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The Tax and Distributional Effects of Leveraged ESOPs

by

Susan Chaplinsky
University of Michigan

Greg Niehaus
University of Michigan

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Susan Chaplinsky and Greg Niehaus

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Susan Chaplinsky*
Greg Niehaus

University of Michigan
School of Business Administration
Ann Arbor, MI 48109-1234
(313) 763-0487; 763-5932

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Abstract: This paper examines (1) the magnitude of tax benefits associated with leveraged ESOPs and (2) the distribution of ESOP benefits between employees and non-employee shareholders. We show that the magnitude of ESOP tax benefits depends primarily on the ESOP's dividend policy. The distribution of ESOP benefits depends on what employees pay for their ESOP stock. Evidence on ESOP dividend policies and on the amount of compensation that employees forego in exchange for their ESOP compensation suggests that ESOPs are generally not structured to maximize the benefits to shareholders.

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The Tax and Distributional Effects of Leveraged ESOPs

I. INTRODUCTION

In recent years the number of publicly held firms sponsoring leveraged Employee Stock Ownership Plans (ESOPs) has grown significantly. Currently, more than 9,000 firms have ESOPs and over 9 million employees receive part of their compensation through ESOPS.[1] Several factors often advanced to explain ESOP adoptions are a leveraged ESOP's value in (1) providing tax benefits; (2) increasing employee productivity; and, (3) defending against hostile takeovers. While each of these factors is a potential source of shareholder value, little evidence currently exists to show whether shareholders in ESOP firms realize any of these purported benefits.[2]

In this paper, we examine two important issues affecting the ability of shareholders to benefit from ESOPs. First, we assess the magnitude of the corporate tax benefits. Our analysis indicates the corporate tax benefits depend primarily on the ESOP's dividend policy. Ceteris paribus, the greater is the payout of dividends on ESOP shares, the greater are the corporate tax benefits. Second, we show that the value of an ESOP to non-employee shareholders depends critically on the price employees pay for their ESOP stock. Ceteris paribus, the more employees pay for their ESOP stock, the greater is the share of ESOP benefits that accrue to non-employee shareholders. If employees do not pay market value for their ESOP stock, then the ESOP redistributes cash flows from non-employee shareholders to employees.

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1 See the National Center for Employee Ownership (NCEO).

2 For further discussion of the motivations for ESOP adoption, see Bruner [1], Chen and Kensinger [3], Scholes and Wolfson [9] and Chaplinsky and Niehaus [2].

By not taking into consideration the distributional effects of an ESOP, prior analyses have often overstated the magnitude of ESOP tax benefits. In particular, the ability to deduct principal payments on ESOP loans is often cited as an important advantage of ESOP financing. Our analysis, however, shows that once the distributional effects of an ESOP are properly accounted for, the ability to deduct principal payments is not a tax advantage of leveraged ESOPs.

Because ESOP dividend policy and what employees pay for their stock affect the value of ESOPs to shareholders, we provide evidence on the actual ESOP dividend policies and the terms of exchanged compensation for 83 ESOP firms. Our evidence for dividend policy suggests that ESOPs do not appear to be managed to provide the maximum corporate tax benefits. Further, many ESOPs are established without exchange of other compensation by employees. Thus, these findings suggest that ESOPs are not in general structured to maximize shareholder wealth.

In the next section, we describe the institutional features of leveraged ESOPs. In Section III, we quantify the net tax benefits from an ESOP. In Section IV, we discuss the distributional effects of an ESOP. Section V presents an example integrating the tax and distributional effects. Section VI contains our evidence on ESOP dividend policies and exchanged compensation. The paper concludes with a short summary.

II. DESCRIPTION OF LEVERAGED ESOPS

Our analysis of leveraged ESOPs focuses on publicly held firms. Hence, we describe only those institutional features of ESOPs that are relevant for these firms.[3]

An Employee Stock Ownership Plan (ESOP) is a qualified defined contribution pension plan with several unique features relative to other pension plans. First, ESOPs invest primarily in the sponsoring corporation's equity securities; whereas, other pension funds cannot hold more than 10 percent of their assets in the sponsoring firm's securities.[4] Second, ESOPs can borrow funds to purchase the securities for the plan; whereas, other pension funds are prohibited from borrowing funds to purchase securities.[5]

To establish a leveraged ESOP, a trust must first be formed. The ESOP trust can borrow money from a lending institution for the purpose of acquiring the sponsoring firm's stock. The size of the ESOP loan is limited to the market value of the securities purchased. The sponsoring firm will usually guarantee the ESOP loan by agreeing to make future contributions to the ESOP equal to the interest and principal owed on the loan.[6]

The stock acquired for the ESOP may be repurchased in the market or issued to the ESOP as a private placement of treasury stock. In a repurchase, the ESOP loan proceeds are used to repurchase the stock. In a private

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3 For a description of the ESOP tax benefits that are associated with private firms as well as with public firms see Marsh and McAllister [6].

4 The IRS has not provided a quantitative test for the requirement that an ESOP invest 'primarily' in the sponsoring firm's stock. See Kaplan et al. [5]. However, the requirement is usually interpreted to mean that 50 percent or more of the ESOP's securities must be sponsor stock.

5 See the Employee Retirement Income Security Act of 1974 (ERISA).

6 Alternatively, the firm can borrow the funds from the lender and turn the loan proceeds over to the ESOP trust.

placement of treasury stock, the ESOP loan proceeds are available for other corporate purposes. By either method the shares held in the ESOP are considered outstanding, and therefore carry dividend and voting rights.

The ESOP initially places the stock purchased with the loan funds in a suspense account. As the corporation contributes to the ESOP, the loan is repaid and a portion of the shares in the suspense account are allocated to individual employee accounts. Specifically, the proportion of the principal repaid on the loan equals the proportion of ESOP stock allocated to employees' accounts. As the shares become allocated to employee accounts, the voting and dividend rights pass through to employees.[7]

III. TAX IMPLICATIONS OF ESOPS

There are important tax considerations for all three parties in a leveraged ESOP transaction: employees, the employer and the lending institution. From the employees' perspective, ESOP compensation is not taxable until distribution by the ESOP. Distributions usually are made when employment with the sponsoring firm ends (e.g., at termination of employment or retirement) and are taxed at ordinary income tax rates. Dividends on ESOP stock that are paid out to employees are taxable when received.[8] Thus, from employees' point of view, an ESOP is similar to other defined contribution plans.

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7 In some cases, employees have a say in how unallocated shares are voted as well. For example, in many plans the trustee is instructed to vote unallocated shares in the same proportion as allocated shares are voted.

8 If the distribution occurs before the age of 59.5 the distributions are subject to an additional 10% income tax unless the distribution is rolled over into another qualified plan. Additional tax complications exist but are not examined here.

Employer contributions to an ESOP are deductible as a business expense as long as the contributions do not exceed more than 25 percent of the firm's total labor expense.[9] The Deficit Reduction Act of 1984 (DEFRA) allowed the sponsor to deduct dividends paid on ESOP stock if the dividends are distributed to employees within 90 days. Further, the Tax Reform Act of 1986 allowed the sponsor to deduct dividends paid on ESOP stock if the dividends are used to repay the ESOP loan. Since passage of DEFRA, financial institutions lending to ESOPs have been allowed to exclude 50 percent of the interest received on ESOP loans from taxation. As a result, financial institutions receive a tax subsidy for making ESOP loans.

From the above, a simple enumeration of the corporate tax benefits would appear to be

$$\tau[PV(\text{ESOP contributions}) + PV(\text{dividends paid out to employees}) + PV(\text{dividends used to pay off the ESOP loan})] + PV(\text{interest subsidy}), \quad (1)$$

where τ is the firm's marginal corporate tax rate.[10] Since the interest and principal on the ESOP loan are paid off using ESOP contributions and dividends, expression (1) can be rewritten as

$$\tau[PV(\text{interest on ESOP loan}) + PV(\text{principal on ESOP loan}) + PV(\text{dividends paid out to employees})] + PV(\text{interest subsidy}), \quad (1)'$$

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9 ESOP compensation can exceed the 25% limitation on contributions if dividends are paid on ESOP stock.

10 For simplicity, we assume throughout that the firm's marginal tax rate is constant through time.

However, expressions (1) and (1)' do not provide an appropriate measure of the corporate tax benefits from an ESOP.

A proper accounting of the tax benefits should consider the marginal effect of the tax treatment of an ESOP on a firm's cash flows, holding employee compensation constant.[11] If employee compensation is not held constant then the tax benefits cannot be separated from changes in the distribution of total cash flows between employees and shareholders.[12]

We hold employee compensation constant by assuming that the present value of compensation received by employees through an ESOP [denoted PV(ESOP compensation)] would have been contributed to another defined contribution pension plan. In other words, if the present value of ESOP compensation is $S, then the firm saves $S (in present value) in contributions to another pension plan.

To calculate the present value of ESOP compensation, we assume employees value stock in the same way as the capital market. Thus, if employees receive claim to all the dividends on ESOP stock, then the present value of ESOP compensation is equal to the market value of the stock. However, if ESOP dividends are used to pay off the ESOP loan, then employees do not receive these dividends. Consequently, ESOP compensation is reduced by the present value of the dividends that are used to pay off the loan. Thus, if $S worth of stock is placed in the ESOP,

PV(ESOP Compensation) = $S

- PV(Dividends used to pay off the loan).

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11 To focus our analysis on corporate taxes, we assume that the personal tax rate is zero. Later in the paper we discuss how our results would likely be altered by personal tax considerations.

12 See Miller and Scholes [7].

The marginal tax consequences of an ESOP on a firm's cash flows can now be enumerated. First, an ESOP reduces other pension plan contributions by the present value of ESOP compensation; these contributions would have been tax deductible. Second, an ESOP requires the firm to make contributions to the ESOP trust to repay the ESOP loan, and these contributions are tax deductible. Third, if ESOP dividends are immediately paid out to employees or are used to pay off the ESOP loan, then the firm receives a tax shield. Equation (2) summarizes the marginal corporate tax effects of an ESOP.

$$\begin{aligned} PV(\text{Tax Benefits}) = {} & (1-\tau)PV(\text{ESOP Compensation}) \\ & - (1-\tau)PV(\text{ESOP Contributions}) \\ & + \tau PV(\text{Dividends Used to Pay off the Loan}) \\ & + \tau PV(\text{Dividends Paid Out to Employees}). \end{aligned} \tag{2}$$

We can simplify equation (2) by relating ESOP contributions to the market value of ESOP stock. If \$S worth of stock is placed in a leveraged ESOP, then the initial face value of the ESOP loan is \$S. The present value of the ESOP loan payments, however, is likely to be less than \$S, due to the interest subsidy on the ESOP loan.[13] In particular,

$$PV(\text{loan payments}) = S - PV(\text{interest subsidy}).$$

Since the loan payments can be met by a combination of ESOP contributions and dividends on ESOP stock,

$$\begin{aligned} PV(\text{ESOP contributions}) = {} & S - PV(\text{interest subsidy}) \\ & - PV(\text{Dividends used to pay off the loan}). \end{aligned} \tag{3}$$

Substituting equation (3) into equation (2) yields

$$PV(\text{Tax Benefits}) = PV(\text{interest subsidy})(1-\tau)$$

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13 The ESOP loan rate is likely to be below the normal borrowing rate, implying the present value of loan payments is lower than the amount borrowed. See Shackelford [8] for further discussion of the interest subsidy.

+ τPV(Dividends paid out to employees).

+ τPV(Dividends used to pay off loan). (5)

Equation (5) highlights that the corporate tax benefits depend on the ESOP's dividend policy. If a plan retains all dividends within the trust then the corporate tax benefits are limited to the interest subsidy. Thus, ceteris paribus, the more dividends that are paid out, the greater is the magnitude of the corporate tax benefits.[14]

Note, that the present value of the tax benefits in equation (5) does not include a term for the deductibility of interest and principal on the ESOP loan. The reason is that the present value of the interest and principal less the dividends used to pay off the loan is equal to the present value of ESOP compensation. Since employee compensation is in general tax deductible, deducting the value of ESOP compensation is not a net tax advantage of an ESOP.

IV. DISTRIBUTIONAL EFFECTS OF AN ESOP

For the purpose of quantifying the tax benefits, we held employee compensation constant. However, an ESOP can change the amount of compensation employees actually receive and therefore affect the distribution of a firm's cash flows between employees and non-employee shareholders.

The distributional effect of an ESOP depends critically on the price employees pay for their ESOP stock in terms of foregone compensation. Ceteris paribus, the less employees pay for their ESOP stock, the greater is the share of total cash flows that accrue to employees and the less that accrue to non-employee shareholders. For example, if an ESOP does not change the firm's

14 How personal taxes paid by employees on ESOP compensation affects the plan's choice of dividend policy is discussed in Section VI.

total cash flows and if employees do not forego any compensation in exchange for their ESOP, then the ESOP redistributes wealth from non-employee shareholders to employees.

The price employees are willing to pay for their ESOP stock depends on the value employees place on stock relative to other forms of compensation. Among other factors, employees' value for ESOP stock is likely to depend on employee tax rates and risk preferences. For example, if ESOP stock is given in lieu of salary, personal tax savings may induce employees to pay more than the market price for their ESOP shares. Alternatively, if employees are concerned about diversification, they may be willing to hold employer stock only if the stock is given to them at a discount.[15]

In summary, an ESOP can have distributional consequences because the compensation employees receive through an ESOP [PV(ESOP compensation)] differs from the compensation that employees forego in exchange for their ESOP [PV(foregone compensation)]. Ceteris paribus, as the difference between ESOP compensation and foregone compensation increases, the more total compensation employees receive. Thus, the distributional effect of an ESOP on employees is summarized by

PV(ESOP compensation) - PV(foregone compensation).

However, the cost to shareholders of transferring cash flows to employees is shared with the Internal Revenue Service. Each dollar transferred to employees costs shareholders $(1-\tau)$. Therefore, the distributional effect of an ESOP on shareholders is equal to

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15 Changes brought about by the 1986 Tax Reform Act may mitigate the lack of diversification in ESOP compensation. In particular, participants above the age of 55 can demand that the ESOP diversify 25% of their ESOP assets. Employees above the age of 60 can demand that the ESOP diversify 50% of their ESOP assets.

$$(1-\tau)[PV(\text{foregone compensation})-PV(\text{ESOP compensation})]. \quad (6)$$

Note, that the distributional effect is not unique to ESOPs as any increase in employee compensation would have similar cash flow consequences to employees and shareholders.

V. INTEGRATION OF THE TAX AND DISTRIBUTIONAL EFFECTS

In this section, several examples are presented to illustrate the magnitude of the corporate tax benefits from a leveraged ESOP and how the distribution of tax benefits between employees and non-employee shareholders is affected by the price employees pay for their stock.

Assumptions

All of the examples are leveraged ESOP recapitalizations. This assumption is consistent with the GAO study [15] which documents that 76 percent of ESOPs are initially established with the repurchase of stock rather than by the issue of new shares. The GAO finding suggests that fund raising is not the primary motivation for ESOPs. When the sponsoring firm uses the funds from the ESOP loan to repurchase stock in the market, the number of outstanding shares of equity does not change. Instead, ownership is transferred from existing shareholders to employees.

Column (1) of Exhibit 1 summarizes the state of the firm prior to the ESOP recapitalization. Initially, there are 100 equity shares outstanding and no debt. The firm's assets when combined with labor's input produce $1757.57 in revenue at the end of each period in perpetuity. Labor costs are $1000.00 at the end of each period. The firm's tax rate is constant at 34%. After-tax profit is therefore $500.00. All after-tax cash flows are distributed to equityholders as dividends at the end of each period. Dividends per share are

therefore $5.00. Given a constant risk free rate of 10%, the ex-dividend share price is $50.00 each period.

In each of the examples, the ESOP recapitalization is conducted by repurchasing 5 shares at the beginning of the period and placing the shares in the ESOP trust. The funds needed to repurchase the shares are obtained from the ESOP loan. The loan is repaid at the end of one period. Due to the interest subsidy, the ESOP loan rate is assumed to be 8 percent, as opposed to the normal cost of funds, 10 percent.[16]

Prior to the recapitalization, the firm announces its plans to establish a leveraged ESOP. The firm announces that it will borrow the funds necessary to repurchase 5 shares through the ESOP. In addition, the firm announces the interest rate on the loan, whether dividends on ESOP stock will be paid out to employees or used to pay off the loan, and the amount of compensation employees forego for their ESOP stock. As a result, the market correctly anticipates the tax benefits and distributional effects from the ESOP, and the stock price adjusts accordingly. Thus, the post announcement stock price equals,

$$P_0 = \$50 + \{PV(\text{Tax Benefits}) - (1-\tau)[PV(\text{foregone compensation}) - PV(\text{ESOP compensation})]\}/100, \quad (7)$$

where the present value of net tax benefits is given by equation (5).

The post announcement stock price summarizes the effect of the ESOP on the wealth of shareholders. If employees forego compensation equal to the amount of compensation they receive through the ESOP, then there are no distributional consequences and all of the tax benefits accrue to

16 For more extensive discussions of the interest subsidy, see Shackelford (1988) and Scholes and Wolfson (1989).

shareholders. However, if employees forego less compensation than they receive through the ESOP, then the tax benefits are shared with employees. If ESOP compensation exceeds foregone compensation by a large amount, employee compensation may increase by more than the net tax benefits. In this case, the stock price will drop and shareholders will be made worse off.

ESOP plan managers have several choices to make with respect to how dividends are paid on ESOP shares. For example, the plan may credit all dividends to employees' accounts and thus retain all dividends within the ESOP until distribution. Alternatively, the plan may pay out dividends to employees on a regular basis or use dividends paid on ESOP stock to retire the loan. If the fund chooses either of the latter two alternatives, the sponsor firm can currently deduct these dividends. Our examples illustrate the tax benefits of various ESOP dividend policies.

Example 2: No Dividend Tax Shield

Column (2) of Exhibit 1 summarizes the cash flow consequences of the ESOP assuming all dividends accrue within the ESOP, and assuming employees forego compensation equal to the value of their ESOP stock. In this case, the only tax benefit is the interest subsidy.

Since $5P_0$ is the size of the ESOP loan and the interest saving from the interest subsidy is 2%, the present value of the interest subsidy after taxes is

$$5P_0(0.02)(1-0.34)/1.1.$$

The post announcement stock price is found by solving equation (7):

$$P_0 = \$50.00 + 5P_0(0.02)(0.66)/110.$$

Therefore, P_0 is \$50.03, and the present value of both foregone compensation and ESOP compensation equals the market value of the ESOP stock:

$$5P_0 = \$250.15.$$

Given a stock price of $50.03, the firm borrows $250.15 to buy back 5 shares. To pay off the ESOP loan, the firm contributes $270.16 ($250.15*1.08) to the ESOP at the end of the period. Since foregone compensation exceeds ESOP contributions, before-tax profits are $4.99 higher and after-tax profits are $3.30 higher than those without the ESOP.

The first period dividend per share, D_1, is $5.03. Since the ESOP does not affect cash flows in subsequent periods, the first period ex-dividend price is $50.00. In this case, since there is no distributional effect of the ESOP, shareholders receive all $3.00 of the tax benefits.

Example 3: Dividends Paid Out to Employees

In example 3, we assume that the ESOP is managed to maximize corporate tax benefits by immediately paying out all ESOP dividends to employees.[17] To measure the tax benefits, we assume that employees forego compensation equal to the market value of their ESOP stock.

For simplicity, we assume that ESOP stock is never distributed to employees. As a result, the dividend deduction on ESOP stock occurs in perpetuity. In practice ESOP stock is eventually distributed to employees and the firm loses the dividend deduction at that time. Thus, the perpetuity assumption is likely to overstate the tax benefits due to the dividend deduction.[18]

The present value of dividends paid out to employees equals the market value of the stock, P_0. Therefore, the present value of the dividend tax shield is equals $0.34P_0$. The present value of tax benefits is therefore found

17 The same corporate tax benefits would be obtained if the firm used some dividends to pay off the ESOP loan, and paid out the remaining dividends to employees.

18 If firms distribute cash rather than stock to employees, then the dividend tax shield can be perpetual.

by adding the value of the dividend tax shield to the present value of the interest subsidy. The post announcement stock price is therefore [see equation (7)]:

$$P_0 = \$50.00 + 5[([0.66*P_0*0.02)/1.1 + 0.34*P_0]/100.$$

Thus, $P_0 = \$50.90$, and the present value of both foregone compensation and ESOP compensation equals

$$5P_0 = \$254.50.$$

Given the stock price of \$50.90, the firm borrows \$254.50 to repurchase 5 shares. ESOP contributions at the end of the period equal \$274.86. Therefore, profits before the dividend tax shield equal \$503.34.

The dividend tax shield in the first period can be calculated by recognizing that each dollar in dividends gives rise to a tax shield equal to the firm's tax rate times the percentage of total dividends that are immediately distributed to employees. In the example, the firm's tax rate is 0.34 and the ESOP holds 5% of the total shares. Consequently, each dollar in dividends gives rise to a tax shield of \$(0.34)*(0.05)=\$0.017.

Since all cash flows are distributed at the end of the period, the cash flows from the tax shield on dividends are also distributed in the form of dividends. For example, \$1.00 in cash flow yields a tax shield of \$0.017, which is paid out in dividends and therefore yields a tax shield of $(0.017)*(0.017) = \$0.0029$, which in turn yields a tax shield of $(0.017)^3$, etc. Thus, each dollar in after-tax profit before the dividend tax shield allows the firm to pay dividends equal to

$$\sum_{i=1}^{\infty} [(0.34)(0.05)]^i = \$1.01729.$$

In the first period, after-tax profits before the dividend tax shield equal \$503.34. Therefore, the dividend per share in the first period is

D_1 = \$503.34(1.01729)/100 = \$5.12.

Therefore, the dividend tax shield in the first period is

5(\$5.12)(0.34)=\$8.70.

Unlike Example 2, in this case the ESOP affects the cash flows in future periods through the dividend tax shield. In all periods subsequent to period one, after-tax profits before the dividend tax shield equal \$500.00. Since these profits are distributed in the form of dividends, the dividend tax shield raises the dividends per share to

D_t = \$500(1.01729)/100 = \$5.09, t = 2, 3, ...

The ex-dividend price at the end of the first period is therefore

P_1 = \$5.09/(0.1) = \$50.87.

In this example, employee compensation is unchanged by the ESOP. Consequently, there is no distributional effect and non-employee shareholders capture all of the corporate tax benefits. The present value of corporate tax benefits received by non-employee shareholders is \$89.63. This sum represents the tax benefits from deducting dividends paid out on ESOP shares [{0.34*5*[\$5.12+5.09/0.1]/1.1}=\$86.58] and the interest subsidy [(0.66*\$254.40*0.02)/1.1=\$3.05]. Thus, the tax benefits received through the interest subsidy are small relative to the benefits received through the dividend deduction.[19]

Examples 2 and 3 illustrate how an ESOP's dividend policy affects the magnitude of the tax benefits. If all dividends are retained within the ESOP

19 Currently pending before the U.S. Congress are proposals which would effectively eliminate the interest subsidy and dividend deduction for ESOPs of publicly held firms. Although the interest subsidy has drawn the harshest criticism, our analysis shows that the bulk of tax benefits and corresponding loss of Federal tax revenues arises from the dividend deduction. See the Wall Street Journal, "Rostenkowski Acts to Repeal ESOP Provision," June 8, 1989, C1.

trust, then the corporate tax benefits are limited to the interest subsidy. The maximum corporate tax benefits occur when firms pay out all ESOP dividends either to employees or to the lender. Intermediate cases (not illustrated here) are possible where, for example, unallocated dividends are used to pay off the loan and allocated dividends are retained within the trust. We provide evidence on the actual dividend policies of ESOPs in Section VI.

Example 4: Distribution Effects

Example 4 illustrates how distribution of ESOP tax benefits between employees and non-employee shareholders is determined by the price employees pay for their ESOP stock. In Example 4, the ESOP is managed the same way as in Example 3, that is, to maximize tax benefits. However, in Example 4 employees do not forego any compensation in exchange for their ESOP stock.

In this case, the post announcement stock price incorporates both the tax benefits from the ESOP and the distribution effect. The net effect is a reduction in stock price at the ESOP announcement to $49.24. In present value terms, employees receive $246.21 more in compensation (5 shares valued at $49.24 each). The additional compensation costs shareholders $162.50 after taxes. Therefore, the distributional effect causes each share to lose $1.63. Partially offsetting the distributional effect are the tax benefits from the ESOP. In this example, the present value of the ESOP tax benefits equal $0.87 per share,[20] which reduces the loss in share price to $0.76. In this case, the tax benefits from the ESOP are not sufficient to protect shareholders from

20 The ESOP tax benefits in this case are less than the tax benefits in Example 3 ($89.63), because the tax benefits depend on the ESOP loan principal. The distributional effect reduces the share price and therefore reduces the funds needed to repurchase the 5 shares. Consequently, the tax benefits decrease. This illustrates a second order effect of employee compensation on tax benefits. The less employees forego in exchange for their ESOP stock, the lower is the principal on the ESOP loan, and therefore the lower are the tax benefits, ceteris paribus.

the distributional effect of the ESOP. Thus, even the maximum corporate tax benefits cannot prevent shareholder wealth losses if employees do not pay something for their ESOP stock.

For shareholders to prevent adverse distributional effects, they must ensure that foregone compensation equals the value of ESOP compensation given to employees. In our examples, we limit foregone compensation to reductions in other compensation, but our analysis readily generalizes to other cash flow effects of ESOPs. For example, productivity gains may substitute for foregone compensation. If greater productivity increases total firm cash flows, then these additional cash flows act as payment for ESOP stock. Estimating foregone compensation and productivity gains may be difficult, but shareholder interests in these transactions necessitate attempts to do so.

VI. SURVEY OF ESOP FIRMS

To determine the practice of ESOP plans with respect to dividend policy and exchanged compensation, we conducted a survey of 192 ESOP firms. The 192 firm sample was assembled from two sources. First, we undertook a keyword search of the North American Automated Retrieval System (NAARS) for all firms with ESOPs reported in their financial statements in 1986. Second, we added all firms who were reported by the Dow Jones News Wire Service to have adopted an ESOP or added stock to an existing ESOP during 1983-1989. Each of these firms was sent a questionnaire asking for specific information about the plans dividend policy and the terms of exchanged compensation at the time of ESOP adoption. Of the 192 firms, 83 completed surveys were returned. Exhibit 2 reports the results of the questionnaire.

ESOP Dividend Policies

In Panel A of Exhibit 2, we report the dividend payout policies for unallocated and allocated shares. Fourty-six plans (55.4%) use dividends on unallocated shares to repay the ESOP loan. Twenty plans (24.1%) do not use dividends on unallocated shares to repay the loan. Eleven plans (13.3%) pay no dividends on their shares, and thus they forego all tax benefits associated with the dividend deduction. Six plans (7.2%) were not leveraged and therefore had no unallocated shares.

For allocated shares, 57 plans (68.7%) allow the dividends paid on ESOP shares to accrue within the ESOP. Six plans (7.2%) use dividends on allocated shares to repay the loan. Finally, six plans (7.2%) give employees a choice of immediately receiving dividends or allowing the dividends to accrue within the ESOP. Our previous analysis shows that the maximum corporate tax benefits occur when an ESOP pays out all dividends. Thus, the evidence suggests that ESOPs are not managed to provide the maximum corporate tax benefits as most plans retain dividends paid on allocated shares within the trust.[21]

One explanation for why firms do not choose a ESOP dividend policy to maximize corporate tax benefits is that firms take into account the personal tax consequences of paying dividends to employees. Relative to other pension income, immediately paying out dividends on ESOP stock increases the personal tax burden of ESOP compensation, because employees must pay tax on the dividends when they are received. In addition, employees forego the opportunity to earn the before-tax rate of return on the dividends. If

21 Another question asked firms whether they had changed their dividend policies since the inception of the plan. This question was designed to see if the tax law changes had motivated any changes in ESOP dividend policy. Only 8 firms of the 83 firms indicated that a change was made. Six firms noted that they increased the payout of dividends and 2 noted that they decreased the payout of dividends.

employees perceive the paying out of dividends as disadvantageous to them, they are likely to reduce the price they are willing to pay for ESOP stock. In this case, maximizing the plan's dividend payout may not be optimal for shareholders when employee tax considerations are included.[22]

Exchanged Compensation

The sharing of tax benefits between shareholders and employees depends on the compensation employees exchange for their ESOP stock. Therefore, Panel B of Exhibit 2 reports information on how employee compensation is affected by the establishment of an ESOP.

Forty firms (48.2%) report that employee compensation increases as a result of the ESOP. Thirty-three firms (39.8%) report that the ESOP did not change the level of employee compensation. Finally, five firms (6.0%) report that the level of compensation declined when the ESOP was adopted.

The adjustments that firms made in employees' compensation packages at the time of ESOP adoption is also reported in Panel B. Only 9 firms (10.8%) report that employees accepted wage concessions or deferred regular salary increases when the ESOP was adopted. In contrast, 42 firms (50.6%) report a decline in some form of deferred compensation at time the ESOP was adopted. Somewhat surprisingly, 37 firms (44.6%) report that there were no other changes in the employees' compensation when the ESOP was adopted.

Since, ceteris paribus, an increase in employee compensation reduces shareholder wealth, the evidence that many ESOPs increase the level of employee compensation raises concerns about whether shareholders benefit from ESOPs. Ultimately, the determination of how shareholders and employees

22 There may be other reasons for paying dividends out to employees. Some commentators have suggested that the payment of dividends has an incentive effect on employees. The payment of dividends may also help mitigate the diversification costs of the plans.

benefit from ESOPs will require further analysis of issues such as personal taxes and the labor market.[23] Nevertheless, our preliminary evidence on corporate tax benefits and exchanged compensation suggests that unless large productivity gains result from ESOPs, shareholder interests may suffer in many ESOP transactions.[24]

VII. CONCLUSIONS

This paper has documented two important ways in which ESOPs do not currently provide shareholders the benefits many ESOP advocates have claimed. First, ESOP plans do not appear to be operated to achieve the maximum corporate tax benefits. While our analysis indicates that the maximum corporate tax benefits would occur when the payout of dividends on ESOP shares is greatest, evidence from 83 ESOPs shows that most firms retain large portions of dividends within the trust. By retaining these dividends, the corporate tax benefits of leveraged ESOPs are smaller than previous analyses have suggested.

Second, overlooked in most discussions of leveraged ESOPs is the role employee compensation plays in determining the distribution of benefits between employees and non-employee shareholders. Our analysis shows that the more employees pay for their ESOP shares, the greater is the ability of shareholders to gain from ESOP transactions, all else equal. However, our evidence shows that nearly half of all ESOPs are adopted without any reductions in other forms of compensation. Absent evidence documenting large

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23 For example, the increase in compensation at the ESOP adoption could be due to an increase in the competitive wage.

24 To date, no study has documented large productivity gains in ESOP firms. For a summary of existing studies see the GAO report [10].

productivity gains in ESOP firms, the combination of lower corporate tax benefits and a large number of ESOPs that increase employee compensation suggests that the purported benefits of ESOPs may have been overstated to shareholders.

Exhibit 1

Tax and Distributional Effects of ESOP Recapitalizations

	Example 1 Base Case	Example 2 No dividend Tax shield, Employees Pay Market Price	Example 3 Max Dividend Tax Shield, Employees pay market price	Example 4 Max Dividend Tax Shield, Employees pay nothing
Non ESOP shares	100.00	95.00	95.00	95.00
ESOP shares	0.00	5.00	5.00	5.00
Foregone Compensation	$0.00	$275.15	$279.93	$0.00
Post Ann. Share Price (P_0)	$50.00	$50.03	$50.90	$49.24
Income Statement for Period 1				
Revenue	$1,757.57	$1,757.57	$1,757.57	$1,757.57
Labor expenses[a]	$1,000.00	$724.85	$720.16	$1,000.00
ESOP contributions[b]	$0.00	$270.16	$274.86	$265.90
EBIT	$757.57	$762.56	$762.64	$491.67
Taxes if no Div. Tax Shield	$257.57	$259.27	$259.30	$167.17
Profit if no Div. Tax Shield	$500.00	$503.29	$503.34	$324.50
Dividend Tax Shield[c]	0.00	0.00	$8.70	$5.61
Actual Taxes	$257.57	$259.27	$250.60	$161.56
Actual Profit	$500.00	$503.29	$512.04	$330.11
Dividend per share	$5.00	$5.03	$5.12	$3.30
Ex-dividend share price[d]	$50.00	$50.00	$50.87	$50.86
PV(Corporate Tax Benefits)[e]	$0.00	$3.00	$89.63	$87.00
PV(Distributional Effect)[f]	$0.00	$0.00	$0.00	($162.50)

Notes to Exhibit 1

Assumptions:

The ESOP loan has a face value of $5P_0$, where P_0 is the price paid for ESOP shares. The loan is repaid after one period and has an interest rate of 8%.

All residual cash flows are distributed as dividends in the period in which they are earned.

[a]Labor expenses equal $1000-foregone compensation.

[b]ESOP Contributions = $5P_0(1.08)$, or the loan amount times one plus the ESOP loan rate.

[c]Dividend tax shield in period 1 = $5(0.34)D_1$ if dividends are distributed to employees (i.e., examples 3 and 4), and zero otherwise (examples 1 and 2).

[d]Ex-dividend share price is the present value at time 1 of all future dividend payments.

[e]Present value of tax benefits is the present value of the interest subsidy $[5P_0(0.02)/1.1]$ plus the present value of the dividend tax shield $[5(0.34)[D_1/(1.1) + D_2/(1.1)^2 + D_3/(1.1)^3 + \ldots]$, where D_t is the dividend at time t.

[f]Present value of distributional effect is the after-tax cost to shareholders of the additional compensation paid to employees. $[(1-0.34)(5P_0 - (\text{foregone compensation})/1.1)]$.

Exhibit 2

ESOP Dividend Policies and the Terms of Exchanged Compensation for 83 ESOP Firms

Panel A: ESOP Dividend Policies	**N**	**% of Sample**
Dividends Paid on Unallocated Shares:		
Used to Pay Off ESOP Loan	46	55.4%
Not Used to Pay Off ESOP Loan	20	24.1%
Non-Dividend Paying Shares	11	13.3%
No Unallocated Shares	6	7.2%
Dividends Paid on Allocated Shares:		
Retained within the ESOP trust	57	68.7%
Paid Out to Employees	6	7.2%
Used to Pay Off ESOP loan	6	7.2%
Employees Choice:		
To retain or receive dividends	3	3.6%
Non-Dividend Paying Shares	11	7.2%
Panel B: Terms of Exchanged Compensation	**N**	**% of Sample**
Level of Employee Compensation:		
Increased Due to the ESOP	40	48.2%
Unchanged by the ESOP	33	39.8%
Decreased Due to the ESOP	5	6.0%
No Response	5	6.0%
Changes in Compensation Package at Time of ESOP Adoption:[a]		
Wage Concessions	6	7.2%
Regular Salary Increases Deferred	3	3.6%
Terminated Defined Benefit Pension Plan	9	10.8%
Reduced other Deferred Compensation	32	38.6%
Added other Deferred Compensation	1	1.2%
No changes were made	37	44.6%
No Response	1	1.2%

[a]The 89 (rather than 83) responses and the percentages sum to more than 100% because four firms reported two responses and one firm reported three responses.

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