94	\$17.97	\$13.96
# Employees Departing	57	57	57	57	57	57	57	59	57	59	88	59	106	66	127	66	152	66
Avg Term Departing Employ	1	1	3	3	5	5	7	7	8	8	8	8	8	8	8	8	8	8
Disturin Avg Dping Empl	\$4.19	\$4.19	\$14.73	\$13.85	\$27.27	\$25.44	\$42.09	\$39.28	\$52.56	\$47.16	\$59.72	\$51.53	\$74.63	\$61.34	\$91.47	\$72.70	\$111.21	\$85.73
Tot Disturin Dping Empl	\$23,860.20	\$238.60	\$839.87	\$789.17	\$1,554.62	\$1,450.09	\$2,399.40	\$2,317.73	\$2,995.92	\$2,782.15	\$5,255.32	\$3,040.24	\$7,911.01	\$4,048.39	\$11,617.31	\$4,798.49	\$16,904.36	\$5,658.31
Tot Benef ea Departing Empl	\$6.44	\$6.44	\$22.67	\$16.57	\$41.96	\$28.70	\$64.76	\$43.18	\$80.86	\$51.39	\$91.88	\$56.14	\$114.82	\$66.82	\$140.73	\$79.13	\$171.10	\$93.25
Balance EIA Obligations	\$3399.00	\$3,398.99	\$11,684.36	\$10,502.50	\$22,844.27	\$18,023.81	\$38,361.75	\$25,830.31	\$51,492.59	\$29,872.76	\$65,445.39	\$34,254.27	\$99,911.11	\$43,303.51	\$141,647.68	\$53,840.45	\$191,563	\$66,076.95

TABLE 5
ESOP Trust Account
In thousands of dollars

ITEM	Year 1		Year 3		Year 5		Year 7		Year 8		Year 9		Year 11		Year 13		Year 15	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Shares allocated to ESOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
\$ allocated to ESOP	\$2916.90	\$2916.90	\$3854.89	\$3215.88	\$5100.02	\$3545.51	\$6745.64	\$3908.92	\$7756.64	\$4104.37	\$15,040	\$61,317	\$10,258	\$37,964	\$41,921	\$35,977	\$68,746	\$60,547
Prime payment	\$2665.47	\$2665.47	\$3343.57	\$3343.57	\$4194.18	\$4194.18	\$5261.17	\$5261.17	\$24.59	\$11.00	\$28.32	\$11.93	\$36.37	\$14.06	\$39.92	\$14.72	\$44.80	\$16.02
Cost per share	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.87	315.478	373.204	0	0	0.0	0.0	0.0	0.0	0.0	0.0
# shares released/purchase	547,325	547,325	686,565	686,565	861,227	861,227	1,080,323	1,080,323	\$7756.64	\$4104.37	\$0.00	\$0.00	0.0	\$0.00	0.0	\$0.00	0.0	\$0.00
Cash after payment of prime	\$251.43	\$251.43	\$511.32	\$0.00	\$905.85	\$0.00	\$1484.47	\$0.00	1541	867	1693	867	2003	860	2188	860	2389	860
# Empty due alloc	869	869	957	869	1159	869	1402	869	1541	867	1693	867	2003	860	2188	860	2389	860
# shares each employee	629.83	629.83	717.41	790.06	743.08	991.06	770.56	1,243.18	204.72	430.45	186.08	416.74	154.9	392.98	156.27	413.93	154.35	419.24
Cum shares each employee	629.83	629.83	2,052.66	2,125.31	3,525.99	4,001.24	5,053.07	6,354.4	5,257.8	6,784.85	4,814.05	6,571.76	3,719.32	5,873.15	2,562.95	4,827.21	1,344.22	3,307.91
Market value per share	\$7.619	\$6.016	\$10.994	\$7.200	\$15.505	\$8.563	\$21.203	\$10.129	\$24.587	\$10.998	\$28.319	\$11.927	\$36.367	\$14.059	\$39.922	\$14.715	\$44.804	\$16.018
# departing employees	57	57	57	57	57	57	57	59	57	59	88	59	106	66	127	66	152	66
Avg term departing employ	1	1	3	3	5	5	7	7	8	8	8	8	8	8	8	8	8	8
# sh's repurch'd	35,901	35,901	117,002	121,143	200,981	228,070	288,025	374,909	299,694	400,306	423,636	387,734	394,248	387,628	325,495	318,596	204,321	218,322
\$ due departing employees	\$273.52	\$215.98	\$1274.57	\$872.18	\$3116.14	\$1952.88	\$6107.03	\$3797.61	\$7368.58	\$4402.44	\$11,997.05	\$4624.67	\$14,337.56	\$5449.52	\$12,994.45	\$4688.26	\$9154.37	\$3497.10
\$ due on deping employec	\$4.80	\$3.79	\$22.36	\$15.30	\$54.67	\$34.26	\$107.14	\$64.37	\$129.27	\$74.62	\$136.33	\$78.38	\$135.26	\$82.57	\$102.32	\$71.03	\$60.23	\$52.99
\$ avail for repur	\$251.43	\$251.43	\$511.32	\$0.00	\$905.85	\$0.00	\$1484.47	\$0.00	\$7756.64	\$4104.37	\$5005.763	2,951,141	4,827,500	2,837,807	4,814,876	2,876,313	5,058,850	3,102,414
# sha repurch'd	33,000	35,901	46,918	0	58,424	0	70,012	0	15,783	373,204	315,478	315,478	3,790,629	3,624,702	3,765,822	3,608,429	3,964,929	3,779,495
Current shares deleted	2,900	0	108,618	180,117	356,802	579,768	734,656	1,246,017	738,873	1,273,119	1,605	808	1897	794	2061	794	2237	794
Net Cash	\$0.00	\$35448.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	5,005,763	2,951,141	4,827,500	2,837,807	4,814,876	2,876,313	5,058,850	3,102,414
# comin employ	812	812	900	812	1102	812	1345	810	1484	808	1605	808	1897	794	2061	794	2237	794
# sha due com emp	\$11,425	\$11,425	\$645,672	\$41,531	\$818,872	\$804,737	\$1,036,401	\$1,006,975	\$303,808	\$47,807	\$298,664	\$336,729	\$293,839	\$12,028	\$322,074	\$328,657	\$45,284	\$32,877
Cum. shares due com empl	\$11,425	\$11,425	\$1,536,782	\$1,528,800	\$2,723,375	\$2,652,101	\$4,149,099	\$3,994,133	\$4,153,213	\$3,841,634	\$4,028,242	\$3,790,629	\$3,816,933	\$3,624,702	\$3,765,822	\$3,608,429	\$3,964,929	\$3,779,495
Net # shares	547,325	547,325	1,846,894	1,846,894	3,477,074	3,477,074	5,521,971	5,521,971	5,114,359	4,250,677	5,005,763	2,951,141	4,827,500	2,837,807	4,814,876	2,876,313	5,058,850	3,102,414

revenues rise, benefits are therefore larger and keep increasing for those employed during later years, compared to those who are employed for equal time periods during the early years.

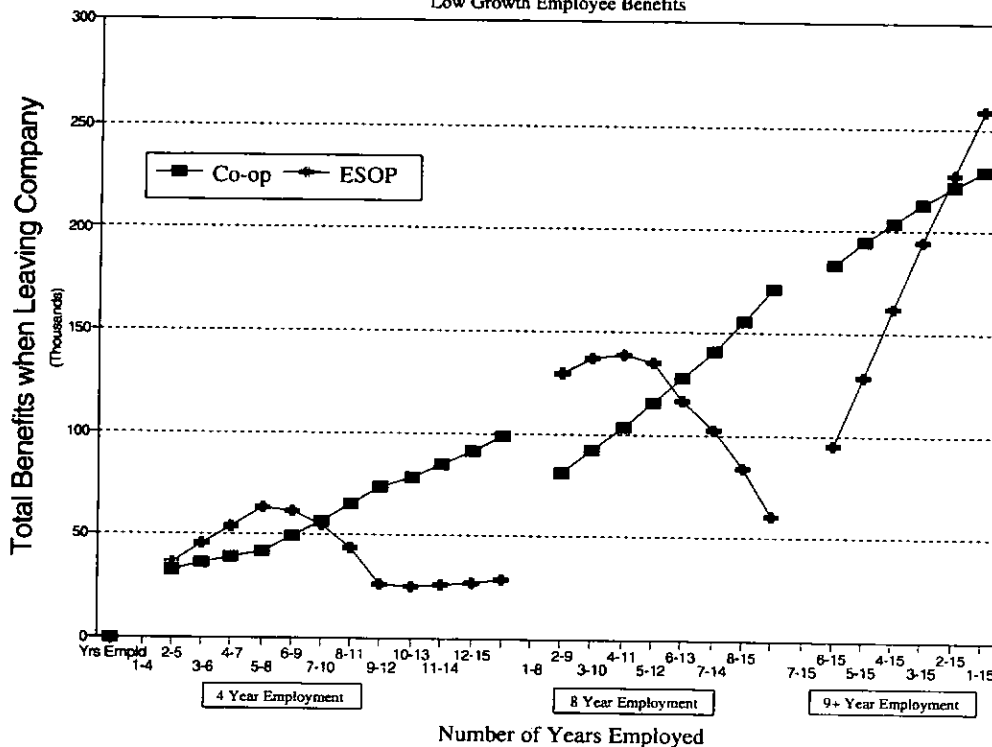
2. *Percent difference in employee benefits between the high-low company earnings scenarios increases with the age of the Co-op after the purchase loan is repaid but stabilizes at about 25% in higher benefits for the high growth scenario in later years.*

Figure 3 shows the percent difference between high and low growth scenarios of benefits received by departing Co-op and ESOP employees for each of the time periods covered in Figures 1 and 2. These results show that Co-op employees leaving the company after four years of employment (left section of the Figure) during the first seven years of the plan received just under ten percent more in benefits than those in the low growth scenario. These small and stable differences are due to two reasons. One is that the purchase loan repayment during the first seven years restricts the gap between high and low growth earnings. Secondly, the yearly addition of new employees in the high growth scenario dilutes the allocation to individuals.

After the loan is repaid, the high-low difference increases substantially over succeeding four-year employment periods, to about 28% by the 8-11 year period, but stabilizes thereafter, varying no more than two to three percent in succeeding four-year periods. The latter stabilization of high-low differences is due to the reduction of revenue and earnings growth from 15% to 10% per year after year 10 for the high growth Co-op. The increase in EIA allocations from year 11 onward is diluted by the growing number of employees and results in individual benefits that are a little less than those in the low growth scenario that has only a five percent growth rate but a constant number of employees.

For eight year periods of employment (see the middle section of Figure 3), the high-low difference for departing Co-op employees is only 15-18 percent for those participating in its first eight years. But the gap in benefits between high and low growth scenarios increases with succeeding time periods to about 26%. As shown in the third section of Figure 3, the high-low Co-op differences vary between 20 percent and 25 percent for the sampling of nine to fifteen year

FIGURE 2
Low Growth Employee Benefits



employment periods. This constriction of the range of differences reflects an averaging over the wider range shown for the shorter employment periods in the first two sections of Figure 3.

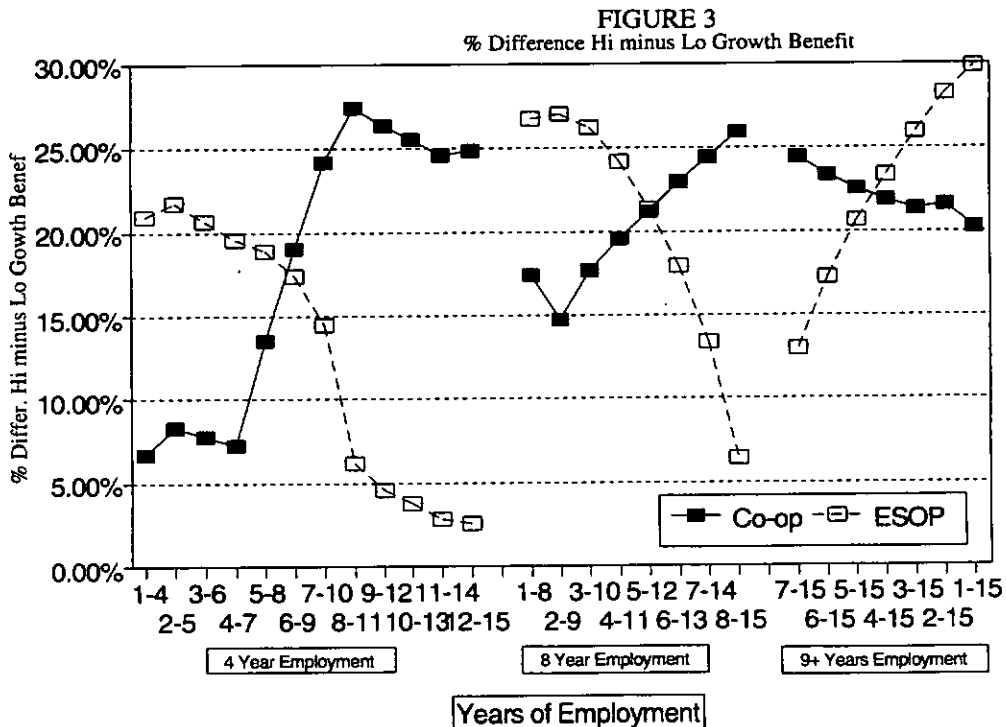
B. ESOP employee benefits:

Detailed results are shown as part of Table 5. Note that as the loan is repaid and shares released from suspense, their release price to the firm is their cost when the firm was converted, but the company repurchases shares from employees at current market value when they leave the firm.

1. Benefits first increase, then decrease and stabilize for successive four and eight year employment periods. For longer periods of employment, benefits are highest for those who were with the firm from the beginning of the plan.

As Figures 1 and 2 show, benefits due departing ESOP employees are generally very different from those shown for Co-op employees. In the four-year employment periods (left section of the figure) benefits for both the low and high growth scenarios first increase to the 4-7 year period, then decrease to the 8-11 year period, stabilizing from that point on at about the same

level as those due 1-4 year employees. For the eight year periods of employment (middle section), benefits for both scenarios first increase up to the 4-11 year period, and then decrease steadily, but more substantially for the high growth (see Figure 1) than for the low growth scenario (see Figure 2). The data shown in Table 5 help clarify this effect. As the purchase loan is repaid during the first seven years, shares, as noted above, are released from suspense at their cost price and allocated to employee accounts, so that, by the end of the repayment period, all of the more than 5.5 million shares (see Table 2) are allocated. Those employed during the seven years following the conversion of the firm to an ESOP therefore receive a large number of shares and as these appreciate in value departing workers can cash them in for increasing benefits. Once the loan is paid off, the company's 15% allocation of payroll to the ESOP converts into a much smaller number of shares since these are acquired at the current market value. As the value of shares continues to rise, employees get successively fewer shares in their yearly allocation and the rise in share value is insufficient to compensate for the smaller number



of shares, with the result that total takeout benefits decrease over time. Those who were with the company from the beginning and stay for a long period of time do, of course, receive very large benefits, as the third sections of Figures 1 and 2 show.

2. Declining difference in benefits between high and low growth scenario in successive periods of employment

Figure 3 shows that departing ESOP employees in the high growth scenarios get over 20 percent more in benefits than those in the low-growth version for the initial 4-year employment periods (left section of the figure) and over 26 percent more for the first three eight-year periods (middle section). But in contrast to the Co-op, high-low differences then decrease rapidly to a low of less than 5 percent for employees in the later four-year periods and to about 7 percent for those employed from years 8-15. These results are due to the fact that the large volume of shares allocated from years 1-7 to both high and low growth scenarios are worth much more in the high growth version than in the low growth version. Although high-growth share values continue to appreciate much more after year 7 than low growth shares, the post-loan repayment allocation for the latter converts into more shares than for the high growth scenario, thus counterbalancing the latter's higher value and leading to a shrinking difference in the benefits actually obtained under the two scenarios. The longer individuals who joined the plan before the purchase loan was repaid remain employed under the ESOP plan, the greater the benefits under the high growth scenario because of the greater appreciation in the value of the large number of shares distributed during the loan repayment period. This result is shown in the third section of Figure 3.

C. Differences between ESOP and Co-op in employee benefits.

1. Low growth - Increasingly higher Co-op benefits in successive periods compared to ESOP.

As Figures 1 and 2 show, ESOP and Co-op employees who leave before the loan is repaid get about the same amount of benefits but the gap in favor of the Co-op widens substantially for employees who leave the firm thereafter

since, as noted above, later year benefits shrink for the ESOP but rise for the Co-op.

2. High growth - Somewhat higher ESOP benefits in early periods reverse to much higher Co-op benefits in later periods.

ESOP benefits are somewhat higher initially, but for reasons outlined above, Co-op benefits increasingly outstrip those obtained by departing ESOP workers (the Co-op to ESOP benefit ratio is almost 4:1 for the 12-15 and 8-15 year periods). Note, however, that the gap between these two types of arrangements narrows considerably in both the high and low growth versions when considering employees who joined the plan early and stayed longer (e.g., years 1-15, 2-15, etc), with ESOP employees actually getting higher benefits than those in the Co-op in the high growth 1-15, 2-15 and 3-15 year periods (see Figure 3).

D. ESOP vs Co-op company cash and adequacy of repayment obligations to employees.

Cash statements detailing cash flow and net cash are shown as part of Tables 4 and 6. Net cash is also shown as part of Tables 7 and 8.

1. Low Growth:

(a) The ESOP has more net cash than the Co-op:

The low growth Co-op has little or no net cash for the first seven years because purchase loan repayments and employee benefit obligations drain cash flow (see Table 4). The ESOP has consistently more net cash (see Table 6) because, while the Co-op must count payment of principal on the loan as a taxable expense, the ESOP not only escapes taxation for most of that amount but counts it as an employee benefit payment. After the loan is repaid low ESOP net cash increases at a faster yearly rate than the Co-op's because the latter's benefit payments (35% cash distribution and distribution to departing employees) is greater and keeps increasing, while the ESOP company's share repurchase cost changes little. This is so because share values do not increase a great deal over succeeding years and, after the relatively large-scale distribution of shares during the loan repayment period, fewer shares are allocated to, and need to be repurchased from, employees.

(b) The low growth ESOP retains a higher

TABLE 6
ESOP Company Revenues and Expenses
 In thousands of dollars

ITEM	Year 1		Year 3		Year 5		Year 7		Year 8		Year 9		Year 11		Year 13		Year 15	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Revenues	\$148050.00	\$148050.00	\$193796.13	\$163225.13	\$258940.38	\$179955.70	\$342448.65	\$198401.16	\$393815.94	\$208321.22	\$452888.33	\$218737.28	\$572963.74	\$241157.85	\$693213.53	\$265876.53	\$83878.37	\$293128.87
Operating costs	(135,762)	(135,762)	(178,370)	(148,698)	(234,341)	(162,860)	(307,861)	(178,363)	(352,859)	(186,656)	(404,429)	(193,332)	(508,166)	(213,907)	(610,721)	(234,237)	(733,940)	(256,488)
Depreciation	(2,961)	(2,961)	(4,086)	(3,265)	(5,449)	(3,599)	(7,266)	(3,968)	(8,390)	(4,166)	(9,688)	(4,375)	(12,500)	(4,823)	(15,377)	(5,318)	(18,758)	(5,863)
Earnings	\$9327.15	\$9327.15	\$13339.68	\$11262.53	\$19150.33	\$13496.68	\$27321.45	\$16070.49	\$32566.87	\$17498.98	\$38771.18	\$19030.14	\$32238.40	\$22427.68	\$67115.67	\$26321.78	\$8690.19	\$3078.53
ESOP funding	(2,917)	(2,917)	(3,855)	(3,216)	(5,100)	(3,546)	(6,746)	(3,909)	(7,757)	(4,104)	(8,922)	(4,310)	(11,283)	(4,751)	(13,650)	(5,238)	(16,521)	(5,775)
Interest to seller	(893)	(893)	(705)	(705)	(470)	(470)	(175)	(175)	0	0	0	0	0	0	0	0	0	0
Interest to bank	(2,334)	(2,334)	(1,844)	(1,844)	(1,228)	(1,228)	(457)	(457)	0	0	0	0	0	0	0	0	0	0
Additional payment to Prince	0	0	0	(128)	0	(649)	0	(1,352)	0	0	0	0	0	0	0	0	0	0
Taxable income	3,183	3,183	6,936	5,498	12,352	8,253	19,944	11,530	24,810	13,395	29,849	14,721	40,955	17,676	53,465	21,083	69,569	25,003
Taxes	(1,210)	(1,210)	(2,636)	(2,089)	(4,694)	(3,136)	(7,579)	(4,381)	(9,428)	(5,090)	(11,343)	(5,594)	(15,563)	(6,717)	(20,317)	(8,012)	(26,436)	(9,501)
Net earnings	\$1973.59	\$1973.59	\$4300.22	\$3408.58	\$7658.22	\$5116.75	\$12365.57	\$7148.74	\$15382.34	\$8304.66	\$18506.68	\$9126.74	\$25392.28	\$10959.34	\$33148.58	\$13071.73	\$43132.75	\$15502.03
CASH STATEMENT																		
Net Earnings	\$1973.59	\$1973.59	\$4300.22	\$3408.58	\$7658.22	\$5116.75	\$12365.57	\$7148.74	\$15382.34	\$8304.66	\$18506.68	\$9126.74	\$25392.28	\$10959.34	\$33148.58	\$13071.73	\$43132.75	\$15502.03
Cash equiv. of ESOP funding	(740)	(740)	(1,077)	(816)	(1,683)	(900)	(2,568)	(992)	(3,151)	(1,042)	(4,076)	(1,094)	(6,302)	(1,206)	(9,012)	(1,329)	(10,904)	(1,466)
Capital improv over deprec																		
Redeem deferred shares																		
Repurchase shares																		
New working capital	(1,110)	(740)	(1,468)	(816)	(1,942)	(900)	(2,568)	(992)	(2,954)	(1,042)	(3,397)	(1,094)	(4,297)	(1,206)	(5,450)	(1,329)	(6,291)	(1,466)
Cash Flow	\$122.97	\$493.09	\$1754.87	\$1776.33	\$4033.06	\$3317.20	\$7228.84	\$5164.73	(\$8888.46)	(\$3675.53)	\$7958.66	\$6624.29	\$11739.11	\$7849.56	\$19593.47	\$10963.04	\$3304.45	\$14848.50
Previous year's net cash			993	1,617	5,685	6,093	15,796	14,195	23,612	19,888	15,602	16,952	35,070	31,998	65,574	\$2,026	116,422	80,087
Interest income			60	97	341	366	948	852	1,417	1,193	936	1,017	2,104	1,920	3,934	3,122	6,985	4,805
Taxes on interest			(23)	(37)	(130)	(139)	(360)	(324)	(338)	(453)	(356)	(387)	(800)	(730)	(1,495)	(1,186)	(2,654)	(1,826)
NET CASH	\$122.97	\$493.09	\$2784.45	\$3453.14	\$9929.94	\$9637.16	\$23612.36	\$19887.65	\$15602.28	\$16931.94	\$24141.34	\$24206.84	\$48113.24	\$41037.97	\$87606.59	\$64924.82	\$154057.40	\$37914.82
OUTSTANDING OBLIGATIONS																		
Loan Obligations	\$26892.00	\$26892.00	\$21241.19	\$21241.19	\$14152.82	\$14152.82	\$5261.17	\$5261.17										
Repurchase Obligations																		
In current dollars	3,896	3,077	16,741	11,005	42,225	22,709	87,974	39,445	102,115	42,249	114,077	45,212	138,810	50,958	150,340	53,099	177,644	60,540
In # of shares	511	511	1,537	1,529	2,723	2,652	4,149	3,894	4,153	3,842	4,028	3,791	3,817	3,625	3,766	3,608	3,965	3,779
Cum defr. repur ob—curr. \$	22	0	1,183	1,297	5,532	4,964	16,001	12,621	0	0	0	0	0	0	0	0	0	0
Total obligations	\$30810.57	\$29968.73	\$39165.59	\$33542.54	\$61909.76	\$41826.06	\$109235.97	\$73737.84	\$102114.96	\$42249.02	\$114076.73	\$45212.49	\$138809.98	\$50958.40	\$150339.76	\$53099.44	\$177644.28	\$60540.19
No emp revg allocations	869	869	957	869	1159	869	1402	869	1541	867	1693	867	2003	860	2188	860	2369	860
# ind rep ob cov by cash	27	139	159	273	273	369	376	438	235	348	358	464	694	693	1275	1052	2054	1391

cash coverage of employee benefit obligations than the Co-op.

Note that calculations for net cash obligations assume eight-year employment periods with a five percent turnover rate. This means that employees who started work before the conversion and leave after eight years receive benefits only for the years when they were part of the plan. Different numbers of employees departing, or a different mix of tenure among those departing, would change the cash obligations.

The bottom line of Tables 4 and 6 shows how many individual share holdings could be repurchased from the available net cash at each year listed. As noted, the repayment of the principal of the purchase loan required the ESOP to defer a large portion of repurchase obligations until year 8. The company then repurchased the deferred shares and continued to repurchase the put options tendered by departing employees. Accordingly, the last line in Table 7 shows how many individual's shares could have been repurchased by the company from available cash up to year 8, in addition to those repurchased by the ESOP during this time. After year 8, these results show the number of individuals whose shares could have been repurchased from available cash in addition to those projected to leave the company. The results show that the company would have enough cash to repurchase the shares due to 273 employees, if that many decided to leave in year 3, in addition to the deferred repurchase for the 57 employees projected to leave. Thereafter, net cash covers repurchase obligations for an increasing number of employees, except for year 8 when the company repurchases the shares deferred while the purchase loan was being repaid. By year 9 there is enough cash to repurchase well over half of the outstanding shares and by year 13 there is much more than is needed to repurchase all shares.

As Table 4 shows, the low growth Co-op has a much thinner cash cushion than the ESOP, especially for the first seven years. In year 3, for example, net cash would cover payment of Internal Account obligations for only 36 employees. Negative cash flow in year 7 is due to payment of deferred EIA obligations to

previously departed employees. Although low growth Co-op cash accumulation still lags behind that for the ESOP after year 7, it is substantial and provides increasing coverage for the repayment of obligations to employees, exceeding the amount required to pay all obligations by year 15.

3. High Growth:

a) The high growth Co-op has more cash than the ESOP after the first seven years.

Neither the ESOP nor the Co-op have much cash available during the first five years. The high growth ESOP (Table 6) retains somewhat more cash than the Co-op (Table 4) during that period but, unlike the low growth scenario, ESOP net cash falls below that of the Co-op with the ESOP company's repurchase of deferred shares in year 8. The gap between high Co-op and high ESOP net cash widens in favor of the Co-op until year 12 but narrows thereafter as ESOP net cash accumulates at a somewhat faster rate than the Co-op's, largely because the former's share repurchase obligation costs decrease, whereas the Co-op's obligations to departing employees increase.

(b) The high growth Co-op's cash coverage of benefit obligations is generally better than the ESOP's.

As the last line in Table 4 shows, the Co-op's net cash covers benefit obligations to many more employees than does the ESOP's (Table 6) after year 3, although the latter begins to catch up by year 15. There are two reasons for these results. One is that, as noted, increased share values of the high growth ESOP require high expenditures for their repurchase from employees who were allocated large blocks of shares during the loan repayment period. Net cash is therefore depressed and close to the low growth scenario until the high growth repurchase obligations shrink in later years, when employees are allocated fewer shares.

E. Selling the company vs leaving it: A comparison of relative employee benefits

The sales price of the company projected here is based on the 35 percent discount of earnings analysis used to determine ESOP share values. This projection leaves out many of the complex factors generally considered in the sale of a business, but seems adequate

**TABLE 7
CASH TO ESOP EMPLOYEES ON SALE OF COMPANY
(In thousands of dollars)**

	Year 3		Year 5		Year 7		Year 9		Year 11		Year 13		Year 15	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Net Cash	\$2784.00	\$3453.00	\$9930.00	\$9637.00	\$23612.00	\$19888.00	\$24141.00	\$24207.00	\$48113.00	\$41038.00	\$87607.00	\$64925.00	\$154057.00	\$97915.00
Loan Obligation	(\$23570.00)	(\$23570.00)	(\$11785.00)	(\$11785.00)										
Loan Obligation	\$60154.00	\$39781.00	\$85674.00	\$47284.00	\$117705.00	\$55956.00	\$156434.00	\$65899.00	\$200901.00	\$77664.00	\$220522.00	\$81285.00	\$247467.00	\$88491.00
Co sale(Net earn.*PIE)	\$42085.00	\$39769.00	\$60174.00	\$47298.00	\$117122.00	\$35953.00	\$156430.00	\$65885.00	\$200883.00	\$77657.00	\$220522.00	\$81285.00	\$247488.00	\$88081.00
Co Sale(35% disc earn)	\$22.36	\$15.30	\$54.67	\$34.26	\$107.14	\$64.37	\$136.33	\$78.38	\$135.26	\$82.57	\$102.32	\$71.03	\$60.23	\$52.99
Share rep oblig ea emp	\$21.62	\$27.65	(\$2.75)	\$16.82	(\$23.60)	(\$3.95)	(\$43.93)	(\$7.23)	(\$34.97)	\$1.29	(\$1.53)	\$16.75	\$43.37	\$42.13
Ea empty share of sale	\$43.98	\$42.95	\$54.67	\$51.08	\$107.14	\$64.37	\$136.33	\$78.38	\$135.26	\$83.86	\$102.32	\$87.78	\$103.59	\$95.12

**TABLE 8
CASH TO CO-OP EMPLOYEES ON SALE OF COMPANY
(In thousands of dollars)**

	Year 3		Year 5		Year 7		Year 9		Year 11		Year 13		Year 15	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Net Cash	\$1277.00	\$422.00	\$9153.00	\$1472.00	\$14637.00	(\$941.00)	\$40940.00	\$11993.00	\$74861.00	\$27434.00	\$116418.00	\$46906.00	\$168791.00	\$71075.00
Loan Obligation	(\$23570.00)	(\$23570.00)	(\$11785.00)	(\$11785.00)										
Loan Obligation	\$60174.00	\$39769.00	\$85044.00	\$47298.00	\$117122.00	\$55953.00	\$156430.00	\$65885.00	\$200883.00	\$77657.00	\$220522.00	\$81285.00	\$247488.00	\$88081.00
Sale-ESOP Sha value	\$61451.00	\$40191.00	\$94197.00	\$48770.00	\$131759.00	\$55012.00	\$197370.00	\$77878.00	\$275744.00	\$105091.00	\$336940.00	\$128191.00	\$416279.00	\$159156.00
Sale-ESOP Sha val-cash	\$4.97	\$2.72	\$11.16	\$13.70	\$18.50	\$21.39	\$32.15	\$27.77	\$40.19	\$33.03	\$49.26	\$39.15	\$59.88	\$46.16
35% Distrib ea empl	\$17.67	\$13.85	\$30.79	\$35.44	\$46.25	\$39.29	\$59.72	\$51.53	\$74.63	\$61.34	\$91.48	\$72.70	\$111.21	\$85.73
EIA due ea employee	957	869	1159	869	1402	869	1693	867	2003	860	2188	860	2389	800
No emp revg afflic	72	30	297	58	316	.24	686	233	1003	447	1273	645	1518	829
# emp EIA covd by cash	\$64.21	\$46.25	\$81.27	\$56.12	\$93.98	\$63.30	\$116.58	\$89.82	\$137.67	\$122.20	\$153.99	\$149.06	\$174.25	\$185.07
Ea empl share of sale	22.64	16.567	41.95	39.138	64.75	60.68	91.87	79.303	114.82	94.368	140.74	111.853	171.09	131.895
Ea emp ben - leave	\$44.55	\$24.34	\$80.12	\$57.51	\$112.48	\$84.69	\$148.73	\$117.60	\$177.86	\$155.23	\$203.25	\$188.21	\$234.13	\$231.23
Ea emp ben - sale	0.51%	0.68%	0.52%	0.68%	0.58%	0.72%	0.62%	0.67%	0.65%	0.61%	0.69%	0.59%	0.73%	0.57%
Ea emp leave/sale ben %														

to indicate the relative benefits gained from the ESOP and Co-op versions in the two scenarios.

The results are shown in Table 7 for the ESOP and Table 8 for the Co-op. Two sale prices of the firm are shown. The first reflects only the discounted earnings calculations. The second sale price adds the net cash for that year and is the one used in the calculation of sale related employee benefits. The first benefit shown is the amount due employees leaving after eight years of employment, including the time, but not benefits, for employment before conversion to employee ownership. The second benefit shown is the one used in the following analysis. It reflects each employee's share of the sales price, less outstanding loan obligations which would be repaid through the proceeds of the sale. Individual benefits from the sale, if greater than what is owed them in share value for the ESOP or Internal Accounts (EIA) for the Co-op, are based on full-time service and average salary. The last line in each table shows the main results of interest here - the typical benefits (the amount employees could expect when leaving the company after eight years), divided by their share of the proceeds of the sale of the company. It is assumed that benefits due them would be included as

part of the distribution of sale proceeds. These results are also shown graphically in Figure 4.

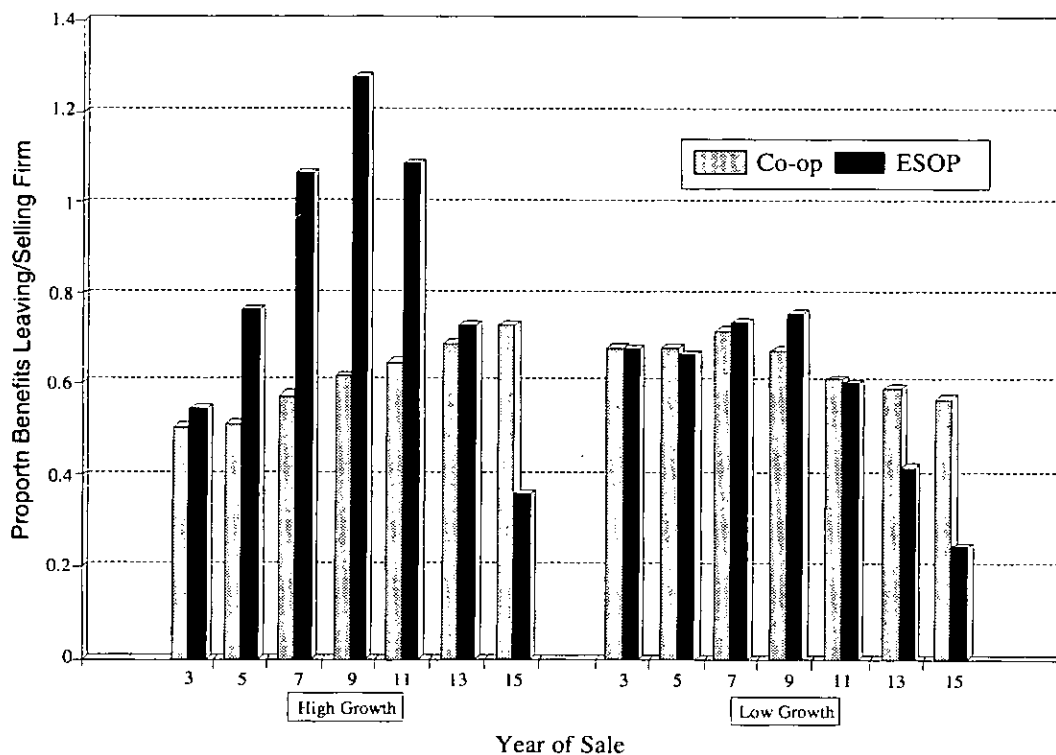
1. High growth:

For the Co-op, the proportion of patronage benefits to sale benefits increases in successive years. For the ESOP, the proportion of share value to sale benefits first increases to year 9, then decreases sharply.

Figure 4 shows that if Co-op or ESOP workers in the high growth scenario left the company at the end of the third year they would get only about 50 percent of the amount they could expect if the firm were sold (a proportion below 1.0 means that benefits would be higher from selling. A proportion above 1.0 signifies higher benefits from normal departing after eight years of employment). The high growth Co-op proportion of patronage to sale benefits then gradually increases in successive years to about .73 by year 15.

The high growth ESOP employees leaving the firm as part of the regular turnover could expect to get an increasing proportion of the projected sale price of the company up to year 9,

FIGURE 4
Benefits Leaving/Sale of Firm



when those leaving normally would be due almost 30% more for their shares than what they could get from the sale of the firm. After year 9 the trend reverses toward increasingly higher benefits from the sale of the company so that, by year 15, high ESOP employees leaving the firm would get only about 36 percent as much as they could obtain if the firm were sold. The main reason for this result is that the early participants in the plan who were allocated a high number of shares as the purchase loan was being repaid, accumulated a growing stake as the value of these shares appreciated. But the value of shareholdings slips for latecomers, especially after year 11 of the plan, because the appreciation of share values does not compensate for the continuing reduction in the number of shares allocated (see Table 5).

2. *Low growth:*

The Co-op and ESOP proportions of normal leaving benefits to sale benefits are very similar up to year 11. Thereafter, the proportion decreases sharply for the ESOP and remains stable for the Co-op.

Figure 4 shows that the proportion of normal leaving/sale benefits varies for both the ESOP and Co-op, within a ten percent range between 68 and 78 percent up to year 9. Thereafter, the Co-op proportion drops slightly to just under sixty percent, but the ESOP proportion drops much more, as ESOP employees leaving in year 15 can expect only 24 percent of what they could get if the company were sold that year.

SUMMARY OF RESULTS

A. Employee share of benefits from operations:

For the Co-op, patronage benefits tend to be higher for employees who join the firm later than those who are there earlier in the plan. The benefits for employees in the high growth scenario increase sharply relative to those in the low growth version after the loan is paid off.

For the ESOP, the value of individual share holdings increases for employees who join the firm in successive time periods up to the time the loan is repaid. Thereafter, the value of individual share holdings decreases except for long time employees who are part of the firm from the early years of the plan.

In comparing Co-op and ESOP employee benefits, the results for the low growth scenario show increas-

ingly higher benefits for the Co-op compared to the ESOP version in successive employment time-periods. For the high growth scenario, the results show that though benefits for ESOP employees are somewhat higher than the Co-op's in the first few years after the conversion, the trend reverses after the loan is paid off, with increasingly higher benefits for Co-op employees in successive four and eight year employment periods. A related finding is that whereas high growth Co-op employees get increasingly higher benefits in successive four and eight year employment periods, the high-low scenario difference in benefits decreases for the ESOP employees in successive employment periods so that increasing company earnings do not necessarily translate into higher benefits for ESOP employees who join the plan after the loan is paid off.

B. Company cash retention and ability to meet repayment obligations to employees.

Neither the Co-op nor the ESOP have much cash as the purchase loan is being repaid and they must therefore defer benefit payments to departing employees. Overall, the low growth ESOP retains more cash than the Co-op and therefore has a higher cash coverage of obligations to employees. These trends are reversed for the high growth scenario where the Co-op retains more cash after the loan is repaid.

C. Employee benefits from the sale of the company.

Assuming a typical employment period of eight years, the results show that, with the exception of high growth ESOP employees departing between years 7 and 11, employees in both the ESOP and Co-op versions would be likely to get higher benefits if the firm were sold than if they collected the accumulated benefits due them upon departure.

The Co-op and ESOP differ in the high growth scenario in that Co-op patronage benefits in succeeding years of the plan increasingly come closer to what employees would get if the firm were sold. For the high ESOP employees, the value of individual share holdings increases from year 3 to year 9, when their shares would be worth more than they would be likely to get if the firm were sold that year. Thereafter, however, the value of shares drops substantially below what an employee's share of the sale proceeds is likely to be. In the low growth scenario the ESOP and Co-op employees normal benefits upon leaving the firm up to year 9

would be around 70% of what they would get if the firm were sold. Thereafter, the Co-op employees patronage benefits stabilize at near 60% of sale benefits whereas those for the ESOP decrease sharply to about 22% by year 15.

DISCUSSION

Employee Benefits

High vs low growth scenarios:

Because shares in a leveraged ESOP are allocated to employees as the principal of a purchase loan is being paid off, the workers in a 100% employee owned ESOP who are with the firm during the repayment period are allocated all of the shares in the firm by the time the loan is paid off. Unless the firm performs very badly and sharply lowers the value of the shares, the sheer number of shares allocated is likely to yield high benefits for these employees. If the value of the shares increases substantially, as for the high growth scenario, employees who stay for more than a decade from the beginning can be due a small fortune (see Figure 1). After the loan is repaid, new allocations are at the current share price so that employees get fewer shares as the value of shares increases. As Figure 3 shows, the ESOP difference in share repurchase values between high and low growth scenarios decreases for four-year term employees who leave from year 7 onward and almost disappears for those leaving in year 15. Similarly, the high-low difference for eight-year employees is reduced from a little over 70% for ESOP employees leaving in year 10 to 13% for those leaving in year 15 so that benefits to departing employees in the low and high growth scenarios are about the same for the later periods.

Overall, the low growth long-term employee projections are roughly in line with Rosen's estimate from the NCEO survey of an expected benefit of \$83,000 collected by an average employee in a typical ESOP leaving after 20 years in the plan¹¹. If these projections are confirmed by experience they may affect productivity since the incentive to strive for higher revenues is greatly diminished by the reduced prospects for increasing benefits with higher revenues. Also, latecomers to the ESOP who see few prospects for increased benefits for themselves from rising revenues are likely to press for the sale of the company as they see the prospect of high returns from a sale, especially if the company has a lot of net cash. This is particularly likely for the low growth ESOP where the share repurchase benefits for the typical employee leaving the company

is expected to be only 24 percent of the employee's portion of the proceeds of the sale of the firm. However, as Figures 1 and 2 show most dramatically, long term high ESOP employees who joined the firm from the beginning of the plan get the highest benefits as the large number of shares allocated to them during the loan repayment period appreciate in value, so that benefits from a sale would be less attractive to them.

As noted in the Results section, Figure 3 shows that the difference in benefits received by Co-op employees in the high and low growth scenarios follows a very different pattern from the ESOP. Because loan repayments drain much of the revenues during the first 7 years, allocations to Co-op employees are limited so that the high-low growth scenario differences are small at first, increasing gradually from the 10% range for 1-4 and 1-8 year employees and stabilizing in the 25-30% range of differences for four and eight-year employees leaving after year 11.

The conversion of a traditional firm to an ESOP or a Co-op necessarily involves many changes, risks and opportunities for all involved and those who participate in the beginning bear the brunt of the required adjustments. One could therefore consider the higher benefits gained by "old-timer" ESOP employees relative to latecomers as fair compensation for the contribution made to the firm by those who participated in the changeover. In that sense, early Co-op workers could be considered to be at a disadvantage.

However, the apparently much greater amount of benefits for early ESOP employees compared to later ones may be seen as at variance with the ideal goal of ESOPs to provide all employees with equitable access to the wealth (i.e., the capital) produced by the enterprise¹³. While the peak difference between high and low growth scenarios for the Co-op is not spectacular, the continuously growing benefits with increasing earnings in the high growth Co-op may be substantial enough to constitute a continuing incentive for employees to improve performance so as to increase earnings.

ESOP vs Co-op Employee Benefits:

As Figures 1 and 2 show, benefits received by departing ESOP employees first rise then decline with successive four or eight-year employment periods, whereas benefits to departing Co-op employees increase over successive periods. For the low growth scenario, four-year ESOP and Co-op departing employees get very similar amounts of total ownership

benefits - up to year 9 for four-year employees and up to year 11 for eight-year employees. In succeeding periods departing Co-op employees get increasingly more when they leave than do ESOP employees. For the high growth condition the departing ESOP workers actually get more than those in the Co-op during the initial 9-11 years, but Co-op benefits greatly and increasingly outstrip ESOP benefits thereafter, except for ESOP employees who remain with the firm for 14 or 15 years and who can expect to get more when they leave than corresponding Co-op workers.

The reasons for these findings were described in the Results section. A number of implications can be noted here.

1. Although ESOP employees may initially get slightly higher benefits under high growth conditions than corresponding Co-op employees, the latter can expect equal or higher benefits when leaving under a wider range of earnings with, as noted, continuing incentives to support improved company performance since benefits increase with higher earnings. Overall, the Co-op format seems to yield somewhat higher benefits to employees than the ESOP format but a number of qualifications need to be considered in evaluating this finding. One is that Co-op employees are responsible for paying income taxes on the whole amount allocated to their account, so that a large part of the 35% yearly cash disbursement may be spent for that purpose. Although the ESOP employees will be liable for taxes when they sell their shares back to the firm upon leaving it, they can defer tax obligations through rollover of funds into qualified securities. Another factor that should be considered is that Co-op benefits are probably somewhat more at risk than ESOP benefits. The allocated shares with their associated put options represent a firm claim on the firm that is well protected by legislation, although the value of shares would decrease if the company performed poorly. While patronage refunds are also regulated by law, most Co-op by-laws have provisions through which the undistributed allocations can be at least partly depleted to meet cash flow problems and could be unavailable for distribution when claimed or upon dissolution of the firm. Though this is a risk for employees, the availability of the Internal Employee Accounts gives the firm a cushion in

case of economic downturns and may, with employee approval, serve as a guarantee for loans. While no danger to employee benefits is apparent in the example used here, except during the first few years of the plan, the issue needs to be considered when structuring and administering the plan.

2. ESOP benefits depend on the interaction between the percentage of payroll allocated to the ESOP and the value of shares at the time an employee leaves the firm. As seen above, higher share values do not necessarily lead to higher benefits when leaving, especially for workers who join the firm after the loan has been repaid
3. Co-op worker benefits depend on the amount of earnings, the percentage of earnings allocated to employees and the percentage of cash distributed at the end of any year (only 20% of the allocated amount has to be paid). Co-op employees do well with the amounts allocated here, but adverse business conditions could impact the amount that is allocated. In fact, one of the widely recognized problems of Co-op capitalization is that Co-ops often distribute too much of their earnings as patronage dividends, leaving inadequate working capital and reserves.¹³ However, except in cases where undistributed allocations are permanently reduced because of adverse business performance, Co-op employees own the money allocated to them even if they can't get most of it until they leave.
4. The value of ESOP employees' allocated shares fluctuate with the fortunes of the company so that they stand to lose more than Co-op employees in business downturns and the downturn effect for the ESOP is likely to be greater than potential benefits from an upturn in earnings. This probability is indicated in the results shown in Figures 1 and 2, where the ESOP benefits in the high growth scenario stabilize close to the level of benefits in the low growth scenario for employees who joined the company after the first few years of the plan. Higher company earnings that increased the value of shares would decrease the amount of shares allocated so as to have little overall effect on benefits except for early joiners in the plan for whom many shares were allocated, but if poor business performance reduced share values it would depress benefits associated with shares

already allocated and therefore reduce benefits for those leaving the firm.

ESOP vs Co-op Net cash and Employee Repayment Obligations

Improved cash flow and cash retention is one of the most frequently noted advantages for the conversion of a firm to an ESOP. It is of interest that, at least for the case shown here, the cash retention advantage holds consistently and substantially only for the low growth scenario. For the high growth scenario the ESOP retains slightly more net cash only until the purchase loan is paid off and the advantage of the tax-free principal repayment disappears (see Figure 4). As Tables 3 and 4 show, the Co-op's allocations to employees enable it to pay substantially lower taxes than the ESOP for both high and low scenarios, thus contributing to cash flow. Once the loan is paid off, these allocations continue to reduce taxes and since the firm retains 65% of the allocation in cash flow, net cash is substantial. But as 35% cash distributions and patronage dividends to departing employees increase, the rate of increase in net cash can be expected to slow and be eventually overtaken by the ESOP.

A question not addressed by this study relates to the accumulation of the large amount of cash for both scenarios. It seems wise to accumulate a substantial liquid cash reserve against benefit obligations and as a protection against losses. But would and should a company in the real world actually retain the very large amounts of liquid cash projected here? Both ESOP and Co-op employees would probably clamor for higher dividends, and the company might increase its rate of expansion and/or seek higher returns on retained cash than the 6% CD rate used here in less liquid but perhaps somewhat riskier investments.

One of the concerns in ESOP share repurchase planning and also in the payment of Co-op patronage benefits is to make sure that assets or obtainable funds match obligations when due. Because of its cash crunch, the low growth Co-op would have to defer most patronage refunds during the first seven years (see the last line of Table 4) whereas the low growth ESOP company would have enough cash to repurchase the shares of a third or more of departing employees. Both the high growth ESOP and Co-op versions should have enough cash to cover benefits for many more employees than those scheduled to leave in any year. In reality, of course, companies don't always grow year after year, not even at a five percent rate, and a decline in revenues,

for even a few years, especially during the first ten years of the plan when there is a growing gap between net cash and obligations could be a problem. Even under the relatively favorable conditions assumed here, the firm's loan and benefit obligations would make it a poor candidate for sale until several years after repayment of the loan, and if a sale were forced, the employee owners would probably end up with restricted benefits. Accordingly, conversion to either format would seem inadvisable without realistic expectations of at least some sustained growth in earnings. One of the issues that must be recognized by both ESOPs and Co-ops is that closely held firms do not have access to the kind of funding available through public offerings of stock which, though dividends may be paid, never has to be paid back like a loan. In the long run, employee ownership of all forms is likely to become a significant factor in the economy only if it can generate major sources of capital formation, like that obtained through stock offerings, without significant loss of employee control or benefits.

What then about the relative advantages of conversion of a closely held firm to an ESOP or a Co-op? As with most questions of this sort, no definite, generalizable conclusions can be drawn. Overall, employee benefits may be a bit better for the Co-op than the ESOP employees, but this could change with different growth rates and benefit allocations. Company net cash is higher for the ESOP in the low growth, at least after the loan repayment, but is higher for the Co-op in the high growth scenario. Because of reinvestment rollover provisions, the seller may, in some cases, be better off with respect to income taxes with an ESOP than with a Co-op conversion. By and large, Co-op employee benefits are more directly linked to performance than the ESOP's in that Co-op allocations to employees consist of a percentage of earnings so that, as earnings increase, so do benefits. In the ESOP, employees who are with the company while the purchase loan is being repaid get a windfall in the number of shares allocated to them as shares are released from suspense. ESOP benefits tend to decrease in later years even as earnings increase because the rate of increase in the value of shares tends to be smaller than the decreasing number of shares allocated to employees. An ESOP may therefore be a very good deal for its initial employees but the Co-op may be a better long-term choice if the goal is to provide equitable benefits to successive generations of employees over the long run.

What can be concluded from this study is that

there is no reason to suppose that ESOPs are inherently superior to Co-ops with respect to the financial benefits to employees or to the firm, even with the tax benefits accorded to ESOPs. As the European experience has shown, cooperatives of all sizes can compete successfully in capitalist markets with all other types of business structure in all business sectors, from manufacturing to services.¹⁴ Accordingly, there is ample evidence that cooperatives can do well in business environments similar to ours.

Employee Benefits from the Sale of the company.

As Figure 4 shows, employees can expect to get more benefits from the sale of the firm than from leaving after a typical eight-year period of employment, except for the "windfall" benefits of the high growth ESOP employees leaving the company from year 7 through 11. The sale of the firm would be particularly attractive to ESOP employees who joined the firm after the purchase loan was paid off, since the normal benefits they could expect through typical turnover would be a third or less than what they might realize from a sale of the company. If real-world outcomes confirm this projection, even democratically constituted ESOPs whose primary goal is wealth distribution to employees may be relatively short-term arrangements that benefit employees who are with the company at particular periods (from the beginning of the plan or at the time of its sale).

While sale of the company would yield higher benefits to Co-op employees than the typical departure benefits, the high growth Co-op employees' proportion of normal turnover benefits to sale proceeds increases consistently over the years, from about .51 in year 3 to .78 in year 15. If this trend continues there is likely to be little incentive for the sale of the company. The turnover benefit /sale benefit proportions shown in Figure 4 are very similar for the low growth Co-op and ESOP except from year 13 on, where the proportion remains stable for the Co-op but decreases sharply for the ESOP, so that incentives for selling the company are likely to be less for the Co-op than for the ESOP in these later years.

Conceptual Issues:

While differences expected in benefit outcomes are of key importance in choosing between ESOP and Co-op formats, other important conceptual and practical reasons should be considered in choosing one or the

other format. One is that ESOPs and Co-ops seek to implement conceptions of economic democracy that have different meanings and implications. For Kelso, the originator of ESOPs, the concept underlying economic democracy is "universally diffused economic power".¹² That power is to be achieved by making it possible for everyone to enjoy a share of the wealth produced by their labor. This wealth consists of the capital - equity and other assets - in a company and, more generally, in society. The task of economic democracy is to help people get access to a share of that capital which they can then invest. The ESOP is one way to implement this concept by distributing the asset values in the company through the allocation of shares that represent the ownership interest in the firm. If the firm is sold, workers currently with the firm get a share of the proceeds of the sale in proportion to the number of shares they hold. However, the results of this study show that, in a 100% employee owned leveraged ESOP, the most substantial benefits accrue to employees who are part of the firm in the early years of the plan, whereas those who join later get less, even if the company fares well. This lack of concordance between company performance and the size of employee benefits undercuts the equitable implementation Kelso's ideal of enabling workers to share the wealth they helped to produce¹⁵. It is possible that equity in the distribution of benefits could be approximated better through a gradual increase in the percentage of employee ownership or by changing the regulations that determine share allocation. It should be noted that while ESOPs may be structured to take advantage of tax benefits and focus on financial outcomes, many, perhaps a majority of ESOP conversions are motivated by the employers' loyalty to their workers and a desire to assure them a share of the company's income¹⁶.

For producer Co-op's, the concept of economic democracy has a dual meaning. From an economic perspective, workers own the surplus earnings created by their work¹⁷. In practice, that is a share of the earnings not required for current or future operations, as in the example used here. In principle, ownership of the firm itself as a bundle of assets is indeterminate. It may belong to the larger community which provided the economic and social environment that enabled the company to establish itself. If the company went out of business it might be taken over by a larger support organization, as typified by the Mondragon group of cooperatives. Although this concept of Co-op ownership of assets has been well established for over 100

years¹⁸ and is well articulated in theory¹⁹, cooperatives in this country are rarely structured with an understanding of this principle. For purposes of comparability with the ESOP, this study assumed that, if the firm were sold, current employees would get all of the benefits. In the absence of an organization like the Mondragon Group to take over a firm wishing or forced to terminate operations as a Co-op, a distribution of benefits more consistent with Co-op principles might include all who directly contributed to the firm - all current or past employees who are alive and can be reached.

The other central Co-op concept of economic democracy relates to the democratic governance of the firm by its employees. Co-op policy control through at least one general meeting a year and a board of directors elected on a one-vote per worker basis. ESOPs can be structured to include such member control, but that is very rare²⁰. ESOPs sometimes include forms of participatory management and there are some studies that indicate that decentralized management involving workers at different levels in decision making may promote productivity and profitability²¹. Participatory management may be desirable from a variety of perspectives but it does not give workers policy control. Such control is not part of the conception of ESOPs and not necessarily desirable from that perspective. ESOPs are therefore generally structured mainly to give employees a piece of the economic pie. In most ESOPs that piece consists of a minority interest in the firm, although there is a growing number of majority employee owned ESOPs. Co-ops are structured to give employees both governance and economic control over the business. Accordingly, while both ESOPs and Co-ops involve employee ownership, their values, concepts and practical implications differ to a considerable extent.

Perhaps partly because the worker Co-op format is rarely used in this country for sizable businesses, its implications have not been systematically explored with respect to either theory or practice. More research than a single projective study like this one is required to determine the relative benefits of ESOP and Co-op firms to employees and the company over the long run. But this study at least suggests that since the financial performance of ESOPs is not necessarily superior to that of Co-ops, the latter may be a more substantive conversion option than is generally supposed, requiring closer attention to the differing notions of ownership and democracy that underlie ESOPs and Co-ops.

NOTES

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² See, for example, Robert Paton, "Worker buyouts in six European countries". *Worker Co-op*, Vol 8, No.4, 1989, pp. 24-29 and John Earle, *The Italian Cooperative Movement*. London: Allen & Unwin, 1988.

³ Karen M. Young, "Research Results and Case Studies." In Robert W. Smiley, Jr. and Ronald J. Gilbert (Eds.), *Employee Stock Ownership Plans*. New York: Rosenfeld Launer, 1990 pp3-6.

⁴ Corey Rosen. "Employee Stock Ownership Plans: How the average worker fares." *The National Center for Employee Ownership*, 1990.

⁵ Kathy Pillsbury and Bonnie Wright. *Taxation in worker-owned businesses: Cooperatives vs. Employee Stock Ownership Plans*. Unpublished manuscript, 1982.

⁶ Joseph S. Schuchert. "The art of the ESOP leveraged buyout." In Robert M. Smiley, Jr. and Ronald J. Gilbert, *op.cit.*, p. 4-3.

⁷ Majority owned ESOPs. *National Center for Employee Ownership*, 1991.

⁸ *Moody's Industrial Review*, August 3, August 12 and October 12 1990.

⁹ Robert Morris and Associates. *Retailers, Dry Goods and General Merchandise Business Reports*. 10/1/88-3/31/89.

¹⁰ Shannon Pratt. *Valuing a Business*. Homewood IL: Dow Jones-Irwin 1981, pp. 40-51.

¹¹ Corey Rosen, *op. cit*

¹² Louis O. Kelso and Patricia Hetter Kelso. "The ESOP as a First Step in New Age Economics". In Robert W. Smiley, Jr. and Ronald J. Gilbert, (Eds.) *op. cit.*, AF3-6.

¹³ Raymond Russel. *Sharing Ownership in the Workplace*. Albany NY: State University of New York Press, 1985, p.189.

¹⁴ Rob Paton, *op.cit.*, John Earle, *op.cit.* See also Henk Thomas and Chris Logan. *Mondragon: an Economic Analysis*. London: George Allen & Unwin, 1982. pp. 106-129.

¹⁵ Kelso & Kelso, *op.cit.*

¹⁶ Karen Young, *op cit.*

¹⁷ David Ellerman. "Workers cooperatives: The question of legal structure". In Robert Jackall and Henry M Levin (Eds.) *Worker Cooperatives in America*. Berkeley, CA: 1984, pp. 257-274.

¹⁸ George C. Holyoake. *The History of Cooperatives*. New York: E.P. Dutton & Co., 1906, p. 311.

¹⁹ David Ellerman, *op. cit.*, Jaroslav Vanek. *The Labor Managed Economy*. Ithica NY: Cornell University Press, 1977, pp. 171-199.

²⁰ Besides Rath Meat Packing which failed, Seymour Specialty Wire is, as far as I know, the only ESOP that was formally structured to be governed democratically by the workers electing both the trustees and the board of directors. This ESOP has encountered serious economic and organizational problems. See "Where There's More to Participation than Democracy." *The Employee Ownership Report*, vol. 8, No. 3, pp. 5, 8. It is possible that there are some inherent incompatibilities between the ESOP structure and democratic governance, but more experience is needed before drawing conclusions.

²¹ The quarterly, "*Employee Ownership Reports*" of the National Center for Employee Ownership, reports many cases of improved company performance in companies where employees participate in management, but survey studies have not firmly established a causal effect of worker participation on business performance in ESOPs (e.g., report of a study by Patrick Rooney, *The Employee Ownership Report*, vol 9, No. 1, 1989, p. 8). However, the independent economic studies done on the Mondragon cooperatives indicate that the Mondragon cooperatives' productivity and profitability tends to be higher than that of the competition. (see Henk Thomas and Chris Logan, *op. cit.*). Also, there is some evidence that small cooperatives last longer than individual or family owned ones (Alain Roy, "Co-op Survival Rates in Quebec" *Worker Co-op*, v. 9, no. 2, 1989, pp.22-23).

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