Taking Stock of ESPPs

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BLURB:
Millions of American workers are “leaving money on the table” because they don’t take advantage of employee stock purchase plans (ESPPs). Here are some pointers for your clients on when to buy shares and how long to hold them.

PROMO:
Despite being commonly offered by corporations, employee stock purchase plans haven’t caught on among most workers. Here’s how to dispel some of the mystery surrounding them.

A few thousand large U.S. corporations offer employee stock purchase plans (ESPPs), in which workers can buy their company’s stock through a payroll deduction, usually at a significant discount. But according to the National Center for Employee Ownership (NCEO), millions of employees are “leaving money on the table” by not participating, a puzzling phenomenon. CPAs can help their clients understand that the plans can be a valuable source of savings for retirement
and other purposes. This article outlines three approaches, each with a different length of time to hold the stock, based on relative risk tolerance and financing ability.

The NCEO estimates that well over 30 million employees are eligible to participate in qualified ESPPs, but only approximately 10 million employees do so. According to a 2006 NCEO survey, more than one-third of companies responding had participation rates of 20% or less, and at another nearly one-quarter of companies, the rates were 40% or less. In 2004, the most recent year for which a breakdown is available by type of employee, only 33% of eligible salaried employees participated. For hourly employees, the rate was even lower, only about 22%. The NCEO attributes low participation to plans not having the most favorable characteristics allowable, along with employee demographics, lack of faith in the company’s prospects and lack of knowledge.

Holding stock purchased through an ESPP entails some risk. As with any stock, the price could decline. Buying and holding stock reduces available cash. So until the stock is sold, financing—either through a reduction in other investing or an increase in debt—is required. Also, accumulating stock of a single corporation can create a portfolio that is less diversified than is desirable. One corporation’s stock should make up no more than 10% of a portfolio’s total assets. Employees should also consider that declining fortunes for their employer could result in the loss of their job in addition to a reduction of their portfolio’s value.

A typical ESPP allows employees to buy stock at a discount of up to 15%. Specifically, after-tax pay is withheld during a six-month “offering period,” then it is used to purchase the discounted stock. According to the NCEO, most ESPPs qualify for tax benefits under IRC section 423—principally that participants do not recognize income on the discount at time of purchase. Section 423 limits annual purchases to $25,000, but only a small percentage of
employees can buy that much, because the plans generally limit purchases to 10% of an employee’s compensation.

Most ESPPs contain a “look-back” provision; the discount is based on the lower of the stock’s prices at either the beginning of the offering period (looking back) or the purchase date. If the stock’s price increases during this time, the discount can effectively be more than 15%.

**Example 1.** Price per share is $50 at the beginning of the offering period. If it is $70 at the purchase date, the employee pays $42.50 \(\left[50 - (15\% \times 50)\right]\) per share—a 39.3\% \(\left(27.50 \div 70\right)\) discount.

**A Quick Flip—Least Risk**

Most corporations allow ESPP participants to “flip” their stock, which means they can immediately sell their shares to realize a quick gain equal to the discount minus any taxes and brokerage commission on the sale. Example 2 assumes:

- The ESPP has no look-back provision.
- The discount is 15\% off the market price on the purchase (exercise) date.
- No brokerage commission is paid for selling the stock.
- The stock’s price at the beginning of the offering period is the same as at the end (the purchase date).
- The employee’s marginal tax rate on ordinary income is 28\%.

**Example 2.** For $500, the employee receives $588 of stock at a 15\% discount \(\left[500 \div (100\% - 15\%)\right]\). If the employee immediately sells the stock for $588, he or she treats $88 as ordinary
income and pays approximately $25 ($88 \times 28\%) of tax. The employee’s after-tax gain is $63 ($588 − $500 − $25).

It’s generally better to flip than not participate, since the discount almost always exceeds the taxes and transaction costs, and risk is low. Employees who prefer to let their shares appreciate in value can do so but should take advantage of the long-term capital gains tax rate.

**Holding for a Year—Some Risk**

Some corporations do not allow flipping. They require employees to hold stock for a specified time. Those employees and others can still benefit from selling shares after a year, since appreciation in the stock’s value can qualify as a long-term capital gain, with a maximum tax rate of 15%. Example 3 incorporates the same assumptions as Example 2, plus:

- The stock does not pay dividends.
- The stock appreciates 7% per year.

**Example 3.** The stock worth $588 that the employee bought for $500 appreciates to $770 four years later. When it is sold, ordinary income is $88 ($588 − $500), and long-term capital gain is $182 ($770 − $588). Tax on ordinary income is $25 (see Example 2), and tax on capital gain is $27 ($182 \times 15\%). Net after-tax cash flow increases by $218 ($770 − $500 − $25 − $27).

A disposition of stock held for more than a year from its purchase doesn’t always qualify for long-term capital gain treatment, however. A disqualifying disposition occurs when the shares are held less than two years after the beginning of the offering period. In many cases, however, a disqualifying disposition is not something to avoid because the code treats the stock’s appreciation in price after its purchase as long-term capital gain. However, if the ESPP has a look-back provision and the stock price increased significantly during the offering period, the
employee would prefer a qualifying disposition. In this case, the individual is generally better off meeting both holding period requirements so the sale becomes a qualifying disposition, because the code treats the stock’s appreciation in price during the offering period as long-term capital gain.

To illustrate, return to Example 1 and assume no broker’s sales commission. If the sale date is one year plus one day after the stock’s purchase, then it is a disqualifying disposition, so $27.50 ($70 – $42.50) is ordinary income. If sold 1½ years and one day after its purchase, it is a qualifying disposition (the sale date is more than two years after the beginning of the offering period), so $7.50 ($50 – $42.50) is ordinary income and $20—the appreciation during the offering period—is long-term capital gain. In this illustration, a qualifying disposition receives more favorable tax treatment, but the stock must be held longer, so there is additional risk of a stock price decrease. After-tax proceeds from sales can finance future purchases. However, if the stock price declines significantly, some additional financing can become necessary.

**Holding for Retirement—More Risk**

In “The Best Use of Spare Cash” (JofA, Sep.06, page 41), a co-author of this article, Gregory Geisler, ranked options for using any pay or windfall not spent. Participating in an ESPP could compare favorably to at least some of those options, including investing in an employer-sponsored retirement plan without an employer-provided match. To determine how favorably, we compared the after-tax future value (ATFV) of buying stock through an ESPP at a 15% discount to buying the same corporation’s stock at full price through a retirement account. Continuing with all the assumptions in Examples 2 and 3, the formula for the ATFV of an investment through an ESPP held for n years before its sale is:
(i) \[ \text{ATFV} = \left[ \text{AT}$ \div (1 - D\%) \right] \times [(1+R)^n (1 - g_n) + g_n] - \left[ t_n \times ((\text{AT}$ \div (1 - D\%)) - \text{AT$}) \right] \]

where:

\( \text{ATFV} \) = After-tax future value (employee’s cash after stock sold and tax paid)

\( \text{AT$} \) = After-tax dollars invested (employee’s cost to buy the stock)

\( D\% \) = Discount percentage off the stock’s current price that ESPP provides to employee

\( R \) = Annual before-tax rate of return on the stock (annual appreciation in stock’s price)

\( n \) = Number of years the investment is held until it is sold

\( t_n \) = Ordinary tax rate when stock is sold—applied to discount

\( g_n \) = Long-term capital gain tax rate when stock is sold—applied to stock price appreciation

Exhibit 1 assumes the ATFVs of a retirement account (Ret. Acct.) and an ESPP assuming the maximum long-term capital gain tax rate is set at 15%. We assume employee’s current marginal ordinary tax rate \( (t_0) \) = future marginal ordinary tax rate \( (t_n) \), so retirement accounts with “front-loaded” tax benefits, such as a 401(k) or deductible traditional IRA, are equivalent to those with “back-loaded” tax benefits, such as a Roth 401(k) or Roth IRA. Thus, the formula for the ATFV of an investment through a retirement account is:

(ii) \[ \text{ATFV} = [\text{AT$}] \times (1+R)^n \]

Exhibit 1
Comparison of After-Tax Future Value of ESPP and Retirement Account Assuming Long-Term Capital Gain Tax Rate Remains at 15%

<table>
<thead>
<tr>
<th>n</th>
<th>AT$</th>
<th>D%</th>
<th>T$</th>
<th>t0</th>
<th>t0</th>
<th>gn</th>
<th>R</th>
<th>(1+R)^n</th>
<th>ESPP</th>
<th>Ret. Acct.</th>
<th>(1) - (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>$500</td>
<td>15%</td>
<td>$588</td>
<td>28%</td>
<td>28%</td>
<td>15%</td>
<td>7%</td>
<td>1.145</td>
<td>$635</td>
<td>$572</td>
<td>$63</td>
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<td>10</td>
<td>“</td>
<td>“</td>
<td>“</td>
<td>“</td>
<td>“</td>
<td>“</td>
<td>“</td>
<td>1.967</td>
<td>$1,046</td>
<td>$983</td>
<td>$63</td>
</tr>
</tbody>
</table>

T$, the total dollars invested, is formula (i)’s first term in brackets \( [(\text{AT$} \div (1 - D\%)) \] . With a 15% discount, the $500 paid by the employee purchases $588 \([(\$500 \div (100\% - 15\%))] \text{ of stock.}
Given all of the preceding assumptions, ATFV_{ESPP} is always greater than ATFV_{Ret.Acct} by $63 \[ \$88 \times (100\% - 28\%) \] (the last column of Exhibit 1), which equals total discount on stock purchased ($588 - $500 = $88) minus tax paid at the employee’s ordinary tax rate (t_n = 0.28).

That is, when the long-term capital gain tax rate (g_n) equals discount percentage (D\%), and the individual’s current (t_0) and expected future (t_n) marginal tax rates are equal, ATFV_{ESPP} is greater than ATFV_{Ret.Acct} by a constant amount. In such a case, investing in an ESPP produces a higher after-tax amount than investing in retirement savings when an employer does not match.

In 2011, the maximum individual long-term capital gain rate (g_n) is scheduled to increase to 20%. Exhibit 2 incorporates this change by assuming g_n = 20% for all investment horizons beyond two years. Exhibit 2 shows that the ESPP’s advantage erodes over the years, and buying the stock at full price and owning it inside a retirement account eventually becomes better than buying it at a 15% discount through an ESPP.

To summarize, if the percentage discount off the stock’s price purchased through an ESPP is less than the long-term capital gain tax rate, then the relative advantage of the ESPP over the retirement account declines over the years. After a number of years, the longer the stock is held, the more advantageous the retirement account becomes.
Exhibits 1 and 2 assume the employee’s ordinary tax rate in the years of the investment’s purchase and sale are the same \( (t_0 = t_n) \). If we assume that it differs, the ATFVs of front-loaded and back-loaded retirement accounts are no longer equal. First, assume \( t_0 > t_n \). This often occurs during an employee’s peak compensation years because taxable income in retirement becomes relatively lower due to the absence of salary. In this case, the employee’s contribution to a front-loaded retirement account will result in a higher ATFV than will a contribution to a back-loaded retirement account (such as a Roth). How does the front-loaded retirement account compare to buying stock at a discount through an ESPP? Continue to assume that the individual long-term capital gain rate \( (g_n) \) becomes 20% a few years in the future. Generally, the ESPP has a higher ATFV for only a few years, and the front-loaded retirement account has a higher ATFV beyond a few years—around the time \( g_n \) increases to 20%. If that person expects to have a lower tax rate on ordinary income in retirement, CPAs should recommend he or she first put spare cash into a front-loaded retirement account with no employer match before holding stock bought at a discount through an ESPP.

Now assume the opposite case, \( t_0 < t_n \), as can occur when employees have just begun their career or temporarily work part time. Taxable income in retirement is then expected to be relatively higher and taxed at a higher rate. In that case, the ATFV of an employee’s contribution to a back-loaded retirement account such as a Roth IRA or Roth 401(k) will be higher than to a front-loaded retirement account such as a regular 401(k). The comparison between a back-loaded retirement account and buying stock at a discount through an ESPP and then holding it is the same as in Exhibit 2. A CPA should advise the individual to first use spare cash to contribute to a back-loaded retirement account if the stock will be held for a very long time, or to buy stock at a discount through an ESPP if the holding period will not be so long. In other words, if an
individual’s tax rate on ordinary income is expected to be higher in retirement years than it is currently, the individual should not contribute to a front-loaded retirement account with no employer match unless cash remains after investing the maximum allowable amounts in both the ESPP and back-loaded retirement accounts.

With risks properly considered, employees who have an ESPP available to them can be better equipped by your advice to take advantage of their corporation’s plan. Whether they incorporate an ESPP into their long-range savings strategy or supplement their short-term earnings by quickly selling shares purchased through the ESPP, they’ll appreciate your guidance in how to approach that money on the table and pick it up.

**Resources**

Web site


**Practical Tips**

► CPAs should find out if a client is employed by a publicly traded corporation with an employee stock purchase plan (ESPP). If so, find out what discount percentage it offers, whether that discount percentage can effectively be larger because the plan has a look-back provision, and whether stock can be resold immediately.

► If clients buy stock regularly through an ESPP and hold it indefinitely, they should be careful that it does not become too large a percentage of their total assets.
Executive Summary

- Employees of corporations with an employee stock purchase plan (ESPP) often fail to participate fully in the plan because they don’t understand why it can be a good deal.

- Many plans offer a purchase discount of as much as 15%. Effectively, the discount can be significantly greater than 15% if the ESPP has a “look-back” provision.

- Depending on their clients’ risk tolerance and ability to finance the stock purchase, CPAs can suggest any of three approaches: No risk—instantly sell the stock purchased through an ESPP; some risk—sell the stock purchased through the ESPP after one year (when holding period becomes long-term); more risk—buy stock through an ESPP and hold it for many years.

- CPAs can help clients compare long-term investing in an ESPP with other options they might have for pre- and post-tax purchases of securities. Some criteria are the ESPP’s discount rate, individuals’ tax rate now and expected tax rate after retirement and the outlook for tax policy on long-term capital gains.

Bio:

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