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WORKING DRAFT: NOT A STATEMENT OF ICA POLICY

LEGISLATIVE DESIGN FOR DEMOCRATIC WORKER OWNERSHIP TRUSTS

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INTRODUCTION

This guide is written for drafters, legislators, and lawyers who wish to write legislation for democratic worker ownership trusts (DWOTs) which are essentially generic versions of the democratic employee stock ownership plan (ESOP) in America [see Ellerman and Pitegoff 1987]. The emphasis is on understanding the various possible structures, not the actual language of the statutes. Local lawyers and legislators must ultimately translate these concepts into the appropriate language of the legal code of the country.

There are many choices in the design of worker ownership trusts (WOTs). The ICA may recommend certain choices, e.g., one-person/one-vote. The drafters might embed those choices in the legislation or leave several options open to the eventual users of the legislation. While presenting our preferences, we will outline a range of options in the design of worker ownership trusts.

A STATUTORY STOCK TRUST

Pensions and Employee Retirement Plans

In the United States, employee stock ownership plans or ESOPs were developed within the body of law for pension plans and other employee retirement benefit plans, the Employee Retirement Income Security Act of 1974 (ERISA). Yet an ESOP is in many respects quite different from a pension plan so ESOPs sit uneasily in this body of law. Many of the ESOP statutes are

exemptions or exceptions to pension plan regulations. Nevertheless, if there are legal statutes for some form of employee stock bonus plan or employee benefit plan, then it is probably more efficient to modify that set of laws than to create a totally new code for worker ownership trusts starting with only the common law notion of a trust. We assume the legislative strategy is to modify existing pension plan law to form a statutory code for worker ownership trusts. Hence the differences between worker ownership trusts on the one hand, and other employee benefit and pension plans on the other hand, should be clearly understood.

Diversification Requirements

Pension plans are typically subject to strong diversification requirements. The plan can hold only a small portion of stock from the employer. Yet the principal purpose of a WOT is to hold the stock of the company where the workers are engaged. Therefore a legal category for worker ownership trusts should be created and exempted from the diversification requirements applying to pension plans. It should be defined as a vehicle for worker ownership. For instance, under ERISA,

> A plan constitutes an ESOP only if the plan specifically states that it is designed to invest primarily in qualifying employer securities. [ERISA Reg. § 2550.407d-6]

Fiduciary Relationships

The paternalistic relation between the trustees and the worker-beneficiaries is another aspect of many pension plans which should not be carried over to WOTs. A worker ownership trust functions as a tax-favored holding company for the workers' ownership of part or all of a corporation. It is not a voting trust for minors or people with diminished legal capacity. There is no need for a fiduciary relationship between the trustee or trustees and the worker-owners. Ownership includes the right to make one's own mistakes and to suffer the consequences. The workers should be considered as "members" of the trust, not "beneficiaries." The trustee should have a largely formal role to execute the instructions of the workers-members.

Retirement Payouts

Another feature of pension plans which does not necessarily carry over to worker ownership trusts is the focus on retirement income. Membership in a WOT is geared to work in the firm. When a worker retires or otherwise terminates work in the firm, then membership ceases and the workers capital account (see below) is paid out in some form over a period of years. The event triggering the termination of membership is the termination of work, not necessarily retirement. Moreover, there is no reason why the payout of

all balances in the worker's capital account should wait until termination. That only encourages those who have worked in the firm the longest and acquired the most firm-specific skills to leave in order to lessen the risk of losing their capital.

Alternative Payout Plans

There are several alternatives to postponing any payout until termination. In the Mondragon cooperatives, interest on each worker-member's capital account is typically cashed out each year. Another possibility is the "rollover plan" [see ICA Model By-Laws for a Worker Cooperative 1983]. The details would depend on the trust accounting arrangements considered below. But the general idea is to date the capital in each worker's capital account. After the dated capital entry has survived for a fixed time period (say, seven or ten years), it is paid out in cash. This tends to equalize the balances in the accounts. Earnings are retained with increases all the accounts a small amount, and then those with the oldest and largest accounts have part of their balance paid out. The big accounts go down and the small accounts increase, so the rollover plan tends to equalize both the balances and the risks born by the worker-members.

Leveraging the Trust

When a company finances through borrowing as opposed to equity, that is called "leverage" in the United States and "gearing" in the United Kingdom. One of the unique features of the ESOP is that it is leveragable, i.e., it can take out a loan. The loan proceeds are typically used to buy new shares from the company or to buy old shares from the previous shareholders. The shares in the stock trust are collateral for the loan. The company obligates itself to make deductible cash contributions to the ESOP which are timed to pay off the loan. An ESOP can play a number of roles in financing worker ownership because of this capacity to be leveraged. Hence any new statute for worker ownership trusts should expressly authorize the trusts to take out loans to purchase shares and to hold the shares as collateral for the loan.

TAX CONSIDERATIONS

Corporate Income Tax

ESOPs have been endowed with a number of tax breaks. Much of the popularity of ESOPs in the United States can be traced to its tax-favored status, not to a philosophical commitment to worker ownership on the part of corporate management. The original and most important tax break associated with ESOPs was due to their role as employee retirement benefit plans. Any contribution from the company to the trust counted as "deferred labor

compensation" and thus was deductible from taxable corporate income just like wages or salaries. The unique attraction of the ESOP was the result of combining this deduction feature with the leveraging feature. Interest on debt was always deductible as an expense. But when a loan is paid back through an ESOP, then both the interest and principal portions of the payments are deductible. Companies in high tax brackets have looked favorably on this aspect of ESOP financing. The downside was the dilution of the prior shareholders. But this could be compensated for by increased worker productivity, wage reductions, or tempered future wage demands.

Any new statute for worker ownership trusts should similarly make sure that all contributions from the company to the trust, either in the form of cash or stock, are deductible from taxable corporate income as a labor expense.

Deductible Dividends

Ordinarily, dividends are not deductible from taxable corporate income. Recent U.S. tax legislation has given ESOPs a corporate tax break on dividends paid on ESOP stock.

> In addition to the deductions provided under subsection (a), there shall be allowed as a deduction to a corporation the amount of any dividend paid in cash by such corporation during the taxable year with respect to the stock of such corporation if—
> (1) such stock is held on the record date for the dividend by ... an employee stock ownership plan ..., and
> (2) in accordance with the plan provisions—
> (A) the dividend is paid in cash to the participants in the plan or their beneficiaries, ... or
> (C) the dividend with respect to employer securities is used to make payments on a loan [made to the ESOP].
> [Internal Revenue Code (IRC) § 404 (k)[j]]

Thus the dividends on ESOP stock are also deductible when used by leveraged ESOP to make loan payments.

The deduction of dividends on stock in a worker ownership trust is another tax break which could be incorporated in new legislation.

Worker's Personal Income Tax

ESOPs and other employee retirement benefit plans are "qualified" so that the personal income tax incidence is postponed until cash or stock is ultimately distributed from the trust directly to the employees. This feature was one of the advantages of developing ESOPs out of pension law.

The other form of worker ownership in the United States, the worker cooperative, does not allow the simultaneous avoidance of corporate and personal taxes. Earnings retained in an ESOP company can be "covered" with a corresponding stock contribution to the ESOP so that there is no corporate or personal tax on those retained profits. In American cooperatives, retained profits must always be taxed at either the corporate level or at the individual level of the members. Retained patronage dividends may be "qualified" to be deducted from taxable corporate income, but they are then taxed at the personal level.

Capital Gain Rollover

An important source of majority ESOPs (i.e., ESOPs holding a majority of the outstanding shares) has been the sale of family-owned companies to the employees through an ESOP. An ESOP creates a market for the shares of a closely-held corporation. A retiring family owner (without interested heirs) can reward the employees by selling out to them. Otherwise the family owner might turn their fate over to a larger corporation which could be more interested in the customer list or in reducing capacity on the market than in continuing the jobs.

To promote this use of ESOPs, recent U.S. legislation has eliminated one of the tax advantages of selling out to a large corporation. When selling to a large corporation with publicly traded shares, the owner of a family company would typically receive shares in the larger corporation. The capital gains over the original investment in the family firm would not be recognized as income until those new corporate shares were eventually sold. The capital gains were rolled over in the stock swap.

Recent legislation has allowed this capital gains rollover if the sale is to an ESOP (or a worker cooperative) with at least 30% of the ownership after the transaction, and the proceeds of the sale are reinvested in other qualified corporate replacement securities within a certain time period.

New legislation for worker ownership trusts could include a similar capital gains rollover to foster the sale of closely-held corporations to their employees.

Estate Tax Liability

Recent U.S. legislation also gives an ESOP the ability to assume Federal estate tax liability to the extent that the ESOP acquires employer stock from a deceased shareholder or his estate, as well as the exclusion of 50% of the value of that stock from the taxable amount of the estate. These are further

examples of the creativity of American legislators desiring to use tax incentives to promote employee stock ownership plans.

Interest Exclusion

In an effort to promote loans to ESOPs, legislators have offered a tax break to the financing organizations who are ordinarily taxed on the interest portion of the loan repayments. These regulations allow banks, insurance companies, and mutual funds to exclude from taxable income 50% of the interest received from loans to ESOPs. This makes it easier for ESOPs to obtain loans, and it reduces the costs of borrowing since the banks often pass some of the tax break back to the ESOP.

The importance of this feature in another country would depend on the capital markets and the tax laws. The credit for the purchase of the transnational subsidiary through a worker ownership trust might come from the corporation itself rather than a financing agency. The transnational corporation might respond more to foreign exchange considerations than to tax breaks.

MEMBERSHIP, STOCK, AND VOTING

Membership Fees

The basic idea is for membership in a worker ownership trust to be coextensive with working in the firm. In American ESOP law, all employees of the corporation are (with a few exceptional classes) legislated to be beneficiaries of an ESOP. ESOPs may not be drafted to discriminate against lower paid workers or other subgroups of employees. For instance, one of the requirements of a qualified plan is that

> the contributions or benefits provided under the plan do not discriminate in favor of employees who are—
> (A) officers,
> (B) shareholders, or
> (C) highly compensated. [ERISA, §401(4)]

The key to this sweeping legislative inclusion of all employees is that there is no out-of-pocket cost to the employees. They are merely to be "beneficiaries" of the trust. Membership will be more controversial if there is an explicit cost to being a member such as a membership fee. Hence our discussion of membership must begin with a discussion of the possibility of a membership fee.

An ESOP with a membership fee would be called a "contributory ESOP." Contributory ESOPs with membership fees are very rare. This seems to be the result of an implicit design rule behind American ESOP legislation: get the workers involved (for motivational purposes) in the capital aspect of ownership but not in the control aspect. Several mechanisms are used to insulate the workers from using the votes attached to their shares. This creates a second-class of corporate citizenship for employees. Ordinary first-class shareholders may exercise the votes attached to their shares as a normal part of corporate ownership, but employee-shareholding through an ESOP tends to be an ownership-without-control.

The principal reason why ESOP designers have been able to deny workers the voting rights is that the workers don't have to pay any out-of-pocket money for their membership. The unspoken assumption seems to be that workers should not complain that their ESOP ownership is second-rate since it is, after all, a "gift." If the workers had to pay an initial membership fee, that would help to psychologically dissipate the "gift" aspect of ESOP membership and the workers would expect ordinary first class ownership.

In other worker-owned companies such as Mondragon-style worker cooperatives, membership fees are quite standard. The phrase "membership fee" is used advisedly. In a Mondragon-style worker cooperative, the fee is not a "purchase" of ownership or membership since membership is a personal right (not a property right) based on working in the firm—just as political democratic voting and citizenship rights are based on residing in the political community. Membership gives rights and also carries obligations. Paying the membership fee is an obligation of membership—just as paying taxes is an obligation of citizenship (not a "purchase" of citizenship rights).

In a worker cooperative, the obligation of a membership fee is adjoined to membership as a psychological commitment mechanism (aside from the financial reasons). It is a form of "earnest money" which gives employees a greater psychological sense of engagement in the firm. The effects of not having any membership fees can be seen in many ESOPs. The uncommitted workers do not suddenly start working much harder or otherwise acting like owners. Many ESOPs, unwilling to grant any genuine control to the workers, bombard the employees with handbooks, posters, leaflets, education classes, pep talks, and communications programs to instill a "sense of ownership." If the worker had made a non-trivial ESOP investment out of their pocket or payroll, then they would not settle for second-class ownership and they wouldn't need a "communications program" to tell them they are owners.

A membership fee is recommended as part of the structure of a democratic worker ownership trust. A worker ownership trust should not be viewed as an incidental employee benefit program but as an integral part of

the structure of the firm. Within that framework, a membership fee would be quite appropriate. The obligation of a membership fee must "have teeth" by making refusal to pay the fee (even by payroll deductions) a just cause for dismissal.

Membership

What makes a worker ownership trust democratic, i.e., when is a WOT a DWOT? Minimally it is when all the people working in the firm are included in membership (so membership is not limited to a subset) and when the members vote on a one-person, one-vote basis. A worker ownership trust could have these minimal democratic attributes even when the ownership in the trust is not 100% of the ownership or even when it is minority ownership. In a full-blown DWOT, all and only the workers would be the members or owners of the company. Then being a member is the same as working in the company, and that is the fundamental alternative to the employer-employee relationship. Instead of being "employed" by a company, work in the company makes one a member.

In a worker cooperative, a person must be accepted into membership. There is typically a probationary period, and after that period, the person must be either accepted as an equal member or terminated as a worker in the company. This is the up or out rule. This prevents the creation of two permanent classes of workers, the members and the non-member employees.

If a worker ownership trust is to be an integral part of the structure of a company (as it surely would be if the percent of worker ownership was a substantial majority), then membership should be treated in a similar manner. After a probationary period, a worker must be accepted into membership (and would then be liable for the membership fee) or be terminated, up or out.

Less structure might be appropriate in a minority DWOT (a trust holding a minority of the ownership in the company). Perhaps a certain ownership threshold should be established (say, 50%) such that a membership acceptance procedure and a membership fee are only required above that threshold. Increasing worker ownership above that threshold would qualitatively change the meaning of membership in the firm.

Stock and Voting

In American ESOP law, any company whose shares are not registered to be traded on a public stock exchange may only put shares in the ESOP which have "the highest combination of dividend and voting rights." This somewhat cryptic phase, which taken literally would mean voting preferred stock, is usually interpreted to mean "best common," i.e., common voting

stock (of the best class if there are multiple classes). This well-intentioned requirement of voting stock is, however, not reinforced by a requirement that the employees exercise the vote on "their" shares. Typically, the votes are not "passed through" to the employees and instead are exercised by the ESOP trustees.

In a democratic worker ownership trust, the shares must be voting shares and the voting is on a one-person one-vote basis. Depending on seniority and salary levels, different workers will have a different number of voting shares in their trust accounts (see below). Hence democratic voting requires that the votes not be passed through the accounts to the workers. Instead, the trust members should vote (independently of the shares in their accounts) on a one-person one-vote basis to determine how the votes of the trust will be cast.

There are two methods of casting the trust votes, as a majority-determined block vote or proportionate to the member votes. The workers should make a "constitutional" decision by majority vote as to how the trust votes will be cast. Block voting will give the employees more leverage in a minority DWOT. If all or substantially all the ownership is in the worker trust, then the two voting methods will yield the same results.

Another method of obtaining one vote per trust participant is to issue each worker one voting share with the vote passed through (or the share could be outside the trust) and with the remaining shares being non-voting. This method would be appropriate only in a 100% worker ownership trust. Otherwise, the worker votes would be easily trivialized by the voting shares held outside the trust.

INTERNAL CAPITAL ACCOUNTS: THEORETICAL BACKGROUND

Introduction

The suggested DWOT operating policy is based on the idea that a DWOT is intended to operate as a Mondragon-type worker cooperative—in so far as that is possible with the DWOT holding less than 100% and perhaps only a minority of the shares. We have already seen that this idea can be implemented with respect to voting. The voting can be changed from a per share basis to a per member basis by having the trust members vote one per person as to how the totality of the trust shares will be voted.

We will outline how DWOT internal capital accounts can function like worker cooperative capital accounts. We will also compare these account policies with the account policies of conventional ESOPs. In each case, the

account operating policies reflect certain assumptions about the relative rights and roles of labor and capital in the enterprise.

Structure of the Firms

One basic question is: "Who is the residual claimant?" Who participates and on what basis in that legal party ("the firm") which hires all the other factors and inputs, which receives the revenues, and thus claims the residual earnings? That party, the residual claimant, is presumably organized legally as a corporation or company, but who has membership in that company?

A democratic firm such as a Mondragon-type worker cooperative is a corporation where labor and only labor has the role of the residual claimant. Labor hires capital. The workers also have capital in the company in their internal capital accounts, and that capital is sometimes called "equity capital." But "equity capital" in such a cooperative is essentially a form of flexible internal debt capital as opposed to the usual inflexible external debt capital. No votes are attached to that capital; the holders of large and small capital accounts all have one vote. The internal capital accounts accrue interest proportional to their balances. Any pure or economic profits above that interest are distributed according to labor (e.g., as measured by wages or salaries). That residual claimant return to labor may be retained and added to the balance in the internal capital accounts. But that no more makes it a return to capital that depositing a worker's paycheck in a savings account makes it a return to the capital in the savings account.

In a capital-ist corporation, the capital called "equity capital" and only that capital has the residual claimant's role. The votes are attached to the shares of equity capital, and the residual earnings accrue to the capital as dividends and capital gains in a manner proportional to that capital.

ESOP Account Operating Policy

The respective roles of labor and capital in these two types of firms suggest certain capital account operating policies in DWOTs and conventional ESOPs.

The original contribution of money or shares to a conventional ESOP is deferred labor compensation, i.e., part of the return to labor as a hired factor (since the workers as workers have no residual claimant role in a capital-ist firm). Thus the shares are typically allocated between the employee capital accounts according to the employee salaries or wages. It is the employees' capital in the ESOP that qualifies them for a share of the residual so that value accrues to them as capital dividends and capital gains proportional to the

shares in their accounts—not proportional to their wages or salaries. The ESOP capital accounts are kept in the denomination of shares, not value. The value of the shares is free-floating; it goes up or down as specified by the appraisal or market valuation.

DWOT Account Operating Policy

The account operating policy is quite different in a democratic worker ownership trust designed to operate strictly on the principles of a Mondragon-type worker cooperative. Capital is a hired factor so the workers' capital is explicitly or implicitly receives its rental, the interest, just as in a capital-ist firm any labor supplied by shareholders would receive an explicit or implicit salary. Thus the workers' capital accounts in a DWOT would accrue interest. But the remaining portion of the workers' earnings would be allocated between them according to some agreed-upon measure of their labor (called "patronage" in a cooperative) such as their salary.

The residual could be positive or negative. Given the DWOT's share of the annual earnings (determined below), each worker's account is increased by its accrued interest. DWOT earnings minus that account interest is the positive or negative amount allocated between the accounts according to labor.

Share-Denominated Accounts in a DWOT

This DWOT account policy can be implemented even when accounts are kept in the denomination of shares if the trust is allowed to reassign shares between accounts. The reassignment of shares between accounts may not be possible under current American ESOP law, but it should be allowed for in any new legislation. Without reassignments, the Mondragon-style capital accounts can be approximated up to a point in a DWOT.

When profits are retained and no new shares issued, all the shares will rise in value ("A rising tide lifts all the ships"). Those capital gains are automatically distributed on a per share basis between the DWOT individual accounts. The part of those profits which should be in each account on a Mondragon-type operating policy can be computed, and then shares can be redistributed (assuming that is legally authorized) to reproduce that cooperative allocation between the accounts. This operating policy will be illustrated in an example below. Another approach to the problem is to keep accounts directly in terms of value.

Value-Denominated Accounts in a DWOT

A democratic worker ownership trust can be constructed using internal capital accounts kept in value terms even when the DWOT only has partial

ownership. A Mondragon-type worker cooperative allocates the retained earnings from the income statement between the internal capital accounts. A DWOT with partial ownership takes its analogous "earnings" as the total annual increment in value of all the DWOT assets which includes capital gains or losses plus any liability reductions from the principal portions of loan payment through the DWOT and plus any new shares or money contributed to the DWOT from the firm during the year.

This treatment of value in a DWOT closely parallels the treatment of votes. All the votes on shares in the DWOT are cast as determined by a one-person one-vote ballot as in a cooperative. Similarly, the value increment on all the shares and other assets in a DWOT plus any liability reduction is treated as if it was the retained net income of a cooperative.

Defined Benefit Versus Defined Contribution Plans

The distinction between value and share denominated accounts should not be confused with the distinction in ERISA between defined benefit and defined contribution employee benefit plans. In a defined benefit pension plan, the employee is guaranteed a certain amount of money in the future. In a defined contribution plan, a certain amount of money or shares goes into the plan in each employee's account, and the employee receives whatever is in the account at the appropriate future time. There is no guarantee; the securities in the employee's account could rise or fall in value.

A worker ownership trust would always be a defined-contribution-type plan even if the internal capital accounts are kept in terms of value. Unlike a defined benefit plan, the value in an employee's account can go down if the firm makes losses. There is no guarantee of a specific monetary amount until after the worker has terminated, the account has been closed, and the balance has become a specified debt from the company to the ex-worker to be paid off over a period of years.

INDIVIDUAL CAPITAL ACCOUNTS: OPERATION

The Various Accounts

Legislation for worker ownership trusts could allow the choice of share-denominated or value-denominated internal capital accounts in the trust. The operations described below will consider both possibilities.

In a worker ownership trust, there is

- an internal capital account for each current employee in the company,

- a "suspense account" containing shares or value unallocated to the individual accounts, and
- possibly a collective account.

The suspense account functions as a temporary holding pen for shares to be allocated to the individual accounts on the occurrence of certain events. A DWOT might choose to have a collective account as in a Mondragon-style worker cooperative. If a DWOT chose to have a collective account, then the shares in that account would add to the total votes exercised by the trust but the value would be permanently unallocated to the individual accounts.

DWOT Account Operation: Timing Questions

There are two movements of shares or value to be considered, from the company to the trust into the suspense account, and from the suspense account into the individual capital accounts. The contribution of shares or money from the firm to the trust is deferred labor compensation which is deductible from taxable corporate income. Those movements are often timed with loan payments in the leveraged or unleveraged use of a worker ownership trust to make loan principal payments out of pretax corporate income. If the loan was leveraged through the trust, the cash loan payments go from the firm to the trust and then to the bank. In the unleveraged arrangement, the loan is directly to the firm, but shares are contributed to the worker ownership trust simultaneously with the loan payments.

In American ESOPs, the shares typically flow from the suspense account to the individual accounts as and only as the loan is paid off. But there is no convincing rhyme or reason in that timing. A more rational arrangement would be for the increases in the individual accounts to be the results of making and retaining profits in the firm. But loan payments would be made even when there were losses. The losses should be taken into account in determining the number of shares added to each worker's account. And if substantial profits were made after the loan is paid off, then all employees who came after the loan was paid should share in those profits.

We therefore recommend the <u>DWOT account operating policy</u> that shares or value should flow from the suspense account or directly from the firm into the individual trust accounts <u>only</u> as the DWOT increases its net worth (e.g., through capital gains as well as liability reductions). This will be illustrated in models given below.

The deductible expenses are timed with the contributions of shares or value to the worker ownership trust. The increases in the individual accounts should be timed with DWOT earnings. It is assumed that the tax system allows for tax loss carry-forwards or carry-backs within certain time frames (e.g., 7 years in the USA). Then the losses made in one year (e.g., due

to the contributions to the trust) can be carried forward or back to shelter profits made in another year.

Vesting

In an American ESOP, a balance in a worker's internal account does not necessarily go to the worker if he or she terminates before the normal retirement age. The worker must be 100% "vested" in order to receive the full amount. If a person leaves before full vesting, then the unvested balance in the account is forfeited back to the ESOP. Thus the idea of "vesting" encourages longevity with the firm and discourages job-hopping between firms.

An ESOP could have immediate vesting which means that an amount becomes unforfeitable as soon as it is allocated to each worker's account. ERISA has certain minimal standards for vesting. On one type of schedule, each employee must be fully vested after 10 years. One another plan of minimal vesting, the unforfeitable percentage starts at 25% after 5 years and rises steadily to 100% after 15 years.

The Mondragon worker cooperatives have a similar vesting requirement in their internal capital accounts. If a member voluntarily leaves before retirement age then a certain part of the balance in their internal capital account is forfeited back to the cooperative.

We recommend some vesting procedure to discourage turnover and to reward longevity with the firm. Minimal standards need to be specified by the drafters.

Valuation

There are two fundamentally different methods of valuation because there are two fundamentally different sets of property rights being evaluated in a capitalist firm and in a labor-based democratic firm. The property rights behind the two firm structures will be briefly described.

The usual calculation of earnings, net income, or profits treats only the interest on debt capital as an expense. The interest on the internally-supplied equity capital is not expensed. Hence one arrives at a measure of "pure" or "economic" profits by subtracting the interest on equity from the usual notion of profits. It can then be shown that the usual valuation of a capitalist corporation is the balance sheet book value of the assets minus the liabilities plus the discounted present value of all the future economic profits, i.e., net worth plus future profits. The discounted present value of the future economic profits would be a technical definition of "goodwill" —a word much used (and abused) in the business literature with a wide variety of

meanings. Hence this valuation formula has been called the "book plus goodwill formula." The book value of equity is an "enlightened" book value which takes into account market revaluations (e.g., inflation corrections) of the corporate assets (usually ignored as "unrealized" by accounting calculations of net worth).

In theoretical models of a capitalist corporation, the (enlightened) book-plus-future-profits formula can be shown to be equivalent to other standard valuations such as the discounted present value of future dividends accruing to current shares. The book-plus-future-profits formula assumes that the present and future holders of the current shares will always be the residual claimants so they will receive all the future pure residual or economic profits.

In a democratic firm, such as a DWOT structured as a Mondragon-type worker cooperative, the rights to the residual in any time period are personal rights assigned to the workers in that time period—so they will reap the net value of the positive and negative fruits of their labor. If the capitalist valuation formula of book-plus-future-profits (or another equivalent formula) is applied to valuation in such a democratic firm, then it is being assumed that the current workers are in effect hiring all the future workers and claiming all their future profits as the property of the current workers. Therefore in a labor-based democratic firm, the discounted present value of the future profits should **not** be included in the valuation of the present workers' shares. Thus the correct valuation formula for a democratic firm is (enlightened) book value of net worth—no "goodwill," just "book." Thus the value due back to any given cohort of workers is the contribution they originally made as a membership fee plus any retained profits they made (minus any retained losses they made) plus their accumulated interest.

There can be an annoying conflict between valuation formulas when there is significant ownership outside the DWOT. There seems to be no completely satisfactory solution to this conflict over two different conceptions of the firm. It is recommended that a negotiated valuation formula be arrived at as close as possible to an enlightened book value.

Another valuation problem arises from the repurchase liability (discussed in more detail below) in any type of ESOP or DWOT without publicly salable shares. The shares of the workers must ultimately be repurchased by the company or the trust. With value-denominated capital accounts, the account balances must eventually be paid back to the workers.

The uncertainty of these eventual payoffs introduces an inescapable discount factor. There are various ways to recognize this inevitable cost of uncertainty. One possibility is a collective account with an annual self-insurance allocation. Instead of imputing 100% of the DWOT earnings each

year to the individual accounts, a certain percentage is assigned for the purpose of self-insurance to a collective DWOT account (that functions as a permanent suspense account). Instead of discounting the balance in the individual accounts, the self-insurance allocation is a "pre-discount" which reduces the amount that would otherwise be in the individual accounts.

Another approach is to allow all the DWOT shares to be ultimately allocated without any collective account, but then to apply a repurchase or illiquidity discount to the valuation of shares being repurchased. Thus instead of setting aside, say, 30 to 50% for a collective account, a 30 to 50% discount could be applied to the value of the shares when they are being repurchased by the company.

We recommend that legislation allow for both methods of approaching the repurchase liability problem.

Termination Procedures

In a democratic worker ownership trust operating like a worker cooperative, there is no transferrable ownership interest in the residual or transferrable votes. Those rights revert to the trust, and the capital interest represented by a departing worker's capital account is paid out over a period of years. If the DWOT uses share-denominated capital accounts, those shares do not become the transferrable property of the worker upon termination. It is the value of the shares that is eventually paid out to the worker (perhaps subject to a discount).

In American ESOP law, a terminating worker in a firm without publicly traded shares has a "put" back to the firm for a limited time period. That is, within the time period, the worker can require that the firm buy back the shares at their appraised value. But in general the worker has the option in keeping the shares and selling them elsewhere. If the ESOP holds substantially all the ownership (≈ 80% or more), then the firm can have a mandatory "call" on the shares. That is, it can force the worker to sell back to the firm at the appraised value, or alternatively, the firm can just pay out the account in cash rather than shares.

DWOT legislation should be drafted so that there is no question of a departing worker taking away ownership shares. Departing workers forfeit their vote and their right to future residuals. Their past accumulated capital in their capital account is paid out to them in cash or some appropriate debt instruments over a period of years.

Paying Off the Internal Capital Accounts: Timing

There two general payout timing strategies for the internal capital accounts:

- the termination payout plan, where the firm or trust repurchases the stock or pays off the account balance only after the worker terminates, or
- the rollover plan, where account balances are dated and then each balance is paid out after a fixed number of years (e.g., 7 to 10 years)—assuming it has not been debited—regardless of whether the worker has terminated or not.

American ESOPs grew out of the legislation for retirement plans so, until recently, ESOPs have strictly used a termination payout plan. Recent legislation has tempered that by having partial payouts or diversification into secure assets before termination if the employee has served a certain number of years or has reached a certain age.

The termination payout plan has a number of disadvantages:

- it encourages termination to cash out the account,
- it does not facilitate financial planning since the payouts are randomly timed with terminations,
- it correlates the retirement payouts with the age distribution of the workforce which might be quite asymmetrical, and
- it toploads the risk on the older workers with the larger account balances.

The rollover payout plan tries to address these problems. Suppose each credit (in stock or value) to an internal capital account is dated, and any debits are applied against the oldest credits. In a ten-year rollover plan, any credits which survive for ten years would be cashed out independently of whether or not the worker had terminated in the interim.

The rollover plan neutralizes the incentive to terminate since the payout is independent of termination. The cash demands of the rollover payouts are known (10 years) ahead of time to allow for financial planning. The payout stream is smoothed independently of the age distribution of the workforce. The rollover also tends to equalize the account balances. Earnings are retained so all the accounts increase a little, and then there is some payout on the oldest and largest accounts so their net balance is reduced. Thus the rollover has an equalizing effect by increasing the small accounts and reducing the large accounts. Thus the equity in the internal capital accounts is slowly rolled from the older to the younger generation of members.

Paying Off the Internal Capital Accounts: Providing a Market

The payout problem is minimized in large corporations with publicly traded shares since a shareholder can cash out on the market without involving the company. The company only has to maintain a suitable dividend stream to support the market value of the shares.

Democratic companies can have no publicly traded ownership claims since the ownership rights such as the voting and residual rights are personal rights attached to the functional role of working in the company. But the members do have capital claims in the company (e.g., the individual capital accounts or explicit debts) and democratic firms face the same problem of transferring these capital claims from one set of members to another.

There are two broad strategies to provide a market to cash out the internal capital accounts:

- the firm provides an "internal market" to payoff the accounts in cash, or
- create an external market for appropriate negotiable debt instruments which can be used to pay off the accounts.

The default solution requiring the least institutional infrastructure is for the firm to provide the market. In this case, it is quite advisable that the firm explicitly recognize the cost of bearing the uncertainty by using a collective account or an equivalent illiquidity discount to markdown the shares to be repurchased.

Small or even medium-sized firms will find little external market for their debt instruments. Larger federations of firms or banking and insurance institutions could create an appropriate instrument. One possibility might be called an "income-purchased annuity." By "annuity" we mean a perpetual debt instrument which pays only interest on its face value to the owner. Ordinarily an annuity can be purchased for a capital sum from an insurance company. These "capital-purchased annuities" could not be used to payout an account since the firm would have the same problem raising the capital sum to buy the annuity for the worker.

An income-purchased annuity would be purchased from an insurance company or similar financial institution by paying it a larger interest rate than the annuity pays to the bearer. For instance, the firm might pay the insurance company 14% of the face value each year, when the annuity paid 12% of face value to the bearer. The insurance company would cover the transaction costs and the defaults with the interest differential. Workers who receive these annuities as capital account payouts could hold them and receive the interest, or sell them on the open market. A reasonable market could be found for the annuities since they are backed by the insurance company, not

the worker's firm. The democratic firm then only needs to make the interest payments just as a large corporation with publicly traded shares needs to keep up dividends on the shares. Should the company desire to pay out a capital sum rather than the interest payments, it only needs to repurchase the annuities from the market.

INDIVIDUAL CAPITAL ACCOUNTS: EXAMPLES

Accounting By Shares: A 100% DWOT Example

The details of the DWOT accounting procedures are best explained by working out some numerical examples. Our first example is of a 100% DWOT using share-denominated accounts. The internal capital account system is run as in a Mondragon-type cooperative in the sense that each account accrues interest and the remaining earnings are distributed between the accounts on the basis of labor as measured by salary. There is a suspense account but no (permanent) collective account. A collective account could easily be added to the model. Shares are valued at the book value of net worth or equity. The model covers only the first five years and ignores the account payoff procedures.

As American ESOP law presently stands, a 100% ESOP never needs to pay any corporate income tax. Any potentially taxable earnings can be shelter by issuing some new shares to the ESOP. This would ordinarily not be done in an ESOP company where there was significant ownership outside the ESOP because the new issues would constantly dilute the non-ESOP owners. But in a 100% ESOP, there is no dilution effect. There is a minor redistributive effect within the ESOP since the new shares are allocated according to pay whereas the alternative of paying the taxes and letting the shares float up in value would allocate capital gains according to account balances. But there is always a gain on the whole of the foregone tax payments so it is safe to assume that any 100% ESOP well-advised to adopt the procedure. The government is essentially giving a tax break to make the paper transactions of issuing more shares to the same shareholders. The model will illustrate this operating procedure.

The numbers used in the example are for illustrative purposes only. The company starts with a few workers who have paid in membership fees totalling $50,000. The DWOT takes out a $100,000 loan at 12% to be paid in four equal annual payments as indicated in the following loan amortization table.

Principal	Year	1	2	3	4	5
$100,000	Payment	$32,923	$32,923	$32,923	$32,923	$0
Interest %	Int. Portion	$12,000	$9,489	$6,677	$3,528	$0
12	Prin. Portion	$20,923	$23,434	$26,246	$29,396	$0
Years	Balance	$79,077	$55,642	$29,396	$0	$0
4						

The loan proceeds are used to purchase more initial shares from the company. The shares start out valued at $100 a share so 1000 shares are purchased by the DWOT and put into the suspense account. Thus the initial equity in the company is $150,000 from the DWOT loan proceeds and the membership fees.

The following spreadsheet table describes the activity of the firm over a five year period. The columns and rows are marked in the customary spreadsheet fashion so that, for example, the initial equity is given in cell B9.

	A	B	C	D	E	F	G
1	**DWOT: Share Accounts**		End of	End of	End of	End of	End of
2		Initial	Year 1	Year 2	Year 3	Year 4	Year 5
3	Earnings B/DWOT		$32,000	$25,000	$33,000	$45,000	$40,000
4	Interest on DWOT Loan		$12,000	$9,489	$6,677	$3,528	$0
5	Earnings of DWOT		$20,000	$15,511	$26,323	$41,472	$40,000
6	Earnings of Firm		($923)	($7,923)	$77	$12,077	$40,000
7	Loss Carry Forwards		($923)	($8,847)	($8,770)	$0	$0
8	Taxable Earnings (B/New Issues)		$0	$0	$0	$3,306	$40,000
9	Equity	$150,000	$149,077	$141,153	$141,230	$153,306	$193,306
10	New Issues		0	0	0	33	400
11	Value per Share	$100	$99	$94	$94	$100	$100
12	Total DWOT Acct Interest		$6,000	$8,400	$10,261	$13,420	$18,397
13	Total DWOT Labor Alloc.		$14,000	$7,111	$16,062	$28,052	$21,603
14	Capital Gains on Alloc. Shares		($308)	($3,721)	$46	$6,945	$0
15	New Share Alloc.		204	204	279	345	400
16	Tot.Alloc. Shares	500	704	909	1188	1533	1933
17	Suspense Acct	1000	796	591	312	0	0
18	Total Shares	1500	1500	1500	1500	1533	1933
19	Value Alloc.Shares	$50,000	$70,000	$85,511	$111,834	$153,306	$193,306
20	Cum.DWOT Value	$50,000	$70,000	$85,511	$111,834	$153,306	$193,306

The leveraged plan arrangement introduces some fine points in accounting. The firm guarantees the loan and obligates itself to pay it off with appropriately timed contributions to the worker trust. But the loan is not listed as a liability on the firm's balance sheet; it shows up as equity in the firm. The total loan payments, both principal and interest, are channeled through the trust and are deducted from the earnings-before-DWOT-

contribution in row 3 to obtain the earnings of the firm in row 6. There are no dividends so all earnings are retained earnings.

What are the earnings attributable to the workers in each year? They are the earnings before the DWOT contribution (row 3) minus the interest on the DWOT loan (row 4 copied from the previous loan amortization table). That is the net amount of value created by the workers during the year which is to be distributed to the DWOT accounts, and it is called the earnings of DWOT on row 5. The DWOT earnings could also be calculated as the earnings of the firm (after the DWOT contribution) plus the principal portion of the loan payment. There is yet another way to view the same earnings of the DWOT. On the balance sheet of the trust (as opposed to the firm), the 1000 shares are assets and the unpaid principal balance on the DWOT loan is the liability. The DWOT earnings can be computed as the increase in the DWOT net worth which comes from capital gains on the DWOT shares (= retained earnings) plus the liability reduction (= principal portion of the loan payment). This last definition directly generalizes to partial as well as 100% DWOTs.

Earnings of DWOT
= Earnings Before DWOT Contribution – Interest on DWOT Loan
= Earnings After DWOT Contribution + Principal Portion of Loan Payment
= Capital Gains on DWOT Shares + Liability Reduction from Loan Payment.

Those earnings are split between the accrued interest on the individual DWOT accounts (also at 12% and computed in row 12) and the remaining allocation according to labor (computed in row 13).

Some American ESOPs only allocate shares to individual accounts according to the principal portions of the ESOP loan payments. But as we noted before, there is no economic rationale for this procedure. Making a principal payment on a loan is not a creative or productive act. The profits must already be made or else the loan principal payment is decapitalizing the firm. It is the production of the profits that should be attributed to the workers, not the particular use of profits to pay off a loan. Hence the earnings which increase worker accounts in a 100% DWOT are the earnings of the firm (before DWOT contribution) minus the interest expense on the DWOT loan.

The earnings of the firm (after DWOT contribution) add to the previous year's equity to give this year's equity (no dividends) on row 9. Row 7 computes the loss carry-forwards generated by the DWOT contributions which can be used to shelter profits from the corporate income tax in the future. Row 8 computes the taxable earnings which are not covered by the loss carry-forwards. New shares are issued to the DWOT to cover those earnings so no earnings are ever taxed.

There is a fine point involved in computing the number of new shares needed to cover the otherwise taxable earnings. To determine the number of shares to contribute to the DWOT, one must know the value per share. But the new issues will themselves dilute the per share value. Accountants might compute the number of new issues by ignoring the dilution effect, but a slightly more complicated formula will yield the exact result. Let Equity be the total book value, let #Shares be the number of shares prior to the new issues, and let ΔShares be the unknown number of new issues. The Value per share after the new issues is

$$\text{Value per share} = \text{Equity}/(\#\text{Shares} + \Delta\text{Shares}).$$

Hence to cover the taxable earnings, the number of new shares satisfies the equation:

$$\text{Value per share} \times \Delta\text{Shares} = \text{Taxable Earnings}$$

which solves to:

$$\Delta\textbf{Shares} = \#\text{Shares} \times \text{Taxable Earnings}/(\text{Equity} - \text{Taxable Earnings}).$$

Ignoring the dilution effect would yield the approximate formula without the taxable-earnings term in the denominator. The exact formula for ΔShares is used in row 10 to compute the new issues.

The value per share, Equity/(#Shares + ΔShares), is computed in row 11. In row 12, the interest on the individual DWOT accounts is computed as 12% of the previous year's value-per-share times the total number of allocated shares also from the previous year. Subtracting that interest from the DWOT earnings in row 5 yields the profits to be allocated between the members' capital accounts according to their labor (like retained patronage dividends in a worker cooperative). The sum of the interest and labor allocation gives the total amount to be credited to the workers' accounts.

But there has already been a capital gains effect which needs to be taken into account. The capital gain calculated in row 14 is the increase in value per share over the previous year times the number of allocated shares at the end of the previous year. The **net** value increase for the workers' accounts is the interest plus the labor allocation **minus** the capital gains. That increase divided by the value per share gives the row 15 calculation of the number of shares to allocate to the individual accounts from the suspense account or directly from the firm (new issues). The new share allocations (row 15) add to the previous total allocated shares to yield the current total allocated shares in row 16. The new share allocations which do not come from new issues from the firm must come out of the suspense account which started with the 1000 shares purchased with the loan proceeds. The number of shares remaining in

the suspense account is computed in row 17. Row 18 keeps track of the total number of shares in the DWOT, the sum of the unallocated suspense account shares and the allocated shares.

The symmetrical operation of the accounts requires being able to subtract shares from the individual accounts. If there had been excessive capital gains in certain individual accounts then some shares should be reallocated between accounts (an example is given below). It could also happen that DWOT earnings were negative so some shares should be returned to the suspense account from the individual accounts.

The last two rows, rows 19 and 20, calculate a check to see that the model is running as intended. Row 19 calculates the total value in the workers' accounts as the value per share (row 11) times the total number of allocated shares (row 16). This should equal the initial equity ($50,000) plus the cumulative earnings of the DWOT (row 5) which is calculated in row 20. The two rows agree to verify that the proper total value is expressed in the shares allocated to the individual capital accounts. Note that after the suspense account has been emptied in years 4 and 5, the total equity of the firm equals the total value of the allocated shares.

This model illustrates how a 100% DWOT or democratic ESOP can operate its internal capital accounts along "Mondragon principles" using share-denominated accounts. It also illustrates how a 100% trust can use new issues to avoid all corporate income tax.

Accounting By Shares: A Two-Thirds DWOT Example With No New Issues

Share-denominated accounting in a DWOT with significant non-DWOT shareholding can be illustrated by changing the previous example so that the initial 500 shares are held by outside shareholders (row 19). To avoid diluting the outside shareholders, no new shares are issued to shelter taxable income. The corporate taxes are computed in row 9 at a constant 25% tax rate. The DWOT is leveraged with the same loan as before.

	A	B	C	D	E	F	G
1	2/3rds DWOT: Share Accts		End of	End of	End of	End of	End of
2	(No New Issues)	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
3	Earnings B/DWOT		$32,000	$25,000	$33,000	$45,000	$40,000
4	Interest on DWOT Loan		$12,000	$9,489	$6,677	$3,528	$0
5	Earnings of DWOT B/Taxes		$20,308	$18,152	$26,297	$37,447	$26,667
6	Earnings of Firm		($923)	($7,923)	$77	$12,077	$40,000
7	Loss Carry Forwards		($923)	($8,847)	($8,770)	$0	$0
8	Taxable Earnings		$0	$0	$0	$3,306	$40,000
9	Corporate Tax @25%		$0	$0	$0	$827	$10,000
10	Equity	$150,000	$149,077	$141,153	$141,230	$152,480	$182,480
11	Value per Share	$100	$99	$94	$94	$102	$122
12	Earnings of DWOT A/Taxes		$20,308	$18,152	$26,297	$36,896	$20,000
13	Total DWOT Acct Interest		$0	$2,437	$4,615	$7,771	$12,198
14	Total DWOT Labor Alloc.		$20,308	$15,715	$21,682	$29,125	$7,802
15	Capital Gains on Alloc. Shares		$0	($1,079)	$21	$5,158	$20,000
16	New Share Alloc.		204	204	279	312	0
17	Tot.Alloc. Shares	0	204	409	688	1000	1000
18	Suspense Acct	1000	796	591	312	0	0
19	Shares Outside DWOT	500	500	500	500	500	500
20	Total Shares	1500	1500	1500	1500	1500	1500
21	Value Alloc.Shares	$0	$20,308	$38,460	$64,757	$101,653	$121,653
22	Cum.DWOT Value	$0	$20,308	$38,460	$64,757	$101,653	$121,653

The earnings of the firm before and after the DWOT contribution are the same as in the previous model. But the earnings of the DWOT are computed differently. Only two-thirds of the capital gains or losses accrue to the DWOT in addition to the principal portion of the loan payments.

Earnings of DWOT (before taxes)
= (2/3) x Earnings After DWOT Contribution + Principal Portion of Loan Payment.

When the firm makes losses (years 1 and 2), the DWOT has larger earnings than in the previous model since the non-DWOT shareholders now share one-third of the capital losses.

The taxable earnings are computed as before, but corporate taxes are now paid (instead of having new issues to avoid taxes). The equity is computed as the previous year's equity plus the earnings of the firm minus the taxes, and the value per share is the equity divided by the total number of shares. Taking two-thirds of the taxes out of the pre-tax DWOT earnings yields the row 12 computation of the post-tax DWOT earnings to be split between the interest on the DWOT individual accounts and the labor-based allocation of the remaining gains or losses.

The DWOT account interest is computed as before (now in row 13) and the total DWOT labor allocation is the remainder of the DWOT post-tax earnings. The capital gains on allocated shares is computed as before and then the appropriate number of shares are released from the suspense account. If the suspense account is empty, then the changes in the individual accounts are accomplished solely by reallocating shares between the accounts. This subtracting of shares from some accounts (who received excessive capital gains) and addition of shares to other accounts is not expressly authorized in American ESOP law. However, it should be allowed for in any new legislation so the DWOTs can choose a Mondragon-type capital account operating policy if they desire.

In the last two rows (rows 21 and 22), it is verified that the total value of the allocated shares equals the workers' initial equity (zero in this case) plus the cumulative post-tax earnings of the DWOT.

Sample Member Accounts

To illustrate the crediting and debiting of shares to accounts, we consider three sample individual capital accounts for members A, B, and C. The percent of the labor (e.g., as measured as their salary divided by total salaries) is given as the "Labor %." Member C comes at the start of the 5th year to illustrate the differences between this DWOT model and an ESOP model given in another section below.

	A	B	C	D	E	F	G
24	**Three Sample DWOT Accounts**		End of	End of	End of	End of	End of
25		Initial	Year 1	Year 2	Year 3	Year 4	Year 5
26	A's Labor %	15	17	17	16	16	14
27	A's Interest		$0	$414	$785	$1,295	$2,010
28	A's Labor Alloc.		$3,452	$2,672	$3,469	$4,660	$1,092
29	A's Capital Gains		$0	($183)	$4	$860	$3,295
30	A's Acct Shares	0	35	69	115	165	163
31	A's Acct Value	$0	$3,452	$6,538	$10,792	$16,747	$19,849
32							
33	B's Labor %	10	8	8	9	9	11
34	B's Interest		$0	$195	$369	$648	$1,040
35	B's Labor Alloc.		$1,625	$1,257	$1,951	$2,621	$858
36	B's Capital Gains		$0	($86)	$2	$430	$1,705
37	B's Acct Shares	0	16	33	57	85	87
38	B's Acct Value	$0	$1,625	$3,077	$5,397	$8,666	$10,564
39							
40	C's Labor %	0	0	0	0	0	12
41	C's Interest		$0	$0	$0	$0	$0
42	C's Labor Alloc.		$0	$0	$0	$0	$936
43	C's Capital Gains		$0	$0	$0	$0	$0
44	C's Acct Shares	0	0	0	0	0	8
45	C's Acct Value	$0	$0	$0	$0	$0	$936

The interest is calculated as 12% of the previous year's account value. The labor allocation is their labor percent times the total DWOT labor allocation (given in row 14 of the previous table). The capital gains are computed as the difference in value per share times the number of shares in the account at the end of the previous year. Then shares are added to or subtracted from the accounts so each account receives its interest and labor allocation after correcting for the capital gains. Ordinarily, one might expect shares to be added, but occasionally the capital gains exceed the sum of the interest and the labor allocation so shares must be subtracted from the account. This is illustrated in A's account at the end of the fifth year. The capital gains are $3,295 but the sum of the interest and labor-based allocation of earnings is $2,010 + 1,092 = $3,102 so $3,295–3,102 = $193 or, in terms of shares, 193/122 = 1.58 ≈ 2 shares are subtracted from A's account reducing it from 165 shares to 163 shares.

Member C comes in the fifth year and performs 12% of the labor. Since value is in part allocated according to labor, C receives 12% of the total DWOT labor allocated earnings for the year (12% x $7,802 ≈ $936).

Accounting By Value: A Two-Thirds DWOT Example With No New Issues

The previous example is easily modified to illustrate value-denominated capital accounts in a DWOT with partial ownership. The model is exactly the same as the previous one except that values, not shares, are assigned to the accounts. The shares are still in the DWOT, but only their value is assigned to accounts.

	A	B	C	D	E	F	G
1	**2/3rds DWOT: Value**	**Accts**	End of	End of	End of	End of	End of
2	(No New Issues)	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
3	Earnings B/DWOT		$32,000	$25,000	$33,000	$45,000	$40,000
4	Interest on DWOT Loan		$12,000	$9,489	$6,677	$3,528	$0
5	Earnings of DWOT B/Taxes		$20,308	$18,152	$26,297	$37,447	$26,667
6	Earnings of Firm		($923)	($7,923)	$77	$12,077	$40,000
7	Loss Carry Forwards		($923)	($8,847)	($8,770)	$0	$0
8	Taxable Earnings		$0	$0	$0	$3,306	$40,000
9	Corporate Tax @25%		$0	$0	$0	$827	$10,000
10	Equity	$150,000	$149,077	$141,153	$141,230	$152,480	$182,480
11	Value per Share	$100	$99	$94	$94	$102	$122
12	Earnings of DWOT A/Taxes		$20,308	$18,152	$26,297	$36,896	$20,000
13	Total DWOT Acct Interest		$0	$2,437	$4,615	$7,771	$12,198
14	Total DWOT Labor Alloc.		$20,308	$15,715	$21,682	$29,125	$7,802
15	Tot.Alloc. Value	$0	$20,308	$38,460	$64,757	$101,653	$121,653
16	Tot.Unalloc. Value	$100,000	$79,077	$55,642	$29,396	$0	$0
17	Tot. DWOT Value	$100,000	$99,384	$94,102	$94,153	$101,653	$121,653
18	Shares Inside DWOT	1000	1000	1000	1000	1000	1000
19	Shares Outside DWOT	500	500	500	500	500	500
20	Total Shares	1500	1500	1500	1500	1500	1500

The model is the same down through row 14. There are no capital gains on allocated shares (the previous row 15) since there are now no allocated shares; only value is allocated. The value recorded in an account remains constant until it is further credited or debited. The row 15 total allocated value in this model is identical with the value of the allocated shares in the previous share-based model (row 21 of that model). The analogy to the suspense account would be the total value in the DWOT which was unallocated to individual capital accounts, and that unallocated value is given in row 16. It is just the number of shares in the suspense account of the previous model times the value per share (bear in mind that the displayed numbers are all rounded).

With a flexible legal code to allow debiting as well as crediting shares to accounts, the share-denominated accounts of the previous model and the value-denominated accounts in the present model are the same in all essentials. The difference is only in the unit of account.

Conventional ESOP Accounting: A Two-Thirds ESOP Example

For purposes of comparison, we redo the two-thirds DWOT share-accounting model using the conventional operating policy of ESOPs. This allows a direct comparison of the two operating policies. The DWOT allocates the DWOT earnings (= after-tax firm earnings plus principal payments) to the accounts; each account gets interest and then the remaining earnings are allocated according to labor. The capital gains are neutralized. The conventional ESOP operating policy assigns shares to the individual accounts from the suspense account only as the principal payments are made. Otherwise all changes in the ESOP accounts are capital gains.

When the loan is being paid off and the suspense account is being emptied, the two policies give somewhat different results since the ESOP allocates shares independently of the current earnings of the firm. After the loan is paid off, the results are strikingly different because new workers, like member C, get no shares.

	A	B	C	D	E	F	G
1	**2/3rds ESOP: Share Accts**		End of	End of	End of	End of	End of
2	(No New Issues)	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
3	Earnings B/ESOP		$32,000	$25,000	$33,000	$45,000	$40,000
4	Interest on ESOP Loan		$12,000	$9,489	$6,677	$3,528	$0
5	Earnings of ESOP B/Taxes		$20,308	$18,152	$26,297	$37,447	$26,667
6	Earnings of Firm		($923)	($7,923)	$77	$12,077	$40,000
7	Loss Carry Forwards		($923)	($8,847)	($8,770)	$0	$0
8	Taxable Earnings		$0	$0	$0	$3,306	$40,000
9	Corporate Tax @25%		$0	$0	$0	$827	$10,000
10	Equity	$150,000	$149,077	$141,153	$141,230	$152,480	$182,480
11	Value per Share	$100	$99	$94	$94	$102	$122
12	Earnings of ESOP A/Taxes		$20,308	$18,152	$26,297	$36,896	$20,000
13	Capital Gains on Alloc. Shares		$0	($1,105)	$23	$5,295	$20,000
14	Principal Payments		$20,923	$23,434	$26,246	$29,396	$0
15	Loan Balance	$100,000	$79,077	$55,642	$29,396	$0	$0
16	New Share Alloc.		209	234	262	294	0
17	Tot.Alloc. Shares	0	209	444	706	1000	1000
18	Suspense Acct	1000	791	556	294	0	0
19	Shares Outside ESOP	500	500	500	500	500	500
20	Total Shares	1500	1500	1500	1500	1500	1500
21	Value Alloc.Shares	$0	$20,795	$41,742	$66,476	$101,653	$121,653
22	Cum.ESOP Value	$0	$20,308	$38,460	$64,757	$101,653	$121,653

This model agrees down through row 12 with the previous two-thirds DWOT model using share-denominated accounts. Row 13 computes the capital gains on the shares allocated to individual accounts in the same

manner as before. Row 14 copies the principal portions of the loan payments from the loan amortization table. The remaining loan balance is tracked in row 15. The ratio of the principal portion over the loan balance (prior to the payment) gives the proportion of shares to be allocated from the suspense account to the individual accounts (in proportion to the salaries of the individual employees). For example, in year two the principal payment is $23,434 and the loan balance (before payment) is $79,077 and that ratio times the 791 shares in the suspense account yields the 234 shares allocated at the end of the 2nd year. Note that the allocation of shares does not take into account the earnings of the year.

In the DWOT example, all the DWOT earnings are allocated to the individual accounts, so the value of the allocated shares (row 21) equals the cumulative DWOT earnings (row 22) in each year. In the ESOP accounting scheme, the two amounts differ while shares are in the suspense account since the earnings that "arrive" in the ESOP as capital gains or losses on suspense account shares are unallocated. When the suspense account is empty, the total value of the allocated shares and the cumulative trust earnings will agree; the policy differences will show up in the distribution of shares in the workers' accounts.

	A	B	C	D	E	F	G
24	**Three Sample ESOP**	**Accounts**	End of	End of	End of	End of	End of
25		Initial	Year 1	Year 2	Year 3	Year 4	Year 5
26	A's Labor %	15	17	17	16	16	14
27	A's Prin. Pmt Shares		36	40	42	47	0
28	A's Capital Gains		$0	($188)	$4	$881	$3,289
29	A's Acct Shares	0	36	75	117	164	164
30	A's Acct Value	$0	$3,535	$7,096	$11,054	$16,715	$20,004
31							
32	B's Labor %	10	8	8	9	9	11
33	B's Prin. Pmt Shares		17	19	24	26	0
34	B's Capital Gains		$0	($88)	$2	$443	$1,711
35	B's Acct Shares	0	17	35	59	86	86
36	B's Acct Value	$0	$1,664	$3,339	$5,565	$8,698	$10,409
37							
38	C's Labor %	0	0	0	0	0	12
39	C's Prin. Pmt Shares		0	0	0	0	0
40	C's Capital Gains		$0	$0	$0	$0	$0
41	C's Acct Shares	0	0	0	0	0	0
42	C's Acct Value	$0	$0	$0	$0	$0	$0

There are some differences in the development of A's and B's account in the DWOT and ESOP due to the different allocation policies. The most striking difference is for the new member C who came at the beginning of year 5 after the loan was paid off and who receives no shares. The attempt is

sometimes made to justify this by holding that member C did not produce the profits to pay off the loan. But making a loan payment is quite different from making the profits to cover the principal portion of the loan payment. Suppose losses were being made while the loan was being paid off so the firm was partially decapitalized by the loan payments. Suppose further that profits were made to rebuild the equity of the firm only after member C arrived. The ESOP operating policy would still allocate all the shares before C arrived, and C would receive no shares and no portion of the profits produced in year 5. Member C is in effect hired by the workers who happened to be there when the loan was being paid off.