Introduction to Stock Options

Stock options are an important part of compensation. This column will serve as an introduction to the subject, covering the primary advantages and disadvantages of stock options as well as the different types of options that corporations can grant to their employees.

By Phil Weiss (TMF Grape)
September 8, 2000

The subject of stock options is one that comes up frequently these days, particularly in the case of technology companies, as employees view options as an important source of their compensation. Among the companies that I have seen criticized most frequently by the financial media and Fools alike for their use of stock options are Cisco (Nasdaq: CSCO) and Microsoft (Nasdaq: MSFT).

Tonight I'll lay a foundation by discussing the primary advantages of stock options, the different types, and how they're treated for income tax purposes. In future reports I'll discuss the treatment on the income statement, balance sheet, and cash flow statement.

Advantages and Disadvantages
As a rule under Generally Accepted Accounting Principles (GAAP), companies are not required to report any compensation expense in their publicly filed financial statements when they grant stock options. However, when certain options are exercised, companies receive a tax deduction, which can provide significant income tax savings.

If you've ever wondered why corporations like to use stock options as part of the overall compensation package, all you need to do is reread that last paragraph. In short, nothing could be finer than getting a tax deduction without seeing earnings penalized.

Of course there are other advantages for issuing stock options. Typically, they are used to align the interests of the employees with those of the company. The line of thinking here is that as part owners of the company, employees will work even harder to ensure the success of the company.

There are two arguments that you'll commonly find against the use of stock options: Dilution of ownership and overstatement of operating income.

When an employee exercises her stock options, the company has to either issue new shares or go out on the open market and purchase shares. If new shares are issued, then your ownership is diluted. If the company purchases shares on the open market, then the company, which only receives the exercise price from the employee, has to pay market price for the shares it purchases. This results in a net cash outflow for the company.

Since the impact of the compensation deduction that a corporation can claim for tax purposes is not included in a company's GAAP income, many take the view that using options enables the company to overstate its income.
**Incentive Stock Options (ISOs)**
ISOs are the more favorable for employees and less favorable for the company. Typically, you'll find that only highly compensated or key employees are granted ISOs. In order for an option to qualify as an ISO for tax purposes, it must pass certain criteria. If it does not, then it's treated as a nonqualified option. For the employee, there are two key aspects to ISOs. The first is that the grantee does not pay tax until the underlying stock is sold. More importantly, the difference between the sales price of the stock and the exercise price is taxed at capital gains rates (typically 20%).

Once stock has been purchased under an ISO, it cannot be sold within two years from the date it was granted or within one year from the date the option was exercised and the stock purchased, whichever is later. Failure to meet these holding period requirements results in the gain being subject to ordinary income tax rates (maximum 39.6%). From the company's perspective, neither the grant of the option nor the related exercise represent taxable events.

**Nonqualified Stock Options (NSOs)**
Simply put, NSOs are options that do not qualify as ISOs. The biggest difference between NSOs and ISOs is the tax treatment, which significantly favors corporations rather than employees. The employee is taxed on the difference between the grant price and the stock price at the time of exercise at ordinary income tax rates. For tax purposes, the corporation is allowed to claim a compensation deduction (35% rate) equal in amount to what the individual includes as income.

Here's an example of how this works for a NSO:

- Number of options exercised: 200
- Exercise price: $20
- Stock Price on exercise date: $150
- Compensation deduction (tax purposes only): $26,000 [200 x (150-20)]
- Corporate Tax Benefit: $9,100 (35% x $26,000)
- Individual Income Tax Paid: $10,296 (39.6% x $26,000)

From the IRS's perspective, this situation typically works quite well. The amount of the tax deduction granted to corporations is less than the amount of tax paid by highly compensated individuals. This means that the IRS is cash flow positive in terms of the amount of net tax revenue generated upon the exercise of NSOs.

Stock options are an important part of compensation that can be viewed in different ways by different investors. There's a lot more to the situation than what's presented here, and the treatment of stock options in financial statements contains many inconsistencies. These topics will be explored more in future columns.

**Related Links:**
- Some Thoughts on Stock Options, Rule Maker Portfolio, 2/29/00
- Optionmania!: Part 1, Part 2, Part 3
Stock Options: Income Statement, Balance Sheet

The financial statement impact of stock options is an often-misunderstood subject for investors. This column will explore the impact of stock options on the balance sheet and income statement. It will also include an example of the impact of options on diluted earnings per share.

By Phil Weiss (TMF Grape)
October 12, 2000

Last month I wrote an introduction to stock options in which I reviewed the compensation aspects, the primary advantages and disadvantages, and the different types of options that can be granted.

I'd like to continue this series with a discussion of the impact of stock options on the balance sheet and income statement. My discussion tonight will center on non-qualified stock options (NSOs). If you're not familiar with that term, please head back to my introductory column.

One of the biggest objections to accounting for stock options is that the vast majority of companies do not record any compensation expense related to stock option grants. As a result, these companies, which account for their options under APB 25 (the original accounting principal describing the treatment of stock options under US Generally Accepted Accounting Principles (GAAP)) are not allowed to deduct the income tax benefit realized from the exercise of such options. Instead this tax benefit goes through the equity section of a company's balance sheet. In many cases you can see the amount of this benefit reflected in the Statement of Changes in Shareholders' Equity. Since accounting is a double entry system, the other side of the change to shareholders' equity is a reduction of income taxes payable to the IRS.

Treasury Stock Method

The accounting rules do, however, require that the tax benefit mentioned above be reflected in the calculation of diluted earnings per share (EPS), which is calculated via the Treasury Stock Method (TSM). In short, the TSM assumes that all the money in stock options are exercised at the beginning of a financial period (or the date of issue, if that's later).

The reason that this method of calculating EPS is called the TSM is that it uses the proceeds from the hypothetical exercise of stock options to repurchase shares of stock -- such shares are called treasury shares. This actually serves to reduce the dilutive impact of stock options. Don't worry if this sounds a bit confusing. I'll provide an example of how this works shortly.

There is actually a recent accounting standard (FAS No. 123) that recommends companies record compensation expense for their employee stock option grants. However, this alternative, which charges compensation expense for the fair value of options granted to employees, is largely ignored. One company that does follow this accounting pronouncement is Boeing Airlines (NYSE: BA). If you take a look at its income statement, you'll see this cost reflected in the line called share-based plans expense. By following FAS No. 123 Boeing is also able to recognize some of the tax benefits associated with stock option exercise (of course the tax benefit is less than
the actual compensation expense).

Now let's try and put some numbers behind what I've been talking about and see what happens. In working through this example, we'll assume that the options are accounted for under APB 25 and that the companies record no compensation expense for the grant of at-the-money stock options.

You may want to take a short break before going through the example. Go get yourself something cold to drink and a calculator as well, since the only way I can think of doing this is to run through a bunch of numbers and calculations.

First, we need to make some assumptions about how many options were actually exercised in order to calculate the balance sheet impact. It should be noted that in this part of the example, I'll only refer to the actual options exercised. In the second part, I'll refer to the total number of options outstanding. Both are needed to determine the full financial statement impact.

It should also be noted that the ultimate purpose of the second part of the calculation is to determine how many additional shares the company would have to issue (over and above those it could repurchase with the proceeds from the stock options exercise) in the event that all the outstanding options were exercised. If you think about it, that should make a lot of sense. The purpose of this whole calculation is to determine diluted EPS. We're calculating the number of shares that have to be issued to arrive at the diluted share count.

Number of options exercised: 1,000
Exercise price: $20
Stock Price on Exercise Date: $60
Compensation Deduction (Tax Purp Only): $40,000

\[(($60 - $20) * 1,000)\]

Corporate Tax Benefit: $14,000

First, here's the balance sheet impact:

Taxes payable are reduced (debit) $14,000
Shareholders equity is increased (credit) $14,000

Note: This results in a $14,000 increase to cash flow (typically cash flow from operations). The treatment of stock options on the cash flow statement will be discussed more fully in the next installment of this series.

Next, we'll need to add some more assumptions to see what happens to EPS:

Net income $500,000
Weighted average shares outstanding 200,000
Shares under option 25,000
Average stock price $50

Basic EPS $2.50
\[(500,000 / 200,000)\]

Assumed proceeds upon option exercise $500,000
\[(25,000 * $20)\]
Assumed proceeds from option tax benefit $262,500

\[ \text{\((50-20) \times 25,000 = 750,000 \times 35\% = 262,250\)} \]

Total assumed proceeds $762,500

\[ \text{\((500,000 + 262,500)\)} \]

Assumed shares repurchased 15,250

\[ \text{\((762,500 / 50)\)} \]

Incremental shares to be issued 9,750

\[ \text{\((25,000 - 15,250)\)} \]

Total shares used in EPS calculation 209,750

\[ \text{\((200,000 + 9,750)\)} \]

Diluted EPS $2.38

\[ \text{\((500,000 / 209,750)\)} \]

Let’s summarize what happened here.

**Income statement impact**

None directly. As noted above, the company in this example has chosen to take the traditional approach to stock option compensation and has not deducted any compensation expense in its income statement. However, one cannot overlook the fact that there is an economic cost to stock options. The failure of most companies to reflect stock options in the income statement has led many to argue that this failure results in an overstatement of income.

The issue of whether or not such amounts should be reflected in the income statement is a difficult one. It is easy to argue that excluding the impact of such options from book income results in income being overstated; however, it is also difficult to determine the precise cost of options at the time of issue. This is due to such factors as the actual price of the stock at the time of exercise and the fact that there are employees that will not become vested in the options that they are granted.

**Balance sheet impact**

Stockholders’ equity increased by $14,000. The company saved $14,000 in taxes.

**Earnings per share impact**

When calculating diluted EPS, you assume that all in-the-money options are exercised at the average stock price for the period (25,000 shares under option in this example). This results in the company being treated as having received proceeds equal to the value of the number of options outstanding times the exercise price ($500,000).

In addition, for purposes of this calculation it is considered to have received proceeds equal to the amount of the tax benefit that would be received if all options were exercised ($262,500). These proceeds are then used to purchase shares at the average stock price (15,250 shares). This figure is then subtracted from the total number of in-the-money stock options to determine the incremental shares that would have to be issued by the company (9,750). It is this figure that results in the increase to the total shares outstanding for the diluted EPS calculation.
In this example the company had to issue 9,750 shares and saw its diluted EPS fall from $2.50 to $2.38, a decrease of about 5%. You'll probably find that the difference between basic and diluted EPS in this example is a bit larger than normal.

In the next part of this series, I'll discuss how stock options are treated in the cash flow statement. If you have any questions on what’s been presented here, please ask them on our Motley Fool Research Discussion Board.

Related Links:
• An Introduction to Stock Options
• Some Thoughts on Stock Options
• Optionmania!: Part 1, Part 2, Part 3
FEATURES

Stock Options Can Skew Cash Flow

Due to the way that most companies account for stock options, there is no charge to income when options are exercised. However, companies can realize significant cash flow benefits when employees exercise their options. Here, we take a look at cash flow growth of seven companies covered by Motley Fool Research -- Amgen, Cisco, Dell, Gap, Microsoft, Siebel, and Yahoo!

By Phil Weiss (TMF Grape)
December 28, 2000

Earlier this year, I wrote the first two parts of my ongoing study of stock options (click here for Part 1 and Part 2). The goal of this series is to flesh out how options are accounted for, so that investors can make a more informed decision about how to view them.

As discussed in more detail in Part 1 of this series, the tax benefit related to the exercise of nonqualified stock options is typically not reflected in net income. However, it does result in a deduction on the company's tax return. Here's why:

Assume that an employee who has received a non-qualified stock option (NSO) with an exercise price of $20 per share exercises that option when the stock is trading at $50 per share.

When the option is exercised, the employee is taxed on the $30 difference between the $50 exercise price and the $20 grant price. This $30 is wage income for the employee so the company has a $30 compensation deduction for tax purposes. The vast majority of companies don't include this compensation deduction when calculating income under Generally Accepted Accounting Principles (GAAP). The tax deduction is worth $10.50 to the company ($30 times the 35% corporate income tax rate). The effect of the employee stock option exercise does not affect the income statement; instead, it hits the balance sheet as a direct increase in shareholders' equity.

Investors should also note that this adjustment to shareholders' equity might not always match the amount recorded in the cash flow statement. This mismatch happens when a company has a net operating loss for federal income tax purposes and is unable to utilize all of the tax benefit from the option exercise in the current year. This appears to be the case with Cisco Systems (Nasdaq: CSCO). In its most recent Statement of Shareholder's Equity, the tax benefit from employee stock option plans was $3,077, while the Statement of Cash Flows showed only $2,495.

The size of the tax benefit also hinges on a company's stock price. There are two reasons for this. First, an increase in the stock price over the grant price results in a greater tax benefit, and second, the price of the stock could influence the number of options being exercised. It will be interesting to observe the impact the struggling stock market has on the size of the cash flow benefit from stock option exercise that companies realize over the next year.
Below is a look at the impact of these stock option exercises on some of the companies covered by Motley Fool Research: Amgen (Nasdaq: AMGN), Cisco, Dell (Nasdaq: DELL), Gap (NYSE: GPS), Microsoft (Nasdaq: MSFT), Siebel Systems (Nasdaq: SEBL), and Yahoo! (Nasdaq: YHOO).

The first table summarizes the growth in reported cash flow from operations year-to-date and for the previous two fiscal years. The second table eliminates the benefit realized from the exercise of stock options and reveals dramatically different results. (Note: Amgen's data for 1998 and 1999 is the same. Prior to this year, Amgen recorded this tax benefit in the financing section of its cash flow statement. As a result, the amount was not part of cash flow from operations and no adjustment was required.) In the past, companies had a choice as to whether to report this item in the operating or financing section of the cash flow statement. However, this is no longer the case, as earlier this year the accounting powers that be determined that this tax benefit should be recorded as part of cash flow from operations. Microsoft also previously reported this item in the financing section. It restated its cash flow statement to reflect this change in accounting policy in its 10-K for its year ended this past June.

**Reported Growth**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amgen</td>
<td>27%</td>
<td>3%</td>
<td>15%</td>
</tr>
<tr>
<td>Cisco</td>
<td>20%</td>
<td>42%</td>
<td>51%</td>
</tr>
<tr>
<td>Dell</td>
<td>-3%</td>
<td>61%</td>
<td>53%</td>
</tr>
<tr>
<td>Gap</td>
<td>-91%</td>
<td>6%</td>
<td>65%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>4%</td>
<td>6%</td>
<td>56%</td>
</tr>
<tr>
<td>Siebel</td>
<td>566%</td>
<td>37%</td>
<td>301%</td>
</tr>
<tr>
<td>Yahoo!</td>
<td>269%</td>
<td>163%</td>
<td>NMF*</td>
</tr>
</tbody>
</table>

**Adjusted Growth**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amgen</td>
<td>8%</td>
<td>3%</td>
<td>15%</td>
</tr>
<tr>
<td>Cisco</td>
<td>-49%</td>
<td>5%</td>
<td>43%</td>
</tr>
<tr>
<td>Dell</td>
<td>3%</td>
<td>45%</td>
<td>39%</td>
</tr>
<tr>
<td>Gap</td>
<td>-115%</td>
<td>-4%</td>
<td>60%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>53%</td>
<td>-16%</td>
<td>46%</td>
</tr>
<tr>
<td>Siebel</td>
<td>952%</td>
<td>-62%</td>
<td>317%</td>
</tr>
<tr>
<td>Yahoo!</td>
<td>179%</td>
<td>178%</td>
<td>NMF*</td>
</tr>
</tbody>
</table>

*no meaningful figure

Of all the numbers in the above table, the most distressing are Cisco’s. Cisco has realized significant cash flow benefits from the exercise of stock options over the last five quarters. If Cisco's stock price continues to suffer, investors should expect the cash flow benefit from option exercise to decline, hurting Cisco's reported cash flow from operations.

I also found Microsoft's first-quarter results quite interesting, as its option-related tax benefit for the first quarter of $435 million was approximately a third of the year-ago result. Microsoft's stock price has certainly trended downward over the last year. The decline in Microsoft's cash flow benefit from this item is an example of the impact the performance of a company's stock price can have on this benefit.
The bottom line here is to be wary of the impact of stock option exercises on cash flow from operations. This benefit is not one that can be counted on with any regularity and is dangerously linked to two things that management has no control over -- stock price and the desire of employees to convert their options into cash.

In the next part of this series, I'll continue this discussion by taking a look some other issues, including the payroll taxes companies pay when options are exercised and, space permitting, the cost of the related shares to the company and its shareholders. If you have any questions, please ask them on our Motley Fool Research Discussion Board.

Related Links:
- An Introduction to Stock Options
- Stock Options: Income Statement, Balance Sheet, and EPS Impact
- Some Thoughts on Stock Options
- Optionmania!: Part 1, Part 2, Part 3
Over my next three Fool On The Hill (FOTH) columns, I’m going to look at the proliferation of option grants and how they affect (or really, don’t affect) a company’s financial statements. Very little attention is paid to this subject in the mass media or by investment professionals. At some point, however, people will likely consider the amount of options expended to be an important investment consideration. As Fools, we want to be ahead of the crowd, rather than fall behind it.

Employee stock options are pretty easy to understand. They provide employees the right, but not the obligation, to purchase shares of their employer’s stock at a certain price for a certain period of time. Options are usually granted at the current market price of the stock and last for up to 10 years. To encourage employees to stick around and help the company grow, options typically carry a four to five year vesting period, but each company sets its own parameters. With the rousing gains in the stock market over the past two decades, options have become a highly sought after compensation mechanism. Many employees will not consider joining a company unless options are included.

Let’s consider Sally, who’s getting ready to graduate from college and is looking for a new job. She has offers from two companies, New Age Compensation and Old Line Compensation, for similar positions. The salary from New Age is $10,000 lower than the one from Old Line, but New Age dangles options on 2,000 shares as an incentive for Sally to join the firm. Sally decides to accept the job from New Age, believing that her total compensation, incorporating the probable ultimate value of her options, will be higher than the offer from Old Line.

The value Sally reaps from the option will not be determined until she disposes of the option through exercise or expiration. If New Age stock does well, she could make lots of dough. On the other hand, the stock price could go nowhere for ten years, resulting in her options being worthless. While the end result of the option is unknown, Sally must have valued the option grant at more than $10,000, or she wouldn’t have decided to join New Age.

The Accounting Rules
Accounting regulators have struggled determining the best way to account for options. On the one hand, they obviously have some value to the employee. On the other hand, companies don’t expend cash when they grant options. If an employee exercises an option, the company just issues a new share of stock. Instead of a cash outflow, the company actually has an inflow of cash from the exercise price of the stock (although that inflow is less than what would be provided if the share were issued on the open market). The company is basically using its ability to issue shares as a way to print shares and sell them at below-market prices.

Under old accounting rules, companies would only expense an options grant if it had "intrinsic value" on the date of issue. Intrinsic value is the extent to which an options
exercise price is below the current market price. If Microsoft (NYSE: MSFT) were to issue options at an exercise price of $50 per share when the stock was trading at $81 per share, those options would have an intrinsic value of $31 ($81-$50) that would be expensed. If, on the other hand, Microsoft issued options with an $81 or higher exercise price, the options would have no intrinsic value and no expense would be recorded. Since most companies issue options at or above market prices, they do not record compensation expenses for these grants.

In 1995, accounting regulators issued a new pronouncement stating that it was preferable to use the "fair value" method of accounting for options rather than "intrinsic value." The fair value of an option can be calculated by using various pricing techniques developed on Wall Street to value traded options. While numerous assumptions must go into these calculations, they provide a rough approximation for what companies would expend to issue options.

Bowing to outside pressure, particularly from upstarts that rely heavily on options as a compensation tool, accounting regulators put a loophole into the 1995 pronouncement. Companies could continue using the "intrinsic value" method of accounting for options, so long as they included a footnote in their annual report stating the cost of options under the "fair value" method. With this loophole, very few (if any) companies have adopted the "fair value" method of accounting for options in their financial statements. Instead, they continue using the "intrinsic value" method, including a footnote in their annual statements describing how the implementation of "fair value" accounting would impact net income and earnings per share.

**Impact**

Going back to our example with Sally, the differing compensation structures would have differing effects on the income statements of the companies involved. As mentioned, New Age and Old Line are similar to each other. Both had prior year revenue and expenses of $1 million and $800,000, respectively. Over the next year, revenues rise 10% and expenses are flat at both companies, except for the cost of hiring an additional employee. New Age hires Sally for $25,000 and 2,000 stock options, while Old Line finds someone willing to accept a $35,000 offer with no options.

Below are the income statements for the two companies for the year after Sally's hire:

<table>
<thead>
<tr>
<th></th>
<th>New Age</th>
<th>Old Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$1,100,000</td>
<td>$1,100,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>800,000</td>
<td>800,000</td>
</tr>
<tr>
<td>New Hire</td>
<td>25,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Net Income</td>
<td>$275,000</td>
<td>$265,000</td>
</tr>
</tbody>
</table>
Earnings Per Share    $2.74         $2.65

Diluted Shares     100,400       100,000

(A technical note that you can skip if you aren't detail oriented: Diluted shares outstanding increase by only 400 shares, rather than 2,000 shares, because they are accounted for under the treasury method. Under this technique, proceeds from option exercises are assumed to be used to acquire stock on the open market. In this example, the proceeds of Sally's options exercise would be used to repurchase 1,600 shares at the year-end stock price. Diluted shares would therefore increase by 400 (2,000-1,600) shares. Now back to our regularly scheduled programming.)

Looking at the income statement and reported earnings, New Age looks better than Old Line. The only difference between the two companies, however, is new hire compensation. While New Age is paying less cash compensation, we know that Sally decided to work for New Age because she believed she was receiving higher total pay. Is it fair for New Age to post higher earnings because it used its stock option printing press to pay part of Sally's salary?

Digging through New Age's 10-K, we will find disclosures regarding the value of stock options granted. Assuming Sally's options are worth $5 per share and they vest in the first year, this note would state that the fair value of option grants were $10,000. Incorporating that expense, this disclosure would detail that New Age's adjusted net income was $265,000 and earnings per share was $2.64 (the number or shares outstanding would remain 100,400). Someone using this disclosure would see that adjusted for option compensation, New Age is actually less profitable than Old Line.

Does the difference in reported earnings and option expense-adjusted earnings matter? I'll be tackling that issue and others in my next two FOTHs. In addition, I'll go beyond the hypothetical examples of New Age and Old Line to see what the footnotes from real companies say. How do option grants impact the income statements of Microsoft, Dell Computer (Nasdaq: DELL), T. Rowe Price (Nasdaq: TROW), and others? Stay tuned. Until then, have a Foolish weekend!
Wednesday, May 5, 1999

FOOL ON THE HILL
An Investment Opinion
by Warren Gump

Optionmania II: Impact

In last Friday's column, I demonstrated how stock option grants to employees could affect the income statements of two companies. This simplified example showed how one company could boost its earnings vis-a-vis a competitor by offering stock options instead of market-level salaries. I also mentioned that accounting regulations allow most companies to avoid an income statement impact from issuing employee stock options, as long as the company discloses information about the extent of option grants in its 10-K. Let's take a look at what those disclosures have to say.

The technology sector is known to be one of the most prolific in terms of option grants. We'll start our journey by looking at Microsoft (Nasdaq: MSFT). Following are the figures for fiscal 1998, which ended last June. (1)

<table>
<thead>
<tr>
<th></th>
<th>Reported Net Income</th>
<th>Adjusted Net Income</th>
<th>Impact of unrecorded option expense on Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$4,758 million</td>
<td>$4,208 million</td>
<td>$550 million</td>
</tr>
<tr>
<td>Reported Diluted EPS</td>
<td>$0.89</td>
<td>$0.79</td>
<td></td>
</tr>
<tr>
<td>P/E (5/4/99 price)</td>
<td>87.7x</td>
<td>98.8x</td>
<td></td>
</tr>
<tr>
<td>Difference: EPS</td>
<td>11% lower</td>
<td>13% higher</td>
<td></td>
</tr>
</tbody>
</table>

If Microsoft had to purchase options that vested during the first quarter, rather than printing them up, net income would have been reduced by approximately $550 million. That's a substantial 12% of the company's reported net income.

Dell Computer (Nasdaq: DELL), another technology stalwart, also has a substantial options burden. Below are figures for fiscal 1999, ended in January. As you can see, Dell's income would have been reduced by 9% if it recorded the fair market value of options grants on its income statement:

<table>
<thead>
<tr>
<th></th>
<th>Reported Net Income</th>
<th>Adjusted Net Income</th>
<th>Impact of unrecorded option expense on Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,460 million</td>
<td>$1,324 million</td>
<td>$136 million</td>
</tr>
<tr>
<td>Reported Diluted EPS</td>
<td>$0.53</td>
<td>$0.48</td>
<td></td>
</tr>
<tr>
<td>P/E (5/4/99 price)</td>
<td>77.0x</td>
<td>85.0x</td>
<td></td>
</tr>
<tr>
<td>Difference: EPS</td>
<td>9% lower</td>
<td>10% higher</td>
<td></td>
</tr>
</tbody>
</table>

Technology companies are not alone in being prolific grantors of stock options. T. Rowe Price (Nasdaq: TROW), the financial services firm, also has substantial options obligations. (This fact isn't too surprising, since employees of financial
services firms are most informed about the potential benefits of stock options.) Here is the impact of stock options on T. Rowe's income statement for 1998:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference: EPS</td>
<td>7% lower</td>
<td>P/E (5/4/99 price): 30.7x</td>
<td>7% higher</td>
</tr>
</tbody>
</table>

Accounting for options under the fair value method would have knocked T. Rowe's earnings down by 7% in 1998.

**Starbucks (Nasdaq: SBUX)** is a company with a culture built around employee empowerment and ownership. To build this culture, the company has been quite generous with employees, engendering its well-known loyalty. The following is the hidden cost of this generosity for fiscal 1998, which ended last September. (2)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Diluted EPS</td>
<td>$0.44</td>
<td>Adjusted Diluted EPS: $0.35</td>
<td>P/E (5/4/99 price): 82.7x</td>
</tr>
<tr>
<td>Difference: EPS</td>
<td>21% lower</td>
<td>P/E (5/4/99 price): 103.9x</td>
<td>26% higher</td>
</tr>
</tbody>
</table>

Just to make sure you see the important figure, net income would have been 21% lower than the reported figure if options were accounted for using the "fair value" method of accounting.

**No Reported Income Statement Impact**

Justifications for not requiring companies to record options on their income statements include: (1) no cash outflow occurs when the option is granted, and (2) the true market value of the options is indeterminable. These two arguments are true. Instead of expending cash to issue options, a company "prints" them by assuming the obligation to issue shares upon exercise. No cash changes hands at the time of issuance. Determining the market value of an option is an art, not a science. While current valuation techniques are quite powerful, the results are dependent on several assumed variables. In addition, the market is littered with securities trading at prices much different from their theoretical values. Despite these problems, I think expensing options at a theoretical value is far preferable to ignoring them.

To see the current accounting treatment in practice, let's continue working with the example used in last Friday's column. Sally, an employee of New Age Inc., was granted options on 2,000 shares of company stock (at a $40 exercise price). New Age incurred no cash outflow and no expense at the time of this grant (although it pays Sally $10,000 less in cash compensations than a competitor offered). After spending five successful years at the company, Sally decides to exercise her options since the stock has risen to $70 and she wants to buy a home. When this occurs,
Sally hands $80,000 over to New Age in return for 2,000 company shares. She then immediately sells these shares on the market for $140,000, reaping a gross profit of $60,000. Under current accounting treatment, no expense is recorded on New Age's income statement even though $140,000 worth of stock was sold for $80,000. I think this expense is real.

If New Age were to issue those 2,000 shares to a non-employee, the company would have received $140,000 in cash. Because they were issued to an employee under an options grant, however, only $80,000 was realized. Some people might logically believe that the $60,000 difference should be recorded as an employee expense at the time Sally's option is exercised. That solution seems ideal, in that it records the actual cost to the company, but in reality it would result in an inequitable outcome. Companies with strong stock prices would be penalized, while those with weak prices would benefit.

Sally made a profit of $60,000 on our example as presented. If fate had turned its hand another way, however, the outcome could have been much different. If New Age's stock had stayed under $40 throughout Sally's employment, she would not have exercised her options. New Age wouldn't have issued any new shares. Assuming the methodology proposed in the last paragraph, New Age would have incurred $60,000 in expense in the original case and no expense in the alternative situation when the stock performed poorly. Those values are accurate at the time the exercise occurs, but they are after the fact and not indicative of what a rational person would have paid on the issuance date.

At the date of grant, no one knew whether New Age stock would increase or decrease in the ensuing years. Market practitioners use the Black-Scholes option pricing model to determine the value of securities in such circumstances. This model incorporates statistics like an option's duration and the underlying stock's expected volatility to determine a theoretical value. While this figure may not represent the actual price at which an option could be bought or sold (due to market vagaries), it represents the best approximation of the securities' value. To me, the theoretical option value is much more representative of what is happening at the company than nothing, which is what companies are currently recording.

As we saw in the real example above, the difference between reported and options-adjusted earnings is substantial for many companies. EPS for Starbucks would have been reduced by 21%, Microsoft would have taken an 11% hit, Dell would have been knocked for 9%, and T. Rowe Price's results would have dipped 7%. To make sure that investors are aware of these differences, companies should be required to move this cost out of footnotes which are generally ignored and onto the reported income statement.

Options affect much more than a company's income statement. On Friday, I'll conclude this series by looking at how options grants impact the balance sheet and the interaction between stock buybacks and option programs.

Note: "Adjusted" numbers are adjusted for the period cost option grants, as reported in each company's 10-K. The value of options is calculated using the Black-Scholes options pricing model. "EPS" stands for Earnings Per Share. EPS has been adjusted for subsequent stock splits.

(1) Microsoft's earnings exclude $296 million write-off for WebTV.
(2) Starbucks' earnings exclude $13.2 million in merger and integration costs for Seattle Coffee.
Friday, May 7, 1999

FOOL ON THE HILL
An Investment Opinion
by Warren Gump

Optionmania III: Takedown

In columns last Friday and Wednesday, I discussed how options impact income statements, the impact of options expense on several companies, and the reason companies do not currently record options expense. Investors should be aware of numerous additional anomalies associated with options. Below are several questions and my answers.

Isn’t options expense incorporated in the diluted earnings per share (EPS)?

NO! The difference between basic and diluted EPS only reflects the impact of the increased number of shares issued for options on earnings. It does not incorporate the expense of the options in net income.

Using the example from last Friday, New Age posted net income of $275,000 and diluted EPS of $2.74 on 100,400 shares. While the share count incorporates the impact of options, net income does not. If we assume that Sally's options are worth $10,000 (the amount of foregone salary relative to her Old Line offer), New Age would have posted net income of $265,000 (not $275,000). The company's EPS would have then been reduced to $2.64 since 100,400 effective shares would still be outstanding. Note that New Age's EPS figure would be a penny lower than Old Line's, which is similar in every way except it uses only cash compensation. This is because the number of New Age shares outstanding has increased, causing dilution. (For simplicity's sake, taxes are ignored in this example.)

If what you're saying is true, only the income statement would be impacted. The balance sheet and cash flow statements would still be accurate, right?

Not really. All three financial statements are intertwined and inaccuracies in one carry over to the other. In the same way that net income is overstated, cash flow is effectively overstated. The actual amount of cash isn't misstated, but the company has given away a cash-substitute (the option), which is not reflected on the cash flow statement. If the company were forced to pay its employees in cash, rather than with "self-published" options, operating cash flow would be lower.

The balance sheet is another issue. When stock options are exercised by employees, a company boosts its shareholder equity account by the amount of the exercise price. While this treatment accurately reflects the transaction as it occurs, it ignores the fact that the stock is actually worth more than the option price at the time of exercise. In effect, this understates the amount of equity capital invested in the business, distorting some productivity measures used by analysts (such as return on invested capital).

Are some company buyback programs related to stock option plans?

Quite often. Many companies engage in buyback programs to limit the dilution
caused by stock option programs. These programs validate the theory that options costs are real.

Let’s assume that a company repurchases 1 million shares for $50 million, while employees exercise options on a similar number of shares at an average price of $30 each. From a basic shares perspective (which you should normally avoid since diluted shares is more representative, but it simplifies this example), the number of shares outstanding would remain the same -- 1 million shares were issued and 1 million shares were repurchased. The only difference is that the company has $20 million less cash because it spent $50 million repurchasing stock and only received $30 million for the stock sales. No part of this $20 million ever hits a company’s income statement.

To see if a company is engaging in a stock repurchase to reduce shares outstanding or to offset option grants, look at the reported number of diluted shares. If the number of outstanding shares is not decreasing commensurately with the announced number of shares repurchased, repurchased shares are probably being used to offset option grants. In such a situation, it may be worthwhile to check out a company’s annual report or 10-K to see the extent of its option grants.

**Do options have any income tax impact for the company?**

I’m not a tax expert and different stock option plans have different tax impacts. Some option plans do provide a company tax benefits while others do not. I do not have current information on what is deductible and what is not, but some plans do lead to significant tax benefits for companies.

**Are stock options included in the government’s Employment Cost Index (ECI)?**

No. Many economists looking for signs of inflation have been closely tracking the ECI, which has recently indicated small wage increases for Americans. I was curious if this index incorporated any cost for employee stock options, which have become an integral portion of compensation at many companies. According to two people at the Bureau of Labor Statistics, the ECI does not incorporate options expense (although it is under consideration).

While the absolute level of stock option grants relative to total compensation is probably small, I would guess that many people are currently being granted increased options grants in lieu of raises. Determining whether options impact the ECI would be quite interesting.

**What should investors do to incorporate the unrecorded cost of options?**

That is up to each investor and the method used to evaluate stocks. If you believe valuation is an important factor in picking stocks, some adjustments should probably be made. Although the cost of option grants is currently ignored by most analysts and investors, I expect this will change at some point. The catalyst for this change will likely be regulatory (i.e., accounts require this expense to be recognized on the income statement) or societal (i.e., employees decide that cash is preferable to option grants). The latter scenario would force people to pay attention to the cost of options because cash compensation would jump up at many companies, decreasing earnings.
The most important adjustment to make when incorporating the impact of option grants is to net income. Unfortunately, most companies only provide information on this subject on an annual basis. (Kudos to Microsoft (Nasdaq: MSFT) for including this information quarterly on its website.) To get a thumbnail idea of the options impact on future earnings, I look at the percentage of options expense relative to the latest year's reported earnings and carry that percentage through published estimates.

For example, from their 10-Ks, I know options expense would have reduced 1998 earnings at T. Rowe Price (Nasdaq: TROW) and Starbucks (Nasdaq: SBUX) by 7% and 21%, respectively. The First Call consensus earnings estimate for these two companies are $1.63 and $0.60, respectively, in 1999. From an analytical perspective, I consider these figures to be $1.52 ($1.63*0.93) and $0.48 ($0.60*0.79). I think this "adjusted" net income should be used when calculating performance metrics like net margins and valuation measures such as the Price/Earnings (P/E) ratio. While the options expense included in the footnote of next year's annual report will probably show a different impact, I haven't found a better way to estimate the prospective cost of options.

Before closing out this series, let me point out that stock options are a very effective tool for companies to use in attracting and motivating employees. In addition, they provide a means for small, upstart companies with limited cash resources to attract superb recruits. My only beef is that they are not accounted for on the income statement, which leads to distorted financial reporting. Investors utilizing profitability and valuation measures in their decision-making process should not ignore this compensation expense.

Do you have an opinion or question on employee stock options? Can you think of a better way to incorporate this hidden expense in stock analysis? Come over to the Fool on the Hill message board to share your ideas.