

# BLACK-SCHOLES RECEIVES POOR INDUSTRY RECEPTION

**As the consultation period for FRED 31 share-based payment draws to a close (see Options 1 briefing), US standard-setter FASB has decided to re-examine the accounting treatment of stock options, drawing immediate criticism from the International Employee Stock Options Coalition.**

The American Financial Accounting Standards Board (FASB) stated in March that in the wake of the market meltdown and corporate reporting scandals, it "has received numerous requests from individual and institutional investors, financial analysts and others urging the Board to mandate the expensing of the compensation cost relating to employee stock options." The FASB's statement favours one single, consistent approach rather than providing companies with a range of accounting options.

The International Employee Stock Options Coalition (IESOC) – a lobby group that opposes mandatory expensing of stock options – argues that "the real cost of options is already reflected in diluted earnings per share; that there is no existing method to value employee stock options accurately and reliably; and that mandatory expensing will eviscerate broad-based stock option plans.

The following is a series of comments collated by the IESOC.

"I have a rather classic view about stock options. I think the logic is you expense them... There's so much controversy about how to expense it, it may conceivably even kill the credibility of expensing them."

**Paul Volcker at a Brookings-AEI conference on corporate governance, 5 March 2003. Paul Volcker is the chairman of the trustees of the International Accounting Standards Committee Foundation.**

"Overall, we have found that the Black-Scholes model performed poorly when given the task of predicting the actual option gains

to the long-term option holder... Because market movements – which appear to be the primary cause of inaccurate Black-Scholes estimates – are unpredictable, it appears we can safely say that no prior adjustments can be made to the Black-Scholes model that will correct for its inaccuracy when predicting actual gains to the option holder... The results demonstrate that any predictive power the Black-Scholes model may offer is utterly overwhelmed by subsequent market movements... In short, the accrued and generally fixed expense, as determined by the Black-Scholes option pricing model, is unlikely to approximate – or even come close – to the actual expense."

**Sibson Consulting, Does the Black-Scholes Model Predict the Value of Employee Options? January 2003.**

"We believe the Black-Scholes option-pricing model overstates the value of employee stock options by a factor of two-to-three times. Reflecting these inflated values in either pro forma disclosures or as a recognised expense has an inappropriate impact on financial statements. Use of Black-Scholes and similar option-pricing models impairs the transparency of reported financial information and makes comparisons between companies and across multiple periods difficult for investors to comprehend."

**Apple Computer, letter to FASB.**

"Given the potentially significant impact of the adoption of a grant date model, we strongly encourage the Board to seek the counsel of

valuation experts in deciding whether valuation techniques are sufficiently robust to make such a model operational."

**PricewaterhouseCoopers, letter to FASB.**

"We believe that standard option pricing models overstate the value of employee stock options."

**Eli Lilly and Co, letter to FASB.**

"During 2002, Cisco granted approximately 282 million options to employees at a weighted average exercise price of \$17.72. These options had a weighted-average estimated value of \$8.60 per share based on the Black-Scholes option-pricing model. This represents approximately \$2.4bn of 'value' based on Black-Scholes.

Approximately two months later, on 4 October 2002, Cisco's ending stock price was \$9.46 per share. If the Black-Scholes estimated value were updated for the stock price only (all other variables held constant) the value generated by the model would be \$3.01 per share, which results in about \$850m of 'value' based on the Black-Scholes model.

"The difference of approximately \$1.6bn, or \$5.59 per share, is based solely on the change in Cisco's stock price over a two-month period. Cisco's ending stock price for its fiscal 2002 was \$11.82, which would make all of the 282 million options granted during the year under water representing no value to employees at that date.

"This example illustrates the

point that the valuation based on Black-Scholes is nonsensical for employee stock options... Expensing of amounts that are subject to such ridiculous swings in value generated from such flawed models would be misleading, as well as irresponsible."

**Cisco Systems, letter to FASB.**

"We have always worked under the premise that Black-Scholes, and other related binomial models, was a tool for the business community to value short-term publicly traded options... We feel strongly that these models do not recognise the fact that employee options are non-transferable, are not liquid, the underlying shares are often subject to 'black out' periods, can be subject to 144 limitations and the employee often cannot sell the... stock or option."

**Warburg Pincus, letter to FASB.**

"Black-Scholes is balderdash. Everyone knows it. It is not predictive of anything, and its inaccuracy has long been proven. It is elegant mathematics and nothing more."

**The Holman Group, letter to FASB.**

*Andrew Sawers.*

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● The IESOC can be found at [www.savestockoptions.org](http://www.savestockoptions.org)