5c. Expensing Stock Options and What It Means for US High-Tech Startups

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(Benjamin QIU)

In response to a series of corporate scandals such as Enron and WorldCom, starting in 2005, the Financial Accounting Standards Board[1] (FASB) of the US is requiring a major change in accounting regulation related to stock options. This new regulation has generated a heated debate in the US, especially concerning its chilling effect for US high-tech startups using stock options as a tool to attract talent.

High-tech startup companies constitute the main source of productivity growth. Therefore, the chilling effect this new law may have on these companies must be carefully scrutinized. The same holds true in China. A recent study by *The Global Entrepreneurship Monitor* has shown that over 10% of jobs in China are now provided by new firms,[2] much higher than the percentage in the United States and European Union countries. The regulatory balance between fairness and efficiency is crucial to the health of a fast-growing economy.

I. Stock Options and the New FASB Regulation

A stock option is an agreement that gives a person (the optionee) the right to buy or sell a specific stock at a preset price during a certain period. If the optionee does not exercise the option within that period, it expires, and the optionee forfeits the money she paid to buy the option. When used as a form of equity-based compensation, a stock option is a right granted by a company to its employees that allows them to buy corporate stock at a fixed price—at or below market price—at a specified time, allowing them to benefit from the difference between purchase and market prices. If the stock price rises enough, and an employee has a substantial number of options, the rewards can be handsome. Under previous accounting rules in the US, the dilution effect of stock options is shown in the diluted earnings per share calculation. This dilution effect is shown on a quarterly basis so that shareholders are aware of its evolving impact. Other than that, there is no requirement that the stock options be reported as compensation costs.

However, the FASB's new regulation[3], the revised Statement 123, requires that companies include the hypothetical expense of their employee stock options in their financial statements. For a public company, it means to measure the cost of stock options based on the grant-date fair value of the shares. For a nonpublic company, it means to measure the cost of stock options based on the grant-date fair value method unless it is not possible to do so because it is not practicable to estimate the expected volatility of the share price. In that situation, the company will account for the cost of these stock options based on a value calculated using the historical volatility of an appropriate industry sector index instead of the expected volatility of its share price.

The grant-date fair value of employee stock options will be estimated using option-pricing

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[1] Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting and reporting. Those standards govern the preparation of financial reports. They are officially recognized as authoritative by the Securities and Exchange Commission (SEC) and the American Institute of Certified Public Accountants. For details, see http://www.fasb.org/.
[2] J. Orford, E. Wood, M. Herrington, C. Fischer, *The Global Entrepreneurship Monitor* (March 2004). See http://www.ippr.org.na/Presentations/GEM%20Final%20Presentation.pdf.
3 See FASB Statement 123 (revised 2004) for details, at http://www.fasb.org/pdf/fas123r.pdf.

models[4] adjusted for the unique characteristics of those instruments (unless observable market prices for the same or similar instruments are available). If an equity award is modified after the grant date, incremental compensation cost will be recognized as equal to the excess of the fair value of the modified award over the fair value of the original award.

This new requirement becomes effective on June 15, 2005 for public companies that do not file as small business issuers, and on December 15, 2005 for those that file as small business issuers and nonpublic companies.

II. The FASB's Rationale for Changing the Rules

Since the Enron scandal and other corporate scandals were explosed, the American public has urged the FASB to require companies to place a value on the stock options they grant to their employees and treat that value as an expense in computing their earnings. The four reasons cited by the FASB for amending the rules of financial accounting have largely reflected this new political environment. The reasons are (1) addressing concerns of users and public, (2) improving the comparability of reported financial information by eliminating alternative accounting methods, (3) simplifying U.S. generally accepted accounting principles ("GAAP"), and (4) converging with international accounting standards.

First, many users of financial statements expressed their concerns that, when using the "intrinsic value method,"[5] the financial statements do not faithfully represent the companies' economic transactions on employee stock options. As a result, these financial statements can distort the issuer's reported financial condition and results of operations, which can lead to the inappropriate allocation of resources in the capital markets. The revised Statement 123 addresses these concerns by requiring a company to recognize the cost of employee services received in share-based payment transactions, thereby reflecting the economic consequences of those transactions in the financial statements.

Second, FASB believes that similar economic transactions should be accounted for similarly. Over the past few years, approximately 750 public companies have voluntarily adopted or announced their intention to adopt the fair-value-based method of accounting for their stock options; while other companies continue to use intrinsic-value method. By requiring the fair-value-based method for all companies, the new regulation eliminates the alternative method, thus improving the comparability of reported financial information.

Thirdly, the FASB believes that, by requiring that all companies follow the same accounting standards and eliminating the intrinsic value method and its related detailed and form-driven implementation guidance, the authoritative literature – the U.S. GAAP--can be simplified.

Lastly, The FASB believes that the new regulation will result in greater international comparability. The International Accounting Standards Board (IASB), whose standards are followed by many countries, issued International Financial Reporting Standard (IFRS) 2,[6] *Share-based Payment,* in February 2004. IFRS 2 requires that all companies recognize an expense for stock options using a fair-value-based method. Adopting a common set of financial accounting standards improves the comparability of financial information around the world and makes the

4 E.g., the Black-Scholes Model, see FASB Statement 123 (revised 2004), at http://www.fasb.org/pdf/fas123r.pdf.
5 See details: FASB interpretation of Opinion 25, at http://www.fasb.org/pdf/fin%2044.pdf.
6 See IFRS 2: Share Based Payment, at http://www.iasb.org/uploaded_files/documents/8_63_ifrs02-sum.pdf

accounting requirements less burdensome for companies that report financial statements under both U.S. GAAP and international accounting standards.

III. The Stock Option Debate

Despite the seemingly obvious benefits brought by FASB's new rule, there has been heated debate regarding whether this change is beneficial to market's health. Some have commented that this change is part of "a cycle as old as financial markets."[7] A case these people refer to is the Bubble Act, which the British Parliament passed after the collapse of the South Sea Bubble. The Act banned the creation of any new joint-stock companies without Parliament's express approval. This ban stayed in effect for 105 years. People argue that, corporate scandals, such as Enron, have more to do with violations of existing accounting rules than with the stock options granted to officers and employees. According to one commentator, "[t]he prosecution of wrongdoing is essential to the clean-up process, but history suggests that when political institutions run out of wrong doers, they often turn to ill-conceived systemic changes. These changes, like the Bubble Act, undermine sound economic activity with little impact on wrongdoers."[8] Thus people argue that, faced with the collapse of the stock market bubble and the accounting scandals of the 1990s, the FASB is merely responding to pressure from politicians and the media to get tough on corporate America.

3.1 Is Stock Option a form of expense?

The bottom-line issue is whether stock option is an expense. The answer to this question seems straightforward: an expense must reduce the net asset value of a firm. When a stock option is granted, no reduction in the net asset value occurs. Granting an option does dilute the value of shares of existing shareholders by increasing the number of potential shares outstanding, but the total value of the firm and its profits remain unchanged. Additionally, if the stock options expired and were never exercised, under this new FASB rule, the stock option expense would stay on the books, and the profits of the firm would be permanently reduced, even though no economic transaction ever happened. Hence, some people believed that the FASB's new rule "undermines a key principle of accounting: the link between the balance sheet and the income statement" because a stock option is not a true expense reducing the net asset value of the firm.[9]

Nevertheless, since stock options are used as a form of payment, it is hard for some people to see why they are not an expense. Even Warren Buffett, America's most famous investor, once asked, "If stock options aren't a form of compensation, what are they? If compensation isn't an expense, what is it? And, if expenses shouldn't go into the calculation of earnings, where in the world do they go?"[10] Not surprisingly, in 2002, two of the first companies to treat options as expenses, Coca-Cola and the Washington Post, have Mr. Buffett on their boards. A senior investment banker, many of whose high-tech clients pay their employees mostly in options, commented that "There is no rationale for not treating stock options as an expense. Except that if you did, it would have a greater impact than Greenspan resigning, the election and another financial crisis rolled into one."[11]

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7 Lawrence B. Lindsey and Marc Sumerlin, *Bubble Act Redux*, Wall Street Journal, June 21, 2004.
8 Id.
9 Id.
10 *Use and Abuse*, Economist, July 18, 2002.
11 *Called to Account*, Economist, January 25, 2001.

3.2 What Kind of Incentives do Stock Options Provide?

One reason why stock options are granted to a company's employees in the first place is that they align the interests of an employee with those of the shareholders. Based on this theory, handing options to managers means that they will want to see share prices rise, just as shareholders do. In 2001, stock options accounted for 58% of the pay of chief executives of big American companies.[12] However, it is a little surprising to find that companies who grant options do not appear to perform any better than those that do not. According to a study by Harvard Business School, "Results indicate that no aspect of a company's pay-plan design predicts the company's performance." Instead, "The primary reason for linking executive pay to performance may be to provide 'cover' for huge payouts to senior management."[13]

In fact, it can be argued that stock options provide managers an incentive that is opposite of the long-term interests of shareholders. The main reason is that stock options leave recipients free to buy or not to buy. If things go smoothly, they buy; if something goes wrong, they are free to pass, while shareholders may have to sell at a loss. Therefore, managers with options have every incentive to boost the stock price, often times at the expense of the company's long-term financial health and profitability.

Regardless of whether stock options provide the right sort of incentive, many companies are handing out options. Of 350 companies surveyed by William Mercer, a consultancy, in 2002 93% reward their directors with stock incentives, while in 1992, only 63% did.[14]

3.3 Expensing Stock Options at Whose Expense?

While FASB and public feel that not treating stock options as an expense is unfair to ordinary shareholders, some people argue that treating stock options as expenses will harm shareholders' interests. If options are a real expense, they believe, the money must come directly from the balance sheet in one of two ways, both of which do tangible harm to shareholders.

When employees exercise their share options, the company can do two things. The first is to buy its the shares back in the market. Under this condition, shareholders lose because the company pays a price that is higher, sometimes much higher, than the price at which they are sold to itsemployees. There is "a wealth transfer from shareholders to employees, which will be especially large following periods of unusual stock market gains."[15]

Second, if a company does not buy the shares back, it has only one alternative: to issue more shares. This "dilutes" the holdings of existing shareholders who end up owning a smaller proportion of a bigger pie. In addition, if the number of shares rises, then, to achieve the same earnings per share, a company must increase its profits.

3.4 How to Calculate the Value of Stock Options?

A practical problem arising from adopting the new rule is that there is no accepted method for establishing the value of stock options, which are long-term contracts with many variables and

12 *Executive Pay*, Economist, April 4, 2002.
13 See *Called to Account*, Id.
14 Id.
15 Nellie Liang and Steven Sharpe, *Share purchases and employee stock options and their implications for S&P 500 share retirements and expected returns*, Finance and Economic Discussion Series 1999-59 (1999), *at* http://www.federalreserve.gov/pubs/feds/1999/199959/199959abs.html.

contingencies. According to the new rule, liabilities should be recorded in the year in which they are incurred. Currently, there are several ways of pricing options. A more popular one was developed in 1973 by two economists, Fischer Black and Myron Scholes, called the "Black-Scholes Model." The FASB initially preferred this model.[16] However, most observers agree that this model, which values short-term options, is inadequate to value employee stock options.[17] Other models have also failed to provide sufficient specificity in values of stock options. Such unavoidable unreliability of the option value calculation may violate the Statement of Financial Accounting Concepts No. 2, published by the FASB in 1980, which defines reliability as "The quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent."[18]

More importantly, the primary methods used to calculate the value of stock options, including the Black-Scholes model, are valid only for tradable options that are readily converted into cash. Employee stock options are long term and non-transferable. The fact that they cannot be sold means that they cannot be measured by market-based option calculators. By applying these market-based option calculators to employee stock options, the FASB may be technically wrong and at the same time risk violating its own Statement of Financial Accounting Concepts No. 5, which states that "revenues and gains are realizable when related assets received or held are readily convertible into *known* amounts of cash or claims to cash."[19]

The lack of an adequate model for calculating the option value creates a serious legal risk for both companies and auditors.[20] Without a designated and approved method for valuing employee stock options, companies will have to choose which model to use and the various inputs that the model requires. These choices can have a substantial impact on the reported earnings of a company, and that, in turn, can leave companies open to class action lawsuits by disgruntled shareholders.[21]

3.5 Consequences for the Economy and for the High-Tech Industry

One of the perceived consequences of the new FASB requirement is that it can trigger a huge fall in corporate profits and individual wealth. Smithers & Co., which has processed the numbers for America's biggest companies, found that if options had been properly accounted for at the time when they were granted, the profits of large listed companies in 1998 would have been two-thirds lower.[22]

But some people believe such consequence is good because it helps to more accurately measure

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16 See FASB Statement 123 (revised 2004), at http://www.fasb.org/pdf/fas123r.pdf.
17 John C. Hull, *Options, Futures and Other Derivatives* 448-449 (Prentice-Hall 4th ed. 2000). (It can be concluded that the mathematical model the FASB prefers cannot effectively value the options expense especially for a typical technology startup whose stock price tends to be highly volatile.)
18 FASB Statement of Financial Accounting Concepts No. 2, at http://www.fasb.org/pdf/con2.pdf.
19 FASB Statement of Financial Accounting Concepts No. 5, at http://www.fasb.org/pdf/con5.pdf.
20 See *The FASB Stock Options Proposal—It's Effect on U.S. Economy and Jobs*.
21 Id. "As an example, consider a company that chooses a model and makes input assumptions that reduce its reported earnings by 5 percent each year for a ten-year period. At the end of that period, looking back over the actual experience of the company, one of the following becomes clear: (i) the expense it charged to earnings was less than what its options-pricing model would have required if the inputs to the model had borne a closer resemblance to its actual experience; (ii) the options-pricing model it used was less accurate than other models that were available at the time it adopted its model; or (iii) the technology for options-pricing had evolved over the 10 year period, so that the company's model--at the state of the art when adopted--had been superseded by superior models. Any of these facts will expose the company to lawsuits based on the allegation that its earnings were overstated over many years. Shareholders who purchased shares during this period might have a cause of action based on the company's failure to correctly calculate its employee options costs."
22 See *Called to Account.*

the financial health of a company. Alan Greenspan, citing research by the Federal Reserve, said that the tax treatment of options inflated reported growth in the earnings of large companies by about two and a half percentage points a year between 1995 and 2000. Had options been treated as expenses, it would have become apparent that the boom in American corporate profits ended in 1997.[23]

A study by Nellie Liang and Steven Sharpe, two economists at the Federal Reserve, estimates that stock options have added, on average, 1.5% a year to the growth of corporate profits, and that they were worth 10.5% of stated profits in 1998, up from 4% of profits in 1994. Given the dramatic rise in the stock market in 1999, the figures were doubtless higher in 1999. Moreover, the two economists point out, "Because the cost of employee stock-option grants generally is not accounted for in companies' income statements, their growing importance has also created distortions in earnings-based valuation measures such as price-earnings ratios."[24]

But the effect of the FASB's new regulation varies greatly across industries. In particular, it has a disproportionate negative impact on the high-growth sector. Therefore the FASB has faced fierce opposition from Silicon Valley ever since it tried to change the rules. Options give an employee a stake in the firm and a concern for its future. This is particularly important in high-tech industries where a good portion of the firm's capital is human capital, which can walk out the door at anytime. It is also a way for conserving scarce cash for high return investments. For example, Google, Inc. only hires a relatively small number of employees, but many of them have doctoral degrees. The company heavily relies on the creativity of these people and has granted them a large amount of stock options in order to retain them, especially before the company gets on track for profitability. In contrast, Wal-Mart has over one million employees and from day one, its competitiveness has rooted in its highly efficient network of information and logistics systems. For Wal-Mart, there is probably no need to use stock options to attract employees.

Therefore, some estimate that the adverse effect on high-tech firms could be 20 times as great a percent of their net income compared with traditional companies.[25] Hence, more mature companies like Coca-Cola are more inclined to accept expensing of stock options because employee stock options are not a huge cost for them. By Coca-Cola's own calculation, expensing stock options would have knocked just $200m off its profits in 2001.[26]

In the IT industries, option costs can amount to about three times published net profits. High-tech companies, such as Cisco, calculated that the options it handed to its employees in 2001 had a value of $1.7 billion.[27] Microsoft, from 1991 to June of 2000, had their outstanding shares increased from 4.2 billion to 5.3 billion. Over the same period it issued about 1.6 billion new shares under its share-option scheme and bought back 677m, which cost it $16.2 billion. That figure never appeared as an expense in Microsoft's income statement. Even so, the company was able to claim tax relief to the tune of $12 billion on the options that were exercised. Over the past three years, Microsoft has paid only $2.8 billion in taxes.[28] According to Smithers, had Microsoft accounted for its options properly, in 1998 it would have made not a profit of $4.5 billion, as its accounts showed, but a loss of $17.8 billion.[29]

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23 See *Executive Pay*.
24 See *Share purchases and employee stock options and their implications for S&P 500 share retirements and expected returns*.
25 See *Bubble Act Redux*.
26 *Clambering Back Up*, Economist, July 18, 2002.
27 Id.
28 See *Called to Account Id.*
29 Id.

By double-counting the effect of options on earnings per share, some argue that the net effect of the FASB's proposal would be "to reallocate capital from cutting-edge firms to more mature and slower-growing companies. It would be particularly devastating on startup firms with emerging technologies."[30] Currently, companies are required to release information concerning the options, and the market digests that information and incorporates it into price. Exactly how the market finds the right price for the options is a mystery, yet there is little evidence showing that the market misvalues companies' stock options or consequently misprices the stocks. Introducing into this picture the requirement that firms include a most likely flawed estimate of options expense hardly ensures that the market will function better. There are reasons to believe that the requirement may discourage option use, taking away a valuable tool from some of the most entrepreneurial firms.

On the other hand, however, chances are that sophisticated investors would simply look past the accounting and focus on the real strengths of startup companies. The basic premise of the theory against expensing stock options focuses on the psychological impact on investors who would otherwise invest in a company due to its more promising financial statements. But even though Amazon.com and Yahoo! had not turned a profit until years after their launch, investors didn't stop investing in these companies.

IV. The Nature of the Debate

The argument against expensing stock options is that the requirement makes financial statements look bad. Therefore, there is a chilling effect for the companies who heavily rely on the grant of stock options to attract talent. Those companies happen to be the technology intensive startups, and the result will likely be an unwanted toll on the high-tech sector's growth. The traditional resistance facing a new government regulation focuses on the loss of efficiency in the interest of fairness, especially when the loss of efficiency seems to out-weigh the fairness gained.

However, the debate surrounding the option-expensing requirement is more complicated. Unlike, for example, the law against insider trading, the new FASB requirement actually encourages disclosure of information, therefore increasing the market efficiency. This time, the option-granting companies complain about the loss of fairness due to the difficulty of accurately assessing the value of options, saying that even if the value can be more or less accurately assessed, counting it as an expense on the books would mean eventually giving up granting options for good.

Any policy maker ought to keep in mind that all laws have unwanted, chilling effects. For example, the law against underage drinking deters an alcoholic beverage seller from selling to those who merely happen to look young. There are practices simply too important to be ignored. Freedom of Speech is deemed too important to be chilled. Therefore, the Supreme Court has held that one can challenge a law restricting freedom of speech for its merely being vague, even if the government may have never enforced that law. In contrast, a case filed by an option-issuing company against the FASB regulation bears little hope of reaching the Supreme Court because, unlike the right to Freedom of Speech, issuing stock options without reporting them on financial statements clearly won't be considered a constitutional right. Besides, given the clear regulatory authority of the FASB and the SEC, there cannot be any conflict of laws among the US courts on this issue, and that constitutes another reason for the Supreme Court not to hear the case.

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30 See *Bubble Act Redux*.

On June 2, 2005, President Bush nominated conservative California Congressman, Chris Cox, as the new chief of the SEC. Cox has a reputation of voicing opinions against expensing stock options. However, it seems that the train has left the platform and it is too late to roll back the now-effective regulation. Only time will tell how big an impact this new law will have on the business community.

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