

Petition
to the Securities and Exchange Commission
for Review and Repeal of FAS 123R

OPPONENTS OF FAS 123R

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February 27, 2008

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February 27, 2008

Ms. Nancy Morris
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Subject: Petition for Review and Repeal of FAS 123R, "Share-Based Payment"

Dear Secretary Morris:

Enclosed for your filing are the original and three copies of a Petition for Review and Repeal of FAS 123R, "Share-Based Payment".

I. Introduction

The undersigned hereby petition the Commission to review, with the view toward repealing, FAS 123R entitled, "Share-Based Payment." FAS 123R established a new standard for accounting for employee stock options ("ESOs"). In the opinion of the undersigned, FAS 123R represents one of the most radical and consequential changes in accounting policy in the history of the FASB. However, the Commission has never reviewed this standard formally even though it is the equivalent of a rule issued pursuant to Section 19(a) of the Securities Act of 1933 and even though the Commission, through its Chief Accountant, advised public companies on December 16, 2004 that they must implement it.

We specifically urge the Commission to review FAS 123R utilizing the procedures specified in the Administrative Procedure Act (the "APA"), 5 U.S.C. § 553, which is implemented, in part, by the Commission's Rule of Practice 192. For the reasons described in Section III below, we believe the law required these procedures to be followed before the SEC advised issuers that they must implement FAS 123R.

II. The Need For Review

We believe it is critically important that the Commission repeal FAS 123R because its application results in improper accounting that significantly diminishes the fairness and accuracy of financial statements, resulting in material damage to

shareholder and company interests. We believe that the signatories to this petition collectively have sufficient expertise in accounting, economics and finance matters that our views on this subject should be taken seriously by the Commission.

The bases for our belief that the application of FAS 123R results in improper accounting are set forth in certain exhibits to this petition. Exhibit One is the Executive Summary of an article that appeared in the summer 2006 edition of the CALIFORNIA MANAGEMENT REVIEW (CMR) entitled, "Expensing Employee Stock Options is Improper Accounting." Exhibit Two is a reprint of the article. This article, which was written by Kip Hagopian and has been endorsed by 30 distinguished experts in accounting, economics, finance and business (the majority of whom are signatories to this petition), presents the primary bases of our conclusion that expensing ESOs is improper accounting. Exhibit Three is a reprint of four "Letters to the Editor" that appeared in the fall 2006 edition of the CMR, together with Mr. Hagopian's reply. The closest thing to a public debate over our position on expensing is contained in these letters to the editor and Mr. Hagopian's reply to them. The letters to the editor came from four respected professors of accounting and finance. Three of these letters were opposed to our position on expensing and the fourth was supportive. We believe that Mr. Hagopian convincingly rebutted the letters in opposition.

We believe that the combination of the original CMR article and Mr. Hagopian's reply to the letters to the editor, make such a compelling case for repealing FAS 123R that doing so must be given serious consideration by the Commission. As contrasted with the arguments made by many other opponents of expensing ESOs, *the arguments presented in the article and the reply to the letters are limited strictly to the accounting issues pertaining to this rule.*

To our knowledge, the sum and substance of these arguments were never addressed by the FASB in their deliberations over FAS 123R. Nor was the Commission ever made aware of these arguments. Exhibit Four describes seven novel arguments that are used in the CMR article.

In addition to the conceptual arguments against expensing (contained in Exhibits One through Four), the case against FAS 123R becomes even more compelling when one considers the many compromises in or deviations from standard accounting practice that were needed in order to justify this new rule. Exhibit Five is a brief paper that describes 12 such compromises and deviations.

Now that FAS 123R has been in place for about two and one-half years, at least part of the impact of the rule can be observed. Data now exists indicating that there are at least two very significant outcomes of FAS 123R. To wit:

1. A recent (as yet unpublished) study by Rutgers' Professors Joseph Blasi and Douglas Kruse (both of whom are endorsers of Mr. Hagopian's article and signatories to this petition), which tracks ESO grant practices between

the years 2002 and 2006 (years which bracket the December 2004 date on which FAS 123R was adopted), shows that during this period there was a 29% decline in the percentage of private sector employees holding stock options. In the computer services industry (which we believe is a reasonable proxy for the technology industry) the decline was 51%. Almost the entire decline in the number of people holding stock options occurred among middle and lower level employees (professional, other white collar and blue collar workers); the manager class was virtually unaffected.

Several scholarly studies have documented the positive correlation between the use of broad-based option plans and higher productivity and shareholder returns. (These studies will be provided to the Commission upon request.) If the use of broad-based stock option plans is in fact linked to higher employee productivity and shareholder returns, then the dramatic drop in the number of employees receiving options could have a negative effect on both the companies that use these plans and their shareholders.

2. Thomas Weisel Partners, a prominent investment banking firm, recently reviewed the analytical practices of 64 investment banks as they pertained to stock based compensation. The review looked at 50 technology companies (representing an aggregate market value of nearly \$2 trillion) to determine how analysts viewed GAAP earnings vs. non-GAAP earnings (which excluded stock-based compensation) in making their evaluations. The survey showed that the vast majority (approximately 80%) of sell-side analysts in the sample presented both GAAP and non-GAAP earnings in their reports and that a majority (58%) used only non-GAAP calculations in doing their earnings projections for the purpose of valuing the companies they cover. This suggests that many of the most sophisticated users of financial statements do not consider ESO grants to be an expense of the business for valuation purposes. We believe they are right; in which case, the less sophisticated shareholders in public companies may be at a material disadvantage when making their investment decisions. One thing seems clear from this data: We do not currently have a commonly accepted standard for measuring the true earnings of companies that grant significant quantities of ESOs.

Exhibits Six and Seven are summary presentations of the Blasi-Kruse study and the Thomas Weisel survey.

We believe that the likely negative consequences of FAS 123R are substantial.

- FAS 123R has resulted in a material reduction in the reported GAAP earnings of the users of broad-based stock option plans. It is reasonable to believe (albeit as yet unproven) that this drop in reported earnings has caused a reduction in the market values of these companies. If this is true,

then the application of FAS 123R has damaged the economic interests of these companies' shareholders and, concomitantly, has increased the companies' cost of capital.

- The users of broad-based stock option plans comprise some of the highest growth, most innovative and most productive companies in the U.S. If FAS 123R is increasing the cost of capital of these companies, then it is causing damage to many of the leading companies in the United States and, by extension, to the US economy.
- As indicated in the Blasi-Kruse study, the number of US employees holding ESOs has dropped precipitously since the promulgation of FAS 123R. Other studies (mentioned above) have shown a positive correlation between the use of broad-based option plans and employee productivity and shareholder returns. These studies suggest that a drop in the number of option holders would result in damage to the economic interests of both the companies that use these plans, and their shareholders. If it is true that FAS 123R is responsible for this large drop in the number of option holders, then the damage (if any) to companies and their shareholders could logically be attributable to this rule. It should be noted that the many rank and file employees who have been cut from the rolls of option holders might also have suffered economic damage, while managers have been virtually unaffected. This latter effect, if true, is ironic inasmuch as many proponents of expensing based their support for expensing (at least in part) on the desire to reduce executive compensation.
- There are two apparent negative consequences suggested in the Thomas Weisel survey. First, it appears that less sophisticated investors in companies that are users of broad-based option plans may be at a disadvantage in comparison to sophisticated investors. Second, it now seems that there is no universally accepted method of measuring the earnings of companies that use these plans. We believe that both of these consequences should be unacceptable to the Commission.

We do not suggest that the above-described, potential negative consequences of FAS 123R represent a basis for its repeal. In fact, if the application of FAS 123R resulted in proper accounting, most if not all of these considerations would be irrelevant. We would argue, however, that these possible consequences, taken collectively, *suggest that this accounting standard should not be sustained unless there is virtual certainty that it results in an improvement in the fairness and accuracy of financial statements.*

III. The Applicability Of The Administrative Procedure Act

We realize that the FASB plays an extremely important role in developing accounting standards. We are also aware that the FASB put FAS 123R through a lengthy vetting process, which included a 90-day public comment period and two full day roundtable discussions. However, the law requires the *Commission* (not the

FASB) to determine finally what constitutes proper accounting for public companies. In Section 19(a) of the Securities Act of 1933, 15 U.S.C. § 77s(a), and Section 13(b) of the Securities Exchange Act of 1934, 15 U.S.C. § 78m(b), Congress gave the Commission the authority to establish accounting standards. Congress did not authorize the Commission either to delegate this responsibility to the FASB or to defer to the FASB's judgment without substantive Commission review. In Release No. AS-253, 15 S.E.C. Docket 929 (1978), the Commission stated:

“While the Commission recognizes that, in general, it is most desirable for the private sector rather than the government to develop accounting standards, the Commission retains the final authority under the securities laws to promulgate rules, including financial accounting standards that govern the preparation and presentation of financial statements issued by public companies regardless of the FASB's determinations.”

The part of Section 108 of the Sarbanes-Oxley Act of 2002 that was codified in Section 19(b) of the Securities Act of 1933 made clear that the Commission remains the final authority and that it must make a judgment of its own whether to recognize a standard developed by the FASB. It states that the Commission, in carrying out its rule-making authority, “*may*” recognize as “generally accepted” any accounting principle established by a standard setting body that meets certain criteria if the Commission determines that that body has the capacity to “*assist*” it in fulfilling its responsibilities under the statutory provisions cited above. (*emphasis added*)

We agree that the FASB has the capacity to “assist” the Commission. However, as the word “assist” clearly denotes, Congress intended that the Commission make final determinations as to the financial accounting standards that govern financial statements. Similarly, the statutory statement that the Commission “*may*” recognize a principle established by a standard setting body such as the FASB clearly implies that the Commission must make a determination whether or not to do so on a case-by-case basis. The law does not permit the Commission to require compliance with an FASB standard, as it has done here, without determining that that standard improves the fairness and accuracy of financial reporting and the protection of investors under the securities laws. In short, FASB standards may not be enforced until the Commission reviews and approves or recognizes them.

The Commission's acts in approving substantive rules of general application are agency actions under the APA. Therefore, they are subject to the APA, including its provisions for notice and an opportunity for public comment. FAS 123R, if approved or recognized, constitutes a rule for purposes of the APA. It is the functional equivalent of a rule promulgated by the Commission. It is noteworthy that when the Commission acted in 2005 to postpone the dates by which companies must comply with FAS 123R, it did so by publishing a notification in the Federal Register of a “final rule” in which it recognized implicitly that the APA applied to its decision to postpone compliance dates. See Release Nos. 33-8568; 34-51558; IC-26833; FR-74; 70 Fed.

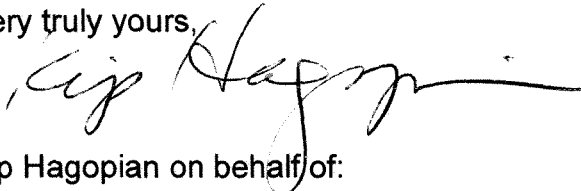
Reg. 20717 (April 21, 2005). It is anomalous, at the least, that the Commission would issue a "final rule" postponing the time to comply with FAS 123R but issue no rule approving it.

Recognizing the requirement to comply with the APA in the case of new FASB standards that the Commission intends to enforce does not mean acknowledging that every FASB standard must be subjected to the notice and comment procedures of the APA. The APA permits the Commission to find in individual cases for good cause that the notice and comment procedures are "unnecessary." See 5 U.S.C. § 553(b). This exception is often used by agencies for rules of relative insignificance. APA notice and comment procedures would be unnecessary for most new FASB standards. We believe, however, that these procedures, along with substantive Commission review, are necessary for important proposed new standards like FAS 123R.

IV. Conclusion

In summary, the promulgation of FAS 123R is one of the most consequential changes in accounting policy in history and we believe it may be doing significant damage to shareholder interests. Thus, the ESO expensing issue is a matter of extraordinary importance. The SEC is the final authority on accounting standards for public companies and it is the Commission, not the FASB, that must make the final determination whether to adopt FAS 123R as a binding accounting standard. SEC actions on accounting rules must comply with APA. For these reasons, we call upon the Commission to review FAS 123R utilizing the notice and comment procedures of the APA and then repeal it.

Very truly yours,



Kip Hagopian on behalf of:

Professor Joseph Blasi

Professor Blasi has specialized in the analysis of broad-based employee ownership, stock options and profit sharing in the U. S. economy for 30 years. He is co-author of several comprehensive studies on the impact of broad-based stock option plans on company productivity and entrepreneurship.

Professor Emeritus John Buckley, Ph.D., Accounting, CPA

Professor Emeritus at the UCLA Anderson School of Management, and formerly Chairman of the Department of Accounting. Currently founder and partner of Buckley & Associates, specializing in theoretical and applied accounting and economic analyses.

Dean Tom Campbell, Ph.D., Economics, J.D.

Bank of America Dean, Haas School of Business, University of California, Berkeley; former professor of law at Stanford University; former Congressman; and former Director of Finance, State of California.

Professor Jerome S. Engel, CPA

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Professor Bud Fennema, Ph.D., Accounting, CPA, CMA

Chairman, Department of Accounting, College of Business, Florida State University.

Professor Douglas L. Kruse, Ph.D., Economics

Professor Kruse has specialized in the economic analysis of broad-based employee ownership, stock options and profit sharing in the U. S. economy for 30 years. He is co-author of several comprehensive studies on the impact of broad-based stock option plans on company productivity and entrepreneurship.

Arthur B. Laffer, Ph.D., Economics

Chairman, Laffer Associates (economics research and consulting firm); former Distinguished University Professor at Pepperdine University; former Chief Economist, OMB.

Professor Clay La Force, Ph.D., Economics

Dean Emeritus, the UCLA Anderson School of Management; former Chairman, Department of Economics, UCLA.

Professor Edward Leamer, Ph.D., Economics

Professor of Global Economics and Management, UCLA Anderson School of Management; Director of the UCLA Anderson Economic Forecast.

Professor David Lewin, Ph.D., Management

Neil H. Jacoby Professor of Management, Human Resources and Organizational Behavior at the UCLA Anderson School of Management; expert on pay and rewards in organizations.

Jon C. Madonna, CPA

Chairman and CEO, KPMG (retired).

Professor Harry M. Markowitz, Ph.D., Economics

Nobel Laureate, Economics (1990).

Nicholas G. Moore, BS, JD, CPA

Global Chairman (retired) PricewaterhouseCoopers. Former CEO PricewaterhouseCoopers (US). Former Chairman, Coopers & Lybrand International and Chairman and CEO, Coopers & Lybrand LLP. Member, American Institute of CPAs. Trustee of the Financial Accounting Foundation, the entity that oversees the FASB.

Paul H. O'Neill

Former Secretary of the Treasury; former Chief Executive Officer of Alcoa Inc.

Richard Rahn, Ph.D., Business Economics

Director General, Center for Global Economic Growth; former VP and Chief Economist, U.S. Chamber of Commerce.

Martin A. Regalia, Ph.D., Economics

Vice President for Tax and Economic Policy and Chief Economist, U.S. Chamber of Commerce.

Alan Reynolds

Economist and Senior Fellow at the Cato Institute.

Clarence T. Schmitz, CPA

National Managing Partner, KPMG (retired); former member of the KPMG Board of Directors and Management Committee. Named by "Accounting Today" as one of the "Top 100 Most Influential People in Accounting".

Professor Emeritus George Shultz, Ph.D., Economics

Jack Steele Parker Professor of International Economics at the Graduate School of Business, Stanford University; former Secretary of the Treasury and former Secretary of State.

Professor Vernon L. Smith, Ph.D., Economics

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Peter J. Wallison

Resident Fellow at the American Enterprise Institute for Public Policy Research and Co-Director of AEI's program on Financial Market Deregulation.

Professor Steven C. Wheelwright, Ph.D., Business

President, Brigham Young University-Hawaii. Professor Emeritus, Harvard University. Former Chairman of HBS Publishing, publisher of the Harvard Business Review. Former Professor and Senior Associate Dean responsible for the MBA Program at the Harvard Business School.

Bruce Willison

Dean Emeritus and Professor of Management, UCLA Anderson School of Management.

Professor Charles Wolf, Jr., Ph.D., Economics

Senior Economic Advisor and Corporate Fellow in International Economics at RAND Corp; Professor of Public Policy in the Pardee RAND Graduate School; Founding Dean of the RAND Graduate School of Public Policy (1970 to 1997); Senior Research Fellow at the Hoover Institution.

Professor Ed Zschau, Ph.D., Business

Visiting Lecturer at Princeton University; former Professor of Management, Harvard Business School; former Assistant Professor of Business, Stanford Graduate School of Business. Professor Zschau was also a U.S. Congressman and a successful entrepreneur and CEO in the high-technology industry.

cc: The Honorable Christopher Cox, Chairman
The Honorable Paul S. Atkins, Commissioner
The Honorable Kathleen L. Casey, Commissioner
Mr. Peter M. Uhlmann, Chief of Staff to the Chairman
Mr. Conrad Hewitt, Chief Accountant
Ms. Zoe-Vonna Palmrose, Deputy Chief Accountant
Mr. Michael J. Halloran, Deputy Chief of Staff; Counselor to the Chairman
Mr. Brian Cartwright, General Counsel

EXECUTIVE SUMMARY

“Expensing Employee Stock Options is Improper Accounting”

(Published in the Summer 2006 edition of the *California Management Review*)

Assume you are a wealthy investor and I am a skillful hedge fund manager. You agree to give me \$100 million to invest, and to pay me 20% of the gains on the money I invest for you. We form a limited partnership and consummate our contract. The question is: On the day we consummate this contract, do you believe the partnership has incurred an expense? If your answer to that question is no, you are in agreement with Generally Accepted Accounting Principles (GAAP)—under GAAP, no expense would be charged for this transaction—and in disagreement with everyone that believes that employee stock options are an expense. Here’s why: When a corporation grants non-transferable employee stock options. It is effectively contracting on behalf of the shareholders—or more accurately, the shareholders are causing the corporation to enter into a contract—to pay the managers a fixed percent of the future stock appreciation (if any) of the enterprise. There is no conceptual or economic difference between this transaction and the formation of a hedge fund limited partnership as described above. But under FAS 123R the accounting treatment is entirely different. Does this make sense?

* * * * *

The fallacy in the pro-expensing case lies in two incorrect premises. Proponents of expensing contend that, 1) because an employee stock option (ESO) has value it must be a cost to the granting entity; and 2) an ESO is essentially the same as a transferable stock option, albeit of less value. We believe both of these premises are wrong.

First, the fact that an ESO has value to the recipient does not mean it has an accounting cost to the either the grantor or to the ultimate bearer of the cost (the shareholder). Consider the above analogy: When you entered into the contract with me to manage your money, I received something of significant value. Did the partnership we formed incur a cost? Did you incur a cost? Or consider this transaction: When a company engages a plaintiff’s law firm to litigate a case on a contingency basis, the law firm clearly receives something of value. But does the company incur an accounting cost when it enters into this contract? Under GAAP no expense is recorded in either of these transactions.

Second, an ESO’s lack of transferability makes it a completely different instrument than a transferable option. Like a profit sharing arrangement in a hedge fund partnership, an ESO is a gain-sharing instrument (GSI) that uses a non-transferable, at-

the-money option as a structural device to give it its gain-sharing nature. Assuming the ESO is granted at fair market value, it is the lack of transferability that converts the option into a GSI and renders invalid the case for expensing. To amplify: If the option were transferable it would be convertible into cash and would, therefore, be payment for services, either past or future. When structured as a gain-sharing instrument, there is no realizable payment to the recipient, and no cost to the other party to the transaction until the stock price rises (this assumes the option is vested). The rise in the stock price results in a gain to both the option recipient and the shareholders. The rise in the stock price does *not* affect the books of the granting entity, but it does reduce the shareholders' ownership value in an amount exactly equal to the ESO holder's profit. Hence, it is the shareholders that bear the cost. While it may be possible to estimate the expected value of this cost, it would be nonsensical to record this estimated cost on any entity's books unless the gain on which the cost is dependent were also recorded.

The answer to the question of whether ESOs are a cost to the granting entity or to the shareholders (this is *the* issue isn't it?) can be found in a determination of the accuracy of the following eight statements. We believe that, unless one or more of these statements can be proven wrong, the grant of an ESO *cannot* be an expense.

1) An ESO is a gain-sharing instrument. A GSI is defined as a contract in which one party agrees to share a fixed fraction of its gain with another party. Under the contract, the value of the second party's share will vary with and is dependent upon the amount of the first party's gain, if any.

2) A GSI cannot have an accounting cost unless and until there is a gain.

3) The cost (if any) of a GSI must be located where the gain is.

4) In the case of an ESO, the gain at issue is stock appreciation—that is what the employee is sharing. Stock appreciation accrues to the shareholders' accounts and does not affect the operating results of the granting entity. Therefore, the cost, if any, is borne by the shareholders.

5) The shareholder cost of an ESO is fully accounted for by applying the "treasury stock method" of accounting for options (described in FAS 128). The treasury stock method measures dilution of shareholder ownership, which is a cost to the shareholders. This cost is exactly equal to the profit reaped by the option holder, making the transaction symmetrical and indicating that charging an expense to the granting entity would improper.

6) The grant of an ESO does not meet the standard definition of an expense in the accounting concept statements. To wit: The grant of an ESO does not result in a decrease in an asset account or an increase in a liability account. Therefore, the only way the grant can be an expense is if the entity incurs an opportunity cost as a result of the grant.

7) The grant of an ESO does not result in an opportunity cost. This is true for all GSIs. For example: A company does not incur an opportunity cost when it enters into a *non-transferable* contract with a salesperson to pay that person a percentage of the revenue from his or her sales. Nor does it incur such a cost when it enters into a non-transferable contract with a law firm on a contingency basis to litigate a lawsuit. Note that in both these cases, the salesperson and the law firm have received something of significant value even though the company has not incurred an immediate cost.

8) Inasmuch as the realizable value of a GSI is dependent upon the existence of a gain, it would be nonsensical to record the cost of a GSI unless the gain on which the cost is dependent is also recorded. But if this were done, it would result in the recording of a net profit prior to the actual occurrence of such a profit. (Note: If the instrument were transferable, it would not be a GSI because the recipient would be able to realize a gain from selling the option at the discounted present value of the projected gain.)

Based on the above eight statements, which it is believed are fundamental truths, it should be clear that an ESO is not an expense of a granting entity. As stated above, the case for expensing must rely on the successful refutation of one or more of the above statements.

California Management Review



Point of View:
Expensing Employee Stock Options
Is Improper Accounting?

Kip Hagopian

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the University of California

University of California
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Point of View:

EXPENSING EMPLOYEE STOCK OPTIONS IS IMPROPER ACCOUNTING

Kip Hagopian

Signatories

We, the undersigned, after carefully considering the characteristics of Employee Stock Options and the accounting principles that apply to transactions involving such instruments, have concluded that expensing Employee Stock Options is improper accounting. This position paper describes the facts and reasoning that support this conclusion.

Professor Joseph Blasi—Rutgers Professor of Human Resource Management; co-author of a comprehensive study on the impact of broad-based stock option plans on company productivity.

Professor Emeritus John Buckley, Ph.D., Accounting, CPA—Professor Emeritus at the UCLA Anderson School of Management, and formerly Chairman of the Department of Accounting. Currently founder and partner of Buckley & Associates, specializing in theoretical and applied accounting and economic analyses.

Dean Tom Campbell, Ph.D., Economics, J.D.—Bank of America Dean, Haas School of Business, University of California, Berkeley; former professor of law at

Kip Hagopian was a founding partner of Brentwood Associates, a prominent high-technology venture capital and private equity firm. Since its founding, Brentwood has evolved into three successor companies: Brentwood Associates Private Equity, Redpoint Ventures (which invests in early stage information technology ventures), and Versant Ventures (which invests in early stage health care companies). Collectively, these companies manage over \$3 billion. During his 25-year career as an active venture capitalist, Mr. Hagopian served in several leadership positions in the venture capital industry, including terms as Board member, President and Chairman of the Board of Directors of the National Venture Capital Association. Mr. Hagopian has also served on a presidential commission (on industrial competitiveness), testified before Congress and Executive Branch hearings on securities law and capital formation issues, lectured at the UCLA business and law schools and has written and been published on tax policy. He holds a BA and MBA from the University of California at Los Angeles. <kiphagopian@appleaks.com>

Stanford University; former Congressman; and former Director of Finance, State of California.

Professor Jerome S. Engel, CPA—Adjunct Professor, Haas School of Business, Executive Director, Lester Center for Entrepreneurship and Innovation, University of California at Berkeley; former Partner, Ernst & Young.

Professor Bud Fennema, Ph.D., Accounting, CPA, CMA—Chairman, Department of Accounting, College of Business, Florida State University.

Professor Milton Friedman, Ph.D., Economics—Senior Research Fellow at the Hoover Institution. Former Professor of Economics, University of Chicago. Winner of the Nobel Prize in Economics (1976).

James K. Glassman—Resident Fellow at the American Enterprise Institute where he specializes in issues involving economics and financial markets.

Kevin Hassett, Ph.D., Economics—Director of Economic Policy Research, American Enterprise Institute.

Lawrence A. Hunter, Ph.D., Economics—Senior Fellow, Institute for Policy Innovation; former Vice President and Chief Economist, U.S. Chamber of Commerce; former Chief Economist, Empower America.

Professor Douglas L. Kruse, Ph.D., Economics—Professor, School of Management and Labor Relations, Rutgers University. Professor Kruse has specialized in the economic analysis of broad-based employee ownership, stock options, and profit sharing in the U. S. economy for 30 years.

Arthur B. Laffer, Ph.D., Economics—Chairman, Laffer Associates (economics research and consulting firm); former Distinguished University Professor at Pepperdine University; former Chief Economist, OMB.

Professor Clay La Force, Ph.D., Economics—Dean Emeritus, the UCLA Anderson School of Management; former Chairman, Department of Economics, UCLA.

Professor Edward Leamer, Ph.D., Economics—Professor of Global Economics and Management, UCLA Anderson School of Management; Director of the UCLA Anderson Economic Forecast.

Professor David Lewin, Ph.D., Management—Neil H. Jacoby Professor of Management, Human Resources and Organizational Behavior and Senior Associate Dean for the MBA Program at the UCLA Anderson School of Management; expert on pay and rewards in organizations.

Lawrence B. Lindsey, Ph.D., Economics—President and CEO of The Lindsey Group; former Assistant to the President (George W. Bush) and Director of the National Economic Council; former Governor of the Federal Reserve System; former Special Assistant to the President (George H.W. Bush) for Domestic Economic Policy; former member of the Economics faculty, Harvard University.

Jon C. Madonna, CPA—Chairman and CEO, KPMG (retired).

Professor Harry M. Markowitz, Ph.D., Economics—Nobel Laureate, Economics (1990).

Nicholas G. Moore, BS, JD, CPA—Global Chairman (retired) PricewaterhouseCoopers. Former CEO PricewaterhouseCoopers (US). Former Chairman, Coopers & Lybrand International and Chairman and CEO, Coopers & Lybrand LLP. Member, American Institute of CPAs. Trustee of the Financial Accounting Foundation, the entity that oversees the FASB.

Paul H. O'Neill—Former Secretary of the Treasury; former Chief Executive Officer of Alcoa Inc.

Richard Rahn, Ph.D., Business Economics—Director General, Center for Global Growth; former VP and Chief Economist, U.S. Chamber of Commerce.

Martin A. Regalia, Ph.D., Economics—Vice President for Tax and Economic Policy and Chief Economist, U.S. Chamber of Commerce.

Alan Reynolds—Economist and Senior Fellow at the Cato Institute.

Clarence T. Schmitz, CPA—National Managing Partner, KPMG (retired); former member of the KPMG Board of Directors and Management Committee. Recently named by “Accounting Today” as one of the “Top 100 Most Influential People in Accounting.”

Professor Emeritus George Shultz, Ph.D., Economics—Jack Steele Parker Professor of International Economics at the Graduate School of Business, Stanford University; former Secretary of the Treasury and former Secretary of State.

Professor Vernon L. Smith, Ph.D., Economics—Professor of Economics and Law, George Mason University; winner of the Nobel Prize in economics (2002).

Peter J. Wallison—Resident Fellow at the American Enterprise Institute for Public Policy Research and Co-Director of AEI’s program on Financial Market Deregulation.

Bruce Willison—Dean Emeritus and Professor of Management, UCLA Anderson School of Management.

Professor Charles Wolf, Jr., Ph.D., Economics—Senior Economic Advisor and Corporate Fellow in International Economics at RAND Corp; Professor of Public Policy in the Pardee RAND Graduate School; Founding Dean of the RAND Graduate School of Public Policy (1970 to 1997); and Senior Research Fellow at the Hoover Institution.

Professor Ed Zschau, Ph.D., Business—Currently a Visiting Lecturer at Princeton University; formerly Assistant Professor of Business at the Stanford Graduate School of Business and Professor of Management at the Harvard Business School. Professor Zschau was also a U.S. Congressman and a highly successful entrepreneur and CEO in the high-technology industry.

In December 2004, the Financial Accounting Standards Board (FASB) approved a new standard for the accounting for employee stock options (ESOs). This rule, entitled Statement of Financial Accounting Standards 123R “Share-Based Payment” (FAS 123R), requires that ESOs be valued at the date of grant and expensed over the vesting period of the options. In March 2005, the SEC issued Staff Accounting Bulletin 107 (SAB 107), its interpretive guidance on FAS 123R, thereby making it, de facto, an SEC rule.

The signatories to this position paper, having considered this issue carefully, believe that the expensing of ESOs is improper accounting that will result in the serious impairment of the financial statements of companies that are users of broad-based option plans. Consequently, we are strongly opposed to this rule.

The case against expensing ESOs is extremely compelling. There are three basic reasons why ESOs should not be expensed: First, an ESO is a type of “gain-sharing instrument” which, by its nature, means it cannot be an expense of the granting entity; second, the cost of an ESO (if any) is already properly and fully accounted for; and third, neither the grant nor the vesting of an ESO meets the standard accounting definition of an expense.

An ESO Is a Gain-Sharing Instrument

The case for expensing is intuitively appealing. Employee stock options (“ESOs”) do have economic value to the employees that receive them. It is understandable, therefore, to expect there to be an economic cost somewhere on the other side of the transaction, since almost all transactions have approximate if not perfect accounting symmetry. Like all “pay-for-performance” compensation instruments, an ESO has economic value to the recipient based on its potential for future profit. This value is not realizable but it is meaningful, otherwise the employee wouldn’t want it. Likewise, an ESO has a corresponding economic cost to the *shareholders* of the granting entity based on its *potential* for dilution to shareholder ownership. If such dilution occurs, the cost to the shareholders will become real. However are ESOs *also* an expense to the granting entity? We believe the answer is clearly no.

An ESO, by design and by its terms, is a gain-sharing instrument in which shareholders share their gains (stock appreciation) with the ESO holders. There are two terms contained in a standard ESO contract, which combine to make it a gain-sharing instrument:

- *Setting the exercise price at fair market value*—This practice limits the ESO holder’s profit to a share of the shareholders’ prospective gains.
- *Non-transferability*—This term eliminates the cash value of the call premium that is always extant in a transferable option (see below for a description of the difference between a transferable option and an ESO). Consequently, the holder cannot take a profit on the ESO (or its underlying option) unless and until the shareholders have a gain. Non-transferability also ensures that the ESO’s benefits will be limited to the particular

person to whom it was originally granted. This limitation is an essential element of a gain-sharing instrument.

The fact that an ESO is a gain-sharing instrument invalidates the case for expensing. Here's why:

- As in all gain-sharing instruments, an ESO cannot have an accounting cost unless and until there is a gain. Accordingly, an ESO that is granted at the money has no accounting cost on its grant date.
- The cost of a gain-sharing instrument must be located where its associated gain is. Since the gain to be shared by the ESO holder is stock appreciation, the cost must be a share of that appreciation. To separate the cost from the gain—as FAS 123R requires—is an economic and accounting non sequitur. It should be clear, therefore, that the cost of an ESO is borne by the shareholders (stock appreciation has no effect on the books of the enterprise).

Discussion

There are many types of gain-sharing arrangements, all of which have economic value to the recipient and none of which are accorded the accounting treatment mandated by FAS 123R. Two of the most common gain-sharing instruments used by companies are profit-sharing plans and sales commission agreements. Neither of them is treated as an expense unless and until there is either profit or revenue to be shared.

One of the most illustrative examples of a gain-sharing arrangement is a contingency lawsuit. If a company engages a plaintiff's law firm to litigate a case for a 30% contingency fee, it should be clear that, although the law firm has received something of value, the company has not incurred any accounting cost when it enters into this arrangement. However, the logic of FAS 123R would require the company to calculate the discounted present value (DPV) of the fee (30% of the expected value of the monetary award) and expense it over the period the suit is being tried. This would be done without consideration given to the value of the award on which the fee is dependent. If such consideration were given, the company would book a *net profit* at the time it entered into its agreement with the law firm. This, of course, would be nonsensical from an accounting perspective and no such accounting treatment is permitted under Generally Acceptable Accounting Principles (GAAP).

In all of the above-described gain-sharing arrangements, it is the *enterprise* that reaps the gain and, accordingly, it is the enterprise that incurs the ultimate cost, if any. In the case of an ESO, however, *it is the shareholders that reap the gain*. Logically, therefore, *it is the shareholders that must bear the cost*.

This gain-sharing arrangement between employees and owners is not unique to ESOs. A classic form of a gain-sharing arrangement is embodied in almost all hedge fund and venture capital partnerships. Hedge fund and venture capital managers typically receive 20% of the profits derived from investing their limited partners' capital.¹ When these partnerships are formed, the gain-sharing

arrangement is consummated. It should be instructive that there is no provision in GAAP to charge an expense to either the enterprise (the partnership entity) or the individual investors (the limited partners) when these gain-sharing arrangements are entered into. The same accounting treatment *should* apply to ESOs, but under FAS 123R it does not.

Summary of the Gain-Sharing Argument

We believe that the case against expensing ESOs is very difficult to refute. It can be summed up in six simple statements:

- An ESO is a gain-sharing instrument in which shareholders agree to share their gains, if any, with employees.
- A gain-sharing instrument, by its nature, has *no accounting cost unless and until there is a gain to be shared*.
- The cost of a gain-sharing instrument *must be located on the books of the party that reaps the gain*.
- In the case of an ESO, the gain (stock appreciation) is reaped by shareholders and not by the enterprise; *the cost of the ESO, therefore, is borne by the shareholders*.
- This cost to shareholders (which, not coincidentally, exactly equals the employee's post-tax profit) is *already properly accounted for* under the treasury stock method of accounting (as provided in FAS 128, entitled, "Earnings per Share") as a transfer of value from shareholders to employee option holders (see below).
- Neither the granting nor the vesting of an ESO meets the standard accounting definition of an expense (see below).

These six statements lead to the logical conclusion that an ESO, while it does have an economic cost to shareholders, is not an expense of the entity that grants it.

The Economic Cost of an ESO is Fully Accounted For

There is an unfortunate misconception held by the press and the general business public, that large profits may be reaped from ESOs without the imposition of any accounting or economic consequences on the other side of the transaction. This conception is erroneous. As in virtually all other transactions, *if* gains are realized from an ESO, an equal amount of cost will be incurred on the other side of the transaction. This cost, if incurred, is and always has been properly and fully accounted for.

The grant of an ESO is an arrangement in which gains in ownership value may be shared between an entity's preexisting shareholders and its employees. When an employee exercises an ESO, he or she acquires ownership in the granting entity while simultaneously realizing a profit equal to the intrinsic value of the option. (Intrinsic value is the "spread" between the exercise price and the market price; hereafter intrinsic value and spread will be used interchangeably.) When this occurs, the preexisting shareholders' ownership is *diluted*, thereby

reducing its value. Thus, the shareholders effectively *transfer value*² from their balance sheets to the employees' balance sheets. This transaction is symmetrical; that is, the after-tax gain to the employee is exactly the same as the after-tax reduction in the value of the shareholders' ownership.³

The objective of an ESO plan, like any other incentive compensation program, is to increase employee productivity, and in so doing, raise the market value of the enterprise to a level in excess of the value that might be attained if the plan did not exist, even after taking into account the plan's dilutive effects. If this objective is achieved, the use of an ESO plan will result in a *net economic gain* to shareholders, and not a cost. Nonetheless, for the purposes of this paper, shareholder value transfer is treated as a cost because it reduces the preexisting shareholders' *nominal* gain.

At any point in the life of the ESO, and prior to its exercise, both the profit in the option and its corresponding cost can be determined on a pro forma basis. Calculating the profit side of the transaction is straightforward; it is simply the gain in the option less the assumed tax. Determining the cost side is somewhat more complex but can be readily achieved using a standard accounting convention known as the "treasury stock method" (TSM). The TSM, which is described in FAS 128 (entitled "Earnings per Share"), measures dilution (which translates into cost) on a pro forma basis.⁴

The treasury stock method measures net dilution to shareholder ownership by assuming that all outstanding options that are "in the money" (i.e., the stock price is higher than the exercise price) on any particular reporting date are exercised and the cash proceeds from exercise, together with the entity's tax savings (resulting from the deductibility of the spread), are used to minimize dilution by purchasing shares of the entity's stock in the open market. This pro forma calculation takes into account the fact that an ESO, when exercised, generates cash, which can be used to benefit the issuing entity and its shareholders. The assumption that the cash is used to buy back stock is a default position. If the company has a use for the cash that would produce a higher return, it can invest the cash accordingly. Using the treasury stock method, the precise dollar amount of the shareholder value transfer resulting from dilution may be calculated at any time.⁵

To illustrate, assume a company with 10 million shares outstanding, grants one million at-the-money ESOs at \$10 per share. Assume also that over the next five years the stock fully vests as it rises to \$25 per share. At this point, the ESO holders have a pre-tax gain of \$15 million and an after-tax gain (assuming a combined state and federal tax rate of 40%) of \$9 million. The shareholders' value transfer is determined as follows. It is assumed that all one million ESOs are exercised and the cash proceeds from exercise (\$10 million) are used to buy in the company's stock at \$25 per share. It is also assumed that the \$15 million spread in the ESOs is deducted from the company's pre-tax income, resulting in tax savings of \$6 million. This cash would also be used to buy shares of the company's stock. The \$16 million total would buy 640,000 shares, resulting in *net* dilution of 360,000 shares. Accordingly, total "diluted shares" would

be 10.36 million. The market value of the entity would be \$259 million (\$25 times 10.36 million shares). The preexisting shareholders' percentage ownership after dilution would be 96.53% (10 million preexisting shares divided by 10.36 million diluted shares) resulting in dilution of 3.47%. Thus, the residual value of the preexisting shareholders' ownership would be \$250 million, and the amount of value that is effectively transferred to employees would be exactly \$9 million. Rises in the company's stock price will increase the value transfer amount while declines will decrease it. (See Appendix 1, Figure 1, which illustrates the computation of value transfer under varying market price assumptions.) *Note that in the above example (which assumes the same tax rates for both the employee and the corporation), the transaction is precisely symmetrical—that is, the profit to the employee is the same as the cost to the shareholders.*

Exercise-Date Accounting

Inasmuch as the shareholders' market value is reduced by the full amount of the spread (post-tax), the TSM is effectively *mark-to-market*, "*exercise-date*" accounting⁶ applied to the shareholders' accounts. Because exercise-date accounting requires no estimating or use of complex models, it is the most simple, accurate, and reliable means of accounting for options.

Proposals to Enhance the Usefulness of Financial Statements

Except as qualified by Note 4, the treasury stock method is quite accurate at determining both the net dilution to shareholders' ownership and the dollar amount of the value transfer from shareholders to employees as a result of outstanding ESOs. It does this by taking a "snap shot" of dilution at a particular moment in time, normally at the end of a reporting period. This allows the users of financial statements to see exactly what the shareholders would receive if, on the day of the measurement, the company were liquidated and all assets were distributed.

In addition to the presentation of this calculation of current dilution, we believe the users of financial statements would gain significant benefit from seeing a clear presentation of a company's historical levels of dilution and shareholder value transfer, as well as the dilution and value transfers that might obtain in the future at higher and lower stock prices. Appendix 1 contains proposals that would accomplish this end.

Expensing ESOs Conflicts with Established Accounting Principles

The FASB's rationale for expensing is that an ESO, like a transferable option, has tangible value that, once vested, is payment for employee services and should be expensed. In our opinion, this rationale is without merit. Here are the reasons.

An ESO Grant Doesn't Meet the Standard Accounting Definition of an Expense

Under any reasonable interpretation of paragraph 80 in the Statement of Financial Concepts No. 6 (Con 6), the grant of an ESO does not meet the standard definition of an expense. According to Con 6, "Expenses are outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations." In short, a transaction, as described, is recorded as an expense if it results in a *decrement* to an asset account or an increase in a liability account. In each of the stated criteria—an outflow (of *cash* or an asset that is convertible into *cash*), the using up of an asset (that was acquired for *cash* or an asset convertible into *cash*) and the incurrence of a liability (which is an obligation to lay out *cash* or an asset convertible into *cash* at a future date)—the past, current or future consumption of cash is required to establish the existence of an expense. Neither the act of granting an at-the-money ESO, nor its vesting, meets that standard.⁷

In arguing that the grant of an ESO *does* meet the definition of an expense, the FASB asserts that the grant of an ESO is made in return for employee services and that these services are an asset that is "used up" simultaneously with its creation. Putting aside the FASB's premise that ESOs are granted for services (which we believe is wrong),⁸ this argument is difficult to comprehend, since it skips a step, namely, the transaction in which the "asset" to be used up was actually acquired. Since the FASB has expressly stated that an ESO is neither an asset (and cannot, therefore, be an outlay) nor a liability, how, in the acquisition of the asset (services), can the grant of an ESO be considered an expense?

Not an Opportunity Cost Either

Since the granting of an ESO does not meet the FASB's literal definition of an expense, the only possible justification for a charge to the entity is if the entity can be deemed to have incurred an opportunity cost at the time the ESO is granted. The FASB makes only passing reference to this argument, saying that when an entity grants an ESO to an employee it foregoes the cash that it could have received if it had sold "similar options to third parties." With due respect to the FASB, we believe the opportunity-cost argument is also without merit.

To be sure, the issuance of common stock or transferable stock options (TSOs) to employees for no consideration *would* be an opportunity cost because both of these securities could be sold in private or public transactions for cash or for some asset convertible into cash. In that event, the entity would have forgone the cash it could have received if it had sold the TSO for market value. In FAS 123R, the FASB is effectively saying this is also true for the issuance of an ESO. In taking this position, the FASB is asserting that a transferable stock option and an employee stock option are essentially the same instrument and (provided the ESO has vested) have substantially the same value. We believe the

FASB's assertion is incorrect. As is explained below, an ESO is fundamentally different from a TSO in both an accounting and an economic sense.

Transferable Stock Options

A typical TSO has a cash value (termed a call premium) that is established by the marketplace at the time of its issuance. Financial economic theory holds that this call premium is implicitly a calculation of the discounted present value of the expected gain in the option at the end of its expected term. At any time during the term of the option, a TSO may be sold for the amount of the call premium plus the spread. A TSO will always have a *realizable* call premium greater than zero, whether there is a spread in the option or not.

Employee Stock Options

In addition to its vesting provisions and certain other differentiating characteristics, an ESO is different from a TSO in two fundamental ways: First, ESOs may only be granted to employees;⁹ and second, ESOs are not transferable. The combined effect of these two features is that only an employee of the issuer can ever realize a profit in an ESO. The non-transferability feature means that the only way the holder of an ESO (that is granted at the money) can realize a profit is through the exercise of the option and the sale of the underlying stock. By its terms, therefore, *only the spread in an ESO can be realized (not the call premium), and only the original recipient of the ESO can realize that spread.*

The critical importance of the concept of "*realizability*" to the recognition of "revenues and gains" is stated in paragraph 83 of "Statement of Financial Concepts No. 5," entitled "Recognition and Measurement in Financial Statements of Business Enterprises": "recognition [of revenue and gains] involves consideration of two factors, (a) being realized or realizable and (b) being earned, with sometimes one and sometimes the other being the more important consideration." This statement is elaborated upon in paragraph 83a: "Revenues and gains are realized when...assets are exchanged for cash or claims to cash. Revenues and gains are realizable when related assets received or held *are readily convertible to known amounts of cash or claims to cash* [emphasis added]." This pronouncement makes it clear that the receipt of an instrument, whose value is *not* realizable (and which has not been earned), would not be recognized under GAAP as a gain to the recipient. By only modest extension of this logic, the *grant* of such an instrument should not result in a loss or an expense to the grantor. The lack of a cash-realizable call premium is a distinction that transforms the instrument from being an immediate accounting expense to the granting entity, to a *contingent* economic cost to the shareholders.¹⁰

As stated above, an ESO may only be issued to employees (or company directors and consultants). In fact, each ESO is designated for a specific individual, so for each grant there is a market of only one person. Thus, issuing "similar options to third parties" would be contrary to the ESO's purpose and is proscribed. Moreover, if a company were to offer options on the open market with the same terms as ESOs, it is inconceivable that there would be any "will-

ing buyers” for such securities. ESOs have two provisions that make this so. First, as stated above, only the spread in an ESO can be realized. This means that if a buyer paid a cash premium for an at-the-money option, the cash realizability of the call premium would *disappear* at the time of purchase. Second, prior to vesting, ESOs are cancelable at the will of the issuer (by terminating the employee). Would anyone other than an employee buy an option that loses its cash value the moment it is purchased, cannot be sold, and can be canceled at any time? The answer is clearly no.

What this illustrates is that the only person to whom an ESO has value is an employee of the entity that grants it. This is because the entity and its shareholders *want* the employee to succeed and do not, therefore, have an incentive to cancel the option. So, does the company incur an opportunity cost by forgoing the cash it might receive by charging its employees for the ESOs it grants? No. An ESO is a type of incentive compensation device designed to increase market value to a level that otherwise might not be attained. Requiring an employee to pay for the right to participate in such a gain-sharing arrangement is nonsensical, inasmuch as it would erode and ultimately nullify the incentive value of the device. This would defeat its purpose and would, therefore, be contrary to the issuer’s economic best interests. A company cannot incur an opportunity cost for *not* doing something that is contrary to its best interests.

To put this into perspective, consider whether a company incurs an opportunity cost if it does not charge its employees in advance for their right to share in profits or earn a bonus, a stock appreciation right, payout, or a sales commission. Similarly, does a hedge fund partnership or its investors incur an opportunity cost for not charging the fund’s managers for their rights to a share of the profits? Apparently, the FASB does not think so, because in none of these cases is such a charge mandated under GAAP.

In summary, if a transaction does not result in a decrement to an asset account or an increase in a liability account, and it is not an opportunity cost, it cannot be an expense.

Conclusion

Mandating the expensing of employee stock options is one of the most radical changes in accounting rules in history. It should not have been done without absolute certainty that it would improve the usefulness of financial statements. In 1993, in letters to the FASB regarding this issue, all of the then existing “Big Six” accounting firms vigorously opposed the expensing of stock options (see Appendix 2).¹¹ Commenting on the issue back then, the Chairman of Coopers & Lybrand, had this to say: “It has been a general tenet of accounting that standards should be altered only when there is clear evidence that a proposed change would improve financial reporting. There is no convincing proof that any financial statement user would benefit from the changes being discussed regarding accounting for stock options.” We believe this assessment was correct then and is correct now. But we would go further: The changes

mandated in FAS 123R are serving to impair the usefulness of financial statements, not improve them.

We believe that proponents of expensing are slavishly adhering to an incorrect thesis, namely that because the grant of an ESO confers potential benefits upon the holder, it must result in a current expense to the granting entity. As we have shown, this is simply not the case. An ESO is a unique instrument that provides for the sharing of shareholders' gains with the employees of the entity owned by those shareholders. The effects, if any, of this sharing arrangement occur outside the confines of the entity's financial statements, resulting in a profit to one party (the employees) and a cost of the same magnitude to the other (the shareholders). All of the details of this arrangement are approved either directly or indirectly by the shareholders and are fully disclosed to all users of financial statements.

In summary, an ESO is a gain-sharing instrument in which shareholders' gains are shared with employees. The cost (if any) of the ESO, therefore, is borne by the shareholders and not the entity that grants it. This cost is already fully accounted for as (in effect) a value transfer from shareholders to employees. The expensing of ESOs on the financial statements of the granting entity does not meet the standard accounting definition of an expense and it is not an opportunity cost. Charging an expense to the granting entity, as FAS 123R requires, results in a misstatement of the economic cost of ESOs and a material impairment of the usefulness of the financial statements of users of broad-based employee stock option plans.

APPENDIX I

Proposals to Better Inform Investors about Dilution

Here are two proposals that we believe would significantly enhance the usefulness of financial statements to investors.

Disclosure of Current and Historical Dilution and Value Transfer

We believe that the amounts of dilution (in percentage terms) and value transfer (in dollars) should be disclosed clearly to shareholders in every corporate financial statement, not only for the most recent period, but for prior periods as well. The table in Figure 1 to this Appendix could be used as the basis for a disclosure statement that would achieve this end. If such a statement were included in financial statements, shareholders and other users of these statements could see clearly the real economic cost of the company's ESO program and how it has fluctuated over time.

Estimating the Potential for Future Dilution

While disclosure of total current dilution and value transfer is essential, and presentation of the historical fluctuations in these metrics would be quite useful, we believe that investors, particularly less sophisticated investors, should

FIGURE I

Year	2000	2001	2002	2003	2004	2005
(1) Average Stock Price in the Period	\$10.00	\$11.98	\$14.38	\$17.27	\$20.80	\$25.00
(2) Fully Diluted Shares Outstanding (000's)	10,000	10,100	10,183	10,253	10,310	10,360
(3) Market Value at Year End (000's) ((1) × (2))	\$100,000	\$121,000	\$146,400	\$177,100	\$214,400	\$259,000
(4) Basic Earnings per Share	\$0.40	\$0.48	\$0.58	\$0.69	\$0.84	\$1.00
(5) Shareholder Dilution	–0–	.99%	1.8%	2.47%	3.0%	3.47%
(6) Diluted Earnings per Share	\$0.40	\$0.476	\$0.57	\$0.673	\$0.815	\$0.965
(7) Increase in Market Value during Period (000's)	–0–	\$21,000	\$25,400	\$30,700	\$37,300	\$44,600
(8) Value Transferred from Shareholders to Employees during Period (000's)	–0–	\$1,200	\$1,435	\$1,740	\$2,055	\$2,570
(9) Net Increase in Shareholder Market Value in Period (000's) ((7) – (8))	–0–	\$19,800	\$23,965	\$28,960	\$35,245	\$42,030
(10) Cumulative Value Transferred to Employees (000's)	–0–	\$1,200	\$2,635	\$4,375	\$6,430	\$9,000
(11) Cumulative Gain to Preexisting Shareholders (000's)	–0–	\$19,800	\$43,765	\$72,725	\$107,970	\$150,000
(12) Preexisting Shareholder Market Value (000's) ((3) – (10))	\$100,000	\$119,800	\$143,765	\$172,725	\$207,970	\$250,000

Shares outstanding = 10,000,000; ESOs outstanding = 1,000,000 shares; exercise price = \$10 per share.

also be made aware of the potential for fluctuations in future dilution, either up or down. Currently, all financial statements contain footnotes that provide extensive information on employee stock options, including numbers of shares reserved for grant, total shares granted and total shares canceled. The data are broken down by exercise price and further categorized according to whether the shares are vested or unvested. This information can be helpful to investors in determining how dilution might change in the future but it could be substantially enhanced. Providing enhanced information can be particularly useful in cases where there are substantial numbers of ESOs outstanding that are either at or out of the money (and, therefore, do not show as current dilution). In addition to the footnote information that is already contained in financial statements, we propose that a table be included in all financial statements that would present potential dilution scenarios for a range of stock prices, both higher (which would result in greater dilution and value transfers) and lower

(which could result in lower dilution and value transfers). Of course, this table would also have to take into account estimates of future ESO cancellations based on prior company experience.

We propose that these two tables be prominently placed in all financial statements, perhaps appearing immediately after the income statement.

APPENDIX 2

Why Expensing Employee Stock Options Would Be Improper Accounting According to the Major Accounting Firms

In 1993 all of the six major accounting firms were vigorously opposed to expensing employee stock options. They made their respective positions quite clear in letters of comment to the FASB on its Exposure Draft of FAS 123 (“Accounting for Stock Based Compensation”). Each firm based its opposition on two issues: First, they argued quite persuasively that expensing ESOs was simply bad accounting; and second, they argued that the fair value of ESOs could not be measured reliably and accurately.

The following are excerpts from the comment letters of the five major firms that are still extant (Arthur Andersen’s comments are not included) either independently or as part of a merger. These comments are organized into two categories: accounting merits and value measurement. All of the very same accounting firms that opposed expensing in 1993 went on the record in 2004 as supporting the FASB’s new standard on expensing. This raises the obvious question: What has changed? Clearly, there has been no change in the basic concepts or theories of accounting in this 11-year period.

On the Issue of the Accounting Merits

“The proposed changes in current accounting rules for stock options should not be adopted because they will not result in sufficiently reliable information; would not be a meaningful improvement over present practices; and, as you might expect, can severely impact the earnings and net worth of certain (especially high growth) companies.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, December 14, 1993*

“In our November 5, 1993, letter, we once again expressed our concerns about the direction of this project and strongly recommended that the Board adopt a disclosure-based approach that retains current accounting standards. Everything we have learned since has only strengthened our conviction that the Board should not go forward with the current proposal.”—*J. Michael Cook, Chairman and, Chief Executive Officer, Deloitte & Touche, January 12, 1994*

“We have studied the Exposure Draft, analyzed the proposed accounting, and weighed its perceived benefits against the costs of compliance. Based on these procedures, we strongly oppose the proposal and believe that it would not

enhance the overall usefulness or reliability of financial statements.”—*Ernst & Young, December 6, 1993*

“Many in the business community have expressed a concern about the potential adverse economic effects on the competitiveness of U.S. business that could result from adoption of the ED. While that concern should not be a principal factor driving the accounting standard, it is entirely legitimate to expect that those who would change present practice, possible adverse economic consequences notwithstanding, would do so only with great conviction that the new standard is the right one. If there is any doubt, the Board should not proceed.”—*Price Waterhouse, December 17, 1993*

“There is no disagreement that stock options provide the employee with a benefit that is valuable. However, there is considerable disagreement as to whether any cost that might be associated with that benefit should be recorded in financial statements and, if so, whether there is any reliable means of measurement. APB Opinion No. 25 concluded that for fixed stock options, such cost is simply the options’ intrinsic value at the grant date. We are not persuaded that a better and more reliable measure of the employer’s cost is available at this time.”
—*Coopers & Lybrand, December 29, 1993*

“We do not believe accounting for stock-based compensation arrangements represents a major financial statement reporting concern. We do acknowledge that disclosure of such arrangements is an important component of a company’s corporate governance and stewardship responsibilities. We believe that the executive compensation disclosures currently required by the SEC in proxy statements fundamentally satisfy those responsibilities.”—*KPMG Peat Marwick, December 28, 1993*

“*The Present Accounting Model Should Not be Changed.* We remain unconvinced that the proposal is an improvement over present practice.”—*Ernst & Young, December 6, 1993*

“We have given careful consideration to the many issues bearing on this project and have reached a conclusion that the road traveled by the Board has not borne fruit and is not likely to do so in the near term. We, therefore, urge the Board to withdraw the Exposure Draft.”—*Price Waterhouse, December 17, 1993*

“The interests of all parties would be well served if the FASB does not change its current standards regarding employee stock options. The FASB should shift its focus to issues where the need for improved standards is greater and the opportunities for developing those standards are more clear-cut.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, February 5, 1993*

“For reasons outlined above, we strongly urge the Board not to proceed with the proposal, and instead withdraw it in favor of a new project to develop improved disclosures of stock-based compensation plans.” —*Ernst & Young, December 6, 1993*

“The intrinsic measurement method that is used in APB Opinion No. 25 (APB No. 25) should be retained.”—*KPMG Peat Marwick, December 28, 1993*

“We trust it is clear that we oppose fundamental change in this area at this time, for the reasons previously stated.”—*Price Waterhouse, December 17, 1993*

“The issue of executive compensation has become something of a political football in recent months, and I am troubled that the FASB may be letting political rather than accounting considerations set its agenda. The little concern about employee stock options that has been expressed by users of financial statements has largely been assuaged by recent SEC actions. The SEC’s new proxy rules require very full disclosure of executive compensation, enabling interested parties to make their own determinations regarding the costs and values of any stock options that have been granted. Options are “common share equivalents”, when they become likely to be exercised (because of the rise in stock price) and thus reduce earnings per share. In this way, they become reflected in a business’ cost of capital. The FASB proposal would reflect, in effect, a double dip or double cost of capital.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, February 5, 1993*

“Thus, notwithstanding the Board’s considerable efforts to develop a workable approach, we are convinced that in comparing the costs of compliance with the results attained, the proposed accounting provides a less satisfactory answer than current practice. Accordingly, we urge the Board not to proceed with a final standard.”—*Ernst & Young, December 6, 1993*

“It has been a general tenet of accounting that standards should be altered only when there is clear evidence that a proposed change would improve financial reporting. There is no convincing proof that any financial statement user would benefit from the changes being discussed regarding accounting for stock options. Current standards would be supplanted by new ones which introduce hypothetical, arbitrary and capricious measurement systems providing little benefit to users of financial statements and exerting an adverse impact on the U.S. economy, particularly a vital segment.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, February 5, 1993*

“After carefully reviewing the Exposure Draft, we do not support the issuance of a final statement based on its approach.”—*KPMG Peat Marwick, December 28, 1993*

“We continue to believe that in view of our concerns with the Board’s proposal, present practice supplemented with additional disclosures is a superior approach. The potential effect of options is already reflected in the earnings per share calculation.”—*Ernst & Young, December 6, 1993*

“We urge the Board to retain current accounting for ESOs and not to proceed with a standard requiring hypothetical and arbitrary recognition in financial statements.”—*Coopers & Lybrand, December 29, 1993*

On the Issue of Measuring Fair Value

“Consequently, any requirement to use an option-pricing model must comprehend an awareness that the model produces a theoretical estimate, which is no more than a surrogate for an indeterminable fair value. And, given that fair value cannot be determined, the level of measurement precision required by the Exposure Draft is unwarranted. It not only increases the complexity and cost of complying with the proposal, but also increases the potential for noncomparability among enterprises. There are six variables used in the Black-Scholes and binomial option-pricing models. Three of these variables (current price of the underlying stock, exercise price, and risk-free interest rate) can be determined somewhat objectively. Three of the variables (expected volatility, expected dividend yield, and expected term of the option), however, require a subjective assessment of the future. Illustration 1 of the Exposure Draft presents an example of an option with a Black-Scholes price of \$18.02. Adjusting all three of the subjective variables by 50% up and down together produces Black-Scholes prices ranging from a low of \$7.73 to a high of \$29.05. This analysis demonstrates that by changing these variables, the price of an option can be increased or decreased dramatically.”—*Deloitte & Touche, November 5, 1993*

“Our study found that the key assumptions used in valuing stock options—stock price volatility and expected option term—are subject to considerable judgment and significantly affect option values. Because of the sensitivity of option values to changes in underlying assumptions, there is a wide variation in values among companies which will adversely affect the comparability and usefulness of financial reporting.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, February 5, 1993*

“The Board’s proposal will not result in meaningful improvements in financial reporting, and the benefits of changes to the present accounting standards will not outweigh the very significant costs.”—*J. Michael Cook, Chairman and, Chief Executive Officer, Deloitte & Touche, January 12, 1994*

“The key findings of our study that support this view are as follows: Key valuation assumptions are subject to considerable judgment and significantly affect option values. For example, a five-percentage-point change in volatility (which can often be justified solely by alternative ways of looking at historical volatility) produced, on average, a 15 percent change in option value. A change in expected term from three years to five years (again easily justifiable) produced, on average, nearly a 40 percent increase in option value. The key assumptions are subject to so much judgment and guesswork that selections among a wide range could be justified as the best estimates. The end result would adversely affect the comparability of financial statements of companies in the same industry and at the same state of development.”—*Coopers & Lybrand, December 29, 1993*

“The output of an option-pricing model is only a mathematically-derived “theoretical” value, which may or may not be indicative of fair value. Since a market for employee stock options generally does not exist, there is no objective way to

assess whether the theoretical value approximates the price at which the option could be sold in an active market.”—*Deloitte & Touche, November 5, 1993*

“We continue to believe that existing option pricing models do not produce a reasonable or relevant value of employee stock options.”—*Ernest & Young, December 5, 1993*

“Our conclusion is that the methodology in the ED for calculating the fair value of employee stock options significantly overstates their fair value, but by how much is pure conjecture. Furthermore, there is no future event that ultimately will verify the accuracy or inaccuracy of the estimate of grant date fair value.”—*Price Waterhouse, December 17, 1993*

“We believe that using option-pricing models for ESOs does not result in sufficiently reliable information because of the wide variation in values among companies and the sensitivity of such values to changes in the underlying assumptions. Accordingly, the proposed changes in accounting would have an adverse impact on the comparability and usefulness of financial statements.”—*Coopers & Lybrand, December 29, 1993*

“As acknowledged in the Exposure Draft, the Black-Scholes and binomial option-pricing models were not designed to deal with long-term, forfeitable, and nontransferable employee stock options.”—*KPMG Peat Marwick, December 28, 1993*

“We urge the Board to retain current accounting for ESOs and not to proceed with a standard requiring hypothetical and arbitrary recognition in financial statements.”—*Coopers & Lybrand, December 29, 1993*

“Finally, we are concerned with the auditability of the ‘expected volatility’ and ‘expected dividend yield’ during the expected term of the option. Although these assumptions are necessary to calculate a theoretical fair value amount using option-pricing models, it is difficult for companies to provide sufficiently reliable audit evidence to support these assumptions after considering the benefit of hind-sight.”—*KPMG Peat Marwick, December 28, 1993*

“If the FASB remains determined to address accounting for employee stock options, I am also distressed by the imposition of valuation techniques commonly associated with tradable options as the primary mechanism for determining the cost of restricted stock options granted to employees. This approach would require businesses to make difficult and arbitrary determinations in order to put a price tag on their options programs and provide hypothetical information, which will confuse readers. To be sure, there are a number of option valuation models available, but they are designed for publicly traded options. Employee stock options are typically long term, non-transferable, and subject to a number of conditions, including continued employment. There is no market mechanism to establish a value for these options. Thus, it is very difficult to identify a procedure for valuing them that would provide a meaningful

improvement over present practices.”—*Eugene M. Freedman, Chairman, Coopers & Lybrand, February 5, 1993*

“We are not comfortable with an approach that uses a ‘black box’ to generate an accounting value when we are not able to articulate what is happening in the ‘black box’ or explain why it is appropriate to accept different answers for valuing options.”—*KPMG Peat Marwick, December 28, 1993*

“At this time, we are aware of no reliable way to measure the effect of differences between ESOs and publicly traded options or to modify present models to account for these differences.” —*Coopers & Lybrand, December 29, 1993*

ACKNOWLEDGEMENTS

The primary objective of this paper is to make a convincing argument for the proposition that expensing employee stock options (as required by FAS 123R) is improper accounting and, in so doing, to reopen the debate on this vital issue. To the extent this objective is achieved, substantial credit is due to several people.

First, credit is due to the 29 esteemed individuals who have signed the paper. All of these people took time from their busy schedules to read and analyze the paper carefully and many provided useful suggestions that have resulted in improvements in its content.

Two of the most important contributors to the paper were Professor John Buckley and Mr. Clarence Schmitz. Professor Buckley is Professor Emeritus at the UCLA Anderson School of Management, and former Chairman of the Anderson School’s Department of Accounting. Mr. Schmitz was National Managing Partner of KPMG and a member of the firm’s Board of Directors and Management Committees. Professor Buckley’s and Mr. Schmitz’s comments and critiques were particularly useful because of their extraordinary expertise in the theoretical and technical aspects of accounting. Professor Buckley and Mr. Schmitz are both signatories to the paper.

Since much of this debate revolves around some basic concepts of economics, it was quite helpful to have the insights of Professor Edward Leamer and Professor Charles Wolf, Jr. Professor Leamer is Professor of Global Economics and Management at the UCLA Anderson School of Management and Director of the UCLA Anderson Economic Forecast. Professor Wolf is Professor of Public Policy at the Pardee RAND Graduate School, Founding Dean of the RAND Graduate School of Public Policy (1970 to 1997) and Senior Economic Advisor and Corporate Fellow in International Economics at RAND Corporation. Both Professors Leamer and Wolf were excellent sounding boards for the economic theories espoused in the paper and provided confirmation of the validity of those theories. Professors Leamer and Wolf are signatories to the paper.

A very substantive contribution to the paper was made by Professor Harry Markowitz, one of the three Nobel Laureates who have signed the paper. Professor Markowitz pointed out the importance of disclosing to the users of financial

statements, the increases in dilution that might occur in the future in companies that have large quantities of ESOs outstanding that are either at or out of the money. Professor Markowitz's comments resulted in a proposal that appears in Appendix 1.

Special credit is due to Dean Tom Campbell. Dean Campbell is currently Dean of the Haas School of Business and is a former US Congressman and Professor of Law at Stanford University. Dean Campbell was very helpful during the final editing process, contributing several suggestions that were incorporated into the paper. Dean Campbell is a signatory to the paper.

Clearly, the most important contributors to the paper have been Professor Ed Zschau (currently a Visiting Lecturer at Princeton University; formerly Assistant Professor of Business at the Stanford Graduate School of Business and Professor of Management at the Harvard Business School; formerly a US Congressman and a successful entrepreneur and business executive in high technology) and Mr. Floyd Kvamme (currently General Partner Emeritus at Kleiner, Perkins, Caufield and Byers, one of the most successful venture capital firms in the world; formerly a successful operating executive in high technology). Messrs Zschau and Kvamme read almost every draft of the paper and supplied innumerable excellent suggestions that positively influenced the final product. Their contributions to this project were invaluable.

Lastly, substantial credit must be given to the senior partners of the "Big Six" accounting firms in the early nineties. (That was when the FASB first proposed formerly the notion of expensing employee stock options.) After carefully studying the expensing issue, all of the Big Six firms concluded that expensing stock options would not be appropriate accounting and they vigorously opposed the FASB proposal. In 1993 and 1994, the firms reported their findings to the FASB in comprehensive letters of comment. These letters (excerpts from which appear in Appendix 2 of the paper) contained numerous in opposition to expensing, which collectively were extraordinarily persuasive. These arguments, all of which were based on established accounting concepts and theories, formed an important part of the foundation on which the paper is based.

Notes

1. The allocation of 20% of the profits of a hedge fund or venture capital partnership is the exact economic equivalent of granting the investment managers a non-transferable option on 20% of the partnership's assets at cost. The limited partners of a partnership are conceptually identical to the shareholders of a corporation and the assets of an investment partnership are economically the same as the assets of a corporation.
2. Note that value is not actually transferred from shareholders to employees; rather the shareholders' gain is shared between shareholders and employees at the time it is created. The term "value transfer" is used herein to describe the amount by which the shareholders' gain is reduced as a result of dilution.
3. This assumes that the employee and the corporation have the same combined federal and state tax rates. When an employee exercises an ESO, the employee incurs a taxable gain. On the other side of the transaction there is a tax deduction, which is taken by the corporation *on behalf* of its shareholders.
4. The title of FAS 128, "Earnings Per Share," is a misnomer because it implies that the TSM's only purpose is to calculate diluted EPS. In fact, the TSM's primary function is to calculate *dilution*. Dilution not only reduces the shareholders' claims on corporate earnings, but on

assets, equity, and market value as well. The TSM is used to determine the impact of dilution on each of these categories.

5. This accounting convention is flawed because it includes even ESOs which are not vested. As a result, *the TSM overstates dilution*, thereby overstating the amount of the value transfer and understating earnings per share.
6. In mark-to-market, exercise-date accounting, the full spread in the option is reflected as a cost if, as and when it occurs (pro forma). In contrast, the FASB's approach is to use a complex model to value the option at the time of grant (which is a calculation of the discounted present value of the *expected* spread), and then expense that amount over the vesting period, regardless of whether the cost ever actually occurs.
7. Consider a case in which a large number of ESOs are granted and the granting entity is liquidated prior to any appreciation of the stock underlying the options. Would the value of the assets distributed to the shareholders be any different as a result of the grants? The answer, of course, is no.
8. In our opinion, ESOs, like bonuses and sales commissions, are not granted for services, *per se*, but are incentive compensation instruments that are granted for the purpose of achieving a particular result, specifically, employee retention and shareholder stock appreciation. The rendering of services is a necessary but *insufficient* requirement for achieving that result. Therefore, the *cost* of an ESO, like a bonus or a commission, is contingent upon that result being attained, and not simply on the rendering of services.
9. ESOs are also granted to members of the board of directors and to consultants. The essential criterion for grant is that the individual have an ability to affect positively the market value of the granting entity.
10. The absence of a *realizable* call premium does not mean that the ESO has no value to the holder. There would still be an *implicit* call premium, which is the discounted present value of the holder's expected gain. By the same token, shareholders in a company that has issued ESOs should incorporate an estimate of future dilution (and the amount of the corresponding value transfer) for the purpose of projecting their *net* gains.
11. Appendix 2 contains excerpts of the anti-expensing arguments made in 1993 by five of the "big six" accounting firms (Arthur Anderson is excluded). To our knowledge, there have been no changes in accounting concepts since 1993 that would challenge these arguments.

California Management Review

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Letters to the Editor

The Point of View position paper in California Management Review's Summer 2006 issue by Kip Hagopian ["Expensing Employee Stock Options is Improper Accounting," Vol. 46, No. 3] has generated considerable media attention as well as public debate. We are pleased to publish four comments that we have received in response to Hagopian's essay, along with his reply to them. We plan to publish additional letters on this important, controversial issue as space permits.

TO: The Editor of the California Management Review
FROM: George J. Staubus, Michael Chetkovich Professor
Emeritus of Accounting, Haas School of Business,
University of California, Berkeley

I admire the creativity in Mr. Hagopian's arguments in support of his conclusion, but I think *CMR* readers should see another approach to the issue of proper accounting for employee services acquired in exchange for the issuance of stock options. The reasoning here is roughly consistent with that of the FASB in the "Basis for Conclusions" supporting its Statement of Financial Accounting Standards 123R, December 2004, but is derived independently based on generally accepted accounting theory and generally accepted accounting principles (GAAP).

Premises

- The objective of financial reporting is to provide information to investors and others that is useful in making investment and other decisions.
- To support this objective, financial reporting seeks to report on the success of an enterprise's operations in achieving shareholders' wealth-enhancing objective.

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- The income statement—especially its “bottom line,” net income—is relied upon as the most valuable portion of a financial report useful to investors in evaluating the success of operations. The balance sheet is less seriously affected by the alternative methods of accounting for employee services acquired by the issuance of stock options.
- The measurement of the success of operations requires the measurement of the cost of using all resources consumed in the revenue-producing operations of the reporting period, except the cost of capital related to the equity interest.
- The cost of using resources is not always the cost of acquiring them and is not always run through an asset account (such as an inventory, prepayment, or property account) before being expensed. That is, acquisition of resources and their consumption may, for accounting convenience, be recorded as one transaction, as in the cases of officers’ services, professional services, and many other services.
- Stock options and warrants are valuable derivative securities. Existing shareholders bear an economic sacrifice when their enterprise issues additional valuable securities (dilution—i.e., claims to earnings and liquidation value).
- In GAAP, the issuance of securities for noncash assets or services is recorded at the fair value of the consideration received or the fair value of the securities issued, whichever is more readily determinable.
- Accountants and users of financial reports accept many imperfect measurements that are deemed usefully accurate, such as estimates of uncollectible accounts, depreciation, and pension costs and other post-employment benefit costs; in fact, all accounting measurements are imperfect.
- Any *and all* resources needed for an enterprise’s operations may be acquired in exchange for securities, including “supplier” stock options.

***Accounting for the Acquisition of Services
by Issuing Stock Options: An Example***

Given:

- baseline earnings per share (EPS): $\$100 \text{ income} \div 100 \text{ shares} = \1
- market price of shares, \$10
- current transaction: acquisition for \$2 of a currently consumed resource that yields \$2 of revenue—(a break-even operation)

Case A: \$2 of a resource is acquired for cash.

Income Effects: Rev + \$2, Exp + \$2, Inc + \$0.

Resulting EPS: $\$100 \div 100 = \1 .

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Case B: \$2 of a resource is acquired for issuance of an option to buy one share of stock, option is worth \$2, *resource cost not recorded.*

Income Effects: Rev + \$2, Exp + \$0, Inc + \$2.

EPS: $\$102 \text{ income} \div 101 \text{ shares} = \1.0099 (after an incremental breakeven transaction?).

This is, I believe, the Hagopian solution.

Case C: \$2 of a resource is acquired for issuance of option as above, *resource cost recorded as expense.*

Income Effects: Rev + \$2, Exp + \$2, Inc + \$0.

EPS = $\$100 \div 101 = \0.99 (because proceeds of newly issued share earned nothing; dilution occurred).

Query: Which accounting—that in B or that in C—better informs shareholders of the success of operations?

Conclusion

Recognizing in the accounts the costs of using the services acquired in exchange for the issuance of a security, such as stock or stock options, yields financial statements more consistent with the objectives of financial reporting and with existing GAAP than does ignoring those costs.

TO: The Editor of the *California Management Review*
FROM: Benjamin E. Hermalin, Thomas & Alison Schneider
Distinguished Professor in Finance, Walter A. Haas
School of Business, and Professor and Chair,
Department of Economics, University of California,
Berkeley <hermalin@haas.berkeley.edu>

I have been invited by the editor of the *California Management Review* to comment on the recent opinion piece by Kip Hagopian.¹ As I have limited knowledge of accounting, it is not for me to opine on what is or isn't good accounting practice as defined by accepted accounting principles. I can, however, offer opinions on whether the expensing of employee stock options is an important issue and how valid Mr. Hagopian's arguments are. Basically, I suspect the expensing issue is, to a great extent, a tempest in a teapot. I further found some of Mr. Hagopian's arguments lacking with regard to basic economics.

Tempest in a Teapot

While debates about interpretation have inspired people to do war before, these are typically debates about biblical interpretation, not about the correct view on accounting rules. Wars about accounting are motivated by perceived financial stakes, not convictions about accounting principles. Broadly, the pro-expensing side can be characterized as concerned that investors are being mis-

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lead about the true costs of employee stock options and are, thus, led to pay too much for the stock of firms utilizing ESOs. The anti-expensing side can be characterized as concerned that investors don't grasp the benefits of ESOs and will respond to seeing them expensed by undervaluing the stock of firms that utilize ESOs. In short, one thing both sides of the debate seem to agree on is that shareholders are stupid, insofar as they can't properly interpret information disseminated by certain means; and, hence, each side sees its position as benevolent paternalism.²

The evidence, however, suggests that both sides are wrong in adhering to the stupid-shareholder hypothesis. First, the hypothesis is at odds with the efficient-markets hypothesis—all public information becomes reflected in the stock price quickly—and the scores of empirical studies in finance that have supported it.³ That is, it doesn't matter how the information is presented to the market (as long as it's presented), the market will correctly incorporate it into the share price.⁴ In fact, the empirical evidence with respect to employee stock options has generally been consistent with the efficient-markets hypothesis. A number of studies find that market incorporates the economic costs of ESOs even if they are not expensed.⁵ Consistent with those findings, there is evidence that the stock price doesn't react when firms voluntarily begin to expense options.⁶ In summary, then, the impact of expensing ESOs is likely to be *de minimis* and the battle over whether to do so a tempest in a teapot.

Gain-Sharing Instruments

The main argument that Mr. Hagopian offers against expensing stock options is that they are "gain-sharing" instruments and that: (1) consistent with accounting treatment of other gain-sharing instruments such as sales commissions and contingent legal fees, no expense is incurred until payment is made; and (2) the cost of the gain-sharing instrument must be located on the books of the entity sharing the gain. Let's consider both claims fully.

A principal difference between a stock option and a sales commission, say, is that the stock option is paid (granted) *before* the employee performs, whereas a sales commission is paid after. Surely, a stock option must have value, otherwise an employee would hardly wish to accept it as compensation, and upon receiving the option the employee is wealthier than she was before receiving it. So if we accept as a principle that an expense is incurred when payment is made, then it seems hard to argue that some expense has not been incurred the moment the option changes hands.

Certainly, it is not free to a firm to grant an option if only because it could have sold the same or similar financial instruments on the market. To see this, consider a firm with four shares (I'm using simple numbers to keep the math easy; if you want the analysis to be more realistic seeming, feel free to multiple the appropriate numbers by, say, a million). With probability 1/2 it will be worth \$90 at the end of the relevant period and with probability 1/2 it will be worth nothing.⁷ The expected value of the firm is \$45 and so each share is currently worth \$11.25. Suppose the firm announces it will create an option to buy one

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share with a strike price of \$10. Observe that in the good state, the option would be exercised and the firm would be worth \$100 (\$90 plus the strike price). Divided five ways, each share would pay off \$20. Since the probability of this happening is 1/2, the value of a share will be worth \$10 after this announcement. Observe the option is being offered just at the money. What is the value of this option? With probability 1/2, the option owner can exchange \$10 to get something worth \$20. With probability 1/2, the option owner will forgo her "opportunity" to exchange \$10 for something worth \$0. So profit in the good state is \$10, profit in the bad state is \$0, and, thus, expected profit and the value of the option is \$5. Observe that the firm could sell this option and distribute the \$5 as a dividend among the existing shareholders. In this case, the *initial* shareholders would get, in expectation, \$45 (\$5 in dividends plus an expected payout of \$40); hence, the value of a firm that sold such an option would be unchanged. On the other hand, if the firm grants this option to an employee the firm is worth \$5 less; no different than if it gave the employee merchandise that it could have sold for \$5 or even just handed the employee a five-dollar bill. The firm has incurred an expense the moment it hands over the option, just as would had it handed over the merchandise or the five-dollar bill.

Now I can imagine Mr. Hagopian's disputing this example given that he argues in his article that the different structure of ESOs (vesting periods, non-transferability, etc.) as compared to conventional options means that there is no such opportunity cost incurred at the time of granting them.⁸ This, however, is wrong on a number of grounds. First, nothing in the above example relied on transferability or any other such property of the options. Second, nothing would prevent a firm from selling options that have the structure of ESOs. Third, by issuing ESOs, the firm is reducing the price for other financial instruments it could sell. To see the last point, suppose the firm in the example had wished to sell a share of stock. Absent the ESO, the share would have sold for \$9. With the ESO, it would sell for \$8.33. Perhaps the best way to see why Mr. Hagopian's "different terms imply no opportunity cost" argument is wrong is to consider a different scenario. Suppose a company was prohibited by law from leasing cars to the public, but could let its employees use its cars. Consider a car that is currently worth \$40,000 and will be worth \$35,000 after being driven a year by an employee. Giving the right to drive the car for a year to an employee is not costless; even though the company couldn't lease the car for a year to the public (and perhaps reap large profits from doing so), it costs the company at least \$5000, the depreciation in the car's value plus the forgone interest (investment returns) the \$40,000 would have earned the firm. In short, precisely because the firm is allocating *currently* valuable claims on its future profits when it makes an option grant, it incurs an opportunity cost precisely at the moment it makes that grant.

The second part of Mr. Hagopian's "gain-sharing instrument" argument is that the cost of the instrument must be located on the books of those sharing the gains (i.e., in this case, the shareholders). If this position is taken to its logical end, then one could argue that a great many payments made by the firm need

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not be counted as expenses. For instance, consider a hypothetical firm with one employee. Suppose that the employee is paid \$20,000 at the end of each month and during each month the firm's revenues are \$30,000. For simplicity, assume the firm incurs no other costs than the employee's salary and that all profits are paid out as monthly dividends (nothing about the logic of my argument depends on these simplifying assumptions; they're made just for the sake of brevity and readability). Observe that, at the beginning of the month, the shareholders expect to gain \$30,000, but have agreed to share 2/3 of that amount with their employee. The salary is a form of gain-sharing instrument. It also has incentive effects insofar as the employee would not show up to work if not promised the salary and the firm would, thus, make nothing. Note, as long as it is public information what the promised salary is, it will be reflected in the stock price—at the beginning of each month, the value of the outstanding shares will equal the present value of a stream of monthly payments of \$10,000. In this sense, the cost of the gain-sharing (i.e., the fact that the shareholders have agreed to part with 2/3 of the gain) is reflected on their books; that is, in the price of the stock. If one followed Mr. Hagopian's logic, then the salary should not be considered an expense of the firm. I doubt, however, that people are prepared to argue that employee salaries aren't an expense of the firm.

Now I suppose one might feel that, because the salary is a fixed amount, it is somehow not a gain-sharing instrument (although, it should be noted, nothing in Mr. Hagopian's definition of a gain-sharing instrument required it to be risky). Of course, a salary can be risky—the firm could fail to have enough cash on hand to pay it fully. For instance, suppose that, on average, four out of five months the firm's revenues are \$35,000 and that, one out of five, they are \$10,000 (note expected monthly revenues are still \$30,000). Suppose the employee's salary is \$22,500 per month. Of course, given that all earnings are paid as dividends, in any month the firm earns only \$10,000, she receives \$10,000 (employees have priority for payment over shareholders). Her expected monthly salary is still \$20,000. Value of the outstanding share at the beginning of each month remains the present discounted value of \$10,000 monthly and, thus, continues to fully reflect the cost of having to share the gain.

I have used salary as an example, but it should be clear that the same argument would go through for a variety of other payments such as debt repayment (e.g., suppose each month that, instead of hiring an employee, the firm had to borrow \$20,000 in order to operate). Although I am not an accountant, it strikes me that it would be a radical change in accounting practice were we no longer to consider salaries, debt repayment, and the like expenses of the firm.

Should Employee Stock Options Be Expensed?

Given that I believe that the practical consequences of expensing to be small, there isn't really a right or wrong answer to the question of should ESOs be expensed. Provided sufficient information is disclosed, the market will properly determine the value of the firm even if they aren't expensed.

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While there might not be a right or wrong answer, there are certainly right or wrong arguments. Although the structure of ESOs differs from other forms of compensation, there is nothing so magical about them that paying (issuing) them to employees doesn't represent a cost to the firm. In particular, the fact that they are gain-sharing instruments does not distinguish them from other payments that the firm makes.

As a believer in markets, I think a better line of argumentation is the following. Assuming adequate disclosure of option plans and assuming that firms are free to expense if they wish, then leave it for the market to decide. Given that I don't think expensing matters if information is fully disclosed, I think the market will "shrug its shoulders" and firms will feel neither market pressure to expense or not to expense. But, if there is a market preference, then it will reveal itself in one set of firms trading at a premium over the other set *ceteris paribus*. If firms that expense are trading at a premium, then non-expensing firms will be under market pressure to expense. If firms that don't expense are trading at a premium, then expensing firms will be under market pressure to cease expensing. Given that markets are generally seen as better at answering these questions than regulators, this is likely to be the optimal way of resolving the debate.

Notes

1. Kip Hagopian, "Point of View: Expensing Employee Stock Options is Improper Accounting," *California Management Review*, 48/4 (Summer 2006): 136-156.
2. In this characterization, I'm trying to present both sides in a positive light. There is, however, suspicion in some circles that those on the anti-expensing side actually agree that they are duping shareholders and wish to protect their ability to do so. See Sanjay Deshmukh, Keith M. Howe, and Carl Luft, "Executive Stock Options: To Expense or Not?" *Financial Management*, 35/1 (Spring 2006): 87-106, which finds evidence that those firms that *voluntarily* chose to expense scored better on measures of good corporate governance than those firms that did not. Firms that choose to expense with the stated objective of increasing transparency are rewarded by increases in their stock prices, see David Aboody, Mary E. Barth, and Ron Kasznik, "Firms' Voluntary Recognition of Stock-Based Compensation Expense," *Journal of Accounting Research*, 42/2 (May 2004): 123-150.
3. For a recent survey, see Burton G. Malkiel, "The Efficient Market Hypothesis and Its Critics," *Journal of Economic Perspectives*, 17/1 (March 2003): 59-82.
4. A simple analogy: suppose you were motivated to know how much I spent in total on goods from a catalog. It, then, wouldn't matter whether I gave you the total amount or I listed what I had purchased. In the latter case, armed with the catalog and a calculator, you could quickly determine the total amount I had spent.
5. Mark R. Huson, Tom W. Scott, and Heather A. Wier, "Earnings Dilution and the Explanatory Power of Earnings for Returns," *Accounting Review*, 76/4 (October 2001): 589-612; David Aboody, "Market Valuation of Employee Stock Options," *Journal of Accounting and Economics*, 22 (1996): 357-391; David Aboody, Mary E. Barth, and Ron Kasznik, "SFAS 123 Stock-Based Compensation Expense and Equity Market Values," *Accounting Review*, 79/2 (April 2004): 251-275.
6. Deshmukh et al., op. cit.
7. There's nothing magic about a two-state example or making the low value \$0; the point the example makes would be equally valid if there were a continuum of possible values or the low value were a positive amount.
8. Hagopian, op. cit., p. 144.

Letter to the Editor

TO: The Editor of the *California Management Review*
**FROM: George J. Benston, the John H. Harland Professor of
Finance, Accounting, and Economics at the Goizueta
Business School, Emory University**

Kip Hagopian argues that employee stock options (ESOs) should not be reported as an accounting expense in an enterprise's financial statements at any time for two reasons. First, an ESO is a "gain-sharing instrument, [which] by its nature, has *no accounting cost unless and until there is a gain to be shared*" and "[t]he cost of a gain-sharing instrument *must be located on the books of the party that reaps the gain* [emphasis in original]."¹ Since the gain is obtained by the stockholders, he says, the cost of granting ESOs are not an expense of the enterprise. Second, "[n]either the granting nor the vesting of an ESO meets the standard definition of an expense." Others also argue that it is sufficient to disclose the terms of ESOs, since accountants' definition of "net income" and its components and the numbers presented in the balance sheet are essentially irrelevant so long as the accounts comprising these statements are described and the numbers reported are audited by independent public accountings.

I consider the last argument first, since, if it is accepted, the first two arguments are moot. Based on the fact that accounting reports (which include at least an income statement and balance sheet that are audited and attested to by independent public accountants) have been presented to investors, creditors and others long before they were legally required, it is evident that such reports have been found useful, if for no other reason than that they offer an efficient starting place for estimating the economic value of enterprises and for evaluating the performance of the enterprise and its managers. Consequently, if the cost to a corporation of ESOs represent an accounting "expense," as this term has been used and understood by users of financial statements, they and the reporting enterprise should benefit from accountants recording ESOs much as they record in the financial statements the impact of other similar economic events that affect the enterprise.²

ESOs as "Gain-Sharing" Instruments

Consider now Hagopian's first argument, that because ESOs are "gain-sharing instruments" that transfer resources from one group of stockholders (employees to whom the options are granted) to another (other stockholders), ESOs should not be recorded on a corporation's books. It should be noted, first, that accounting provides a record of economic events that affect an enterprise, rather than its owners, creditors, employees, or other related parties. If several stockholders (whether they also are employees of the corporation or not) contract to share their gains from ownership of their shares in a corporation, the effects of the contract is of no interest to the corporation's accountants, since the agreement does not affect the corporation. An exception would be if the agreement represented a conflict of interest that worked against the interests of other

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stockholders. This only requires disclosure as a matter of law and corporate governance, not a difference in accounting for the corporation.

Hagopian, though, argues that gain-sharing instruments do not affect the corporation that employs them; they only affect the stockholders. He first provides three examples: profit-sharing, sales commissions, and a contingent-fee arrangement with a plaintiff law firm. These examples, though, are irrelevant to his argument, since, as he correctly states,³ the effect of these agreements, when they are consummated, are recorded on the books of the enterprise. The expenses related to the first two are not recorded because, at the time the agreements were entered into, no services were provided. When the services have been provided, as indicated by the profits and revenues that are shared, the payments to employees are recorded as expenses of the enterprise. Note that the benefits from profit-sharing and sales commissions are "shared" by stockholders with the employees. As with ESOs, the gain, net of expenses including payments to employees, is "reaped" by stockholders in the form of appreciation in the value of their stocks. The related expense and the revenue, though, are first recorded in the enterprises' income statements.

With respect to the legal agreement, although the enterprise has received something of value, it does not record a net profit because of the traditional accounting practice of "conservatism" (discussed further below). Gains (but not expenses) from any activity are not recorded as such until they have occurred and can be estimated reasonably and objectively. But when this occurs, the gain is recorded on the books of the enterprise.⁴ These gain-sharing agreements, then, result in changes recorded on an enterprise's books and, hence, its financial statements. The issue, then, is when the cost to a corporation of ESOs should be recorded and in what amount.

The Accounting Definition of Income and Expense

Economists, investors, and others might want accountants to report the economic (market) value of total and individual assets and liabilities as of the beginning and end of a period. Net income, then, would be the end-of-period assets less liabilities (net assets) less beginning-of-period net assets plus dividends declared and less new investments by equity holders. But, this (Hicksian) definition of net income can rarely be measured unless the firm is established at the beginning and liquidated at the end of the period. If the firm is ongoing, many of its assets and liabilities cannot be measured objectively, since their economic values necessarily involve subjectively determined estimates of value in use (e.g., net cash flows, applicable discount rates, and externalities). Hence, accounting has traditionally applied a somewhat different measure of net income and has used the balance sheet as a bridge between income statements rather than as a statement of economic values.⁵

Accountants first recognize income as it is earned. In general, this occurs when, in exchange for goods or services rendered, title to assets received passes to the enterprise or the enterprise's liabilities are extinguished. The amount recorded as revenue depends on the value of the asset received or liability extin-

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guished. Usually, these amounts can be objectively determined. For example, goods may be sold in exchange for a promise to pay (Account Receivable). The amount recorded as a sale could be the present value of the Account Receivable (factoring in the probability that some accounts may not be paid in full). Or, the sale amount could be (and usually would be) recorded as the gross amount promised and the estimated non-payment at the end of the period would be recorded as "Bad Debt Expense." If the value to the enterprise of the asset received in exchange cannot be determined objectively, the amount of the sale would be determined by the amounts received for sales of the same or similar products or the amounts for which similar assets were sold, whichever is the most reliable number. Income also is recognized when there is objective evidence that the economic value of financial assets have increased, particularly as evidenced by the market value of securities traded in a recognized market.

Expenses generally are reductions in the claims of equity holders (including debtors if the corporation is bankrupt) over the assets of the enterprise as a result of the operations of the enterprise. The basic method of measuring net income is called "matching," wherein costs that were incurred (assets expended or liabilities assumed) to achieve the earned income are charged (matched) against the income and recorded as expenses. For those assets that decline in value over time or with use, but whose reduction in value cannot be objectively measured (such as depreciation of buildings and equipment), a pre-determined method of allocating the cost of those assets to specific assets is employed (e.g., straight-line depreciation). When, during a period, the economic values of non-financial assets have decreased, the decreases also are recognized as expenses. But similar increases are not recognized until validated by market transactions. Accountants have learned that entrepreneurs and managers tend to be overly optimistic or opportunistic and that investors and creditors dislike unpleasant surprises, although they often do not object to pleasant surprises. Consequently, accountants have adopted a current-period conservative bias. That is, revenue is not recorded as earned until there is objective evidence that the amounts promised have been or are expected to be realized, and expenses are recorded even when they are difficult to measure.

Matching also involves deferring some expenses. When there is objective evidence that revenue that generated expended costs will be forthcoming and recorded in a future period, expenses that do not exceed the expected revenue are deferred and are carried as assets on the balance sheet. (Alternatively, deferred expenses may be seen as assets that represent the present value of expected future revenue.)

ESOs as Expenses

ESOs clearly are payments to employees in exchange for their present and future services. In concept, they are no different than other forms of compensation, including salary and bonuses paid in cash or in kind, deferred salary, retirement payments, and medical and other benefits. (Note several forms of compensation in addition to ESOs, such as bonuses, are designed not only to

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reward employees for their current-period services, but to motivate them to expend productive efforts in the future.) In effect, accountants make the following entries with respect to employee compensation. When the employee has earned compensation, the accountant debits an asset, Employee Services, and credits Liability to Employees. As and when an asset is used up or expires because it has no future value, an expense, Employee Expense is debited and the asset, Employee Services, is credited. (In practice, costs that do not result in the production of tangible assets, such as an inventory, usually are recorded directly as expenses.)

How the liability to the employee is met is important only in that it determines the cost to the enterprise of the employee's services. The liability could be met with cash, with a promise of future payment (such as a pension or deferred compensation), with tangible goods and services (such as inventory or the right to use a car or occupy a house), or with financial goods (such as stock or stock options). The value to the employee of the payment is important only in that the more valuable the payment of a particular form to the employee, the less the employee has to be paid to secure his/her services. The essential issues for the accountant are: (1) what is the economic value of assets to the enterprise that is given to employees in exchange for their services, and (2) how much of this amount is allocable as an expense to the current period and how much to future periods?

ESOs clearly are valuable assets. If not granted to employees, close substitutes could be sold to investors. The fact that ESOs have restrictions not found in ordinary stock options makes them less valuable and, hence, less costly to stockholders when they are granted to employees rather than sold. But, the cost to investors of issuing them to employees is not zero (which is implicitly assumed when ESOs are not recorded as expenses). Many expenses are estimates of their cost to stockholders, such as the cost of warranties, pensions, health insurance for retirees, and depreciation. Many of these, such as unvested pensions and health insurance, do not require a strict liability to make a future payment for their cost to stockholders to be estimated. In this regard ESOs are no different.

Indeed, the economic value to stockholders of ESOs (and, hence, their cost when they are issued to employees) could be estimated more effectively than many other items. For example, ESOs with terms similar to those given to employees (such as delayed vesting) could be offered to investors, thereby establishing their value. Or, such ESOs could be distributed to stockholders as dividends; the after-issue market price then would establish the value. Or, an investment banker or finance professor might provide an estimate of the value from experience or from the output of a variant of the Black-Scholes option-pricing model or other model, with a suitable discount for the restrictiveness of ESOs.

One way to give corporate executives an incentive to correctly value ESOs would be to amend the Internal Revenue Code to allow a deductible expense for ESOs only for the amount recorded as an expense on the taxpaying corporations' financial statements. Thus, if they understated the expense corpo-

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rate taxes would be higher and their stock options worth less. If they overstated the expense, taxes would be lower, but they would have to inform shareholders of the amounts paid for their and other employees' services.

Given that an estimate of the cost to stockholders of ESOs can be and is estimated, the next issue is how much should be allocated to the period in which they are granted and how much to future periods. Considering that an important benefit to the enterprise of ESOs is their incentive to employees to increase the net worth of stockholders, it would seem that, in accordance with "matching," a portion of the cost should be allocated to future periods. However, traditionally, accountants have generally recorded expenditures for similar intangible assets as current period expenses, even though these expenditures are incurred to and are likely to generate future revenue. For example, expenditures on advertising and business development often are incurred to generate higher income in future periods. Accountants, though, do not attempt to allocate these expenditures to those periods, essentially because the amount of the future benefits can rarely be estimated reliably, and managers who want to report lower current-period expenses are likely to overestimate the benefits. This is another manifestation of the conservative bias in accounting.

I conclude, therefore, that the value of ESOs should be recorded as an expense in the period in which they are given in exchange for employees' services. Although this does not result in a completely accurate report of the economic situation and performance of a corporation in a particular period, it is consistent with traditional accounting practice. As noted earlier, accounting financial statements do not (and I believe, neither should nor can) represent completely the value of an enterprise to investors and changes in that value over a period. These reports, though, are more useful to investors when they consistently follow an understood set of rules, known as Generally Accepted Accounting Practices (GAAP). Consistent with GAAP for other forms of employee compensation and expenditures that enhance the value of other intangible assets, the value to the corporation of ESOs should be recorded as expenses in the period in which they are granted.

Notes

1. Kip Hagopian, "Expensing Employee Stock Options Is Improper Accounting," *California Management Review*, 48/4 (Summer 2006): 141.
2. I would, though, allow a "true and fair override," wherein if inclusion of the cost of ESOs as an expense is believed by the attesting public accountants to distort reported net income, they could exclude this number with an explanation for their decision. For additional discussion, see George J. Benston, Michael Bromwich, and Alfred Wagenhofer, "Principles-Versus Rules-Based Accounting Standards: The FASB's Standard Setting Strategy," *ABACUS*, 42/2 (June 2006): 165-188.
3. Hagopian, *op. cit.*, pp. 140-141.
4. If accounting were conducted according to the asset/liability approach, which would have accountants record all (not just financial) assets and liabilities at their economic values, the expected net present value of the contingent-fee contract would be recorded as a current gain when the agreement is consummated.
5. For a more extensive description of traditional accounting procedures and their rationale, see George J. Benston, "The Quality of Corporate Financial Statements and Their Auditors before and after Enron," *Policy Analysis*, No. 497, Cato Institute, November 6, 2003.

Letters to the Editor

TO: The Editor of the *California Management Review*
FROM: Joshua Ronen, Research Professor, Stern School of Business, New York University

On December 16, 2004, the Financial Accounting Standards Board (FASB) published FASB Statement No. 123 (revised 2004), which significantly changes the accounting for employee stock options. The standard it replaces had rekindled the debate over stock option accounting that, a decade ago, preceded the issuance of FASB Statement No. 123, Accounting for Stock-Based Compensation ("FAS 123"). The debate pivoted on the requirement to expense stock options and concerns about the reliability of the measurement methodology. Before it issued the revision, the FASB's proposed rules came under tremendous scrutiny from Congress, the media, and preparers and users of financial statements.

Under the new standard, equity-based compensation (EBC) results in a cost to the issuing enterprise and should be measured at its fair value on the grant date, based on the estimated number of awards that are expected to vest. The compensation cost for equity awards that vest will not be reversed if such awards expire without being exercised.

The recent article by Kip Hagopian suggests that expensing employee stock options is inappropriate.¹ I agree with Hagopian's arguments but extend the discussion in this Note to cover all EBC instruments. Specifically, I contend that the proper treatment would reflect the value of share-based payments as an expense of the pre-existing shareholders (the shareholders of the firm before the granted options are exercised) rather than as an expense of the corporation. Currently, under SFAS 128, diluted earnings per share are provided in the income statement, but share-based payments are not usually expensed. This diluted earnings per share computation does not fully reflect the effects of dilution on earnings,² nor is the effect of dilution on the book value captured. I suggest that it would be better to reflect the dilution cost as an expense in a separate statement, such as one labeled "Statement of Costs and Benefits to Pre-Existing Shareholders." This will eliminate the need to present diluted earnings per share.³ A combined "Statement of Enterprise Income" that sums the respective amounts in the corporation's income statement and this new statement would reflect the total costs and benefits of engaging in the particular enterprise's operations from the perspectives of both pre-existing and new shareholders combined, while at the same time showing the wealth transfer between the two groups.⁴

In this Note, I discuss a benchmark example that features three consecutive annual grants of restricted stock that vests before the end of each of the three years, where the grant is the sole means of compensating the employees and incentivizing them to exert effort. An asset is manufactured and sold in the first year, whereupon all proceeds are invested along with employee labor to manufacture and sell another asset in the second year; the same process is repeated in the third year. At the end of the third year, the proceeds of the sale

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are distributed to the shareholders of record at that time. To simplify the analysis and the presentations, I assume, with no loss of insight, that no taxes exist.

In the full working paper version of this Note (available online),⁵ I move on from this benchmark case to introduce debt as well as options and show how my proposed multiple statements better inform creditors and shareholders about the gains and losses accruing on their respective investments. In evaluating the appropriateness of the accounting treatments that I employ in the separate statements, I rely on the criteria used by Kirschenheiter et al.⁶

Restricted Stock: The Benchmark Case

The Table below presents a benchmark case. Employees are granted 10 shares valued at \$10 per share, for a total compensation of \$100 every year over the three-year horizon of our hypothetical company. These are restricted shares that vest one instant before the end of each year and mature at the end of the three years. Thus, we have three cohorts of employees (who could be the same individuals) that receive each year \$100 worth of stock. As a result, they share in the company's profits in the proportion of their ownership. These share grants are equivalent to options with zero exercise price that vest just one instant before each year's end. A \$100 initial capital contribution by the owners (10 shares times \$10 each) is invested, along with the labor inputs of the employees (valued at \$100 and paid for by the stock grant) to yield a certain, inter-temporally constant 10% rate of return. Thus, the capital and labor inputs of \$200 are converted into an asset worth \$220 at the end of the first year. The asset is then sold, and the proceeds are reinvested, along with a \$100 labor input in the second year, to produce an asset worth \$352 at the end of the second year. Finally, in the third and last year, the \$352 are reinvested with another \$100 of labor to produce an asset worth $\$452 \times 1.10 = \497 . This asset is sold at the end of the third year, the company is dissolved, and shareholders (including the employees) receive a liquidating dividend of \$497.

The pre-existing shareholders are rationally willing to suffer the dilution in their ownership and in earnings because in exchange they anticipate a value enhancement that exceeds their cost of dilution, driven by the more highly motivated workforce being incentivized through ownership rather than cash. Consider, for example, year 1. Beginning with a value of \$10 per share, a pre-existing shareholder suffers a dilution of five dollars (50% dilution), but he also suffers the dilution of the portion of earnings saved by issuing shares instead of paying cash (50% of \$100 divided by 10 shares) plus the dilution of earnings (50% of \$20 divided by 10 shares). The total cost of dilution is thus \$11 per share, leaving each pre-existing shareholder with a net profit of one dollar, which constitutes a 10% return on his investment of \$10. By the same token, each employee will have invested \$10 worth of services and also earned a 10% return; his gross income consists of his 50% share in the initial asset worth \$10 a share (which he earns as a result of the dilution of the original shareholdings) plus his 50% share in the corporation's profit of \$120 (the sale of the asset at \$220 less its original cost of \$100).

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TABLE, YEAR 1

Statement of Enterprise Income	Pre-Existing Shareholders	New Shareholders	Total
Sale of Productive Asset	220.00		220.00
Cost of Goods Sold	-100.00		-100.00
Dilution Cost:			
Dilution of Initial Stock Value (50% of \$100)	50.00		
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 50% of \$100)	50.00		
Dilution of Earnings (portion of return on labor input, 50% of \$20)	10.00	-110.00	110.00
Cost of Employee Services (credited to equity)			-100.00
Net Income	10.00	10.00	20.00
Per Share	1.00	1.00	1.00
ROE or EPS Growth	0.10	0.10	0.10
Forward Price Earnings Ratio	10.00	10.00	10.00
Expected Net Dividend	133.10	133.10	266.20
Equity Market Value	110.00	110.00	220.00
Present Value of Expected Net Dividends	110.00	110.00	220.00
Restricted Shares Issued to Employees with No Consideration			10.00
Shares Issued for Cash	10.00		
Total Number of Shares Issued			20.00
Price Per Ending Share			11.00
Price at Which Initial Shares Were Issued	10.00		
Corporation's Income Statement			
Sale of Productive Asset			220.00
Less: Cost of Asset Sold			-100.00
Corporation's Net Income			120.00
Statement of Costs and Benefits to Pre-Existing Shareholders			
Dilution of Initial Stock Value (50% of \$100)	50.00		
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 50% of \$100)	50.00		
Dilution of Earnings (portion of return on labor input, 50% of \$20)	10.00	-110.00	
Balance Sheet			
Cash			220.00
Common Stock			200.00
Retained Earnings			20.00
Total Equities			220.00

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TABLE, YEAR 2

Statement of Enterprise Income	Pre-Existing Shareholders	New Shareholders	Total
Sale of Productive Asset	352.00		352.00
Cost of Goods Sold	-220.00		-220.00
Dilution Cost:			
Dilution of Initial Stock Value (9.09/29.09 of \$220)	68.75		
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 9.09/29.09 of \$100)	31.25		
Dilution of Earnings (portion of return on labor input, 9.09/29.09 of \$32)	10.00	-109.99	109.99
Cost of Employee Services (credited to equity)		-100.00	-100.00
Net Income	22.01	9.99	32.00
Per Share	1.10	1.10	1.10
ROE or EPS Growth	0.10	0.10	0.10
Forward Price Earnings Ratio			10.00
Expected Net Dividend	266.20	121.00	387.20
Equity Market Value	242.00	110.00	352.00
Present Value of Expected Net Dividends	242.00	110.00	352.00
Restricted Shares Issued to Employees with No Consideration		9.09	
Total Number of Shares Issued			29.09
Price Per Ending Share			12.10

Corporation's Income Statement

Sale of Productive Asset	352.00
Less: Cost of Asset Sold	-220.00
Corporation's Net Income	132.00

Statement of Costs and Benefits to Pre-Existing Shareholders

Dilution of Initial Stock Value (9.09/29.09 of \$220)	68.75
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 9.09/29.09 of \$100)	31.2478515
Dilution of Earnings (portion of return on labor input, 9.09/29.09 of \$32)	10.00
	-109.99

Balance Sheet

Cash	352.00
Common Stock	300.00
Retained Earnings	52.00
Total Equities	352.00

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TABLE, YEAR 3

Statement of Enterprise Income	Pre-Existing Shareholders	New Shareholders	Total
Sale of Productive Asset	497.20		497.20
Cost of Goods Sold	-352.00		-352.00
Dilution Cost:			
Dilution of Initial Stock Value (8.26/37.36 of \$352)	77.8761062		
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 8.26/37.36 of \$100)	22.12		
Dilution of Earnings (portion of return on labor input, 8.26/37.36 of \$45)	10.00	-110.00	110.00 0.00
Cost of Employee Services (credited to equity)		-100.00	-100.00
Net Income	35.20	10.00	45.20
Per Share	1.21	1.21	1.21
ROE or EPS Growth	0.10	0.10	0.10
Equity Market Value	387.20	110.00	497.20
Restricted Shares Issued to Employees with No Consideration		8.26	
Total Number of Shares Issued		37.36	
Price Per Ending Share		13.31	

Corporation's Income Statement

Sale of Productive Asset	497.20
Less: Cost of Asset Sold	-352.00
Corporation's Net Income	145.20

Statement of Costs and Benefits to Pre-Existing Shareholders

Dilution of Initial Stock Value (8.26/37.36 of \$352)	77.88
Dilution of Earnings (portion saved by issuing shares instead of paying cash, 8.26/37.36 of \$100)	22.12
Dilution of Earnings (portion of return on labor input, 8.26/37.36 of \$45)	10.00 -110.00

Balance Sheet

Cash	497.20
Common Stock	400.00
Retained Earnings	97.20
Total Equities	497.20

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The above analysis pertaining to the representative shareholder is reflected explicitly and in the aggregate for each of the two groups of shareholders in the Statement of Enterprise Income. This statement has three columns: Pre-Existing Shareholders, New Shareholders, and Total. The Pre-Existing Shareholders column reflects the revenue, cost of goods sold, and the cost of dilution. The latter is decomposed into its components: the dilution of initial stock value of \$50, the dilution of the portion of earnings saved by issuing shares instead of paying cash of \$50, and, finally, the dilution of earnings (return on labor input), which is 50% of \$20. The total cost of dilution is thus \$110, leaving a net income to Pre-Existing Shareholders of \$10.

The New Shareholders column reflects the benefits to employees who become new shareholders at the end of the year. These benefits consist of the end of year value of the shares granted to them (\$110 transfer of wealth from the pre-existing shareholders who suffer exactly that same amount in dilution), less the cost to them of \$100 worth of labor input (effort). They, too, end up with a net income of \$10. The Total column shows the revenues and expenses of the enterprise as a whole, and in this benchmark case (and in the benchmark case with debt analyzed in Exhibit 2 of the working paper version, but not in the cases wherein the stock or options do not vest in the same year in which they are granted as in Exhibits 3–5 in the working paper version) is identical to the statement required under FAS 123. From the proceeds of the sale of productive assets (\$220), we subtract the cost of goods sold (\$100), and then the costs of employee services (\$100) to leave \$20 of net income, or a net income of one dollar per outstanding share.

Moving to year 2, the proceeds of asset sale at the end of year 1 of \$220 are now reinvested with additional labor inputs of \$100 similarly paid for by the grant of 9.09 shares (\$100 divided by \$11, which is the price per share at the end of year 1) to yield (at 10% rate of return) an asset worth \$352. The cost of asset sold is \$220. The total cost of dilution is again \$110; it is broken down into its components: the dilution of initial stock value (as of the beginning of year 2) is 9.09 (shares issued)/29.09 (number of outstanding shares) of the \$220 beginning of year 2 stock value. Similarly, the dilution of earnings is computed as \$31.25 (portion saved by issuing shares) and \$10 (the dilution of \$32 net income). Similar transactions and computations yields a revenue of \$497, and cost of asset sold of \$352 in year 3, which after subtracting the cost of employee services of \$100 yields a net income of \$45. The cost of dilution reflected as a transfer of wealth from pre-existing shareholders to new shareholders is again \$110.

To evaluate the soundness of the accounting treatments in this example, I make use of what Kirschenheiter et al. refer to as “sensible relations” that they expect “good” accounting to hold:⁷

- (1) Return on equity equal to the cost of capital.
- (2) Forward price-earnings ratio equal to the inverse of the cost of equity capital.
- (3) Equity market value equal to the present value of expected net dividends.

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Consider relation (1) from the perspective of pre-existing shareholders. The corporation's profit is \$120 (the value enhancement). The cost to these shareholders is \$110 (50% of the original asset value of \$100 plus 50% of the profits of \$120). Hence, the net income from operations is \$10, which is 10% (the cost of capital) of their \$100 equity. Similarly, the new shareholders' gain from the pre-existing shareholders' dilution is \$110, and their cost of providing services is \$100, leaving them a net income of \$10, which again is 10% of their investment. As can be seen from Exhibit 1, the computations for year 2 and year 3 yield a similarly constant return on equity (ROE) of 10%.

To test relation (2), observe that the ending price in year 1 of \$11 per share, divided by the end of year 2 earnings per share of \$1.10, yields a forward price-earnings ratio of \$10, which is the inverse of the cost of capital. An identical forward price-earnings ratio of 10 can be computed at the end of year 2.

Finally, we can easily ascertain that the present value of the expected liquidating dividends equals the equity market value. For example, in year 1, the equity market value is the \$220 proceeds from the sale of the asset. The expected net liquidating dividend is \$266.20, which is the \$497 cash available at the end of year 3 multiplied by the ratio of outstanding shares at the end of year 1 (20) to the outstanding shares at the end of year 3 (37.36). The present value of \$266.20 computed for two years at the 10% cost of equity capital is \$220.

The separate Corporation Income Statement reflects the revenue (\$220) and the cost of asset sold (\$100), but it does not show the shares granted as an expense. There are compelling reasons not to reflect a share-based payment as expense. By issuing shares or options in exchange for employee services, the corporation does not part with any asset. From the standpoint of the creditors, the corporation's income is \$120. However, the cost of dilution (\$110) is explicitly and visibly shown in the separate Statement of Costs and Benefits to Pre-existing Shareholders (see the Table). In the latter, the different events that cause dilution in pre-existing shareholders' wealth are detailed. The Statement of Enterprise Income that focuses on the organization as a whole combines the Corporation Income Statement and the Statement of Costs and Benefits to Pre-existing Shareholders. As indicated, the compensation cost is shown there under the "Total" column.

This case illustrates the distinction between the corporation and its equity shareholders. The shares granted leave the corporation's own assets intact. No resource is given up; creditors' interests are not harmed. Pre-existing shareholders, on the other hand, suffer the cost of dilution caused by the grant. It is quite clear in this case that expensing options in the corporation's income statement serves neither the informational needs of creditors nor those of equity investors. Creditors, unless they undo the expensing, would compute typical income-based solvency ratios that are erroneous. Equity investors, as well, would overestimate the cost of dilution if they incorporate in their valuation a diluted income per share with the numerator taken as the net income after the expensing of shares or options granted, or if they otherwise reckon that share-based payments have diluted their holdings.⁸ Since share-based payments have increasingly become

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the norm, separate statements are needed to serve the interests of the two distinct sets of users.

Consider the benefits of having these two distinct statements. The corporation's income statement would reflect strictly the corporate entity's sacrifice of assets and assumption of liabilities in the process of generating earnings—uncontaminated by events that did not affect the corporation's net assets. More important, it alone would provide the relevant numbers to be used by creditors to assess the potential returns and risk associated with their investments in the company. After all, they are not affected by dilution; only common stockholders are. The second statement would reflect the effect of such dilution. The two distinct statements would also yield insight into management's policy with regard to financing its acquisitions.

Yet some parties might have need to evaluate the entire enterprise. Suppose, for example, an existing shareholder wished to identify the total cost, regardless of who incurred it, that was required to generate the reported revenue. The answer would be the sum of the respective components in the two distinct statements. The combined statement would aggregate these two to show the total expense, revenue, and income accruing to both the corporation and its shareholders—the enterprise.⁹

Although the Statement of Enterprise Income looks similar to the income statement required by the FASB, there are important differences. First, the component statements distinguish between the cost to the corporation and the cost to pre-existing shareholders. Second, the Statement of Costs and Benefits to Pre-existing Shareholders displays prominently the dilution effects and states what resources the corporation chose to acquire by diluting pre-existing shareholders' wealth. Third, the dilution is shown not only with respect to earnings but also with respect to book value (not explicitly displayed under current GAAP). Fourth, as indicated, if there were creditors in this example (as reflected in Exhibit 2 of the working paper version of this note), the Corporation Income Statement would reveal that the value added available to them is in fact the full \$120, and not the enterprise net income of \$20. Fifth, the wealth transfer from pre-existing shareholders to new shareholders is visibly reflected: the cost of dilution to pre-existing shareholders is a net transfer to the new shareholders. The return to both groups of shareholders is 10% (\$10/100). Finally, as is evident from the Statement of Costs and Benefits to Pre-existing Shareholders, the cost to pre-existing shareholders (in this example) of \$110 is \$10 more than their cost were the corporation to pay cash for employee services, \$100; the employees now also share in the return rather than merely being compensated for their labor. In essence, they have become partners, assuming the risk of ownership. The statements proposed clearly reflect this change in risk-sharing, an element that is missing in the FASB's method.

Notes

1. Kip Hagopian, "Point of View: Expensing Employee Stock Options is Improper Accounting," *California Management Review*, 48/4 (Summer 2006): 136-156.

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2. M. Kirschenheiter, R. Mathur, and J. Thomas, "Accounting for Employee Stock Options," *Accounting Horizons*, 18 (June 2004): 135-155; J. Core, W. Guay, and S.P. Kothari, "The Economic Dilution of Employee Stock Options Diluted EPS for Valuation and Financial Reporting," *The Accounting Review*, 77 (July 2002): 627-652; H. Huson, T. Scott, and H. Wier, "Earnings Dilution and the Explanatory Power of Earnings for Return," *The Accounting Review*, 76 (October 2001): 589-612.
3. Prior research suggests that the market might incorporate dilution into its assessments of firm value. For example, Huson et al. [op. cit.] find that if some claimants can acquire equity interests in the firm for less than the market value, then a given level of earnings change (i.e., unexpected recurring earnings) is priced lower due to the dilution. Core et al. [op. cit.] also find evidence that market prices incorporate the additional dilution that the authors argue should be added to the FASB's treasury stock-method-based dilution to better reflect the actual economic dilution.
4. The discussion and my proposal in this paper apply to any good or service acquired by means of equity-based consideration. I use the case of share-based payments for employee and executive services to illustrate the point in light of the newly issued standard and because of the great public interest in executive compensation.
5. Joshua Ronen, "Accounting for Share-Based Payments," available at <<http://ssrn.com/abstract=934437>>.
6. Kirschenheiter et al., op. cit.
7. Ibid.
8. See note 3.
9. For the lack of a better term, by enterprise I refer to the combined state of affairs of the corporation and its pre-existing and new shareholders.

Kip Hagopian Responds

I wish to thank Professors Benston, Hermalin, and Staubus for taking the time to critique the article, "Expensing Employee Stock Options is Improper Accounting." Many thoughtful comments were made in these letters to the editor. In both sum and substance, the letters covered a lot of ground. Since some of the most important points were raised in more than one letter, I have chosen to combine my rebuttal arguments into one reply. The short time period between receipt of these letters and the deadline for publication of the Fall edition of the CMR has precluded me from circulating my remarks to all of the signatories to the article; consequently the views expressed below are mine alone and may not be shared by every member of our group.

The letter from Professor Joshua Ronen arrived just prior to the deadline for my reply. While I have read this letter, I have not had time to give it the attention it deserves. For now, suffice it to say I am gratified by the Professor's following statement, which appears near the beginning of his letter: "I agree with Hagopian's arguments. . . ."

Pay for Services or Pay for Performance?

All of the respondents contend that an ESO grant is a payment for services. As we state in the article, we believe ESOs are *not* granted for services per se (although some services are necessary); rather, they are granted to achieve a particular result. In the three examples of gain-sharing instruments cited in the article—sales commission agreements, profit sharing plans, and contingent-fee lawsuits—payment is contingent upon performance, not on the amount of ser-

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vices rendered (indeed, a salesperson on commission could work hard all year and earn no income). In the case of an ESO, performance is defined as a rise in the market value of the granting entity; if there is no increase in this value there is no profit to the ESO holder. In all three of the examples cited, GAAP requires that expenses be booked when the associated gain is booked and not before. But the accounting treatment of ESOs is substantially different. Under FAS 123R, the ESO contract is valued at the time of grant and expensed over the vesting period regardless of whether the conditions of the contract (a rise in market value) are met, and regardless of whether the ESO is ultimately forfeited.

When Is Payment Made?

In his letter, Professor Hermalin writes (in comparing ESOs to sales commissions), a "stock option is paid (granted) *before* that employee performs, whereas a sales commission is paid after." He goes on to say: "if we accept as a principle that an expense is incurred when payment is made, then it seems hard to argue that some expense has not been incurred the moment the option changes hands." With due respect to Professor Hermalin, I believe he is confusing an ESO with a transferable option. If a transferable option were conveyed to an employee, payment would be made (and an accounting charge would be appropriate) on the day of issuance because a transferable option is convertible into cash.¹ An ESO, however, does not have a realizable value at grant, so *from an accounting perspective* (see below for a comparison of the accounting and economic perspectives in measuring the cost of ESOs), payment is *not* made when it is granted.

In all pay-for-performance contracts, payment is made when it is earned; that is, when the performance conditions of the contract are met. In the case of an ESO these conditions are *not* met and payment is *not* made until the ESO vests and goes into the money. In this respect, an ESO is identical to all of the gain-sharing examples cited above. Yet under FAS 123R, ESOs are accounted for entirely differently.

Value vs. Cost

I believe the respondents have mistakenly equated an ESO's economic value to the recipient with its accounting cost to the granting entity. One does not necessarily correspond to the other—at least not from an accounting perspective. Consider the example of a contingency lawsuit. When a company enters into a contract with the plaintiff's law firm, the law firm clearly has received something of economic value. If the contract were transferable, there are any number of other law firms that would buy it. But does the company incur an expense when it engages the law firm? Not according to GAAP and, I would argue, not according to common sense either.

Or more on point, consider a hedge fund partnership in which the manager receives 20% of the profits. When the partnership is formed, the hedge fund manager receives something of significant value. But has the partnership incurred an expense when this contract is consummated? Again, not according

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to GAAP. No expense is charged on the books of the partnership when the managers enter into their profit-sharing contracts.

Accounting Disparity Between Corporations and Partnerships

In Note 1 of the article, we point out that the profit-sharing contracts granted to hedge fund managers are conceptually identical to ESOs. Quoting from the article: "The allocation of 20% of the profits of a hedge fund or venture capital partnership is the exact economic equivalent of granting the investment managers a non-transferable option on 20% of the partnership's assets at cost. The limited partners of a partnership are conceptually identical to the shareholders of a corporation and the assets of an investment partnership are economically the same as the assets of a corporation."

Despite the economic equivalence of these two transactions, the accounting for ESOs (under FAS 123R) is substantially different from the accounting for hedge fund profit-sharing contracts. I see no reason why the accounting for two conceptually identical transactions should differ simply because of a difference in the legal form of the organization. If a *manufacturing* company were organized in partnership form, and gave a profit participation to its employees, would this participation be expensed? If so, how would this disparity in accounting treatment (relative to hedge fund contracts) be justified?

Opportunity Cost

Professors Benston and Hermalin base much of their case for expensing on their contention that the grant of an ESO is an opportunity cost because, according to Professor Benston, "close substitutes [for ESOs] could be sold to investors." I believe the Professors are right to focus on the opportunity cost argument because, in my opinion, that is the only possible basis on which to justify a charge to the entity (remember, no asset or liability account is affected by the grant of an ESO, thus, the grant does not per se meet the standard definition of an expense).

We go to considerable lengths in the article to explain why we do not believe an opportunity cost is incurred when an ESO is granted. I will reiterate just part of our analysis, which I think should be dispositive. Professor Hermalin states: "nothing would prevent a firm from selling options that have the structure of ESOs." I disagree. First, for obvious reasons, ESOs are issued exclusively to persons that have the capacity to positively impact the market value of the enterprise. Thus, issuing "similar options to third parties" (as the FASB puts it) would be contrary to the ESO's purpose and is proscribed. I believe that charging an opportunity cost in this circumstance would be a misapplication of what is otherwise a perfectly valid economic principle. Second, if a contract with terms identical to an ESO were offered on the market, there would be no "willing buyers." It is not an ESO's vesting restrictions or even its non-transferability that make it unsaleable on the open market; rather, it is the fact that all ESOs are cancelable at the will of the entity that issues them (by terminating the employee). A firm acting in its economic best interests, would always, therefore,

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cancel any outstanding ESO-like option that is held by a non-employee prior to its going into the money.² Indeed, to not do so would be a breach of the fiduciary duty of the officers and directors of the firm.³ This means that no one other than an employee would purchase an option with the terms of an ESO, no matter how low the price. But charging employees for ESOs is uneconomic to the firm, since to do so would erode and ultimately nullify their value as an incentive compensation tool.

Again, consider the above three gain-sharing examples that are settled by the entity: In any of those contracts, does a company incur an opportunity cost by not charging the other party to the contract the expected value (the discounted present value) of the party's projected gains? Alternatively, does a hedge fund partnership incur an opportunity cost by not charging the fund managers the expected value of their projected gains? (Remember, under well accepted financial economic theory, *expected* value is the economic equivalent of projected future value, so if the employees or the fund managers paid this amount for their contracts, they would effectively be working for nothing.) In all cases, the answer must be "no" because to do so would defeat the purpose of the contract and consequently would not be in the company's economic best interests.

The FASB apparently agrees because GAAP does not require that an expense be charged when any of the above-described contracts are consummated.

What Is (and Is Not) a Gain-Sharing Instrument?

The critical distinguishing characteristic of a gain-sharing instrument is that its accounting cost to the issuer is *a fixed fraction of, varies with, and is wholly dependent upon the existence of the gain to which it is linked*—if there is no gain, there is no cost; if there is a gain, the cost is a fraction of that gain. In his challenge to my position that ESOs are gain-sharing instruments, Professor Hermalin writes, "If this position is taken to its logical end, then one could argue that a great many payments made by the firm need not be counted as expenses." He supports this view by use of a hypothetical which assumes the following facts (I am paraphrasing): A company has revenue of \$30,000 per month and total expenses of \$20,000 per month, which is composed solely of the salary the company pays to its only employee.

Based on these assumed facts, he argues that, "The salary is a form of gain-sharing instrument." He then contends that "the shareholders have agreed to part with 2/3 of the gain." Perhaps I am missing something, but I believe that by any reasonable interpretation of the hypothetical facts set forth above, both of the professor's statements are in error. Taking them in reverse order:

- (1) The shareholders have not agreed to "part with 2/3 of the gain." They have agreed to pay \$20,000 in salary regardless of what the gain (if any) turns out to be. If the revenue turns out to be \$10,000, the salary will be 200% of the gain; if it is \$50,000 it will be 40% of the gain.

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- (2) Salary does not meet any of the three conditions established above and, thus, is not a gain-sharing instrument. Salary is a semi-fixed cost that must be paid whether revenue materializes or not.

I believe it is an irrefutable fact that an ESO is a gain-sharing instrument. Specifically, it is a contract in which the stockholders' share their gains (stock appreciation) with employees. If the employee is successful in creating value for the shareholders, he or she will earn a profit that will be a dollar for dollar reduction in the shareholders' gains. Thus, the cost will be located where the gain is.

Accounting Cost vs. Economic Cost

Accountants and economists often differ on the proper measurement and timing of financial transactions. The following is my perspective on both the accounting cost and the economic cost of ESOs. Here I assume that an at-the-money ESO is granted to an employee and is fully vested on the day of grant.

The Accounting Perspective

On the day of grant, the employee cannot realize any value from an ESO (it cannot be transferred and it has no intrinsic value if exercised). The grant itself does not result in an outlay, a using up of an asset or the creation of a liability; therefore, it does not meet the standard definition of an expense. Finally, the granting entity does not incur an opportunity cost when the ESO is granted. Accordingly, no *accounting* cost should be recorded on the books of either the granting entity or the entity's shareholders. But as the stock price appreciates, the ESO will gain realizable intrinsic value that will accumulate on the employee's books as profit. But where is the cost located that matches this profit? We know that as the stock of the entity appreciates, the shareholders' ownership will be diluted, resulting in a reduction in the appreciation of their holdings in an amount exactly equal to the employee's profit (ignoring taxes in both cases). Thus, the shareholders *effectively* transfer a share of their gains from their balance sheets to the employee's balance sheet. Consistent with the way almost all gain-sharing instruments are accounted for (all but ESOs) both the value (profit) and the corresponding cost (reduction of shareholder gains) are reflected only if and when they actually occur.

The cost⁴ of ESOs to shareholders is a mathematical inevitability when the stock price rises. As a result, accountants do not have a choice between locating the cost on the shareholders books or on the entity's—it simply materializes on the books of the shareholders as dilution occurs. Under FAS 123R, therefore, the cost of an ESO is charged twice: once to the shareholders and once to the entity owned by those shareholders. Moreover, the charge to the entity (the discounted present value of the projected spread) is the economic equivalent of the charge to the shareholders. I believe this is double counting and is, therefore, improper accounting.

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The Economic Perspective

When an ESO is granted it has *economic* value to the recipient on the day of grant. This value is not realizable but is implicit. This implicit value is the discounted present value of the projected gain in the ESO at the end of its expected term. The economic *cost* to shareholders of the ESO on the day of grant is the reciprocal. It is the discounted present value of the projected reduction in their projected future gain. In other words, whatever value the ESO's implicit call premium is to the employee is an implicit drag on the shareholders' future stock appreciation. Thus, from an economic perspective, there is a symmetrical transaction at the date of grant.

The Real Economic Cost (or Gain) of an ESO

There is another economic aspect to this issue that we touch on only briefly in the article. The economic costs to shareholders that are described above are really only "nominal" costs. They do not take into account the incentive effects of the ESO. Here's what we say in the article:

"The objective of an ESO plan, like any other incentive compensation program, is to increase employee productivity, and in so doing, raise the market value of the enterprise to a level in excess of the value that might be attained if the plan did not exist. If this objective is achieved, the use of an ESO plan will result in a *net economic gain* to shareholders, not a cost. Nonetheless, for the purposes of this paper, shareholder value transfer is treated as a cost because it reduces the pre-existing shareholders' *nominal* gain."

The point is, if ESOs are not issued in such abundance that their dilutive effects outweigh their incentive effects, there will be no economic cost—there will be an economic gain.

Conclusion

In conclusion, I again would like to express my appreciation to the four professors for taking the time to write letters to the editor regarding our article. I believe they have all made useful contributions to this debate. I regret, due to the shortage of time, I was unable to respond to Professor Ronen.

With due respect, I do not believe Professors Hermalin, Benston, and Staubus have successfully refuted the basic logic of the article. In my rebuttal to the Professors, I have asserted the following:

- (1) An ESO grant is not a payment for services *per se*; it is a contract that provides for a payment that is conditioned upon performance.
- (2) An ESO's value to the recipient does not equate to a cost to the granting entity.
- (3) An ESO grant does not meet the standard definition of an expense and is not an opportunity cost.
- (4) An ESO is not akin to a transferable option; rather, it is a contract that uses an option to create a gain-sharing instrument.

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- (5) Under GAAP, all gain-sharing instruments (except ESOs) have no accounting cost unless and until there is a gain to be shared.
- (6) In the case of an ESO, it is the shareholders that reap the gain; accordingly that is where the cost is located.
- (7) This cost is already fully accounted for using the treasury stock method of measuring dilution.
- (8) Charging the entity an additional cost that is the economic equivalent of the cost to shareholders is improper accounting.

I believe these assertions are logically sound and comport with accepted principles of both accounting and economics. Of course, I welcome any additional comments from the respondents or from other CMR readers.

Notes

1. If constructive receipt of the option were conditioned upon vesting, the payment and the expense would be amortized over the vesting period.
2. As we say in the article: "What this illustrates is that the only person to whom an ESO has value is an employee of the entity that grants it. This is because the entity and its shareholders *want* the employee to succeed and do not, therefore, have an incentive to cancel the option."
3. It should be instructive that, despite the enormous growth in the derivatives market, a market for options with the terms of an ESO has never been developed.
4. As noted above, the cost of an ESO is a reduction of a gain. Because the gain sharing takes place at the point of the gain's origin (two separate streams of profit are created simultaneously), the transaction does not actually flow through the shareholders books. Thus, the shareholders do not incur an accounting cost per se.

NOVEL ARGUMENTS IN THE STOCK OPTION EXPENSING DEBATE
(Since the Promulgation of FAS 123R)

The summer edition of the CALIFORNIA MANAGEMENT REVIEW contained an article entitled “Expensing Employee Stock Options is Improper Accounting” which made the case that expensing employee stock options (ESOs) was improper accounting. This article was written by Kip Hagopian and endorsed by 29 highly respected experts in accounting, economics, finance and business. The list of endorsers included three Nobel prize winners in economics, two former Secretaries of the Treasury, two former CEOs of “big four” accounting firms and two chairmen of the accounting departments of major universities.

In an August 17, 2006 article in the Los Angeles Times, Gerard Carney, a representative of the FASB, was quoted as saying that the ideas set forth in the article “are not new issues”. We disagree with this statement.

To be sure, many people have argued, as we have, that the cost of an ESO is borne by shareholders and not by the granting entity. But there is much more to the paper than this simple (albeit accurate) assertion. In researching the paper, we have read all of the comment letters submitted to the FASB by the Big Six accounting firms dating back to the 1993 time period. In these letters, each of these firms made their best arguments against expensing and, although they made many powerful points, none of them made the seven novel arguments that are listed below. Additionally, we have read many articles on the option-expensing subject over the last few years, and have discussed or debated this issue with several accounting and economics professionals. We have not encountered the key arguments contained in the article in either our readings or our discussions. Here are what we believe are the new arguments conveyed in the article.

First, our recognition of the fact that an ESO is a gain-sharing instrument was never identified in the Big Six comment letters and has never, to our knowledge, been recognized as such in any of the scholarly literature written on this topic. Nor did this notion come up in the FASB roundtable discussion in which Kip Hagopian was a participant. The fact that an ESO is a gain-sharing instrument is of paramount importance because it has a cascade of

implications in determining whether an ESO is an expense of the granting entity or not. To wit: If an ESO is a gain-sharing instrument (which we believe is a fact, not an assertion) then, by definition, it cannot have a cost until there is a gain to be shared. This means that there cannot be an expense at grant date because there is no gain at that time (this assumes the ESO is granted at fair market value). And if, as FAS 123R requires, the discounted present value of the projected profit in the option is recorded as an expense, logic dictates that the discounted present value of the projected gain on which that expense is dependent be recorded as well. If this is done, there will be a net profit recorded, not an expense. Finally, the cost of an ESO, if and when it occurs, must be located where the gain is. This means it cannot be a cost to the granting entity because it is the shareholders and not the entity that is the party that reaps the gain being shared.

Second, the fact that the treasury stock method (which is described in FAS 128, entitled "Earnings per Share") is really a means of measuring *dilution* and not just earnings per share, is seldom, if ever, mentioned in accounting circles. This is crucial because the primary value of this accounting convention is to measure an ESO's dilution of *all* shareholder claims. This includes in addition to claims on earnings, claims on assets, liabilities, net worth and market value. It is dilution that determines an ESOs' economic cost to shareholders.

Third, we are not aware of anyone who has pointed out the fact that the employee profit in an ESO is exactly equal to the reduction in the shareholders' market value (ignoring taxes in both cases), thus making the transaction symmetrical and establishing the treasury stock method (TSM) as a type of mark-to-market, exercise-date accounting for the shareholders' accounts. To our knowledge, the fact that the TSM is a form of mark-to-market, exercise-date accounting is not mentioned anywhere in the accounting literature.

Fourth, we are not aware of anyone who has effectively challenged (as we believe we have) the FASB's assertion that the grant of an ESO meets the standard definition of an expense. The FASB says an ESO is granted for services and that services are assets that are simultaneously created and "used up" as the services are rendered. But in order for an asset to be used up, it first must be acquired, and that necessitates an outlay of some kind, or the incurrence of a liability. The FASB does not explain what that outlay (or liability) is. We have pointed out, convincingly, we believe, that no outlay is made and no liability is

incurred. We argue that the *only* way an ESO could be an expense, is if its grant were an opportunity cost, i.e., if the company foregoes cash by not selling the ESO on the open market (or to the recipient). In a March 2003 article in the Harvard Business Review entitled, "For the Last Time: Stock Options are an Expense", Professors Zvi Bodie, Robert Kaplan and Robert Merton based their *entire* case for expensing on their assertion that an opportunity cost is incurred whenever an ESO is granted. (Note that their primary case for expensing differs from the FASB's primary case.)

Fifth, we are not aware of anyone who has addressed and refuted the opportunity cost argument in such a comprehensive and (we believe) effective way. To paraphrase Alan Reynolds, one of our signatories, there can be no opportunity cost unless there is an opportunity—either to sell the instrument on the open market (which would not be possible and in any event is proscribed by its terms) or to sell it to the grantee (which would defeat its purpose and would be contrary to the grantor's economic best interests).

Sixth, we are not aware of anyone who has pointed out that ESOs are conceptually identical to many other gain-sharing arrangements (such as profit sharing, sales commissions, contingency lawsuits, etc.) that are used by companies and yet are not accounted for in the same way as is mandated under FAS 123R.

Seventh, we are not aware of anyone who has pointed out that hedge fund and venture capital profit sharing arrangements are conceptually and economically identical to ESOs as between employees and investors, and yet are not accounted for in the same way as is mandated under FAS 123R.

We believe each of these seven arguments represents a new contribution to the expensing debate. Taken together, these arguments make up an entirely new view of expensing that has never been heard or properly debated.

Kip Hagopian

Floyd Kvamme

Ed Zschau

ACCOUNTING ANOMALIES PRODUCED BY FAS 123R

In order to justify the expensing of ESOs as required in FAS 123R, the FASB had to make several compromises in, or deviations from, established accounting concepts. When options are expensed under FAS 123R, these are some of the accounting anomalies that are produced:

1. Instead of recording a transaction that has actually occurred, the discounted present value of a future event is recorded. Traditionally, accounting has been based on a historical cost model that is grounded in high degrees of certainty concerning both the incurrence and measurability of such costs. Expensing ESOs using a grant-date methodology is inconsistent with that model.
2. A cost is recorded without also recording the gain (in this case an increase in the stock price) on which the cost is wholly dependent. We are not aware of any other gain-sharing instrument that is accounted for in this manner. FAS 123R's required accounting treatment for ESOs is analogous to recording a sales commission as a cost in advance of recording the sales revenue on which the cost depends. (Note: It would be a deviation of standard accounting practice for a company to record a cost but not the gain on which it is dependent. But it would also be a violation of accounting practice for a company to record on its books a gain in its own stock price. A logical conclusion would be that the "cost" should not be recorded on the company's books either.)
3. A transaction is recorded before "...enough of the related uncertainties have been resolved to make reasonably reliable measurement possible." (This is a quote from FAS 123 describing one of the tests for deciding to record an expense.) This is done despite the fact that, "The usual accounting response to major problems in measuring the effects of a transaction is to defer final measurement until the measurement difficulties are resolved." (This is quoted from FAS 123R.) Doing this is extremely rare, particularly when done in conjunction with number 4 below. This problem is exacerbated by the fact that the valuation of an ESO using the FASB's recommended option pricing models (Black-Scholes and the so-called "lattice" model) cannot be empirically confirmed in the

public market (as is the case with transferable options). These models are, therefore, unproven as to reliability and accuracy.

4. An *estimate* of a cost is recorded without ever truing it up when the *actual* cost is known. This appears to be the only transaction treated in this manner under GAAP. Even in the case of pension fund liabilities, there is an eventual truing up upon liquidation.
5. In the case of a vested option, an expense is recorded that will never be reversed even if it is subsequently nullified by virtue of the option's forfeiture or expiration. This appears to be the only transaction extant in which this is the case.
6. An increase in paid-in capital is recorded even if no capital is ever "paid in". This occurs when an ESO vests (thereby resulting in a debit to retained earnings and a credit to paid-in capital) but ultimately is forfeited (because the option expires out of the money).
7. An expense is recorded (when the ESO vests), based on a transfer of something of value (the ESOs *implicit* call premium), even if that value has not been earned or realized by the ESO recipient and, in fact, may never be realized. Expensing under these circumstances is similar in concept to recognizing revenue that has not been realized and is not realizable, even though the rules on recognition of revenues and gains would prohibit such treatment. While it is true that the standard for recording an expense is lower than the standard for recording revenue and gains, it is nonetheless conceptually inconsistent to do so.
8. An accounting expense is charged on one side of a transaction (the company) even though there is no accounting gain or profit realized or recorded on the other side (the employee). If the holder of the option were subject to an audit (such as a company would be if it received options from a customer with the same terms as an ESO) under GAAP rules, the "value" of the ESO grant to the option holder would not be recorded as profit because it would not comport with the GAAP rules on recognition of revenue and gains.
9. An expense is charged that is not recognized as an expense for tax purposes. This is not unique but is quite rare. A related anomaly is that the amount of expense recorded on the books (the discounted present value of the *projected* spread) will almost certainly not be the amount ultimately deducted on the company's tax return (the *actual* spread). We are not aware of any other transaction in which such a disparity is allowed.

10. The cost to shareholders (if any) of an ESO transaction is a mathematical inevitability. The dilution from ESOs will occur as soon as the stock price rises above the exercise price (the dilution is measured by FAS 128). This dilution results in a dollar cost to shareholders that is exactly equal to the dollar profit to the ESO holders (ignoring taxes). In other words, *for every dollar of profit earned by the employee, there is a dollar reduction in the value of the shareholders' ownership* (relative to what it would have been if there were no outstanding ESOs). Under FAS 123R, the discounted present value of *that same cost* is recorded on the books of the entity that is owned by those shareholders. Thus, the shareholders incur a direct cost (in the form of dilution) and an indirect cost (in the form of an expense to the entity) for the same transaction. This is clearly double counting of the same cost. (Remember: The discounted present value of the projected spread in an option is the economic equivalent of actual spread when it occurs.)
11. One of the FASB's stated reasons for mandating expensing was to improve comparability between the financial statements of companies that use ESOs and those that do not. (Of course, this lack of comparability is only an issue if ESOs are a legitimate expense, which we believe is incorrect.) But because of the wide variability of outcomes when valuing ESOs under FAS 123R, the FASB has *created a comparability problem of a different type*.
12. The FASB asserts that ESOs are exchanged for services and must be expensed during the vesting period as services are rendered. (Note: We disagree with this view; rather we believe that ESOs, like all pay-for-performance instruments, are granted for the purpose of achieving a particular result. They do not become remunerative to the recipient, and a cost to the party on the other side of the transaction, unless that result is achieved, regardless of how much service is rendered by the ESO holder.) The application of the FASB's premise can produce at least two logical inconsistencies. First, companies occasionally grant fully vested ESOs to new employees. In this instance the company will record an expense without the employee rendering a minute of "service". Second, it is very common for companies to grant ESOs that do not vest for up to five years. In this case, if an employee terminates his or her employment one minute short of the five-year period, no expense would be recorded, despite the fact that the employee

had rendered almost five years of services. These inconsistencies seem clearly to undermine the FASB's basic premise that ESOs are exchanged for services. If they are not exchanged for services (or for some other asset) how can they be an expense?

In the aggregate, this list of deviations from established accounting norms suggests that the FASB has taken great liberties in its interpretation of the accounting concepts in order to justify both its conclusion that ESOs are an expense, and its methodology for expensing them. We believe that this list of accounting anomalies casts serious doubt on the merits of FAS 123R.

Kip Hagopian

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Ed Zschau

**Measurement Of The
Incidence of Stock Options
And Employee Stock
Ownership Before And After
Expensing**

October 16, 2007

Researchers

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Mass.**

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*Research Associate, National Bureau for Economic Research, Cambridge,
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**For identification purposes only. These are personal views.

Source of Data

General Social Survey (GSS)

*The GSS is the most frequently analyzed source of information in the social sciences except for the U.S. Census.

*The GSS is the largest project funded by the Sociology Program of the National Science Foundation.

*The GSS is conducted for the U.S. Government by the National Opinion Research Center (NORC) of the University of Chicago in 90 minute in person interviews every 2 years by their staff.

*It is a national random sample of entire U.S. population using Census methodology.

*The supplemental questions were proposed by us and reviewed and approved by NORC's GSS Board in 2002 and 2006. Our plan is to apply for re-surveying each 4 years for tracking.

*Disclosure: The NORC administrative costs of this special supplement to the GSS was supported in 2006 by the Russell Sage Foundation, the Employee Ownership Foundation, the National Center for Employee Ownership, the Profit Sharing/401k Council of America, the Beyster Institute of the University of California at San Diego, and Rutgers University School of Management and Labor Relations.

Surveys done before and after expensing

Before and After Expensing

- 2002 survey was conceived in 2000 before expensing of stock options was known.
- 2006 survey allows examination of percent of employee stock ownership and stock options held in U.S. population after expensing was implemented.
- National random sample of approximately 1200 private sector employees in each year.
- All data collection was done by the National Opinion Research Center. The entire dataset is available from them or us.
- This analysis by Douglas Kruse and Joseph Blasi.
- Data is public access and the results can be replicated.
- Sample sizes for some of the analyses are small but represent the best estimates with the best available data.

Private Sector Workers Holding Stock Options

2002 Before Expensing

13.1% of private sector employees

14.3 million workers

2006 After Expensing

9.3% of private sector employees

10.6 million workers

Options: Impact After Expensing

- 29% drop in citizens holding stock options
- Loss of stock option holding by 3.8% of U.S. private sector employees
- 3.7 million fewer workers holding stock options in corporations where they work

Private Sector Workers With Employee Stock Ownership

2002 Before Expensing

21.2% of private sector employees

23 million workers

2006 After Expensing

17.5% of private sector employees

20 million workers

Employee Ownership: Impact After Expensing

- 17% drop in citizens with employee ownership
- Reduction of employee ownership by 3.7% of private sector employees
- 3 million fewer workers with employee stock ownership

The Story In The Computer Services Industry

2002 Before Expensing

56.5% hold stock options

58.3% own company stock

2006 After Expensing

27.6% hold stock options

31.3% own company stock

Computer Services: Impact After Expensing

- 51% decrease in number of workers holding stock options in this industry
- 46% decrease in number of workers with employee stock ownership
- Comparable decreases in both the communications sector and the financial services industry

Among Which Workers Did Stock Option Holdings Drop?

*Drop from 17.3% to 11.1% from 2002 to 2006 OF professional workers holding stock options, A 36% DECREASE

*Drop from 16.7% to 11.1% from 2002 to 2006 OF other categories of white collar workers holding stock options, A 36% DECREASE

*Drop from 22.6% to 3.5% from 2002 to 2006 OF management-related workers such as human resources, legal, etc. holding stock options, A 85% DECREASE

*Drop from 10% to 8.4% from 2002 to 2006 OF blue-collar workers holding stock options, A 19% DECREASE

Drop from 14.9% to 8.1% from 2002 to 2006 OF union members holding stock options, A 46% DECREASE

* Union members overlap with some other categories and are presented for added clarity. There was no drop among service workers.

There Was No Real Drop In Stock Options Among Managers

Percent Of All
Management

2002

2006

14.8%

14.4%

CONCLUSIONS

- Absent another explanation, the middle and working class's participation in equity in their companies was reduced after expensing.
- Based on our historical data, this appears to be the first significant drop in employee ownership in recent times in the United States.
- If broad equity participation has a performance effect, then this trend is troublesome.
- Our review of the research literature has concluded that broad worker equity participation can improve company performance with a complementary company culture.
- A recently concluded intensive 6 year study supported by the Russell Sage Foundation and the Rockefeller Foundation of over 40,000 workers has confirmed this result and found workers with such incentives are more productive and innovative. (A book reporting the results is in final preparation.)
- This is taking place as China and India expand equity to their tech workers.

THE END

Stock Based Compensation Analysis



Thomas Weisel Partners

October 1, 2007

Stock Based Compensation Analysis

Overview

A combined pool of 50 public U.S. technology focused firms representing an aggregate market capitalization of nearly \$2.0 trillion

- 16 U.S. based companies that comprise the Philadelphia Stock Exchange Semiconductor Sector Index (SOX)
 - Foreign firms excluded are: TSMC, STMicroelectronics NV and Infineon Technologies AG
 - Maxim Integrated Products is included despite being delinquent on filing financials. Estimates were taken from latest research as of the company's last earnings release on April 26, 2006
- 34 largest companies, determined by market cap as of September 26, 2007, in the Russell 1000
 - Dell and Computer Science Corp are excluded as they are delinquent on filing financials

Wall Street EPS estimates one and two years into a company's future

- Used GAAP and/or Non-GAAP estimates as presented by research company
- Used fiscal year estimates in order to maintain an apples to apples comparison
- Only used research after the above companies' latest earnings release (8-K) in an attempt to capture researcher's purest interpretation of newly available financial data
- Year 1 represents the first fiscal year-end with available estimates in the analyst's research report and Year 2 the year after that

Source of research

- Only used research *available* to Thomas Weisel Partners through Thomson Financial data services

Results

- Organized into 3 groups based on market cap parameters
 - Less than \$10 billion
 - Between \$10-\$20 billion
 - Greater than \$20 billion

Stock Based Compensation Analysis

Company Overview

Company Universe ⁽¹⁾

Accenture Ltd (ACN)	EMC Corp (EMC)	NCR Corp (NCR)
Adobe Systems Inc (ADBE)	Emerson Electric Co (EMR)	Network Appliance Inc (NTAP)
Advanced Micro Devices Inc (AMD)*	Garmin Ltd (GRMN)	Novellus Systems Inc (NVLS)*
Agilent Technologies Inc (A)	Hewlett-Packard Co (HPQ)	Nvidia Corp (NVDA)
Altera Corp (ALTR)*	Intel Corp (INTC)*	Oracle Corp (ORCL)
Analog Devices Inc (ADI)	International Business Machines Corp (IBM)	Qualcomm Inc (QCOM)
Apple Inc (AAPL)	Intuit Inc (INTU)	Rockwell Automation Inc (ROK)
Applied Materials Inc (AMAT)*	Juniper Networks Inc (JNPR)	SanDisk Corp (SNDK)*
Autodesk Inc (ADSK)	Kla-Tencor Corp (KLAC)*	Seagate Technology (STX)
Broadcom Corp (BRCM)*	Linear Technology Corp (LLTC)*	Sun Microsystems Inc (JAVA)
CA Inc (CA)	Marvell Technology Group Ltd (MRVL)*	Symantec Corp (SYMC)
Cisco Systems Inc (CSCO)	Maxim Integrated Products Inc (MXIM)*	Teradyne Inc (TER)*
Cognizant Technology Solutions Corp (CTSH)	MEMC Electronic Materials Inc (WFR)	Texas Instruments Inc (TXN)*
Cooper Industries Ltd (CBE)	Micron Technology Inc (MU)*	Tyco Electronics Ltd (TEL)
Corning Inc (GLW)	Microsoft Corp (MSFT)	Xilinx Inc (XLNX)*
Electronic Arts Inc (ERTS)	Motorola Inc (MOT)	VeriSign Inc (VRSN)
Electronic Data Systems Corp (EDS)	National Semiconductor Corp (NSM)*	

Market Capitalization Break Down

	<u>Less Than \$10 Billion</u>	<u>Between \$10 & \$20 Billion</u>	<u>Greater Than \$20 Billion</u>
Companies	15	17	18
% of Total	30.0%	34.0%	36.0%

(1) * denotes those companies that are included in the SOX index

Stock Based Compensation Analysis

Research Overview

Research Publishers

A.G. Edwards	Goldman Sachs	Piper Jaffray
American Technology Research	HSBC	Prudential
Bank of America	Janney Montgomery Scott	Raymond James
Bear Stearns	Jefferies & Co.	RBC Capital Markets
BMO Capital Markets	JJB Hilliard	Robert W. Baird & Co.
Brean, Murray, Carret & Co.	JMP Securities	Signal Hill
Canaccord Adams	JP Morgan	Stanford Group
CE Unterberg Towbin	Kansas City Capital Associates	Sterne, Agee & Leach
CIBC World Markets	Kaufman Brothers	Stifel Nicolaus
Citigroup	Kintisheff Research	Susquehanna Financial Group
Cowen and Co.	Lehman Brothers	The Benchmark Group
Craig-Hallum Capital Group	Maxim Group	The Buckingham Research Group
Credit Suisse	McAdams, Wright, Ragen, Inc	ThinkEquity Partners
D.A. Davidson & Co.	Merrill Lynch	Thomas Weisel Partners
Davenport & Co.	Merriman Curhan Ford	UBS
Deutsche Bank	MKM Partners	Wachovia
Dougherty & Co.	Morgan Keegan & Co.	Wall Street Strategies
Dresdsner Kleinwort	Morgan Stanley	Wedbush Morgan Securities
Friedman, Billings, Ramsey	Needham & Co.	William Blair & Co.
FTN Midwest Securities	Nollenberger Capital	WR Hambrecht & Co.
Gilford Securities	Oppenheimer	
Global Crown Capital	Pacific Growth Equities	

Data Collected

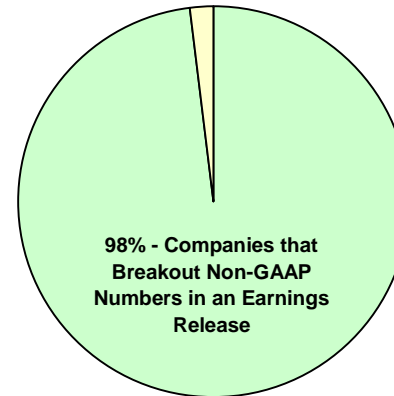
	<u>Less Than \$10 Billion</u>	<u>Between \$10 & \$20 Billion</u>	<u>Greater Than \$20 Billion</u>
Reports	190	224	291
% of Total	27.0%	31.7%	41.3%

Stock Based Compensation Analysis

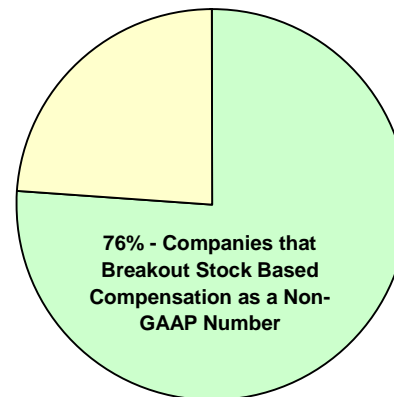
Company Treatment of Stock Based Compensation

Company Breakdown

Every Analyzed Company Had Some Form of Stock Based Compensation



49 out of the 50 Analyzed Companies Had Non-GAAP Adjustments in their Earnings Release



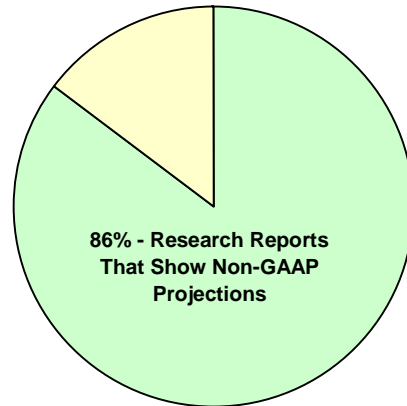
38 out of the 50 Analyzed Companies Had Stock Based Compensation as a Non-GAAP Adjustment in their Earnings Release

Stock Based Compensation Analysis

Research Treatment of Stock Based Compensation

Percentage of analysts showing non-GAAP accounting when making earnings estimates for the two years following the most recent fiscal year-end as of September 28, 2007.

Total Research



Year 1 Estimates

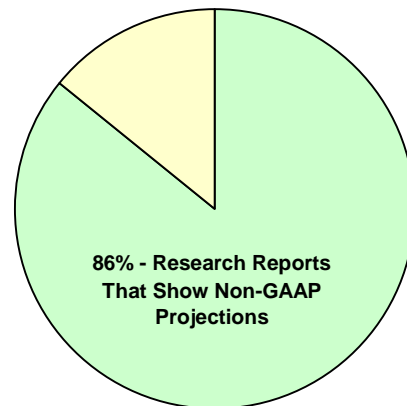


Year 2 Estimates

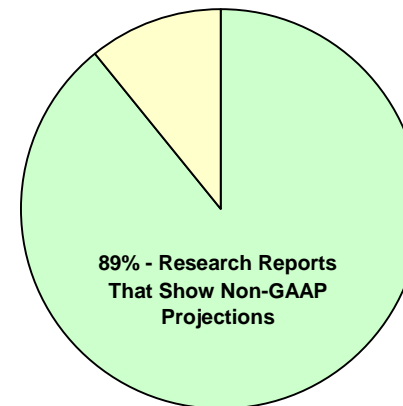


Years 1 & 2 Estimates

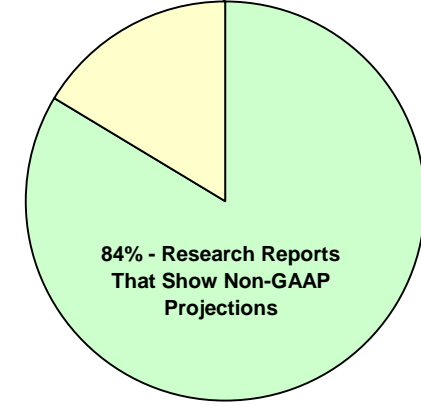
Research Broken Down By Market Capitalization



<\$10 Billion



\$10-\$20 Billion



>\$20 Billion

Stock Based Compensation Analysis

GAAP vs. Non-GAAP EPS Summary

Breakdown of EPS Metric Used by Researchers When Discussing P/E Based Valuation ⁽¹⁾

58% of analysts used non-GAAP estimates exclusively when calculating company valuations.

	<u>GAAP Estimates</u>	<u>Non-GAAP Estimates</u>	<u>GAAP/Non-GAAP Estimates</u>	<u>N/A</u>	<u>Total</u>
Less Than \$10 Billion	71 (37%)	109 (57%)	3 (2%)	7 (4%)	190
Between \$10 & \$20 Billion	66 (29%)	141 (63%)	5 (2%)	12 (5%)	224
Greater Than \$20 Billion	108 (37%)	124 (43%)	15 (5%)	44 (15%)	291
Total ⁽²⁾	245 (38%)	374 (58%)	23 (4%)	63	705

(1) Results represent a summary of research analysts' written discussion of valuation parameters. Specifically, whether research analysts refer to valuation and P/E multiples based on GAAP or Non-GAAP EPS.

(2) Percentages calculated excluding research reports where the valuation methodology was not disclosed

Stock Based Compensation Analysis

GAAP vs. Non-GAAP EPS Summary

Difference Between GAAP and Non-GAAP EPS Estimates

Total Mean

	<u>Year 1</u>	<u>Year 2</u>
Total	8.5%	19.1%

Total Median

	<u>Year 1</u>	<u>Year 2</u>
Total	9.5%	8.4%

Mean By Market Capitalization

	<u>Year 1</u>	<u>Year 2</u>
Less Than \$10 Billion	19.1%	11.5%
Between \$10 & \$20 Billion	3.5%	41.3%
Greater Than \$20 Billion	5.5%	7.1%

Median By Market Capitalization

	<u>Year 1</u>	<u>Year 2</u>
Less Than \$10 Billion	14.9%	13.2%
Between \$10 & \$20 Billion	14.1%	12.5%
Greater Than \$20 Billion	6.7%	7.1%

Stock Based Compensation Analysis

Summary by Company

\$ in millions

Company Name	Ticker	Listed Indice(s)	Market Cap as of 9/28/2007	% of Research Showing Non-GAAP	GAAP	% of Research Valuation Based on		
						Non-GAAP	GAAP/Non-GAAP	Undefined
Accenture Ltd	ACN	Russell 1000	\$30,532	91.7%	16.7%	66.7%	0.0%	16.7%
Adobe Systems Inc	ADBE	Russell 1000	\$25,134	100.0%	5.9%	94.1%	0.0%	0.0%
Advanced Micro Devices Inc	AMD	Russell 1000, SOX Index	\$7,298	53.8%	76.9%	23.1%	0.0%	0.0%
Agilent Technologies Inc	A	Russell 1000	\$14,256	88.9%	22.2%	66.7%	0.0%	11.1%
Altera Corp	ALTR	Russell 1000, SOX Index	\$8,165	70.6%	76.5%	23.5%	0.0%	0.0%
Analog Devices Inc	ADI	Russell 1000	\$11,252	76.5%	52.9%	47.1%	0.0%	0.0%
Apple Inc	AAPL	Russell 1000	\$133,876	60.0%	80.0%	20.0%	0.0%	0.0%
Applied Materials Inc	AMAT	Russell 1000, SOX Index	\$28,527	68.8%	43.8%	37.5%	6.3%	12.5%
Autodesk Inc	ADSK	Russell 1000	\$11,493	100.0%	13.3%	86.7%	0.0%	0.0%
Broadcom Corp	BRCM	Russell 1000, SOX Index	\$19,707	100.0%	8.3%	91.7%	0.0%	0.0%
CA Inc	CA	Russell 1000	\$13,160	92.3%	15.4%	84.6%	0.0%	0.0%
Cisco Systems Inc	CSCO	Russell 1000	\$202,092	95.0%	10.0%	90.0%	0.0%	0.0%
Cognizant Technology Solutions Corp	CTSH	Russell 1000	\$11,581	50.0%	100.0%	0.0%	0.0%	0.0%
Cooper Industries Ltd	CBE	Russell 1000	\$9,200	88.9%	11.1%	11.1%	11.1%	66.7%
Corning Inc	GLW	Russell 1000	\$38,725	87.5%	25.0%	62.5%	0.0%	12.5%
Electronic Arts Inc	ERTS	Russell 1000	\$17,581	100.0%	0.0%	84.6%	0.0%	15.4%
Electronic Data Systems Corp	EDS	Russell 1000	\$11,174	90.9%	63.6%	36.4%	0.0%	0.0%
EMC Corp	EMC	Russell 1000	\$43,643	100.0%	29.4%	23.5%	5.9%	41.2%
Emerson Electric Co	EMR	Russell 1000	\$41,960	100.0%	0.0%	0.0%	33.3%	66.7%
Garmin Ltd	GRMN	Russell 1000	\$25,902	100.0%	23.5%	64.7%	0.0%	11.8%
Hewlett-Packard Co	HPQ	Russell 1000	\$129,305	70.6%	23.5%	41.2%	0.0%	35.3%
Intel Corp	INTC	Russell 1000, SOX Index	\$150,945	56.0%	92.0%	8.0%	0.0%	0.0%
International Business Machines Corp	IBM	Russell 1000	\$162,323	93.8%	43.8%	18.8%	6.3%	31.3%
Intuit Inc	INTU	Russell 1000	\$10,276	100.0%	10.0%	90.0%	0.0%	0.0%
Juniper Networks Inc	JNPR	Russell 1000	\$19,046	95.7%	13.0%	69.6%	0.0%	17.4%
Kla-Tencor Corp	KLAC	Russell 1000, SOX Index	\$10,160	100.0%	50.0%	50.0%	0.0%	0.0%

Stock Based Compensation Analysis

Summary by Company (cont'd)

\$ in millions

Company Name	Ticker	Listed Indice(s)	Market Cap as of 9/28/2007	% of Research Showing Non-GAAP	GAAP	% of Research Valuation Based on		
						Non-GAAP	GAAP/Non-GAAP	Undefined
Linear Technology Corp	LLTC	Russell 1000, SOX Index	\$7,810	72.7%	72.7%	27.3%	0.0%	0.0%
Marvell Technology Group Ltd	MRVL	Russell 1000, SOX Index	\$9,666	100.0%	7.1%	92.9%	0.0%	0.0%
Maxim Integrated Products Inc	MXIM	Russell 1000, SOX Index	\$9,063	87.0%	26.1%	73.9%	0.0%	0.0%
MEMC Electronic Materials Inc	WFR	Russell 1000	\$13,249	100.0%	8.3%	58.3%	8.3%	25.0%
Micron Technology Inc	MU	Russell 1000, SOX Index	\$8,413	88.9%	33.3%	44.4%	11.1%	11.1%
Microsoft Corp	MSFT	Russell 1000	\$275,598	87.0%	17.4%	17.4%	30.4%	34.8%
Motorola Inc	MOT	Russell 1000	\$42,328	60.0%	66.7%	33.3%	0.0%	0.0%
National Semiconductor Corp	NSM	Russell 1000, SOX Index	\$7,160	85.7%	57.1%	42.9%	0.0%	0.0%
NCR Corp	NCR	Russell 1000	\$8,999	100.0%	66.7%	33.3%	0.0%	0.0%
Network Appliance Inc	NTAP	Russell 1000	\$9,775	93.8%	12.5%	87.5%	0.0%	0.0%
Novellus Systems Inc	NVLS	Russell 1000, SOX Index	\$3,166	92.9%	35.7%	57.1%	7.1%	0.0%
Nvidia Corp	NVDA	Russell 1000	\$19,889	85.7%	28.6%	57.1%	0.0%	14.3%
Oracle Corp	ORCL	Russell 1000	\$110,783	100.0%	0.0%	100.0%	0.0%	0.0%
Qualcomm Inc	QCOM	Russell 1000	\$69,560	100.0%	8.3%	91.7%	0.0%	0.0%
Rockwell Automation Inc	ROK	Russell 1000	\$10,385	20.0%	80.0%	20.0%	0.0%	0.0%
SanDisk Corp	SNDK	Russell 1000, SOX Index	\$12,623	92.3%	23.1%	69.2%	0.0%	7.7%
Seagate Technology	STX	Russell 1000	\$13,557	100.0%	5.0%	75.0%	20.0%	0.0%
Sun Microsystems Inc	JAVA	Russell 1000	\$18,535	66.7%	91.7%	0.0%	0.0%	8.3%
Symantec Corp	SYMC	Russell 1000	\$16,763	100.0%	0.0%	100.0%	0.0%	0.0%
Teradyne Inc	TER	Russell 1000, SOX Index	\$2,454	100.0%	7.7%	92.3%	0.0%	0.0%
Texas Instruments Inc	TXN	Russell 1000, SOX Index	\$51,160	65.2%	95.7%	4.3%	0.0%	0.0%
Tyco Electronics Ltd	TEL	Russell 1000	\$17,624	100.0%	0.0%	100.0%	0.0%	0.0%
Xilinx Inc	XLNX	Russell 1000, SOX Index	\$7,685	36.4%	72.7%	27.3%	0.0%	0.0%
VeriSign Inc	VRSN	Russell 1000	\$7,608	100.0%	15.4%	84.6%	0.0%	0.0%
Average			\$38,823	85.3%	34.8%	53.6%	2.8%	8.8%
Median			\$13,907	92.3%	23.5%	57.1%	0.0%	0.0%