June 11, 2002

Options Math

	NoOptions	Options
Revenues	5,000	5,000
Cost	2,500	2,000
Gross profit	2,500	3,000
Expenses	2,500	2,000
Operating profit	0	1,000
Taxes	0	300
Net Income	0	700
Shares outstanding	2,000	2,000
EpS	0.00	0.35
Options		1,000
Cash from options		1,000
Total shares	2,000	3,000
EpS after options	0.00	0.23
Share value (P/E=15)	0.00	5.25
Diluted share value	0.00	3.45

The NoOption Co. had to pay higher salaries to the founders, $500 more to the CTO and $500 more to the CEO. In consequence the company showed zero operating income, zero taxes and zero net profit.

The options company saved $1,000 on salaries and agreed to give options to the CTO and the CEO, 1,000 shares in total at a strike price of $1.00. Since the company saved on salaries it made $1,000 in operating income which caused $300 in income taxes leaving a net profit of $700.

Since the company's shares typically sell at 15 times earnings and since the diluted earnings were only 23¢ instead of the 35¢ without the options, the market values the company's shares at $3.45. The CTO and the CEO promptly sold their shares and netted $2,450 after paying the strike price of the options,

All in all, the CTO and the CEO of the Options company made more money than their colleagues at the NoOption Co.

	NoOptions	Options
Salary	1,000	500
Options (net)	0	2,450
Gross income	1,000	2,950
Taxes (20%)	200	590
Net	800	2,360

Almost three times as much!

So how did the shareholders fare? If the shares are valued at 15 times earnings, the shares of the NoOptions Co. are worth zero, zip, zilch! But at 15 times earnings, even with dilution, the shares of Options Co. are worth 3.45.

Oh, I almost forgot the cash position, maybe it's here that NoOptions Co. does better.

	NoOptions	Options
Initial cash	2,000	2,000
Less:		
Salaries (difference)	1,000	0
Taxes	0	300
Sub Total	1,000	1,700
Plus:		
Options	0	1,000
Net cash	1,000	2,700

Hmmmmm...

But Buffett says that options are bad. Beats the heck out of me! What you pay in taxes for having a higher operating income is more than offset by what you save on salaries. The extra income that the optionees get comes from Wall Street and not from the company's customers -- not from revenue.

Of course, the diluted shares are worth less per share than the "undiluted" ones but those undiluted shares are just a convenient fiction for the option haters. If you have to pay the salaries because you do not give the options, then you never can achieve that "undiluted" status because you simply have higher expenses.

I'm not saying that options cannot be abused. One very simple way to abuse options is to pay a full salary AND give the options. Another is to give too many options to the board members so that they will vote with management. Stock options have a place in a capitalist society and properly managed are a boon to all involved, the founders and the current shareholders. Dismissing options because there is some abuse is like saying that all managers should be in jail because the managers at Enron did some monkey business or that all CPAs should be in jail because Andersen did some monkey business.

Denny
"Demand creates queues. Supply gets rid of them."
Software Times